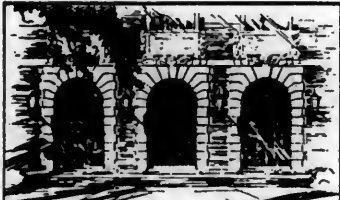


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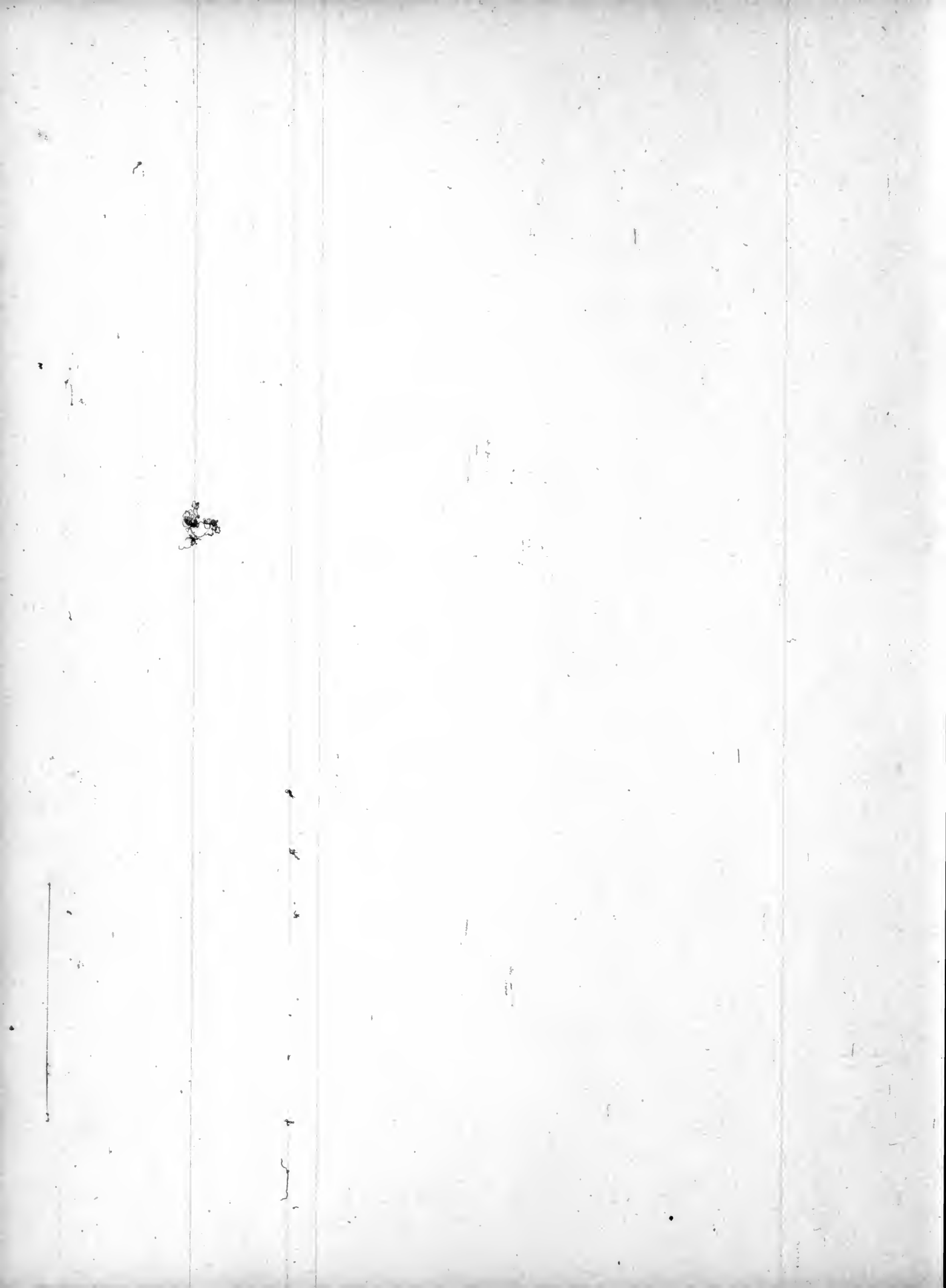
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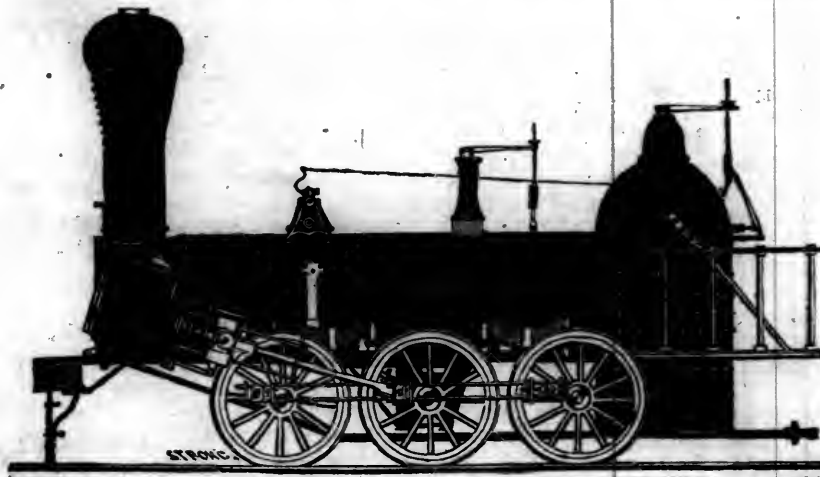
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NORRIS' LOCOMOTIVE WORKS, BUSH HILL, PHILADELPHIA, Pa.



THE GREAT EASTERN RAILWAY

The Great Eastern Railway is a railway line in the south-east of England, connecting London to the coast. It was the first railway to be built in the south-east of England, and it was the first to be built in the south-east of England. The railway was built by the Great Eastern Railway Company, and it was the first to be built in the south-east of England. The railway was built by the Great Eastern Railway Company, and it was the first to be built in the south-east of England.

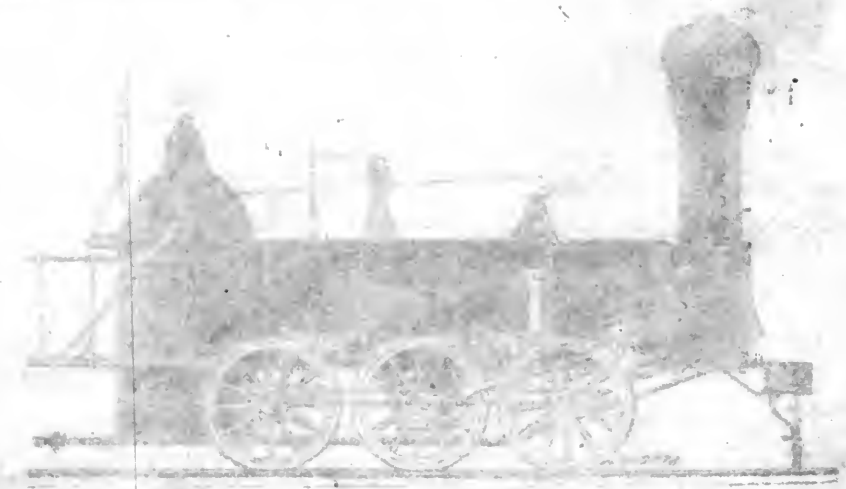
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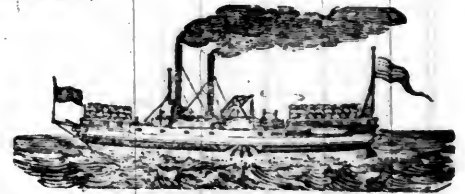
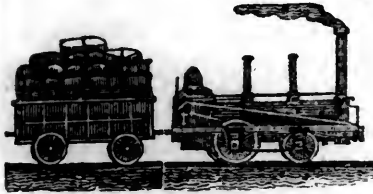
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NORRIS PORTATIVE ENGINE



# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



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THURSDAY, JANUARY 2, 1845.

[WHOLE No. 444, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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## NICOLL'S PATENT SAFETY Switch for Railroad Turnouts.

This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn, or used, not objectionable.

Plans, Specifications, and all Information obtained on application to the Subscriber, Inventor and Patentee. G. A. NICOLLS.  
Jan. 1, 1845. Reading, Pa.

## TO IRON MANUFACTURERS.

The subscribers as Agents of Mr. Geo. Crane of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licences for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON, & CO.  
No. 4 South Front st. Philadelphia, Pa.

## RAILROAD IRON & FIXTURES.

The subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

ON HAND, AND FOR SALE,

900 tons L or Edge pattern.

200 tons 2 1/2 x 3/4 Flat bar.

50 tons 1 1/4 x 3/4 Flat bar.

DAVIS, BROOKS, & CO,  
21 Broad st., N. Y.

## VALUABLE PROPERTY ON THE

Mill Dam for sale. A Lot of Land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and East of Parker street, containing 68,497 square feet, with the following buildings thereon standing:

Main Brick Building, 120 feet long, by 46 feet wide, two stories high. A Machine Shop, 47x43, with large Engine, Face, Screw and other Lathes, suitable to do any kind of work.

Pattern Shop, 35x32 feet, with Lathes, Work benches, etc.

Work Shop, 86x35 feet, on the same floor with the pattern shop.

Forge Shop, 118 feet long by 44 feet wide on the ground floor, with two large Water Wheels, each 16 feet long, 9 feet diameter, with all the Gearing, Shafts, Drums, Pulleys, etc., large and small Trip Hammers, Furnaces, Forges, Rolling Mill, with large Balance Wheel and a large Blowing Apparatus for the Foundry.

Foundry, at end of Main Brick Building, 60x45 1/2 feet, two stories high, with a shed part 45 1/2 x 20 feet, containing a large Air Furnace, Cupola, Crane and Core Oven.

Store House—a range of Buildings for Storage, etc., 200 feet long by 20 wide.

Locomotive Shop, adjoining Main Building, fronting on Parker street, 54x25 feet.

Also—A Lot of Land on the Canal, west side of Parker street, containing 6000 feet, with the following buildings thereon standing:

Boiler House 50 feet long by 30 feet wide, two stories.

Blacksmith Shop, 49 ft. long by 20 ft. wide.

For terms apply to HENY ANDREWS, 48 State street, or to CURTIS, LEAVENS & CO., 106 State street, Boston, or to A. & G. RALSTON & CO., Philadelphia.

**M**ESSRS. EDITORS:—As your paper is devoted to the benefit of the public in general, I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place, where the accident occurred, whereas has the car been constructed on the common plan, the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Delaware, Sept. 28, 1840.

The undersigned take pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZIER, Agent,  
GEORGE CRAIG, Superintendent,  
JAMES ELLIOTT, Sup't. motive power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey Railroad and Transportation Office, No. 1 Hanover street, New York.

**T**O RAILROAD COMPANIES AND Manufacturers of Railroad Machinery. The subscribers have for sale American and English Bar Iron, of all sizes; English Blister, Cast, Shear and Spring Steel; Juniata rods; Car Axles, made of double refined iron; Sheet and Boiler iron, cut to pattern; Tires for Locomotive Engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article.

The Tires are made by Messrs. Baldwin & Whitney, Locomotive Engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheels is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,  
N. E. corner 12th and Market streets,  
Philadelphia, Pa.

**MACHINE WORKS OF  
ROGERS KETCHUM & GROSVENOR,  
Paterson, New Jersey.**

**T**HE Undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large they are enabled to execute both large and small orders with promptness and despatch.

**RAILROAD WORK.**

Locomotive Steam-Engines and Tenders; Driving and other Locomotive Wheels, Axles, Springs and Flange Tires; Car Wheels of cast iron, from a variety of patterns, and Chills; Car wheels of cast iron, with wrought Tires; Axles of best American refined iron; Springs; Boxes and Bolts for Cars.

**COTTON WOOL AND FLAX**

Machinery of all descriptions and of the most improved Patterns, style and workmanship.

Mill Gearing and Millwright work generally; Hydraulic and other Presses; Press Screws; Callenders; Lathes and Tools of all kinds; Iron and Brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,  
Paterson, N. J., or 60 Wall st. N. Y.

**R**AILWAY IRON, LOCOMOTIVES, Etc. The subscribers offer the following articles for sale:

Railway Iron, flat bars, with countersunk holes and mitred joints.	lbs. per ft.
350 tons 2 by 15 ft. in length weighing 468	
280 " 2 " $\frac{1}{2}$ " "	350
70 " 1 $\frac{1}{2}$ " $\frac{1}{2}$ " "	2 $\frac{1}{2}$
80 " 1 $\frac{1}{4}$ " $\frac{1}{4}$ " "	1 26
90 " 1 " $\frac{1}{4}$ " "	$\frac{7}{8}$

with spikes and splicing plates adapted thereto. To be sold free of duty to State governments, or incorporated companies.

Orders for Pennsylvania Boiler Iron executed.

Railroad Car and Locomotive Engine tires, wrought and turned or unturned, ready to be fitted on the wheels, viz: 30, 33, 36, 42, 44, 54 and 60 inches diameter.

E. V. Patent chain cable bolts for railway car axles, in lengths of 12 feet 6 inches, to 13 feet 2  $\frac{1}{2}$ , 2  $\frac{3}{4}$ , 3, 3  $\frac{1}{4}$ , 3  $\frac{1}{2}$ , and 3  $\frac{3}{4}$  inches diameter.

Chains for inclined planes, short and stay links, manufactured from the E. V. cable bolts, and proved at the greatest strain.

India rubber rope for Inclined planes, made from New Zealand wax.

Also—Patent hemp cordage for inclined planes and canal towing lines.

Patent felt for placing between the iron chair and stone block of edge railways.

Every description of railway iron, as well as locomotive engines, imported at the shortest notice, by the agency of one of our partners, who resides in England for this purpose.

A highly respectable American Engineer resides in England for the purpose of inspecting all Locomotives, Machinery, Railway Iron, etc., ordered through us.

A. & G. RALSTON & CO.

No. 4 South Front st. Philadelphia, Pa.

**T**HE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires; Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,  
President of the Newcastle Manuf. Co.

**P**ATENT RAILROAD, SHIP AND Boat Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of wrought Spikes and Nails from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent,) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with spikes made at the above named Factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. Y., will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory prices by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water street, New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable; as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand for his spikes.

**W**. R. CASEY, CIVIL ENGINEER, No. 23 Chambers street, New York, will make Surveys, Estimates of Cost and Reports for Railways, Canals, Roads, Docks, Wharves, Dams and Bridges of every description, with Plans and Specifications, and when required, will superintend their execution.

He will also make Surveys of Estates, with correct maps and descriptions of the same; and examine and report on the best mode of rendering them productive by draining, mines, quarries, water power, roads, bridges, wharves, etc.

**R.** F. LIVINGSTON, Civil Engineer  
Hudson, New York. Refer to W. R. Casey, 23 Chambers st., N. Y.

RAILROADS OF OHIO.

The only railroads in this State of which we have any definite information, are the "Mad River and Lake Erie" and the "Little Miami" Railroads, destined to connect Cincinnati with Lake Erie, and consequently with New York and Boston. The former road is 132 miles, the latter 88 miles long, making the entire distance 220 miles. Locomotives are now running on 40 miles of each road: and by August next, 40 miles more will be ready, besides large amounts of work done on the remaining 100 miles. The Companies require \$500,000 to complete the work in one year. The greater part of this sum is for the iron; to procure which is the only serious difficulty they have to encounter. The parts in operation are successful, and the works appear to have been carried on with that judgment which characterizes the management of undertakings in which individuals have a deep and permanent interest. Still they are unable to raise this small sum in the "Queen City of the West." The unfortunate but natural result of a "system" of Government works—heavy taxes on all, whether benefitted or injured—causes all public undertakings to be viewed with suspicion, or even with a still stronger feeling. Private enterprise has now to construct all the really important works in the State, and, in addition to the difficulties inseparable from such vast undertakings, has to clear away the odium with which the State has clothed the very name of Internal Improvements. Suppose that, for the next ten years, the \$600,000 now paid by the people to meet the interest on the cost of the State Canals, were to be laid out on railroad iron to be given to Companies which had completed the graduation of their roads: then, at the end of that period, there would be one thousand miles of railroad with heavy iron, which would not only give handsome returns to the shareholders, and aid the general interests of the State, but the cost of the iron would be soon refunded. Then Ohio might, like Massachusetts, point to a system of works aiding and developing the various interests of the State, without a debt and without taxation.

The late acting Governor says:—

The amount of revenue received for the year ending the 15th November, 1844, from the several sources of revenue for State purposes, as distinguished from school and canal purposes, is \$277,155 52  
 The amount remaining in the Treasury, Nov. 15th, 1843, 94,807 92  
 Total revenue for State purposes, 371,963 44

Amount applied to the purposes of the public institutions in Columbus,	\$39,280 99
Amount for supporting the State Government,	155,092 76
Amount of transfers from general revenue fund to canal and school funds,	41,767 52
	<hr/>
	239,141 27
Balance remaining in the Treasury,	\$132,822 17

The following statement shows the condition of the canal fund, which is applied to the purposes of the public works and public debt of the State:

Amount arising from taxation, and transfers from other funds,	\$666,191 00
Amount of tolls, to wit:	
Ohio Canal,	\$338,367 31
Miami Canal,	71,904 20
Miami Extension Canal,	12,053 18
Wabash and Erie Canal,	49,206 56
Hocking Canal,	5,924 90
Walhonding Canal,	1,918 44
Muskingum Improvement,	28,241 11
Western Reserve and Maumee Road,	5,817 12
Turnpike and Canal dividends,	29,156 01
	<hr/>
	544,949 84
Amount from the other sources of canal fund,	22,197 77
	<hr/>
Total of canal fund,	\$1,233,338 62

Of this amount, \$25,000 is applied to the sinking fund, \$1,167,444. 69 is applied to pay the interest on the State debt and the balance to pay for repairs, &c., on the public works.

The aggregate amount of the valuation of taxable property on the grand levy for the year 1844, is \$136,142,666. 00. The rate of taxation for State purposes is one mill on the dollar; for canal purposes, five and a half mills; common school purposes, one half mill; and for county, township, and other local purposes, eight mills, making in the aggregate fifteen mills on the dollar.

The revenue yielded to the several funds by this direct taxation, is as follows:

For State purposes,	\$745,640 21
For Canal purposes,	135,570 94
Common School purposes,	67,785 47
	<hr/>
Total,	948,996 60
Tax on lawyers and physicians added, which goes to common school fund,	6,473 39
	<hr/>
Total,	955,470 02
The items of assessment for 1844, for local purposes, are—	
For county and county school tax,	642,532 13
For road,	178,559 81
For township and poor,	197,004 82
For corporation, public building and bridge,	199,406 28
For school house,	15,382 21
	<hr/>
Total amount of taxation levied for 1843,	2,188,355 29
Amount of delinquencies for all purposes for 1841,	152,307 96
	<hr/>
Grand aggregate of liabilities for taxes in 1844,	2,340,663 25

The public improvements which have been undertaken by the State are now within a brief period of their entire completion. The Miami Extension Canal is finished, with the exception of about thirty-four miles, which is in progress, and will be fully completed early the next season. The

Walhonding Canal is entirely completed, with the exception of the two short branches, neither of which have as yet been put under contract, and one of which at least is necessary in order to make the investment in the main work productive.

The entire cost of the public improvements owned by the State, including the estimated cost for completing the Miami Extension Canal, is \$15,577 233 18

The investments of the State in the stock of Canal and Turnpike Companies,	2,431,430 89
Loans of credit to Railroad Companies,	747,135 00
	<hr/>
Total investment of the State in public works,	\$18,755,796 00

The product of this investment of the State has amounted, the last year, to \$544,949 84. Some of the public works will doubtless be more productive in the course of a few years.

The present condition of our resources, commercial advantages, and other elements of national wealth and prosperity, are in a high degree flattering. The people of Ohio possess an area of territory, in a temperate and salubrious climate, with a fertile soil, containing a fraction over 40,000 square miles, or 25,600,000 acres; of which at least 20,000,000 of acres are suitable for cultivation; and of which about 9,000,000 of acres, including meadow and pasture lands, are now actually cultivated. The actual value of the real property in the State, with all its improvements, cannot be less than \$420,000,000, and the value of all the personal property and effects, not less than \$180,000,000. The population of the State is about 1,800,000. The internal commerce of the State is aided by the facilities which are afforded by 853 miles of canal, 100 miles of railroad, in actual use at this time, by 1,120 miles of macadamized road, 91 miles of slack-water navigation, and by over 300 miles of streams, now actually navigated, besides 437 miles of the Ohio River, on the south and east, and 180 miles of Lake Erie, on the north border of the State. The value of the products of Ohio, during the last year, as near as they can be ascertained from the data within our reach, are as follows:

Agricultural,	\$45,362,400
Manufactures,	17,505,600
Commerce,	9,660,379
Mineral,	2,931,218
Forest and lumber,	1,013,063
Fisheries,	10,525
	<hr/>
Total,	\$76,683,185

The value of the products of Ohio, exported from the State during the past year, have been about \$25,000,000. These estimates may not approach perfect accuracy, but they are computed from the most accurate means which at this time exist for ascertaining the true facts.

The State debt is a subject of great solicitude and vital interest to the people of Ohio; and to which your attention cannot be too carefully directed. The following, so near as can be readily ascertained, is the

condition of the State debt, as it will stand on the first of January next:

*Foreign Debt.*

Stock.		Annual Int.
5 pr ct. red'ble 1850,	\$400,000 00	\$20,000 00
5 pr ct. red'ble 1856,	150,000 00	7,500 00
6 pr ct. red'ble 1850,	4,043,658 76	242,619 53
6 pr ct. red'ble 1856,	3,112,779 24	204,766 75
6 pr ct. red'ble 1860,	6,855,181 00	411,310 86
6 pr ct. red'ble 1870,	667,063 50	40,023 81
7 pr ct. red'ble 1850,	1,500,000 00	105,000 00
Total, - - -	17,028,682 50	1,031,220 95
Sink'g f. stock to be ded.	73,000 00	4,980 00
Total foreign debt,	\$16,945,682 50	1,026,240 95

*Domestic Debt.*

Amount due the several school funds, - -	\$1,424,842 64	86,830 14
Outstanding domestic bonds, - - - -	731,869 36	44,092 16
Surplus revenue paid in by counties, - -	59,523 66	3,571 42
Same, loaned by State of counties, - - -	82,401 61	4,944 10
Domestic scrip of various kinds, - - -	29,432 01	1,765 92
Grand aggregate state debt, - - - - -	\$19,276,751 73	\$1,167,444 69
Interest, - - - -		

The amount of interest on the public debt the present year, is about equal to one-half of the entire burden imposed upon the people of the state by way of direct taxation. This public debt has been contracted for the sole purpose of the construction of public works within the State. The total actual expenditure of the State in the public improvements, including the Miami Extension Canal, amounts to \$18,755,960 00, which is less than the amount of the public debt. This amount of the actual cost of the investments in public works was, in part, paid by a direct tax levied for some years for that purpose; in part the grants of land by Congress, the proceeds of which amount to \$1,357,743 43. About \$200,000 of the bonds of the State have been redeemed by the proceeds of land sales. And besides all this, the premiums received on some of the loans, and the donations of lots and subscriptions, may be safely estimated at \$500,000. It appears, therefore, that the amount of the public debt contracted on account of the public works amounts to between two and three millions more than the amount of the actual investment of the money borrowed in the public works. This amount, of between two and three millions, has been, in some manner not yet fully explained, dissipated and sunk in the operation of financiering in the creation and management of the State debt.

At the close of the year 1835, the Ohio and Miami canals were completed, and the debt of the State was, then \$4,500,000. The chief part of the State debt has been contracted during the late swell and reflux in the paper money system, commencing with 1836, and ending in 1842, and showing, what similar occurrences in other countries and at other times have never failed to exemplify, that government debt has been the unfailing concomitant of the growth and expansion of the paper money system.

The honor and public faith of the State

has, hitherto, been strictly preserved, and will, doubtless, ever continue to be preserved, by a punctual compliance with all our public engagements. The public virtue of our people, and their patriotic regard for their liberties and the character of republican institutions, is a sufficient guaranty that the integrity of the State will be kept inviolate. The public debt, however, imposes onerous burdens on the people, and creates a humiliating dependence on foreign capitalists, degrading to the independence and character of freemen. More than a million of dollars is drawn from the substance of the people of the State annually, and sent off to discharge the interest on the public debt, which, in its tendency, retards our prosperity, and keeps up the balance of trade against us. And every fourteen or fifteen years the entire amount of the debt will be paid in interest, while the burdensome principal remains, and continues its perpetual drafts on the products of labor.

The present Governor says in his inaugural address:

The subject of internal improvements will, I trust, always receive the careful consideration of the Legislature. It is to be hoped, that the various public enterprises will, by the extension of the channels of commercial intercourse, make the markets accessible to all parts of the state. In no branch of the public service has our state so deep an interest, in a pecuniary point of view, as in that of the board of public works. More money has been annually disbursed by the agents in this department of the service, than all others. Hence the interest of the State at home, its character abroad, and the imperious duty of the Legislature, demand an investigation and strict scrutiny of the fiscal management of those engaged in this division of the public service. If the law defining the duties of the Board of Public Works be inefficient, should it not be so amended as to require an exhibition of all the receipts and disbursements, and a complete closure of each of these agent's accounts, at the close of every fiscal year; and on failure to comply with such provision, to be discharged from the public service?

Will it not be advisable to require all persons connected with the Board of Public Works, to close up their accounts to a day designated, and in future have all moneys collected for State purposes placed under the care and control of the State Treasurer, and all payments hereafter made, whether for contracts, awards, salaries or fees, paid by the Treasurer on the order of the Auditor, after accounts have been examined and passed upon by the officers under whose direction the service may have been performed? A prudent husbandry of the resources of the State, an economical administration of the public affairs, a sacred regard to the public credit, and punctuality in the liquidation of the public debt, will, I trust, always distinguish our State government.

INDIANA.

We extract from the late message of the Governor, all which in any way relates to public works. Looking merely to the facts disclosed, it certainly reads a terrible lesson on the evils inseparable from debt. These are mostly aggravated by repudiation or non-payment. If any consider the remarks in this number as too severe on the general policy of State works, let them peruse this message, and then say whether it be possible to exaggerate the evils which have been inflicted on the people here, and on the thousands abroad, who have invested their little all in State securities, when we see ten millions expended in a new State without a solitary mile of canal or railroad being put into operation.

The subject of our State debt is of primary importance, and demands our attention. On consulting the best sources of information, the following, it is believed, is a correct statement of the nature and present amount of all claims against us, with perhaps a few unimportant variations:

*Funded Debt.*

On account of Wabash and Erie Canal,	\$1,727,000
Internal improvements, (proper,)	8,900,000
Bank,	2,403,000
Madison and Indianapolis Railroad,	456,000
Lawrenceburg and Indianapolis Railroad,	221,000
Surplus Revenue,	291,000
Interest, and to redeem Treasury Notes,	1,100,000
	\$15,111,000

Of these there have been redeemed and cancelled in Bonds, - - - -	1,829,000
There were cancelled without being put into circulation of the \$1,100,000, being 7 per cent. Bonds, -	1,064,000
	2,893,000

Outstanding, - - - -	\$12,218,000
Of these the Bank regularly pays the interest on - - - -	1,390,000
Leaving - - - -	\$10,828,000

On which no interest is paid, and no provision is made for its payment.

Of this sum, 100,000 dollars bears 6 per cent. interest—\$10,692,000, 5 per cent. interest—and \$36,000, 7 per cent. interest.

The annual interest, therefore, on the funded debt, (exclusive of what is paid by the bank,) is on

\$100,000 at 6 per cent. - - -	\$6,000
36,000 at 7 per cent. - - -	2,520
10,692,000 at 5 per cent. - - -	534,600
	\$543,120

It is far more difficult to pay the interest on a foreign, than on a domestic debt. In the former case, there is an annual drain of the precious metals, which directly (and under the present banking system, to a far greater extent, and indirectly,) diminishes the circulation of the country. In the latter case, the interest is paid to citizens residing in the same country, in the local currency,—it still remains in



the same community, and no material diminution in the circulation is occasioned.

The government of Great Britain would be crushed under the weight of its immense debt, were it not due to its own subjects. Their onerous taxes could not be borne, if they were not simultaneously received from and paid out to persons inhabiting the same country. A constant drain of specie cannot be long sustained by any country, unless the vacuum thereby occasioned is from time to time replenished by the exportation of industrial products.

The great mass of our fellow citizens, I will not suffer myself to doubt, are willing—nay, anxious—to meet all our just obligations. With them it is not a question of inclination but of ability. But the extent of the debt, the actual condition, and means of the state, and a more thorough examination of the whole subject, have only served to confirm me in the opinion I expressed on a former occasion, that it is beyond our power to meet our liabilities. Indeed, so far as my observation has extended, the opinion advanced by my predecessor in his last annual message "that we cannot now pay the interest on our public debt," is universally entertained among the people of the State.

Since the last adjournment, I have received a communication from Boston, enclosing a memorial from sundry of our bondholders in London. It was only competent for me to acknowledge its receipt, express my individual opinion as to the ability of the State to meet their claims, and engage to lay the memorial before the General Assembly, which is accordingly done.

Under all the circumstances, I would recommend that provision be made by law for the appointment of one or more commissioners, to receive any such communications as may be hereafter addressed to the authorities of the State, in reference to this matter, in the hope of making an arrangement as to all our just debts, which, while it will bring the subject within our means, will save the honor of the State and be satisfactory to our creditors. Such an arrangement should, of course, not be binding until ratified by the Legislature, or what is perhaps better, until confirmed by a direct vote of the people. The latter, it is understood, was the course adopted by Michigan in relation to a portion of her debt, and that the arrangement was duly ratified at the polls by her citizens.

Few among us, I hope, would be found willing to repudiate any just claim against the State, and I have great confidence that if, in the manner proposed, a plan for extinguishing the debt is matured and agreed upon,—one which in terms will be feasible and clearly brought within the ability of the State to meet, that an appeal to the moral sense of the citizen for his approval at the ballot box, will not be made in vain.

The settlement of this question would infuse more of confidence throughout the community, would improve the credit of our citizens individually, would encourage immigration and hasten the improvement of

the country. Our creditors, too, when thoroughly informed of our condition, and the extent of our means, will, it is hoped, see their own interest in an early adjustment of this matter, before the present anxiety of the people to discharge the debt is succeeded by apathy and despair.

In some of the indebted States, the payment of their foreign liabilities by a sale of their public works, has been agitated. In favor of this policy in our own State, it has been urged by some that our creditors advanced the loans, not on the ability of the State to make payment with its disproportionate resources, with which they must have first made themselves acquainted, but on the expected productiveness of the works for the construction of which the loans were made—that they could be finished more cheaply and speedily by individual enterprise than by government—that when completed they would be equally as profitable to the purchasers as to the State, if she were the proprietor; and that they could make payment for them at the cost of construction, in our depreciated bonds at par. On the other hand, the advantage to the State by the adoption of such a measure, it has been suggested, would be, that these works would thus speedily be completed, which otherwise it would be impossible for the State with her present means and credit to finish—that the benefit to our citizens would, in that case, be as great as though the works were constructed by the State—that the progress of the works would give employment to our labor and a market for our produce, and finally, that our State debt would thus be proportionally absorbed. Provision might be made to limit the sales to the unfinished works, to prevent the execution of extravagant tolls and charges, and that the works themselves should ultimately revert to and be the property of the State. Other restrictions might be added, if found necessary, for the rights of the respective parties.

I am aware that by an act of our Legislature of 1842, the privilege was extended to our creditors to purchase from the State all or any part of these works without restriction, making payment therefor in our bonds at their face. Although no bonds have been received in this way, it may have arisen from the fact, that it not only requires the joint action of a considerable number of our bondholders to make such an undertaking feasible or profitable, but they might desire further legislative action to secure their rights.

Power might also be conferred on the same Commissioners to negotiate with our creditors in relation to the latter mode, subject in like manner to the ratification of the People, if the Legislature, on a full examination of the whole ground, shall deem it advisable.

By the adoption of some such measure for receiving overtures from, and negotiating with, our creditors, preliminary to a final adjustment of the whole matter, we shall give stronger evidence of that sincere

desire, which I am satisfied is felt among us generally, to restore the honor and credit of the State and of its citizens, than by vague and general professions against repudiation.

No official information has as yet been received of the progress made during the present year, in the extension of the Wabash and Erie Canal from Lafayette to Terre Haute. It is understood, however, that the report of the Superintendent will soon be communicated to you, and that that officer, the contractors and others engaged in the construction of the canal, have been as actively employed as the embarrassments connected with the work would permit.

It is respectfully recommended that every facility consistent with other interests, be afforded to that important enterprise. As it will be attended with no further expense to the State, the lands granted by Government being deemed sufficient for its construction, the sooner it is completed, the better will it be for every interest concerned.

By a joint resolution of the last Legislature, the Executive was requested to communicate by mail with the Governor of New York, expressive of the desire that the privilege of a drawback on salt manufactured in that State, and delivered at Lafayette, might by law be extended to all the other points on the Wabash and Erie Canal. This duty was performed, but no information has yet been received of the result of the application.

The annual report from the Board of Examiners of the Infirmary at Lafayette for the relief of the sick connected with the navigation of the Wabash and Erie Canal, in which they set forth the causes that have rendered the act of the last session providing for that institution, inoperative, has been received, but not in time to be noticed more particularly in this communication. It will at an early day be submitted to you for such action as you may deem advisable.

#### BALTIMORE RAILROAD.

In the Virginia Legislature, on Tuesday, Mr. Jackson presented a petition from the Baltimore and Ohio Railroad Company, asking permission to terminate their road on the Ohio river, at some point not lower than the Little Kanawha river. The same gentleman presented memorials from the people of several of the Western counties of Virginia, praying an extension of the privileges asked for by the Baltimore and Ohio Railroad Company.

#### MILL CREEK RAILROAD.

We learn that a company has purchased this Railroad from the present proprietor, Mr. Holkins, and intend laying down substantial wide tracks, similar to the Reading Railroad, to connect with the former at Port Carbon. The connection will be made early in the spring.—*Miners' Journal.*

A Railroad is projected from Hadley (Mass.) to Montague, to connect the Vermont and Massachusetts with the Springfield and Northampton railroads.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at date of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.		Share Capital.
							Per share.	Per cent. per annum.			Value of share.	Share Capital.	
Arboath and Forfar.....	15	102,000	35,000	138,870			0	12 6 2	10 0	25	27	Cambridge and Lincoln.....	1,250,000
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5 0 2	10 0	100	100	Chatham and Portsmouth.....	5,000,000
Branding Junction.....	23	161,700	365,170	481,452				4 10 0	50	50	54	Chester and Wrexham.....	120,000
Bristol and Gloucester.....	37 1-2	400,000	211,000					nihil.	30	30	36	Churnet valley.....	1,800,000
Chester and Birkenhead.....	14 1-2	750,000	143,170	518,989	5,856	13,148	0	8 6 1	14 0	50	32	Direct Northern to York.....	4,000,000
Dublin and Drogheda.....	31	450,000	150,000	500,869				nihil.	55	55	72	Dublin and Belfast.....	950,000
Dublin and Kingston.....	6	200,000	152,200	359,000				6 0 0	0 0	100	166	Dundee and Perth.....	250,000
Dundee and Arbroath.....	16 3-4	100,000	49,415	153,416	2,989	6,993	1	5 0 5	0 0	25	29	Edinburg and Northern.....	800,000
Durham and Sunderland.....	18 3-4	169,350	124,055	270,392	9,889	17,702		nihil.	34	34	29	Ely and Bedford.....	270,000
East County and North and East.....	86 1-4	4,443,200	1,341,153	3,931,905	47,385	118,726	1	6 6 6	45	45	57	Glasgow, Dum. & Carlisle	1,300,000
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1	2 6 4	10 0	50	57	Gt. South and West. Ext.	1,200,000
Glasgow, Paisley and Ayr.....	51	937,500	1,066,951		12,446	36,736	1	2 6 4	10 0	50	60	Gt. Grimsey and Sheffield	600,000
Glasgow Paisley and Greenock.....	22 1-2	650,000	216,666	787,881	11,572	23,177	0	5 0 2	0 0	25	138	Harwich & E. coun. Junc.	160,000
Grand Junction.....	104	2,478,712		2,453,169	81,309	195,080	5	0 0 10	0 0	100	210	Huddersfield & M.r.l. & cl.	600,000
Great North of England.....	45	969,000	581,071	1,262,518	12,201	36,189	1	12 6 3	5 0	100	119	Kendal and Windermere.....	125,000
Great Western.....	221 3-4	4,650,000	3,679,343	7,272,539	132,235	369,904	3	10 0 7	0 0	75	138	Leeds and Dewsbury.....	400,000
Hartlepool.....	15 1-2	438,000	155,510	719,205				8 0 0	100	100		Leeds and Thirsk.....	800,000
Liverpool and Swannington.....	16 1-4	140,000		140,000	2,207	6,317	1	5 0 5	0 0	50		Liv. Ormskirk & Preston.	600,000
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5	0 0 10	0 0	100	203	London and Portsmouth.....	1,750,000
Llanely.....	27	200,000	44,000	221,624				1 0 0	2 0 0	87		London and York.....	5,000,000
London and Birmingham.....	112 1-2	6,874,976	1,928,845	6,393,468	92,823	405,768		10 0 0	10 0 0	100	218	Londonderry & Enniskillen	500,000
London and Blackwall.....	3 3-4	804,000	266,000	1,315,640	15,978	23,870				16	6	Lynn and Ely.....	200,000
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0	12 0 2	8 0	50	47	Manchester, Bury & Ross.	300,000
London and Croydon.....	8 1-2	550,000	229,000	761,885	7,583	10,545	0	5 0 2	10 0	14	17	Manchester and Buxton.....	250,000
London and Greenwich.....	3 3-4	759,383	233,300	1,040,930	15,193	29,933		nihil.	13	13	10	Mullingar and Athlone.....	
London and South Western.....	92 3-4	2,222,100	630,100	2,596,291	68,457	150,469	1	12 6 10	41	73	Newcastle and Berwick.....	700,000	
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1	0 6 5	0 0	40	48	Richmond & W. End Jun.	
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2	2 0 4	10 0	93	110	Scottish Central.....	700,000
Manchester and Leeds and Hull.....	81	2,937,500	1,943,933	3,921,593	46,653	156,761		7 1/2 & 10 1/2		60	88	Sheffield and Lincolnshire	650,000
Midland railway.....	178 1-4 5	1,589,900	1,719,630	6,279,056	76,983	281,898				100	96	Shrewsbury and Gd. Junc.	400,000
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,917	4	0 0 4	0 0	100	105	Shrew. Wolv. Dudley & B.	900,000
Newcastle and Darlington.....	23	500,000		406,728				nihil.	21	49	Trent Valley.....	900,000	
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466		2 0 0	50	37	West London Extension.....	64,000	
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2	10 6 16	8 0	100	104	West Yorkshire.....	1,000,000
Paris and Orleans.....	82	1,600,000	400,000	1,978,415				0 16 0	8 0 0	20	39	Whitehaven & Maryport.....	100,000
Paris and Rouen.....	84	1,440,000			31,247	91,171		8 0 0	20	38	FRENCH RAILWAYS.		
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066		nihil.	50	18	Boulogne and Amiens.....	1,500,000	
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876		nihil.	82	93	Central of France.....	1,280,000	
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0	10 6 2	2 0	50	39	Lyons and Avignon.....	2,400,000
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1	0 0 6	5 0	100	53	Orleans Tours & Bordeaux	2,000,000
Yarmer.....	25	519,150	20,000	348,626	5,401	13,856	0	15 0 5	1 8	29	37	Paris and Lyons.....	2,500,000
Yarmouth and Norwich.....	20 1-2	187,500	62,500	230,250				nihil.	16	25	Paris and Orleans.....	1,600,000	
York and N. Mid., and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2	10 0 10	0 0	50	100	Paris and Rouen.....	1,440,000

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
AngloMexican Mint.....	10,000	10	10		15 7-8	15 7-8	Loughborough.....	70	142 3-4	142 3-4	70	1140	
Anti dry Rot.....	10,000				18 1-2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust company.....	5,700	100	35		34 1-2		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation.....	20,000	15	14	10	27 1-2	27	Mersey and Irwell.....	500	100	100	10		
Gt. Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2 1-2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6 5-8		Neath.....	217	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	5	1 3-4			Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental.....	11,493	50	50	7	64 3-4	65	Regents or London.....	21,418	33 3-4	33 3-4	2 5-8	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....			6				Somerset coal.....	800	150	150	7 1-2	123	123
Reversionary Int. Soc.....	5,387	100	100	4 1-2	104	104	Stafford and Worcester.....	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36 1-2	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7 1-2	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Severn & Wye & Rail. Av.....	3,762	26 1-2	26 1-2	5 1-2	30	30
							Trent and Mersey.....	2,600	50	50	65	495	
							Thames and Medway.....	8,149	19 1-4	19 1-4		10	10
							Warwick and Birmingham.....	1,000	100	100	10 1-2	167	
							Warwick and Napton.....	980	100	100	8 1-2	122	

Canals.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at date of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.
Ashby de la Zouch.....	1,132	113	av.	4	70	70
Barnsley.....	720	100	100	14	180	180
Birmingham, 1-16 share.....	3,000	118 3-4	79	10	150	160
Do. and Liverpool Junct.....	4,000	160	100		13 1-2	13 1-2
Coventry.....	500	100	20	365	365	
Cromford.....	460	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forth and Clyde.....	1,297	100 1-2	40 1-2	4	440	440
Grand Junct.....	11,600	100	100	7	162	161 1-2
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Berkley.....	5,000	do.	do.		8	8
Grantham.....	719	150	150	8	185	185
Lancaster.....	11,699	47 1-4	47 1-4	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	640
Leicester.....	545	140	140	9	139	139

Water Works.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Birmingham.....	4,800	25	25	3 5-8	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,506	av.	41 2-3	7 1-4	88	90
New River L. B. Ann.....	1,500			2 1-2		
Manchester and Salford.....	6,486	av.	30	8 3-8	57	57
Vauxhall, lt. S. London.....	1,000	100	5	5	55	55
West Middlesex.....	8,294	av.	63 5-8	6 5-8	126	127

Docks.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Commercial Dock.....	1,065	100	100	3	10	10
East and West India.....		sto.		5 1-4	137	
London.....	3,238,310	sto.		4 1-2	114 3-4	115
St. Katharine.....	1,352,752	sto.		5	116	117
Southampton.....	7,000	50	50			



RAILROADS.		Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
				Gross.	Nett.		Gross.	Nett.			
Me.	1 Incl'd. in "Bost. & Me." & "Eastern."										
N. H.	2 Concord.....								13		We have no returns from the Maine or New Hampshire roads.
Mass.	3 Boston and Maine.....	109	1,384,050	178,745	68,499	6					The annual reports of the Massachusetts roads will soon be out. The increase for '44 is very great; the receipts of the Western road being about \$850,000.
"	4 Boston and Lowell.....	28	1,863,746	277,315	144,000	8					
"	5 Boston and Providence.....	41	1,900,000	233,388	110,823	6			109		
"	6 Boston and Worcester.....	48	2,885,200	401,141	162,000	6					
"	7 Berkshire.....	21	250,000		17,500	7					
"	8 Charlestown branch.....		250,000			13					
"	9 Eastern.....	105	2,388,631	279,563	140,595	6					
"	10 Fitchburg.....		322,538								
"	11 Hartford and Springfield.....	25 1-2									
"	12 Nashua and Lowell.....	14 1-2	380,000	81,079		8					
"	13 New Bedford and Taunton.....	20	428,543	50,671	24,000	6					
"	14 Norwich and Worcester.....	59	2,166,566	162,336	24,871			3	67		
"	15 Taunton branch.....	11	250,000		20,000	8					
"	16 West Stockbridge.....	3									
"	17 Western, (117 miles in Mass.).....	150	8,319,520	573,882	284,432					92	
"	18 Worcester branch.....		5,500								
Con.	19 Hartford and New Haven.....	38								92	
"	20 Housatonic.....	71	1,244,123				150,000				
"	21 Stonington, (year ending 1st Sept.).....	48	2,600,000	113,889			151,724	79,845		40	
N. Y.	22 Attica and Buffalo.....	31 1-2	268,275	45,896	7,522						
"	23 Auburn and Rochester.....	78	1,727,361	189,693	112,000					110	Ithaca and Oswego and Catskill and Canajoharie roads were sold by the state. The former does little, the latter nothing.
"	24 Auburn and Syracuse.....	26	743,931	86,291	27,334						
"	25 Buffalo and Niagara.....										
"	26 Erie, (446 miles, ).....		5,000,000							28	
"	27 Erie, opened.....	53			48,000						
"	28 Harlem.....	25	2,200,000								
"	29 Hudson and Berkshire.....										
"	30 Long Island.....	95	1,500,000							77	
"	31 Mohawk.....	16 3-4	1,030,949	69,948	58,780						
"	32 Tonawanda.....	43	600,000	76,227							
"	33 Troy and Greenbush.....	6	180,000								
"	34 Troy and Saratoga.....	25	475,865	44,325	21,000						
"	35 Troy and Schenectady.....	20 1-2	633,520	98,043	32,621						
"	36 Schenectady and Saratoga.....	22	300,000	42,242	3,000	1					
"	37 Utica and Schenectady.....	78	2,124,013	277,164	180,000	9				131	
"	38 Utica and Syracuse.....	53	1,080,219	163,701	72,000					119	
N. J.	39 Camden and Amboy.....	92	3,200,000	682,832	383,880						
"	40 Elizabethtown and Somerville.....	26	500,000								
"	41 Morris and Essex.....										
"	42 New Jersey.....	32	2,600,000								
"	43 Paterson.....	16	300,000							80	
Pa.	44 Beaver Meadow.....	26	1,000,000								
"	45 Cumberland valley.....	46	1,250,000								
"	46 Franklin.....	10 1-2									
"	47 Harrisburg and Lancaster.....	* 36	860,000								
"	48 Hazleton branch.....	* 10	120,000								
"	49 Little Schuylkill.....	* 29	900,000								
"	50 Lykens valley.....	16 1-2									
"	51 Mauch Chunk.....	* 9	100,000								
"	52 Minchill and Schuylkill Haven.....	* 18	315,000								
"	53 Norristown.....	20	800,000								
"	54 Philadelphia and Trenton.....	* 30	400,000								
"	55 Pottsville and Danville.....	29 1-2	1,500,000								
"	56 Reading.....	94	9,000,000							22	
"	57 Schuylkill valley.....	* 10	1,000,000								
"	58 Williamsport and Elmira.....	25	400,000	20,000							
"	59 Philadelphia and Baltimore.....	93	1,400,000								
Del.	60 Frenchtown.....	16	600,000								
Md.	61 Baltimore and Ohio, (1st Oct.).....	188	7,623,600	575,235	279,402		358,620	346,946		50	
"	62 Baltimore and Susquehanna.....	58	3,000,000							5	
"	63 Baltimore and Washington.....	38	1,800,000	177,227	71,691		212,129	104,529		84	
Va.	64 Greensville and Roanoke.....	* 17 1-2	260,000								
"	65 Petersburg and Roanoke.....	* 60	766,000								
"	66 Portsmouth and Roanoke.....	* 78 1-2	850,000								
"	67 Richmond and Fredericksburg.....	* 61 1-2	1,200,000								
"	68 Richmond and Petersburg.....	* 22 1-2	700,000								
"	69 Winchester and Potomac.....	* 32	500,000								
N. C.	70 Raleigh and Gaston.....	* 84 1-2	1,360,000								
"	71 Wilmington and Raleigh.....	* 161	1,800,000								
S. C.	72 Charleston and Hamburg.....	* 136	2,400,000							8	
"	73 Louisville and Cincinnati.....	* 66	800,000								
Ga.	74 Central.....	190	2,581,723	227,532	93,190						
"	75 Georgia.....	147 1-2	2,650,000	248,026	158,207		248,096	147,523			
Ala.	76 Tusculum.....	46									
Can.	77 Champlain and St. Lawrence.....	15	212,000		12,000		58,000	24,000		110	
Ky.	78 Lexington and Ohio.....	40	500,000								
Ohio	79 Little Miami.....	40	450,000								
"	80 Mad river.....	40	400,000								
"	81 Monroeville and Sandusky.....										
Mich.	82 Detroit and Pontiac.....	25									
"	83 Erie and Kalamazoo.....	33									
Ind.	84 Madison and Indianapolis.....	56	152,000								Purchased from the state.

SALES OF RAILROAD & CANAL SHARES IN BOSTON, NEW YORK, PHILADELPHIA & BALTIMORE.

NAME OF COMPANY.	Monday.		Tuesday.		Wednesday.		Thursday.		Friday.		Saturday.	
	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.
<b>Boston.</b>												
Old Colony	2	100										
Norwich and Worcester.	25	67 1-2					100	68 3-4	50	67		
Western	56	90 1-2	12	91 1-2			30	92			50	92
Long Island	100	76 3-4										
Eastern			9	116								
Portland and Saco			20	99 1-2								
Boston and Worcester.												
Lowell												
Reading							50	22 1-4	275	22		
Stonington												
Reading bonds.												
Fitchburg												
Concord												
<b>New-York.</b>												
Auburn and Rochester.												
Erie			330	28 1-4			235	28 1-4	555	28	600	28 1-4
Harlem			220	65 1-2			100	66	450	65 1-4		
Long Island	250	76 1-2	300	76 1-2			295	76	650	75	800	75
Stonington			175	40 1-2			175	40	250	39 3-4	175	39 1-2
Paterson									80	80	50	80
Hudson and Delaware.	40	117 1-4	10	117					131	117 1-2	150	118
Camden and Amboy												
New Jersey												
Mohawk	150	60 1-2	10	60 1-4			10	59 1-2			150	58 3-4
Reading	75	44 1-2	200	44 1-4			50	44 1-4			50	44
Morris canal.			125	32			475	31 7-8	225	31	275	31
Reading bonds, 6's												
Norwich and Worcester.	700	69 1-2	315	69			150	67	225	66 1-2	150	66
Utica and Schenectady.												
<b>Philadelphia.</b>												
Reading	95	22							50	22 1-2	250	22 1-2
Reading bonds, 6's	7,000	68					6,000	68				
Wilmington	450	22					225	22	260	21 7-8	250	21 7-8
Wilmington bonds, 6's											9,000	80
Lehigh mortgage, 6's	300	66 1-2					200	66 1-4				
Harrisburg and Lancast.												
Norristown												
Philadelphia and Trenton												
Schuylkill canal												
<b>Baltimore.</b>												
Baltimore and Ohio.	50	69 1-2										
Baltimore and Ohio bonds												
Baltimore & Washington												
Baltimore & Susquehanna												
Philadelphia & Baltimore												
Frenchtown & Newcastle												

Christmas.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Thursday, January 2, 1845.

We cannot more appropriately commence our new edition than by referring to the list of American railroads on the opposite page. This table must be regarded merely as a first approximation to what we hope shortly to make out. The difficulties in the way of obtaining information of the actual cost, income and expenses of railways are very great. In proof of this we need only refer to the fact that the State of New York is unable to obtain returns from her own roads. Referring to the resolution of the assembly, 2d Feb., 1843, "requiring the several railroad companies in this State to furnish to this office, in their annual reports, certain items of sta-

tistical information, the secretary of State said in his report of March 14, 1844, (Ass. doc. No. 123,) "the New York and Erie railroad company, probably owing to the deranged condition of its affairs, has not complied with the requisitions of the said resolution. The following railroad companies are also in default, viz: *Buffalo and Black Rock, Hudson and Berkshire, Lewiston, Long Island and New York and Harlem.*" Among these will be found the roads whose stock is most frequently changing hands, consequently the very roads with the actual condition of which the public ought to be more particularly acquainted. We trust that the good nature of the secretary is expended, and that he will now try the other tack.

A very respectful application to the canal commissioners of Pennsylvania, requesting such of their reports as might be necessary to give us data for a complete statement of the present condition of the public works of that Commonwealth, has not elicited a reply. Our numerous friends throughout the Union will gradually furnish us with every detail, but it would be every way better could we receive them direct from the commissioners

and directors. It is only in Massachusetts, New York (partially), Maryland and Georgia that we have been able to procure the cost and income of their railroads, and we doubt whether it will be soon practicable to give the American public anything like the full, clear and accurate weekly statements laid before the people of England by their able and spirited railway Journals.

For the list of English railways we are indebted to the "Railway Times" and the "Mining Journal," and for the canals, docks, etc., and projected railroads, to "Herapath's Railway Journal"—periodicals from which we shall frequently extract much useful information, and that too of a kind peculiarly needed in this country.

✍ We must apologize for the appearance of our advertisements, having been disappointed in obtaining our fonts of type.

✍ A variety of notices have been omitted, owing to the necessity of giving Mr. Casey's paper, on the repeal of the duty on railroad iron entire in this number.

NEW YORK AND NEW HAVEN RAILROAD.

The stock of this road is said to be nearly all taken. An application will be made to the legislature of New York this winter for permission to carry the road from the Connecticut line to this city. When we see the report of Mr. Twining, the engineer, we shall be able to speak definitely on the claims of this important work; also by what route they propose to enter the city, whether by the Harlem or an independent line, and whether they propose to amalgamate with the Harlem, or to join it at some convenient point, in the manner of the Western and Worcester roads in Massachusetts.

This is the first new work which has been projected in the neighborhood of this city for some years, and we hail its prospects of success with unfeigned satisfaction. We gladly perceive also, that the company have employed as their engineer a gentleman of education and acquirements, as well as of varied experience in his profession, and most favorably known to the citizens of New Haven. It is to the employment of incompetent engineers that many thousand shareholders may ascribe the unproductiveness of their investments.

We are again indebted to Gerard Ralston, Esq., of London, for interesting reports, "*Observations on the Isthmus of Panama,*" and a "*Report on Steam Navigation in the Pacific:*" both by William Wheelwright. We shall carefully peruse them, and hope to find something of interest to our readers.

(For the American Railroad Journal.)  
ON THE REPEAL OF THE DUTY ON  
RAILROAD IRON.

By W. R. CASEY, *Civil Engineer.*

A very limited view of the effects of the free admission of railroad iron into this country is only too frequently taken when discussing the propriety of repealing the heavy duty so lately imposed on that article. Railway bars are viewed by many as differing from round and square bars, merely as these latter differ from each other, and, that the introduction of a given quantity of the former free of duty, is little, if at all better than if it were iron of the usual form for the common purposes to which that metal is applied in agricultural implements, machinery, ships, buildings, &c. The main object of this paper is to show, that the purpose to which railway bars are applied is entirely different from any other use made of that metal, and that the ends which it attains have such peculiar and vast influences on the social, economical and political interests of the nation as to warrant, indeed to demand, distinct legislation. A full examination of the subject is impossible here, and indeed would, from its length, defeat its own object; but a general outline of the vast interests more or less affected by this measure cannot well be without interest to the readers of the *Journal*.

It is known that—with insignificant exceptions—all the railroad iron in the United States has been admitted free of duty. We may form some idea of the influence this circumstance has had on the construction of railways, when we reflect that the great majority of tracks, in the first instance, were laid with the plate-rail, weighing from 20 to 25 tons per mile, and that an increase of  $\frac{1}{4}$ th of an inch in thickness, or from 4 to 5 tons per mile, was, at that time, an object of the most serious consideration. This would amount to only from \$150 to \$200 per mile, whereas the present duty of \$25 per ton would be not less than from \$500 to \$600 per mile. Had it existed at that time, it would unquestionably have prevented the construction of many works at present in existence.

Now, however, the case is different. The number of miles of road which will be constructed during the next ten years may not exceed half the distance accomplished within the last ten years; but, on the other hand, from four to five times the quantity of iron per mile is required, double tracks are becoming more frequent, and many of the tracks with the plate rail have been, and

others will be relaid, with heavy rails of various patterns. By way of illustration, take the State of New-York. Within ten years the Erie Railroad will require at least 600 miles; the line from Albany to Buffalo, to replace the old rails, not less than 500 miles; and the New York and Albany Railroad about 200 miles of heavy rails: in all, 1300 miles, requiring 1,300,000 tons, the duty on which would reach the enormous sum of  $3\frac{1}{4}$  millions of dollars. The Erie Railroad alone would pay for a single track, with the requisite passing places, turnouts, &c., \$1,500,000, and for a double track, which will be found to be indispensable in so long a line, no less than  $2\frac{1}{4}$  millions of dollars, an amount quite sufficient most seriously to affect its progress during construction, as well as its rates of fare after completion. In each of the states of Massachusetts, New-York, Pennsylvania, and Virginia, many hundred miles of track will be carried through, and all, or nearly all, will be laid with the heavy rail. In the Western States the iron is the great consideration, and the continuation of the present duty will necessarily lead to the abandonment of many undertakings to the great detriment of the community.

Hear what the Commissioners of Michigan say:

"The tariff of 1842 placed a cash duty of \$25 per ton on railroad iron, which prevented the commissioners from importing it, as they were unable to make payment of so large a proportion of the cost of the iron on its arrival in this country. The low price of iron in England would have enabled them to have imported it to great advantage, had it not been for the heavy duty placed upon it, for the first time, by the act of 1842. This duty is a serious obstacle to the extension of our railroads, and the commissioners would respectfully suggest to the legislature the propriety of endeavoring to have the tariff act so modified, as to allow its importation free of duty, as heretofore, particularly for roads which had been commenced while such permission was allowed."

The same feeling is naturally common throughout the West. The magnitude, and consequently the importance of the subject, cannot be overrated.

All are well aware of the change which railways have effected in travelling on the main thoroughfares. Those who have given any attention to railways, know how much they have done in many places to aid the farming and manufacturing interests generally. But comparatively few know that a large portion of the mining business of Pennsylvania owes its very existence to railways. It is the development of coal mines by railways which has, in many in-

stances, created the manufacture of iron; and it is on the extension of the system of railways that that manufacture must depend for its future development, more than on any other cause. To the railway the iron-master is indebted for a saving in the carriage of the raw material, in the transportation of the finished article, and, last, though not least, for the ability to take immediate advantage of a turn in the market, by means of a quick, cheap, and uninterrupted communication for his freight, as well as for himself; thus rendering him less dependent on the opinions of others, besides reducing, in some degree, the cost and risk of agencies and commissions, which, in only too many cases, leave the industrious manufacturer or mechanic nothing more than the bare means of subsistence. So far as the construction of railways is advanced by the free admission of railroad iron, so far does that measure aid the extension of the manufacture of iron in this country—railroad iron of course excepted, and that only.

There is no mechanical difficulty in the way of making this iron; the objections to it are of a different character. It requires heavy and expensive machinery of little use for other purposes; it must be made, even with the present enormous duty, at a small profit; and the demand is very precarious. A large amount of capital is necessary, which yields an irregular and generally small return. In England, the case is somewhat different. Their establishments are already in existence, and they have the markets of the world, omitting all consideration of their superior skill, capital, and lower wages. Yet they barely manage to sustain themselves.

Now, if all other descriptions of iron used here were made in the country, nothing would be more reasonable than to favor the manufacture of railroad iron. But, when iron of all descriptions, for the commonest purposes of life, is imported in large quantities—when the shelves of hardware stores groan with European articles—when even pig iron is brought over the Atlantic—it does appear rather impolitic to neglect the necessaries of life for the purpose of introducing the manufacture of railroad iron. Without going into detail, it may be observed, that capital invested in the manufacture of the ordinary irons of commerce will yield a much greater profit than will the same amount laid out on works expressly constructed for rolling railroad iron. The former business, from the very nature

of the purposes to which its productions are destined, will be more regular, steady, and more free from the risk of great accumulations of stock. Again, not only is the manufacture of iron for common purposes inadequate at this time—requiring large importations, to meet the demand—but it is more than doubtful whether its income is commensurate with that of the wants of the population; for it is worthy of remark, that the demand for iron, for other purposes than railroads, increases in a greater ratio than the population. For example, the construction of ships, steamers, boats, and bodies of railway cars, consumes a vast additional quantity of American iron. Every man employed in rolling railroad iron might be more profitably employed in other branches of the trade, now and for many years to come; and that too in branches not only more profitable to the individual manufacturer, but also more important in a national point of view. And, on this vital subject—of itself sufficient for a single paper—does not the nation owe much to railroads for its present means of defence; and are not those means, to a considerable extent at least, due to the free admission of railroad iron?

A reference to three of the principal seats of the iron trade, which can be spoken of with confidence, will aid this investigation. Commencing at the north, iron is made in the counties of Clinton and Essex, N. Y., for the supply of the other northern counties and the State of Vermont, besides more southern markets. One of the greatest drawbacks is the cost of transportation:

“The price paid for the transportation of ore (a distance of 20 miles) is, in some cases, as high as \$2.50 per ton, which would pay for conveying it more than a hundred miles on the western railroad of Massachusetts. The price of charcoal where wood costs little, is about \$3.50 per 100 bushels; the price at the iron-works is from \$5.50 to \$6, and the difference would be sufficient to pay for hauling coal on a railway from St. Lawrence county. Some idea of the vast amount of hauling created by the iron trade, may be formed from the following statement. About 5,500 tons of bar-iron were made from the ores of Au Sable, in 1841, requiring 12,500 tons of ore and 22,000 tons of charcoal, besides large quantities of provisions, &c., in all from 40 to 50,000 tons, about twice as much as all the products of a grazing country, which passed over all the canals of New York in 1840.”—[*Assemb. Doc. No. 70, 1842.*]

The iron manufacturers of this district have everything to hope from the construction of railways to diminish their present

expenses, as well as to aid the trade they now carry on with the large counties of St. Lawrence and Jefferson, across the wilderness of Northern New York. The present duty on railroad iron, though quite sufficient to retard the progress of railroads, does not in any way render the manufacture of that article desirable with them. It merely indicates that they must labor under their present disadvantages for many years to come; and instead of aiding the trade, it diminishes the probability, if not the possibility, of its extension, in so far as it injuriously affects the construction of railways in that quarter. The present duty inflicts on them a certain injury without the possibility of benefitting them. They can employ their time and capital in much better ways than in making railroad iron. In this district also there is a mountain of ore, rivalling in quantity and surpassing in quality the iron mountain of Missouri, but the want of a communication with Lake Champlain is an almost insuperable obstacle. This region is vitally interested in the construction of railways, and consequently has much to hope from the repeal of a measure calculated injuriously to interfere with their extension. The iron masters near the Connecticut line anticipate great advantages from the New York and Albany Railroad, and great benefits have already resulted to the works near the Erie Railroad.

Near the West Branch of the Susquehanna are extensive coal-fields peculiarly well adapted to the manufacture of iron, and ore is found in abundance in the strata beneath. The iron trade is already important there, and requires for its further development the continuation of the Williamsport Railroad to Elmira, New York, where it would find a steady market. They derive no advantage whatever from the duty on railroad iron; on the contrary, it forms a prominent obstacle to their advancement.

Again, there is the magnificent valley of the Wyoming, where the fertility of the surface rivals the wealth beneath. A railway from that valley to the waters of the bay of New York, would be hailed as the greatest possible boon to the coal and iron trade. It is more than probable that the proprietors of the mill for rolling railroad iron would gladly consent to the free admission of iron for that road. But, to the other manufacturers, such a work would effect a saving of more than \$150,000 per annum, besides the immense indirect advantages arising from an easy, rapid and cheap communication with the great mart of the Union. With the ex-

ception of the single establishment alluded to, every manufacturer there, on the West Branch and in New York, would gladly agree to the (as formerly) free admission of railroad iron for the next half century. They have everything to hope from the railroad, and every thing to deter them from embarking in the manufacture of railroad iron.

But the low price of railroad iron has a direct and powerful influence on the most important branches of the iron trade. Using round numbers, the value of the imported iron on the two tracks of the Reading railway is \$1,000,000; and the value of the engines, cars, turntables, and various fixtures on the same line, made exclusively of American iron, in American workshops, falls little short of that sum. The Utica and Schenectady railway, a mere passenger road, was laid with the plate rail,  $\frac{3}{4}$  inch in thickness, costing about \$152,000, and the value of engines, cars, etc. of American iron and manufacture, reached at least two-thirds of that sum. The present well-earned high standing of American locomotive engines is of course exclusively owing to the extension of railways in this country, which again has been powerfully aided by the free admission of railroad iron. Every ton of railroad iron imported at once creates a demand for the best qualities of bar iron for the working parts of the engines and cars, of the best boiler plate for the locomotives, and of the best pig iron for the wheels. But these various descriptions of the finest American iron are not, like railway iron, used as they come from the iron-master. On the contrary, they give employment to a vast number of the very best mechanics, and thus create those vital elements of strength in war and advancement in peace, private engineering establishments, whose capacity for turning out work rivals the skill with which it is executed. The thousands of American mechanics employed on the iron and wood work of railways, have an immediate interest in the repeal of the present duty. This measure will furnish employment to more than forty times the number of hands employed by the few iron-masters likely to embark in the making of railroad iron, at \$55 per ton, when common American rolled iron commands more, with incomparably less risk of sales.

But is there the most remote probability that railroad iron can be supplied, when the American iron-master is unable to meet the present demand, not only for common bar iron, but even for the mere pig; and at a time too, when, as previously observed,

the use of iron is increasing more rapidly than the population, and still more rapidly than the production of iron? Even the very steel which fells the forest is all imported.

If any one doubt the influence of railroads in extending the iron trade, or the indifference with which the making of railroad iron is viewed by nearly all American ironmasters, let him visit the mineral regions on the North and West Branches of the Susquehanna, of Clinton and Essex counties in Northern New York, and Dutchess Co. in the same State. He will find a railway the grand desideratum; he will find little inclination to embark in rolling railroad iron for less than \$60 per ton; and without asserting that all will rejoice at the immediate repeal of the duty, he will find all gladly agree to the free admission of railroad iron for the road to which they look for an accession of profit.

In the immediate repeal of the duty on railroad iron, are interested—the people of New England, who are extending their railroads towards New Brunswick on the one hand, and towards Northern New-York and Canada on the other; the inhabitants of Northern New York, who regard a railway as the most efficient means of benefitting their agricultural interest and iron trade; the residents of Central New York, who have already commenced relaying their roads with the heavy rail; the people of the Southern counties, who look to the New-York and Erie Railroad as their best, their only chance of relief from the disadvantages which retard their advancement; the city of New York, which is, during winter, cut off from the eastern river counties, and the entire country from Albany to Buffalo, now, and for ever, the most populous, wealthy, and important part of the State; the citizens of New Jersey, Pennsylvania, Maryland, and Virginia, generally, but especially those engaged in the coal and iron trades, always excepting the two rolling mills for railroad iron, one in Virginia and one in Pennsylvania, whose existence as such is perhaps doubtful, even with the present duty. And these two mills form the “per contra” to the vast interests just enumerated! (The one or two mills over the mountains are abundantly protected by distance and local advantages.) It is needless to refer to the Southern and Western States, who do not even make iron for their own nails, ploughs and horseshoes. The rolling mill at Mount Savage, Maryland, owes its very existence to the Baltimore & Ohio Railway, laid with imported iron: and were

the question put to-morrow,—Shall the duty on railroad iron be repealed, or shall the use of the B. & O. R. R. be prohibited to that Company? it might appear that the benefits conferred on their general trade in coal and iron outweighed the supposed advantages of the duty on railroad iron: supposed, because sufficient time has not elapsed to determine their capability of producing railroad iron, even at an advance of about 60 per cent. on the cost of the first imported railroad iron, and of about 80 per cent. on the present cost, which, owing to the vast improvements made in the manufacture of iron since that time, has been reduced at least 25 per cent. The late extreme depression showed a greater difference, but this was due to temporary causes.

The manufacture of iron cannot flourish to any extent in Eastern Pennsylvania, at least without a protective duty. For example, the price of railway bars in England has been as low as \$25 per ton, and is not likely to go above \$32 per ton, which is about 25 per cent. less than the price 14 to 16 years since. Now, American pig iron sells for about the same sum—from \$30 to \$32 per ton—and, in that condition, the iron has not more than half the labor and expense bestowed on it, in order to reach the state of railway bars.

Although many manufacturers of iron may admit the vast advantages conferred on them by the free admission of railroad iron, still, now that a duty has been unfortunately imposed on that article, they may dread any interference with it as the first step towards encroachments on the Tariff; and thus may the great influence of the general iron interest unite with the, as yet, nearly nominal interest in the making of railroad iron. Such a course would lead to counter-combinations, and the tariff on coal and iron, by no means too strong in friends, would soon be very seriously modified by an overwhelming opposition. A single illustration must suffice. The people of the interior of New York desire a better market for their produce. This they may obtain from the establishment of manufactures, or from a railway leading to the city. Now, considering that New York, the most wealthy and populous State of the Union, as well as one of the oldest, manufactures a mere fraction of the cotton, woollen, and hardware consumed within her borders, and none whatever of many other of the common necessities of life, the prospect of the farmer is desperate, if he must rely on this gradual increase,—an increase not greater than that

in his own productions. But with a railway to the city of New York, he sees and feels that his object is accomplished: he knows that this will do more for him in three years than the increase of manufactures, on the most extravagant calculation, can effect in fifty years. But more than this, even the manufacturers in the interior of New York have, in nearly every case, more to gain from the railway than they have to fear from a horizontal tariff. A high tariff may increase the price, but the railway diminishes the cost of production, increases the facilities for carrying on business, and may be said to add from three to five months per annum to their lives. To the iron-master of Pennsylvania or New-York, a horizontal tariff is ruinous. He requires little less than the present protection for his existence: and, under these circumstances, is it politic for him, in order to force the manufacture of the least profitable and every way least desirable branch of the trade, to array against himself the agricultural, commercial, and (iron excepted) the manufacturing interests of New York—the same interests, for the same reasons, of nineteen-twentieths of the other States, especially New England, as well as the entire, united and vast interest of all the railroads in the Union. If the duty on railroad iron be insisted on, then will the irresistible influence of this stupendous combination be firmly enlisted in favor of a complete overhauling of the tariff on iron, in which they will be warranted by every consideration of justice and policy.

The two mills which have been called into existence by inconsiderate legislation have cause of complaint, and might reasonably demand redress, but not the power to retard the advancement and general interests of the entire country. So far is the iron interest from being able to brave the late unequivocal expression of public opinion—least equivocal of all in the iron districts themselves—that it should conciliate the general good will of other interests by reasonable concessions: by no means can it secure stronger support than by at once agreeing to the free admission of railroad iron; a measure which would go far to compensate the loss arising from a small reduction of the present duty on common iron, which is all but certain. Pennsylvania stands almost alone; no other State makes its own iron; and the coal trade she has nearly to herself. If she insist on retaining the present duty on railroad iron, all those directly or indirectly interested in the



Railways of the United States will at once unite in self-defence. Mr. McKay's Bill proposes a duty of \$10 per ton on railway iron, and a horizontal tariff, of say 30 per cent., will be about the same thing. With this duty, not a bar of railroad iron can be made in the country; so that, by opposing the repeal of this duty, the iron master diminishes his facilities by increasing the cost of railways simultaneously with a reduction of his profit by a lowering of the Tariff. He may make the railway interest his friend or his foe. If he choose the latter, he will find himself opposed by an influence a hundred times greater than his own, and can only expect the fate of the vanquished from those who, having cheerfully conceded to him nineteen-twentieths of his demands, are now rewarded by his insisting on the other twentieth, which, utterly worthless to him, is of vital importance to the cause of railways. The manufacture of iron is carried on by the labor of men, not of women and children; it is a healthy and hardy business, and on this account perhaps it has been favored by many opposed to the establishment of enormous cotton mills and similar works, where "a hand" means a girl or a child, instead of—as at iron works—a man, and generally the head of a family. Pets are, however, proverbially imperious and exacting. Let the highly favored American iron-master "leave well alone." A heavy duty on railroad iron will be the signal for a hostile combination of his, to this time, staunch friends and best customers—the Railways. Of what importance is the manufacture of iron to New England, New York, the South and the West, compared with the existence and extension of railways? The mere enunciation carries conviction: the answer is too plain to require a moment's hesitation. It is as nothing.

The capital invested in railways is about \$130,000,000, or twelve times the total capital of all the factories of Lowell. Boston has nearly 30 millions invested in railways. The success of the system of cheap postage depends much on railways. These facts can only be briefly stated here, but the reader will easily appreciate their power in the fight which the iron-masters appear to be determined to force on the railways.

These views will find little favor with those who object to all discriminations, or with those who aim at producing everything in the country, importing nothing, and of course exporting the same. But to such as desire to take a liberal and enlarged view of things as they are, and thence to deduce measures calculated to advance all the lead-

ing interests of the country judiciously, impartially and vigorously: in other words, to those who view the present condition of affairs with the eye of the statesman, this paper, written in the shape of contributing something to the full understanding of the effects of the free admission of railroad iron, may not be uninteresting or useless.

The two main points attempted to be established are:

1. That so far as the construction of railways is advanced by the free admission of railroad iron, so far does that measure aid the extension of the manufacture of all other kinds of iron.

2. That the manufacture of railroad iron is, at this time, the least desirable branch of the trade, either in an economical or a national point of view.

Consequently, that the free admission of railroad iron is called for by every consideration; by the agricultural, commercial, and manufacturing interests generally, and, pre-eminently, by the mining interests of Pennsylvania.

New York, November, 1844.

#### PUBLIC WORKS OF OHIO.

In another part of this paper will be found extracts from the Message of the late Acting Governor of Ohio, and from the inaugural address of the present Governor. It will be seen that the gross income from 853 miles of canal, (the most productive portions of which have been long in operation,) is only \$545,000, while the interest on the cost of these works amounts to \$1,167,000. The gross receipts are about equal to expenses, repairs, and renewals, and are only \$43,770 more than the receipts of last year. This is a most deplorable state of things, and our readers well know that direct taxation supplies the deficiency. Well might Mr. Casey, in his paper "On the causes of the general failure of Canals in America," say:

"The Ohio canal is well worthy of the most serious attention. This work is above 300 miles long, is without a rival, cost only \$4,000,000, traverses the heart of a superb country containing two millions of inhabitants, and connects the two greatest chains of inland navigation on the face of the globe—the Ohio with the lakes. Yet the gross income last year was only \$322,754 82, yielding, according to the commissioners, "4½ per cent. on the cost of the canal." Had not this canal been constructed at the moderate cost of \$13,000 per mile, it must have been supported by taxation, as is now the case with the other canals of that State, for some of which money has been borrowed within a few years at 7 per cent. though their sources of income are

far inferior to those of the Ohio canal, which, in fact, ranks next to the Erie canal. Ten years' experience on this canal demonstrate, in a manner admitting of no cavil, that the wealthy and—for America—populous region of Ohio barely supports one of the cheapest, if not the very cheapest canal in the country. The Erie canal has been a complete "ignis fatuus" to the other States, having been paraded before the country as a work which had cleared its prime cost, when in fact it was in arrears for interest. The singular advantages of the position of the Erie canal, its heavy grants and peculiar privileges, render it a dangerous, a ruinous precedent."

This communication has been extensively noticed in the United States, in the British Provinces, and is copied at length in the London "Civil Engineer's Journal." Gloomy as are the prospects he holds out to American canals, the reality already surpasses them in some respects: We observed in 1839:

"In some States, the grand argument will be, that if they can only complete the works commenced, a revenue is immediately certain, which will render taxation to pay the interest unnecessary. That the completion of these projects will make the fortunes of many individuals, is well known, but, for the permanent interests of the State, the only plan is, to sell out at once with the present comparatively trifling loss. It is impossible to pay too much attention to the fact, that the greater part of the works projected by the governments of the different States are not such as will ever be of any essential benefit, and when we add to this that they are constructed at twice the cost of similar works in the hands of companies, are generally much inferior in execution and always managed and repaired in the most inefficient manner—we shall be at no loss to account for the present condition of State works in general."

At that time it was not too late to have saved a large portion of the present debt, and that too the most useless, and consequently the most expensive portion of it. But what are remonstrances and arguments, founded on liberal views of the interests of the community, to persons utterly disqualified by their habits, acquirements, and associations, from ever comprehending the very object of public works, far less the proper mode of constructing them.

We would draw attention to the circumstance that 5½ mills on the dollar are levied for "canal purposes," and ½ mill for "school purposes," or in the ratio of 11 to 1! This was beginning at the wrong end. Had the 5½ mills been applied to "purposes of education," it would have been difficult to have foisted on the people such preposterous works—costly as the magnificent structures

of despotisms, without their permanence grandeur, beauty, or, in many cases, even usefulness. The State has now completed its system of public works: it has, in plain English, saddled the people with the maximum of debt, just keeping within the "last feather." Yet the works of Ohio are comparatively in a flourishing condition, when we look at other States, to which we shall allude at some other time.

Now take the works of Massachusetts, all executed by private enterprise, costing nearly 30,000 millions, and averaging 6 or 7 per cent. profit. About 600,000 people in Massachusetts expend, of their own money, in that and other States, twice as much as the 2 millions of Ohio have been able to borrow; the former have constructed the finest works in this country, honorable to the nation, productive to the shareholders, and powerfully advancing the interests of the State; the latter have intersected their country with works of little use, which only serve to retard the progress of the State by the taxes levied to support them, and to deter individuals from investing their own means in private undertakings, by their utter failure to effect any of the objects so confidently promised the people by those to whom their dearest interests were most unfortunately entrusted. To compare small things with great ones, Massachusetts—in public works at least—bears the same relation to the rest of the Union, which England bears to the Continent of Europe.

The late Acting Governor speaks of the debt as imposing burdens "degrading to the independence and character of freemen." He appears to think lightly of getting into debt, but views with disgust the large sums yearly taken from the State to pay the interest. We would advise him and many others to go one step back, and they will find that it is the ignorance of the people which enables men with small abilities and acquirements, and a still smaller sense of honesty, to lead them into the most unpromising expenditures. All public men appear afraid to look the matter in the face. They want either the intelligence to comprehend, or the moral courage to avow, that the entire system of State works has turned out a complete failure, and that such works never can succeed in this country. The Erie canal will, of course, be brought forward to show the contrary; but when we come to examine the public works of New-York, it may appear that this exception is more seeming than real—or, regarding it in the most favorable light, that it is the exception which proves the rule.

#### MONTREAL AND PORTLAND RAILROAD.

The always welcome *Portland Advertiser*, is peculiarly so in the number of the 17th ult. It contains a communication signed "S.," on the importance of the proposed road, more especially with reference to the trade in lumber and ship timber, to which we will add, from our own observation, spurs of remarkable size and quality. Also an extract from the *Argus*, to the effect, that ten tons of merchandise had been forwarded from Boston via Portland to Sherbrooke, Canada; that, with the railroad, "the immense trade of the greater portion of the Canadas, and a great part of New Hampshire and Vermont," would come to Portland.

The same paper also contains a memorial from the "Eastern Townships" to the Governor General, petitioning for a loan of \$2,000,000, on terms set forth in the memorial; and there is annexed a statement of the probable cost of the road to the lines by Mr. James Hall, C. E. That gentleman gives the distance as 112 miles, and the cost \$2,500,000. The memorial we observed some time since in the *Montreal Herald*, the only Canadian paper we have seen which appears to take any real interest in railroads, the rest appearing to be chained to the car of Government Canals. We must, in fairness, except the *Toronto Patriot*, which is anything but lukewarm on the—to a new country—vital subject of good communication.

#### FREIGHTING BUSINESS ON THE RAILROADS.

The railroads are doing quite an extensive business in the freighting line. The goods and produce detained by the ice in the canal, have mostly been got out and sent forward to their respective destinations. Within a few days, considerable quantities of goods have been shipped at Albany, for merchants at the west, who have purchased since the canal closed. Some thirty tons of freight passed through on its way to Auburn on Saturday. The oyster trade is growing into an immense business—tons upon tons of this ocean luxury are arriving and going west, to be distributed into all the remote counties, and we suppose all along the borders of Lake Erie. In return, four tons of poultry passed east a few evenings since. This is probably the first invoice of poultry ever sent from the west.—*Syracuse Journal*.

At the November meeting of the stockholders of the Wilmington and Raleigh Railroad Company, a resolution was passed by them instructing the directors of the company to relinquish the contract on the 1st January ensuing, for transporting the United States' Mail on their line, extending

from Weldon to Charleston, unless the Post Master General will from and after that time allow three hundred dollars per mile, per annum, for the service. He now allows the company but \$220 per mile.

#### MONONGAHELA IMPROVEMENT.

Four dams, with spacious locks, for the passage of steamboats, are now completed, and a daily line of splendid steamers are to be immediately put on, to ply between Pittsburgh and Brownsville, a distance of 55 miles. From Brownsville to Cumberland, the terminus of the Baltimore and Ohio Railroad, 73 miles, comfortable stage coaches will connect with steamers and cars. The time from Pittsburgh to Baltimore by this route, in good weather, is estimated at 26 hours, and 6 or 8 hours more to Philadelphia. This route will probably divert considerable travel from that by Wheeling, and, as there will probably be no inconsiderable competition between the Pittsburgh and Wheeling interests, freights may be cheapened. Travellers going east, will consult their own pleasure, perhaps, by either going or returning by Pittsburgh.—*Portsmouth Tribune*.

Mr. Joseph R. Anderson, of Richmond, Va., has entered into an agreement with the Department, at Washington, to build an iron revenue cutter at the former city.

#### NOTICES OF BOOKS, PAMPHLETS, ETC.

*Manual of the Corporation of the City of New-York.* By D. T. VALENTINE.—This is an invaluable little work, containing information of almost every kind in any way connected with the statistics, regulations, and divisions of the city. There is an excellent colored map with the wards, congressional and fire districts, well distinguished; also, an ancient map of the city, with the old fort.

*Lewis's Trigonometry: a Treatise on Plain and Spherical Trigonometry; including the Construction of the Auxiliary Tables, a Concise Tract on the Conic Sections, and the Principles of Spherical Projection.* By E. LEWIS.—There is no single branch of mathematics so often required by the Civil Engineer as Trigonometry, and we think we may venture to assert that this work contains as concise treatises on the above subjects as the Engineer can desire.

*New-York State Register for 1843, with a Supplement for 1844.* Edited by O. L. HOLLEY. Published by J. Disturnell.—These works exhibit a complete view of the State, and their utility and convenience cannot be too highly praised. Mr. Disturnell also issues proposals for a new edition, to be out about 1st May, 1845. For a large class of advertisers, this work affords an unrivalled medium.

**TO THOSE INTERESTED** in Railroads. Railroad Directors and Managers are respectfully invited to examine an improved Spark Arrester, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used, is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks, passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust, they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity, to the bottom of this chamber; the smoke and steam passing off at the top of the chimney through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits.

E. A. Stevens, pres't Camden and Amboy railroad company; Richard Peters, superintendent Georgia railroad, Augusta, Ga.; G. A. Nicolls, sup't Philadelphia, Reading and Pottsville railroad, Reading, Pa.; W. E. Morris, pres't Philadelphia, Germantown and Norristown railroad company, Philadelphia; E. B. Dudley, pres't W. and R. railroad co., Wilmington, N. C.; Col. James Gadsden, pres't S. C. and C. railroad comp'y, Charleston, S. C.; W. C. Walker, agent Vicksburg and Jackson railroad, Vicksburg, Miss.; R. S. Van Rensselaer, engineer and sup't Hartford and N. Haven railroad; W. R. McKee, sup't Lexington and Ohio railroad, Lexington, Ky.; T. L. Smith, sup't N. Jersey railroad trans. co.; J. Elliott, sup't motive power Philadelphia and Wilmington railroad, Wilmington, Del.; J. O. Sterns, sup't Elizabethtown and Somerville railroad; R. R. Cuyler, pres't Central railroad co., Savannah, Ga.; J. D. Gray, sup't Macon railroad, Macon, Ga.; J. H. Cleveland, sup't Southern r. road Monroe, Mich.; M. F. Chittenden, sup't M. P. Central railroad, Detroit, Mich.; G. B. Fisk, president-Long Island railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin and Whitney, of this city, will be promptly executed.

FRENCH & BAIRD.

N. B. The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia Pa., April 6, 1844.

**S. VAIL**, Proprietor of the SPEEDWELL Iron Works, near Morristown, N. J., can supply at short notice railroad companies and others, with the following:

Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyres made, and they may rely upon being served according to order, and also punctually, as a large quantity in the straight bar is kept constantly on hand. Crank axles for locomotive engines, made from the best Pennsylvania iron.—Straight axles for locomotives for outside connection engines. Frames for engines.—Wrought iron work for steamboats, and shafting of any size. Cotton screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen:

Baldwin, Vail and Hufty, Philadelphia; Wm. Norris, Philadelphia; N. Campfield, Savannah, Ga.; J. and S. Bones, Augusta, Ga.; D. F. Guez, New Orleans, La.; Adam Hall, New York; J. P. Allaire, N. York; William Parker, Boston, Mass.; George W. Schuyler, New York.

**PATENT Hammered Railroad, Ship and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of railroad, ship and boat spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works, will be promptly executed.

JNO. F. WINSLOW,

Agent Albany Iron and Nail Works.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; Jas. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

**N. YORK AND ERIE RAILROAD. NOTICE TO CONTRACTORS.**

**SEALED PROPOSALS** will be received by the undersigned until the *twenty-sixth* inst. for the Graduation and Masonry of a portion (about fifteen miles) of the line between Middletown and Port Jervis in the county of Orange, embracing the Deep Cut at Shawangunk Summit.

PLANS and Profiles will be exhibited, and explanations given by H. C. Seymour, Engineer, at the office of the Company at Piermont after the 12th inst.

The undersigned will require the most satisfactory security for the performance of the work and reserves the right of rejecting all propositions which may appear incompatible with the interests of the Company.

E. LORD, President,  
N. Y. & E. R. R. Company.

New York, Dec. 3d. 1844.

**TO IRON MASTERS—FOR SALE,** Mill Sites in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railroads. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY,  
Civil Engineer,  
No. 23 Chambers st., N. Y.

**SAMUEL NOTT**, Civil Engineer, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES. —

Col. James F. Baldwin and Col. J. M. Fessenden, Civil Engineers, Boston; Wm. Parker Esq. Engineer and Superintendent Boston and Worcester railroad.

**SPRING STEEL** for Locomotives, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOHN F. WINSLOW, Agent,  
Albany Iron and Nail Works, Troy, N. Y.

**ANDREW MENEELY'S** Manufacturing Establishment, West Troy, Albany County, New York. The subscriber manufactures and keeps constantly on hand Theodolites, Transit instruments, Levels, etc., of the most approved construction. He would invite the attention of surveyors to his Improved Compass, which is almost equal to a Theodolite, inasmuch as angles can be taken without the needle. Angles of elevation can be taken with precisely the same accuracy as horizontal angles. Town clocks, with dead beat escapements, warranted to perform in the best manner, and keep correct time. He still continues to cast Church Bells, warranted not only to stand, but tone such as to give satisfaction and please, and fastens to them cast iron yokes, ready to hang. Also steamboat and factory bells, of all sizes, constantly on hand: and copper and brass castings of every description made to order.

**BOSTON AND MAINE RAILROAD.—UPPER ROUTE.**  
**BOSTON TO PORTLAND**—via Medford, Woburn, Wilmington, Andover, Bradford, Haverhill, Plaistow, Kingston, Exeter, Newmarket, Durham, Machbury, Dover, Somersworth, South and North Berwick, Wells, Kennebunk and Saco.

**WINTER ARRANGEMENT.—1844-5.**  
 On and after Monday, Oct. 21, 1844, the Passenger Trains will run daily, Sundays excepted, as follows, viz:—  
 Leave Boston for Portland at 7 A. M. and 2 P. M.  
 Leave Boston for Somersworth at 7 A. M., 2 P. M., and 3 P. M.  
 Leave Portland for Boston at 7 A. M. and 3 P. M.  
 Leave Somersworth for Boston at 4 A. M., 9 A. M., 4 P. M.

Passengers are not allowed to carry baggage, beyond \$50 in value, unless notice is given, and an extra amount paid, at the rate of a price of a ticket, for every \$500 additional value.  
 CHAS. MINOT, Superintendent.

**BOSTON AND LOWELL RAILROAD.**  
 On and after Friday, Nov. 1st, 1844, the Passenger Trains will run as follows:  
 Leave Boston at 7 and 11 A. M., 2 and 5 P. M.  
 Leave Lowell at 7 and 11 A. M., 2, 4, and 5 P. M.  
 Fare 75 cents.

The Coaches of Messrs. D. C. Cummings and B. P. Cheney, Nos. 9 and 11 Elm street, will convey passengers between the Depot, in Lowell street, and places within a moderate distance, for 12 cents.  
 CHAS. S. STORROW, Agent B. & I. R. R. Co.

**CONCORD RAILROAD**  
**MERCHANDISE TRAINS** will run daily as follows:  
 Leave Boston at 3 P. M., and arrive at Concord the same evening.  
 Leave Concord at 3 P. M., and arrive at Boston at 7 P. M. the next morning.  
 Freight should be delivered at Concord and Boston an hour before leaving, to ensure a delivery by the first succeeding Train.  
 All passengers' baggage should be marked, and when valued at more than \$50, notice should be given and extra charges paid, or no claim for damage or loss beyond such sum will be allowed.  
 N. G. UPHAM, Sup't.

**NASHUA AND LOWELL RAILROAD.**  
**PASSENGER TRAINS** will run as follows:  
 Leave Boston at 7 A. M.; 11 A. M.; and 5 P. M.  
 Leave Nashua at 6 A. M.; 1 P. M.; and 5 P. M.

**BOSTON AND WORCESTER RAILROAD.**  
**CHANGE OF HOURS.—WINTER ARRANGEMENT.**—Commencing December 11, 1844.  
 Accommodation Trains, daily, except Sundays.  
 From Boston at 7 A. M., 9 A. M., and 2 P. M.  
 From Worcester at 7 A. M., 10 A. M., and 6 P. M.  
 Newton Trains, daily, except Sundays.  
 From Boston at 9 A. M., 3 P. M., and 5 P. M.  
 " Newton at 8 A. M., 10 A. M., and 4 P. M.  
 The New York Train for Norwich.  
 Monday, Wednesday and Friday, from Boston, at 4 P. M.  
 New York, via Long Island Railroad.  
 Tuesday, Thursday and Saturday, from Boston, at 7 A. M.  
 New York, via New Haven.  
 From Boston at 9 A. M. and 2 P. M.  
 Sunday Mail from Boston at 2 P. M.—from Worcester at 7 A. M.

All baggage at the risk of its owner.  
 Fares are less when paid at the Ticket Offices than in the Cars.  
 WM. PARKER, Sup't.

**WESTERN RAILROAD.**  
**WINTER ARRANGEMENT.**  
 On and after the 11th December, 1844, the Passenger Trains will leave as follows, Sundays excepted:  
 Boston at 9 A. M. and 2 P. M. for Albany.  
 Albany at 8 A. M. and 1 P. M. for Boston.  
 Springfield at 7 A. M. and 2 P. M. for Albany and Boston.  
 Boston at 2 P. M. for New York via Springfield and New Haven.  
 For Albany and Buffalo.  
 Leave Boston at 9 A. M., reach Albany at 8 P. M.—Leave Boston at 2 P. M., arrive at Springfield at 7 P. M.—Lodge—leave next morning at 7 o'clock, arrive at Albany at 12 P. M. Passengers leave Albany for Buffalo at 8 A. M.

**NEW ROUTE FOR NEW YORK.**  
**VIA HARTFORD AND NEW HAVEN.**  
**FARE THROUGH FIVE DOLLARS.**  
 Leave Boston at 2 P. M., and reach Springfield at 7 P. M.—thence direct by Railroad to Hartford and New Haven, and thence by Steamboat to New York, arriving at 5 A. M. Returning—leave New York at 6 P. M. and arrive at Springfield at 3 P. M., and thence to Boston, arriving at 8 P. M. Berths on board the Steamboat may be secured in Boston at the Ticket Office.  
 For Northampton, Greenfield, Haverhill, &c.  
 Stages leave Springfield for the above places, upon the arrival of the evening trains. Stages also run from West Brookfield to Ware, Enfield, New-Branterce and Hardwick—from Palmer to Three Rivers, Belchertown, Amherst, Ware and Monson—from Wilbraham to South Hadley and Northampton, and from Pittsfield to Adams and Williamstown.  
 The Trains of the Hudson Railroad connect at Chatham—those of the Housatonic Railroad at State line.  
 Merchandise Trains run daily, Sundays excepted, to Albany, Hudson, Bridgeport, Hartford, New Haven and New York.  
 For further information, apply to CHARLES A. READ, Agent, 27 State street, Boston.  
 JAMES BARNES, Superintendent and Engineer.

**FITCHBURG RAILROAD.**  
**OPEN TO ACTON.**  
 Passenger Trains will run as follows:  
 Leave Charlestown at 8 A. M. and 1 and 4 P. M. Leave West Acton at 7:30 and 10:51 A. M., and 6 P. M.  
 Stages, on the arrival of the first Train of Cars at Acton, leave daily (Sundays excepted) for Littleton, Groton, Townsend, Lunenburg, Fitchburg, Ashburnham, Winchedon, Westminster, South Gardner, Templeton, Phillipston, Athol, Mass.; Fitzwilliam, Troy, Swansey, Keene, Walpole, Charlestown, N. H.; Chester, Windsor, Woodstock, Rutland, Middlebury, Royalton, Montpelier, and Burlington, Vt.  
 For further information, apply to THOMAS A. STAPLES, No. 36 Hanover st., or L. BIGELOW, No. 11 Elm st., Boston. Passengers leaving their names at the above offices, will be supplied with Railroad and Stage tickets, and conveyed to the Fitchburg Railroad Depot, free of charge.  
 Coaches will be at the Depot in Charlestown, on the arrival of the Cars, to convey passengers to any part of the city.  
 S. M. FELTON, Engineer.

**BOSTON AND PROVIDENCE RAILROAD.**  
**PASSENGER NOTICE.—Winter Arrangement.**—To commence Monday, November 4.  
 On and after Monday, Nov. 4, the Passenger Trains will run as follows:  
 For New York—Night Line, via Sound Steamers—Leave Boston at 4 P. M. on Tuesday, Thursday and Saturday.  
 For New York—Morning Line, via Long Island Railroad—Leave Boston at 8 A. M. on Monday, Wednesday and Friday.  
 Boston, Providence, Taunton, New Bedford and Way Trains.  
 Leave Boston at 8 A. M., and 3 P. M.; and Providence at 8 A. M. and 3 P. M.  
 " Taunton at 8 A. M. and 3 P. M.  
 " New Bedford, at 7 A. M. and 2 P. M.  
 Dedham Trains.  
 Leave Boston at 9 A. M.—3 P. M., 5 P. M.  
 Dedham at 7:50 A. M., 10 A. M., 4 P. M.  
 All baggage is at the risk of the owners thereof.  
 WM. RAYMOND LEE, Supt.

**LONG ISLAND RAILROAD COMPANY.**  
 Trains run as follows, commencing November 1st, 1844:  
 Leave Brooklyn at 8 a. m. (7 P. M. New York side)—Boston Train—for Greenport, daily, Sundays excepted, stopping at Farmingdale and St. George's Manor.  
 Leave Brooklyn at 9 a. m. for Hicksville and intermediate places, daily; and on Tuesdays, Thursdays and Saturdays, through to Greenport and intermediate places.  
 Leave Brooklyn at 4 p. m. for Hicksville and intermediate places, daily, Sundays excepted; and on Saturdays to Suffolk Station.  
 Leave Greenport for Brooklyn, Boston Train, at 1 p. m. or on the arrival of the steamers, daily, Sundays excepted, stopping at St. George's Manor and Farmingdale.  
 Leave Greenport at 9 a. m. Accommodation Train, for Brooklyn and intermediate places, on Mondays, Wednesdays and Fridays.  
 Leave Hicksville for Brooklyn and intermediate places, daily, Sundays excepted, at 7 a. m. and 1 P. M.

**ON SUNDAYS.**  
 Leave Brooklyn for Hicksville and intermediate places, at 9 a. m.  
 Leave Brooklyn at 4 P. M. for Jamaica.  
 Leave Hicksville at 2 P. M. for Brooklyn.  
 Leave Jamaica at 8 a. m. for Brooklyn.  
 Leave Jamaica at 3 P. M. for Brooklyn.

**FOR ALBANY AND BOSTON.**  
 Via New Haven, Hartford, Springfield, and Western Railroads.  
 Composed of the following steamers:  
 NEW CHAMPION, Capt. Istone; GLOBE, Capt. R. Peck; NEW YORK, Caps.  
 One of which will leave New York, from Peck Slip, daily, (Sundays excepted), at 6 P. M.  
 Fare to Boston, \$5.  
 Railroad Cars leave immediately on the arrival of the above steamers at New Haven, and taking passengers through to Albany and Boston the same afternoon.  
 The steamboat BELLE, Capt. Roath, will leave New York every Monday, Wednesday, and Saturday afternoon at 4 o'clock.  
 N. B.—Freight for Albany, Springfield, and intermediate places taken by this line at low rates.  
 For further information inquire of D. B. Allen, 34 Broadway, up stairs; or G. W. Corlies, 233 Pearl street.

**NEW YORK AND ERIE RAILROAD.**  
 On and after Monday, December 2d, until further notice, the steamboat will leave the foot of Duane street every morning, Sundays excepted, at 8 o'clock, for passengers, and every afternoon at 3 o'clock, for freight and passengers.  
 Returning, the cars will leave Middletown at 6 A. M. and 3 P. M.  
 Stages for the West, leave Middletown upon the arrival of the morning cars, from the city.  
 Freight received from 9 o'clock, a. m. to 2 P. M. For further particulars inquire of the Captain, on board, or of J. Van Rensselaer, Agent, cor. Duane and West streets.  
 H. C. SEYMOUR, Superintendent.

**PHILADELPHIA AND READING RAILROAD.**  
**WINTER ARRANGEMENTS** on and after December 1, 1844—No Passenger Trains will run on Sundays.  
**Hours of Starting.**  
 From Philadelphia at 9 A. M., daily.  
 From Pottsville at 9 A. M. daily, except Sundays.  
**FARE.**  
 1st Class Cars. 2d Class Cars.  
 Between Philad. and Pottsville, \$3 50 \$3 00  
 " " Reading, 2 25 1 90  
 All passengers are requested to procure their tickets before the train starts.

**NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.**  
 New Arrangement.  
 Commencing Nov. 11th, 1844.  
**NEW YORK AND NEWARK.**  
 Fare Reduced to Twenty-Five Cents.  
 From the foot of Courtland street—Daily, Sundays excepted.  
 Leave New York, at 3, 11, and 12 o'clock, a. m. and 2, 4, 4 1/2, 6, and 7 1/2 o'clock, p. m.  
 Leave Newark at 7, 8, 9, 10, and 11 o'clock, a. m. and 1 1/2, 3, 4, 5, 7, and 9 o'clock, p. m.

**ON SUNDAYS,** from the foot of Courtland street:  
 Leave New York at 9 o'clock, a. m. and 4 P. M.  
 Leave Newark, at 11 A. M. and 9 P. M.  
 The Cars of the Morris and Essex Railroad line for Orange, Millville, Summit, Chatham, Madison, and Morristown, run through from Jersey City without change, and connect with 9 a. m. and 3 p. m. trains from New York.  
 New York and Elizabethtown.  
 Leave New York at 9 and 11 a. m. and 2, 3, 4 1/2 and 6 p. m.  
 Leave Elizabethtown at 7, 7 1/2, 8 1/2, 10 1/2 and 12 a. m. and 3 1/2 and 5 p. m.

The trains for Westfield, Plainfield, Boundbrook, Somerville, &c., connect with the 9 a. m. and 4 1/2 p. m. trains from New York, daily, Sundays excepted.  
 Fare between New York and Elizabethtown, 3 1/2 cents; do. New York and Somerville, 75 cents.  
 New York and Rahway.  
 Leave New York at 9 and 11 a. m. and 3, 4 1/2 and 6 p. m.  
 Leave Rahway at 6 1/2, 7, 8 1/2 and 12 a. m. and 4 1/2 and 9 1/2 p. m.

**New York and New Brunswick.**  
 From the foot of Courtland street, New York, daily.  
 Leave New York at 9 a. m. and 3 and 4 1/2 p. m.  
 Leave New Brunswick at 6 1/2, 7 1/2 and 11 1/2 a. m. and 8 1/2 p. m.  
**ON SUNDAYS.**  
 Leave New York at 9 a. m. and 4 1/2 p. m.  
 Leave New Brunswick at 11 1/2 a. m. and 8 1/2 p. m.  
 Fare, except in the Philadelphia trains, between New York and New Brunswick, 50 cents; do. Rahway, 3 1/2 cents.  
 Newark, Elizabethtown, Rahway, and New Brunswick passengers who procure their tickets at the Ticket Office receive a ferry ticket gratis. Tickets are received by conductors only on the day when purchased.  
 The Commutation fare between New York and New Brunswick, and intermediate places, (including the Ferry,) has been reduced to 65 cents per annum.

**PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD.—MORNING LINE.**  
 The Train carrying the United States Mail leaves Pratt street Depot daily (except Sundays), at 9 o'clock, A. M. Passengers arrive in Philadelphia at about 3 1/2 o'clock, and in full time for the evening lines for New York.  
 Evening Mail Line to Philadelphia per Railroad.  
 The Evening Mail Train for Philadelphia, leaves the Pratt street Depot, daily at 8 o'clock P. M. through in seven hours.  
 The return Trains leave Philadelphia respectively at 8 A. M. and 4 o'clock P. M., and reach Baltimore at 2 1/2 and 11 o'clock, P. M.  
 Freight to or from Philadelphia, taken daily (except Sundays) from President street Depot, at 50 cents per 100 lbs.  
 A. CRAWFORD, Agent.

**BALTIMORE AND OHIO RAILROAD.**  
 Hours of departure of the Passenger Trains on the "Main Stem" and "Washington Branch" of the Baltimore and Ohio Railroad, 30 March, 1844:  
 "Main Stem," Westwardly.  
 For Cumberland, Hancock, Martinsburg, Harper's Ferry, Winchester, Frederick, Ellicott's Mills, and intermediate depots by the regular train, daily, at 7 1/2 o'clock, a. m.  
 For Frederick and intermediate stations, by extra train, daily, except Sunday, at 4 p. m.  
 Eastwardly.  
 From Cumberland, daily, regular train, at 8 a. m.  
 " Hancock, do. do. 10 1/2 a. m.  
 " Martinsburg, do. do. 11 1/2 a. m.  
 " Harper's Ferry, do. do. 12 1/2 p. m.  
 " Frederick, daily, except Sunday extra train, 8 a. m.  
 " do. by regular train, 2 p. m.  
 " Ellicott's Mills, daily, by several trains, at 7 1/2 a. m. 12 m. and 4 1/2 p. m.

Fare in either direction between Baltimore and Cumberland 87, and for intermediate distances at the uniform rate of 4 cents per mile.  
 Through tickets are issued between Baltimore and Wheeling, respectively, \$11; between Baltimore and Pittsburg, \$10; between Philadelphia and Wheeling, \$13.  
 "Washington Branch."  
 From Baltimore at 9 a. m. 5 p. m. and 1 1/2 p. m.  
 From Washington at 6 a. m. and 5 1/2 p. m.  
 By order, D. J. FOLEY, Agent.

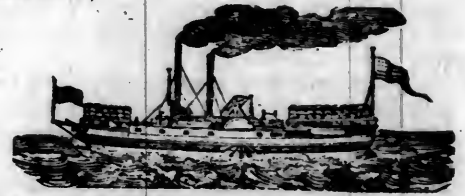
**WASHINGTON BRANCH RAILROAD.**  
 In consequence of the adoption of a new schedule by the Post Office Department, the following changes in the departure of the Trains on this road will go into effect this day, viz:  
 The Train that has hitherto left Baltimore at 2 o'clock, A. M. will now leave on the arrival of the Cars from the East, at or about 1 1/2 P. M. and the departure of the evening train from Washington for this city, will be at 5 1/2 instead of 4 o'clock, as at present. By order, D. J. FOLEY, Agent.

**RICHMOND AND PETERSBURG RAILROAD.**  
 Winter Arrangement.—Change of Hours.  
 On and after Wednesday, the 13th day of Nov. 1844:  
 Mail Train  
 Leaves Richmond, daily, at 11 o'clock, p. m.  
 Leaves Petersburg, daily, at 6 1/2 a. m.  
 Accommodation Train  
 Leaves Richmond, daily, Sundays excepted, at 10 1/2 a. m.  
 Leaves Petersburg, daily, Sundays excepted, at 8 a. m.  
 THEODORE S. GARNETT, Agent.  
 N. B. The hours are given in Richmond time, which is fifteen minutes in advance of Petersburg time.

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.

ESTABLISHED 1831.



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THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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STILLMAN, ALLEN & Co. N. Y.  
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Troy, N. Y. (See Adv.)  
TROY IRON AND NAIL FACTORY, H. Burden Agent. (See Adv.)  
ANDREW MENEELY, West Troy. (See Adv.)  
ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
NORRIS, BROTHERS, Philadelphia, Pa.  
KITE'S Patent Safety Beam. (See Adv.)  
FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)  
BALDWIN & WHITNEY, Philadelphia, Pa.  
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MERRICK & TOWNE, do.  
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)  
ROSS WINANS, Baltimore, Md.  
SOUTH BOSTON IRON COMPANY, South Boston.  
HINCKLEY & DRURY, South Boston.  
C. C. ALGER, [Stockbridge Iron Works,] Stockbridge, Mass.

## IRON MERCHANTS and IMPORTERS.

DAVIS, BROOKS, & Co. N. Y. [See Adv.]  
A. & G. RALSTON & Co. Philad. Pa. [See Adv.]  
THOMAS & EDMUND GEORGE, Philadelphia. [See Adv.]

## NICOLL'S PATENT SAFETY SWITCH FOR RAILROAD Turnouts.

This invention, for sometime in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,  
Reading, Pa.

Jan. 1, 1845.

## TO IRON MANUFACTURERS.

The subscribers as Agents of Mr. Geo. Crane of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geisenhainer, are prepared to grant licences for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & Co.  
No. 4 South Front street, Philadelphia, Pa.

S. VAIL, Proprietor of the Speedwell Iron Works, near Morristown, N. J. can supply at short notice railroad companies and others, with the following:

Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyres made, and they may rely upon being served according to order, and also punctually, as a large quantity in the strait bar is kept constantly on hand. Crank axles for locomotive engines, made from the best Pennsylvania iron.—Straight axles for locomotives for outside connection engines. Frames for engines.—Wrought iron work for steamboats, and shafting of any size. Cotton screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen:

Baldwin, Vail and Huff, Philadelphia; Wm. Norris, Philadelphia; N. Campfield, Savannah, Ga.; J. and S. Bonea, Augusta, Ga.; D. F. Guez, New Orleans, La.; Adam Hall, New York; J. P. Allaire, New York; William Parker, Boston, Mass.; George W. Schuyler, New York.

## VALUABLE PROPERTY ON THE MILL DAM FOR SALE.

A Lot of Land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and East of Parker street, containing 63,497 square feet, with the following buildings thereon standing:

Main Brick Building, 120 feet long, by 46 feet wide, two stories high. A Machine Shop, 47x43, with large Engine, Face, Screw, and other Lathes, suitable to do any kind of work.

Pattern Shop, 35x32 feet, with Lathes, Work Benches, &c. Work Shop, 86x35 feet, on the same floor with the pattern shop.

Forge Shop, 118 feet long by 44 feet wide on the ground floor, with two large Water Wheels, each 16 feet long, 9 feet diameter, with all the Gearing, Shafts, Drums, Pulleys, &c., large and small Trip Hammers, Furnaces, Forges, Rolling Mill, with large Balance Wheel and a large Blowing Apparatus for the Foundry.

Foundry, at end of Main Brick Building, 60x45 feet, two stories high, with a shed part 45x20 feet, containing a large Air Furnace, Cupola, Crane and Corn Oven.

Store House—a range of Buildings for Storage, etc., 200 feet long by 20 wide.

Locomotive Shop, adjoining Main Building, fronting on Parker street, 54x25 feet.

Also—A Lot of Land on the Canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler House 50 feet long by 30 feet wide, two stories.

Blacksmith Shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State street, or to CURTIS, LEAVENS & CO., 106 State street, Boston, or to A. & G. RALSTON & CO., Philadelphia. jal

## MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Paterson, N. J.

The Undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

### Railroad Work.

Locomotive Steam Engines and Tenders; Driving and other Locomotive Wheels, Axles, Springs and Flange Tyres; Car Wheels of cast iron, from a variety of patterns, and Chills; Car Wheels of cast iron with wrought Tyres; Axles of best American refined iron; Springs; Boxes and Bolts for Cars.

### Cotton, Wool and Flax Machinery

of all descriptions and of the most improved Patterns, style and workmanship.

Mill Gearing and Millwright work generally; Hydraulic and other Presses; Press Screws; Callenders; Lathes and Tools of all kinds; Iron and Brass Castings of all descriptions.

## ROGERS, KETCHUM & GROSVENOR,

Paterson, N. J. or 60 Wall street, N. Y.

MESSEURS, EDITORS:—As your paper is devoted to the benefit of the public in general, I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore Railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large eight wheeled passenger car was broken, but from the partial plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstance attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan, the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Delaware, Sept. 28, 1840.

The undersigned take pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,  
JAMES ELLIOTT, Sup't Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the N. Jersey Railroad and Transportation Office, No. 1 Hanover st., New York. jal

## TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY.

The subscribers have for sale American and English Bar Iron, of all sizes; English Blister, Cast, Shear and Spring Steel; Jonietta Rods; Car Axles, made of double refined iron; Sheet and Boiler Iron, cut to pattern; Tiers for Locomotive Engines, and other railroad carriage wheels, made from common and double refined B. O. Iron; the latter a very superior article.

The Tyres are made by Messrs. Baldwin & Whitney, Locomotive Engine Manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,

N. E. corner 12th and Market streets, Philadelphia, Pa. jal

**TO THOSE INTERESTED** in Railroads. Railroad Directors and Managers are respectfully invited to examine an improved Spark Arrester, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used, is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks, passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust, they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity, to the bottom of this chamber; the smoke and steam passing off at the top of the chimney through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits.

E. A. Stevens, pres't Camden and Amboy railroad company; Richard Peters, superintendent Georgia railroad, Augusta, Ga.; G. A. Nicolls, sup't Philadelphia, Reading and Pottsville railroad, Reading, Pa.; W. E. Morris, pres't Philadelphia, Germantown and Norristown railroad company, Philadelphia; E. B. Dudley, pres't W. and R. railroad co., Wilmington, N. C.; Col. James Gadsden, pres't S. C. and C. railroad comp'y, Charleston, S. C.; W. C. Walker, agent Vicksburg and Jackson railroad, Vicksburg, Miss.; R. S. Van Rensselaer, engineer and sup't Hartford and N. Haven railroad; W. R. McKee, sup't Lexington and Ohio railroad, Lexington, Ky.; T. L. Smith, sup't N. Jersey railroad trans. co.; J. Elliott sup't motive power Philadelphia and Wilmington railroad, Wilmington, Del.; J. O. Sterns, sup't Elizabethtown and Somerville railroad; R. R. Cuyler, pres't Central railroad co., Savannah, Ga.; J. D. Gray, sup't Macon railroad, Macon, Ga.; J. H. Cleveland, sup't Southern r. road Monroe, Mich.; M. F. Chittenden, sup't M. P. Central railroad, Detroit, Mich.; G. B. Fick, president Long Island railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin and Whitney, of this city, will be promptly executed.

FRENCH & BAIRD.

N. B. The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia Pa., April 6, 1844.

**TO IRON MASTERS—FOR SALE,**  
Mill Sites in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lycoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railroads. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY,  
Civil Engineer,  
No. 23 Chambers st., N. Y.

**SAMUEL NOTT**, Civil Engineer, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES. —

Col. James F. Baldwin and Col. J. M. Fessenden, Civil Engineers, Boston; Wm. Parker Esq. Engineer and Superintendent Boston and Worcester railroad.

**SPRING STEEL** for Locomotives, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOHN F. WINSLOW, Agent,  
Albany Iron and Nail Works, Troy, N. Y.

**ANDREW MENEELY'S** Manufacturing Establishment, West Troy, Albany County, New York. The subscriber manufactures and keeps constantly on hand Theodolites, Transit instruments, Levels, etc., of the most approved construction. He would invite the attention of surveyors to his Improved Compass, which is almost equal to a Theodolite, inasmuch as angles can be taken without the needle. Angles of elevation can be taken with precisely the same accuracy as horizontal angles. Town clocks, with dead beat escapements, warranted to perform in the best manner, and keep correct time. He still continues to cast Church Bells; warranted not only to stand, but tone such as to give satisfaction and please, and fastens to them cast iron yokes, ready to hang. Also steamboat and factory bells, of all sizes, constantly on hand: and copper and brass castings of every description made to order.

**PATENT Hammered Railroad, Ship and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of railroad, ship and boat spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works, will be promptly executed.

JNO. F. WINSLOW,

Agent Albany Iron and Nail Works.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; Jas. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

**PATENT RAILROAD, SHIP AND Boat Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of wrought Spikes and Nails from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent,) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with spikes made at the above named Factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. Y., will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory prices by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water street, New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\* \* \* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand for his spikes.

**W. R. CASEY, CIVIL ENGINEER,**  
No. 23 Chambers street, New York, will make Surveys, Estimates of Cost and Reports for Railways, Canals, Roads, Docks, Wharves, Dams and Bridges of every description, with Plans and Specifications, and when required, superintend their execution.

He will also make Surveys of Estates, with correct maps and descriptions of the same; and examine and report on the best mode of rendering them productive by draining, mines, quarries, water power, roads, bridges, wharves, etc.

**R. F. LIVINGSTON**, Civil Engineer  
Hudson, New York. Refer to W. R. Casey, 23 Chambers st., N. Y.

## ILLINOIS.

Not having received the Governor's Message, we give the following extract from the N. Y. Journal of Commerce. We believe there is not a single mile of either canal or railroad in operation, and there appears to be little chance of the Illinois canal being carried through for some time. Indeed, if it be true, that the canal cannot be expected to support itself, and pay 5 or 6 per cent. on the one and a half million required to complete it, for many years to come, we do not see on what grounds its completion can be recommended. We were not a little surprised to find, that gentlemen, well acquainted with the country, and indeed deeply interested in the progress of the canal, considered that an income of \$200,000 could not be hoped for within the first few years. The tone of the messages of these western Governors is very peculiar, and is not such as to offer any encouragement to bondholders. Their crude dissertations on morals are not a little singular.

"The companies chartered, at the last session, to complete the Central railroad and the Northern Cross railroad from Springfield to the eastern boundary of the State, have not as yet complied with any of the terms of the several laws by which they were created.

The act also to settle the account of Macalister and Stebbins has not been complied with by them; and it is now pretty certain that they never had, and never will have, the ability to comply with its terms. The bonds which they proposed to return, were not and have not been subject to their control. It will be recollected that these bonds were hypothecated to them, upon which the Fund Commissioner received the sum of two hundred and sixty-one thousand dollars, to pay the semi-annual interest on the State debt, due on the first of July, 1841. These bonds were immediately re-hypothecated by them, to raise the money advanced to the Fund Commissioner; and have ever since remained beyond their control. The money is due to the holders of the bonds in proportion to their advances. They have not, however, seen proper to present them for payment, according to the terms of the above recited act; and many of them have been thrown into the market and sold, from time to time, as other bonds.

The revenues of the State for the year 1844, are estimated, by the Auditor, at the sum of \$150,000, no part of which has yet been collected. There is also due, for arrearages of previous years, the sum of \$59,304. The probable cost of assessing and collecting what is now due to the State, is estimated at about \$18,000; and of the whole sum now due, amounting to \$209,304, the sum of \$100,000 may be collected and paid in by the first of May next. The revenue will be increased for the years 1845 and 1846, about \$5000 each year.

On the 31st October last, there were warrants on the Treasury outstanding to the amount of \$22,882; and on the same day there was an unexpended balance in the Treasury of \$11,733 66.

The sum now on hand, and that due, and expected to be collected, will be scarcely more than sufficient, by the strictest economy, to pay the current expenses of the State Government, the interest on the school fund, and the expenses of this General Assembly.

As to the extraordinary debt of the State, contracted for the canal and other internal improvements, no interest has been paid on it, which has accrued, since the first of July, 1841,

and no provision of law has been made for such payment. The magnitude of this debt, compared with the resources of the State, has been a continual terror to the people. They have lived in expectation of oppressive taxes. The same has been anticipated by all who would otherwise emigrate to the State. The popular vote at the last election shows that our population has been increased but little since 1840; and it is a fact too notorious to be concealed, that nothing but the utter impossibility of selling real estate, prevents the rapid decrease of our numbers. The adjacent territories are filling up with inhabitants at our expense. The high and palmy days have departed, when we doubled our population in a few years; when, if a citizen owned more land than he wanted for cultivation, or if he wanted to leave the country, or remove from one part of the State to another, he could sell his land for cash. What has produced this state of things? Has it been high taxes? No. It has been the fear of them only. Is it because money has been drawn from our pockets, as a tax upon our industry? No. Not one cent has yet been paid by taxation. On the contrary, our taxes, for State purposes, are three times less than they are in the great and flourishing State of Ohio. Nevertheless, Ohio is advancing to greatness with unparalleled rapidity; while we are paralysed with the torpid fear of evil only, when no such evil really exists.

Whatever is done ought to be in conformity with the great principles of natural justice. If a fund shall be established, it ought to be so constituted, as to increase with the future prosperity of the country, and although it might be small at first, a probability ought to appear that, within a reasonable time, it will increase to such an amount as will answer the purpose intended; it ought to be such a measure, as the people will be satisfied with and cheerfully submit to. It will be impossible to raise money enough by taxation to pay the entire interest; still something may be done.

In the year 1827, a portion of the land tax was first given to the counties. This land tax ought to be resumed to the State treasury.

I would recommend that the additional revenues thus derived, and such additional tax as the Legislature in their wisdom will provide for, be formed into a fund, the proceeds and increase of which shall be sacred, and dedicated to the extinction of a portion, however small at first, of the interest on the public debt.

Whatever we do in this way, ought to have the greatest permanency. We ought to make it known to the whole world, that whatever may be done in this way, is all that ever will or can be done. Thus, by showing our willingness to contribute according to our ability, by making that our permanent policy, not to be added to or subtracted from in future; and by thus setting a limit to the fears and imaginations of men, in relation to the huge phantom of expected taxes, we might reasonably calculate to restore ourselves in the estimation of mankind, turn the tide of emigration again into our country, accompanied by wealth and intelligence. Land, again, would become of some value. There would be a demand for it at once, and our condition would be improved in every respect."

We are indebted to our Troy friends for the following descriptions of the *Schenectady and Troy*, and *Troy and Greenbush Railroads*:

## SCHENECTADY AND TROY RAILROAD.

The road was completed in November, 1842. Length 20½ miles. Cost, \$633,520 00.

The route follows very nearly all the distance the valley of the Mohawk river. The sec-

nery not surpassed by any section of country in the State through which a railroad passes.

The greatest inclination of the grade is 50 feet per mile. The greatest degree of curvature 5° per 100 feet, or 145 feet radius. This curve is at the western terminus of the road, in the city of Schenectady.

The superstructure is laid upon a prepared road-bed of gravel or slate. The rail is of wrought iron, of the T pattern, and weighs 56 lbs. per yard. No pains were spared in constructing this road in order to make it second to none in the country. Its position is an important one. It forms a link in the great chain of railroad communication between Boston and Buffalo. It connects more immediately with the Utica and Schenectady railroad at its western terminus, and at its eastern with the Troy and Greenbush railroad, now completed.

The last mentioned road is a portion of the New York and Albany railroad; and it is hoped that the whole of that road may without delay be constructed.

## TROY AND GREENBUSH RAILROAD.

This road is about six miles in length, running northward along the east bank of the Hudson, and connecting the Boston and Albany road, at the depot at Greenbush, with the Troy and Schenectady road, which runs through the city of Troy to join it. By this road, as the Troy and Schenectady crosses the Hudson by a bridge, is formed a continuous line from Portland to Buffalo, a distance of 675 miles. It is graded for a single track, but the masonry is so constructed as to admit of the additions necessary for a double track, and there is no rock in the way of accomplishing the same end. The soil is clay about two miles, being on the declivity of the hills which form the river bank, and a mile or more of the embankment is protected from the action of the current by a wall; the track is raised just above the level of the highest freshets. The road is level, excepting about a mile and a half, on which the steepest grade is six feet to the mile. There are about four miles of straight line, the remainder being made up of curves of different degrees of curvature, the least radius being sixteen hundred feet. There are six arched culverts of six feet span each, and several smaller, one stone bridge of twenty-five feet span, two wooden bridges, with stone abutments, one of ninety feet span, the other of twenty, both built on Howe's principle. The masonry is of the best description as regards strength, and the whole is laid in Rosendale cement. The superstructure is the same as that of the Boston road, with an improvement in the chairs. The rail is of the T pattern, 56 lbs. to the yard. The chair alluded to is from an English pattern, similar to that used on the Paterson road, and is so constructed as to admit of an oak key on each side of the rail, thereby holding the rails firmly in place, and insuring a good surface; and, by another provision, remedying completely the derangement to which all other tracks are liable from contraction and expansion at different degrees of temperature.

The road was begun about three years since as a part of the New York and Albany road, but after a short time the work was suspended. It is now in progress of completion by an association, under an arrangement with the New York and Albany company. The cost, including cars and machinery, will not vary much from thirty thousand dollars per mile, and of this the superstructure will cost about seven thousand per mile.

The track will be completed about the middle of the present month.

## MARYLAND.

The unfortunate condition of the finances of this State, and the extent and importance of the works for which she has incurred her heavy debt, give great interest to the following views and facts:

The law passed at December session, 1842, for the sale of the State's interest in the several internal improvement companies, remains a dead letter upon the statute books. No offer has been made which the Treasurer felt justified in accepting. In the enactment of this law, such violence is done to a preceding solemn engagement of the State, that there was probably no reference at the time to previous legislation on the same subject. By the 64th section of the act of March session, 1841, chap. 23, a deliberate promise was made to keep at the Treasury an accurate account of the revenue paid by the city of Baltimore, Howard district, and the several counties, and to transfer to them respectively, an equivalent amount of the stock of the State in the Chesapeake and Ohio Canal Company, whenever that company is prepared to make a dividend of *six per cent.* to its stockholders. The prudence and propriety of such an engagement may well be doubted; but the sacred obligation of the State to fulfil it, ought not to be questioned. Even in the absence of such an insuperable obstacle to the sale of the public works, the time has not arrived when such a purpose could be consummated, without sacrifices too serious to be encountered.

The last report of the Baltimore and Susquehanna Railroad Company, which will be communicated, shews a gradual augmentation of their trade and transportation. During the last year there has been an increase in the number of passengers transported of 14,162; and in the quantity of produce and merchandise of 58,105,739 pounds. The amount of trade passing over the road during the year, has been greater than at any former period; and exceeds by forty-five per cent. that of the year immediately preceding. The steady increase of the trade on the road between Baltimore and Pittsburgh, may be learned from the fact that the whole amount of transportation in 1839, was 4,105 tons, and some pounds, and during the last year it increased to the amount of 18,615 tons and some pounds. The amount paid into the Treasury during the past year by this company was \$20,000. This gradual augmentation of the means of the company, and of the amount of its annual contributions to the Treasury, encourages the hope that the day is not far distant when its contracts with the State will be faithfully complied with, and admonishes against a serious sacrifice of the State's interest in its stock.

The relations to the State of the Susquehanna and Tide Water Canal Company are not those of a stockholder. Governed by a laudable desire to encourage the enterprise of our commercial emporium, the State loaned to that company its bonds, to the amount of one million of dollars. The annual interest thereon, being at the rate of *five per cent.*, and payable in London, amounts to \$55,000. This company during the past year, has paid into the Treasury only ten thousand dollars, and stands indebted in the sum of two hundred and two thousand dollars, for interest in arrear. There is reason to believe that the annual receipts at the Treasury, from this company, are far short of its means of payment. The last annual report of the company is not before me. By their report of the year 1843, it appears that their receipts for that year were \$65,585,38, and that their entire expenditures for salaries, damages, repairs, inci-

dental expenses, &c., were 25,933,11, leaving a nett profit to the amount of more than \$39,000, which the company were under the clearest obligation to pay over to the State of Maryland. As the works of this company are completed and in full operation, and the value of the State's interest therein may be readily ascertained, it is respectfully submitted to the better judgment of the legislature, whether measures ought not to be taken to compel full payment of the annual interest due, and a speedy liquidation of the whole amount of the interest in arrear. The financial condition of the State will not permit her to be generous. She has not the means to be just.

No material change has taken place within the year in the receipts from the Baltimore and Ohio, and Washington Branch railroads, when compared with former years. The dividends on the five hundred thousand dollars of stock held in the Baltimore and Ohio Railroad Company, fall short of the interest payable on the bonds issued for its purchase. But the dividends and capitation tax on the Washington Branch, added to the small dividends on the Main Stem of the road, exceed to a small amount the whole interest payable on the million of dollars in bonds issued by the State to pay for its stock in the two works.

The capitation tax on the Washington Branch, received at the Treasury for the year ending 1st December, 1844, amounts to \$41,040,20. The same tax for the three preceding years, averaged annually \$40,157,46. This average shews that the receipts are less than they ought to have been, when the peculiar causes operating to increase the travelling during the year, and the natural increase of our population, are taken into consideration. It is supposed that this failure to enlarge the income may be traced to the establishment of several lines of stages, which run daily between Baltimore and Washington city, and convey passengers for a sum less than that which the railroad company is by its charter authorized to charge.

It will be remembered that the attention of the Legislature, at its last session, was invited to the alleged decrease of the State's income from the capitation tax, in consequence of the high charges on the road, in comparison with the terms on which the Norfolk line of steamboats were carrying passengers on the Chesapeake Bay. The General Assembly did not then think proper to interpose by any modifications of the charter of the railroad company. The whole subject is again respectfully submitted to your consideration. During the recess, my attention has been directed to the eighth section of the act of December session, 1832, chap. 175, which gives to the Governor, during the recess of the Legislature, the right to authorize the Board of Directors, having charge of the Washington Branch railroad, to reduce the fare for transporting passengers below the two dollars and fifty cents fixed by the charter of the company. Believing that, under the circumstances, it would have been improper to exercise this discretionary power, the authority was not given to the Board. The charges for transporting passengers should be permanent, and regulated by law, and not regulated by the arbitrary discretion of any individual citizen, holding, for the time being, the office of chief magistrate. If the transportation of travellers from Baltimore to Washington city, is to be confined exclusively to the railroad, for the benefit of the State, and the stockholders of the company, it cannot with propriety be done by such temporary changes in charges, as will compel stage and steamboat companies to withdraw from competition, with a return to high charges after all competitors are

expelled. The travelling public are seriously interested in this question, and have a right to expect from the State the establishment permanently of such a rate as is reasonable, and will supersede just cause for a resort to other means of conveyance than those provided by the State, through the medium of the corporations fostered by its patronage, and owing their existence to its laws.

Since June last, no report has been received from the Chesapeake and Ohio Canal Company, furnishing information as to its present condition or future prospects. It is believed, however, that within that period no such material change has taken place in its affairs, as if communicated, would assist the Legislature in deciding finally—and it is most earnestly, but respectfully, urged upon the Senate and House to do so—what disposition shall be made of the very large interest of the State in that corporation. Further postponement and delay on this subject cannot possibly be productive of good to any of the interests to be affected. For more than sixteen years the State has been concerned, with other parties, in the undertaking to make a canal from tide water on the Potomac, to the coal fields and iron ore banks of Alleghany. For five years past the work has made very little progress. During this last period, the interest due to the State, and of which it has received no part, amounts in the aggregate to more than two millions of dollars. The corporation stands honestly indebted to the amount of more than one million of dollars to individuals, many of whom are in a state of extreme want and privation, caused by the unjust withholding of their hard earned wages. I submit whether considerations of public justice and private morality, do not require, at the hands of the representatives of the people, an early and just disposition of these claims.

If it shall appear that neither the credit of the State, nor of the corporation, can be made available, so as to progress at once to the completion of the canal, without ruinous sacrifices to the creditors of the company, would it not be advisable, now, to adopt decided measures to determine clearly the vested interests of Maryland in that company? When that has been done, by a foreclosure of the State's mortgages, the facilities for pledging our interest in the corporation will be so far increased as probably to diminish to a great extent, if not entirely to supersede, the pecuniary sacrifices which have been heretofore considered necessary to ensure the completion of the canal to Cumberland.

It is stated in many of the papers, we know not on what authority, that the Housatonic road is to be re-laid with heavy iron. The papers add that it is much needed, an assertion for which no authority is required. But we fear this is not the worst. The location of very many railroads in the United States is indifferent or bad, and the location of the Housatonic is generally considered to be peculiarly objectionable. The whole work was taken in one contract, the road to be located by the contractor within certain limits of gradients and curves, as we have always understood. Hence the curves and inclinations intended to be the exceptions, become the rule, and to make a first rate railroad without changing the line will be somewhat of a puzzle.



STEAM ON CANALS.

A letter on this subject, signed "Fitch," has been addressed to the Schuylkill canal company, strongly urging the trial of propellers on a proper scale.

"I have no intention to discuss in any form the important question now at issue between you and a rival work. I presume that you are the proper judges of your own position, and if you are not, it is no affair of mine. I am interested in the extension of the use of the steam engine, and I think that in this at least we have a common interest. The invention of the Ericsson propeller has opened a new and wide field for the application of steam.— This instrument has been successfully introduced on various canals, but in few instances of canals as well adapted to its use as the Schuylkill navigation. A large portion of your trade is carried directly from the coal region by the way of the Delaware river, the Delaware and Raritan canal, and the Raritan river, to New York; but it encounters on this route various impediments."

The writer then describes the difficulties and delays of the present system, and his mode of obviating them. He proposes the use of five horse engines, weighing two tons, and boats carrying 68 tons of freight; making in all, with two tons of fuel, 72 tons, and then gives this estimate:

"To determine these expenses, we are to observe that, on the line from Pottsville to New York, there is but 51 miles of Schuylkill canal, about 130 miles of open river, and 42 miles of canal in New Jersey, in all respects equal, for the present object, to an open river. These boats will run on the Schuylkill canal, about two and a half miles per hour, and on the residue of the line about two miles an hour against tide, and six miles an hour with the tide—or at an average speed of four miles in the river. The trip to New York and back, loading and unloading, will consume seven days. The expenses for a boat running day and night, will be:

Captain's wages, 7 days at \$1.00	\$7 00
Engineer's wages, 7 " 1.00	7 00
Assistant's wages, 7 " 50	3 50
Two boys' wages, 7 " 30	4 20
Board of 5 hands, 7 " 1.50	7 00
Two tons nut coal, 1.50	3 00
Depreciation of boat, which will cost \$5.50, and last six years—assuming 35 weeks for the working year,	2 62
Depreciation of engine, etc., which will cost \$4.50, and last ten years—per trip,	1 26
Interest on cost of boat and engine at 6 per cent. per annum—per trip,	1 72
Repairs and contingencies \$80 per annum, and per trip,	2 30
Cost of a trip of seven days, which will be the cost of conveying an average load of 65 tons from Pottsville to New York, and returning with the empty boat. This is just 61 cents per ton.	\$39 60
The charge this season from Pottsville to New York is	\$2 30

Deduct toll on Schuylkill nav., 36 c., }  
 " " Delaware and Raritan, 30 c., } 66  
 And there remains a charge for freight and towing, of - - - - - 1 64  
 By the application of steam you can reduce this to - - - - - 61

or you may charge 75 cents in place of the present charge of \$1 64, and obtain an interest of 30 to 40 per cent. on the capital invested in the boats. This calculation, it will be recollected, is based on the supposition that you will have no freights. But your boats will be more convenient for carrying back freights, and will be able to do it cheaper than any other craft now applying between the same points. They can run up the Hudson to Albany and Troy, and touch at any of the other river towns. They can descend the Delaware to Wilmington and Salem, and with slight modifications, brave the Chesapeake, and monopolize for a time, both the coal and the return freights of Baltimore."—*Philadelphia Inquirer.*

Omitting tolls, it will be seen that the present charge from Pottsville to New York, a distance of 223 miles, is \$1.64 per ton, which is to be 61 cts. by "the application of steam." This is much below anything known in this quarter, either on canals or rivers." We hear that the Delaware and Hudson coal company pay 50 cents per ton for a distance of 100 miles on the Hudson river. The subject of propellers is one, however, of such vast interest, that we cheerfully aid in giving publicity to anything which appears at all likely to lead to any improvement in methods of propelling by means of submerged wheels.

Numerous influential meetings have been held in Portland on the subject of the Montreal railroad. The great difficulty will be in Canada, where the board of works, with the whole power of the government, will use all efforts to defeat it. The balance of their seven million loan is only about two millions, and will not finish the canals commenced. Still this is the last opportunity, for in another year all the money will be spent, and in place of railroads to increase the value of their property they will—like Ohio—enjoy the sweets of taxation. But the attempt should be made promptly and with vigor.

**Large Scale.**—The new scale, now in the course of construction in Philadelphia, by Messrs. Ellicott & Gibson, for the Mine Hill and Schuylkill Haven railroad, is said to be one of the largest ever made in this country. It is 116 feet in length, and will be capable of weighing 100 tons. Its machinery is of an improved construction, and rests on 17 heavy granite pillars. It will be put up near the site of the present scale. The increased trade of this road requires increased facilities for weighing the coal passing over it, and we are pleased to learn that the receipts of the company are such as to warrant the increased expenditure.

**STEAMERS.**—There were built at Pittsburg during the year ending on the 1st of the present

month, fifty steamboats, of the aggregate tonnage of 12,067 tons. Three more are in course of construction, and one steamship of 1000 tons is nearly ready for launching.

We give the following extracts from late numbers of the *Mining Journal*.

**RAILWAYS IN INDIA.**—We have been favored with a copy of correspondence between Mr. R. M. Stephenson and the deputy governor of Bengal, respecting the establishment of railways in that country, from which we are glad to find that every facility will be afforded by the government to promote the great object. Mr. Stephenson (who has been actively engaged collecting information and materials,) we believe is now in England, making the necessary arrangements preparatory to the commencement of operations on his return to India. The first great line to be constructed will be, we are informed, between Calcutta and Mugapore, Benares and Allahabad. We heartily wish the important undertaking the most complete success.

**NAPIER'S STEAM PRIMING PREVENTOR.**—This contrivance lies in covering the surface of the water in the boiler with one or more tiers of balls, the patentee preferring in practice those made of hollow metal. By this means he expects to check violent ebullition, so as to prevent the water from being carried up in any considerable quantity by the steam, and also that the surfaces of the upper tier of balls shall intercept the minuter particles of water, and allow the steam to be evolved in a comparatively dry state.

**IRISH STEAM ENGINES.**—In the *Mining Journal* of the 5th ult., we noticed the successful trial of the engines of the Shannon steamer, which had been manufactured by Messrs. Perry and Co., of the Ringsend iron works; we are extremely glad to find, from a communication since received, that the result of her first passage to Belfast has been most satisfactory, thus proving the superiority of the engines by making her a fast boat, and also establishing the fact, that they are able to make engines in Dublin equal to any ever yet made in England or Scotland. Her cylinders are 57 in.; length of stroke, 5 feet; diameter of paddle wheels, 20 feet, 6 in.; and her boilers and furnaces so constructed as to enable the firemen to get up steam in forty minutes! Our informant also adds, that much credit is due to the British and Irish Steam Packet Co.—the owners of the Shannon—for encouraging a preference to native manufacture.

INCREASE IN THE VALUE OF RAILWAY CAPITAL.—The following table shows the amount of capital authorized to be raised by shares in twelve of the principal railways; the amount of increase which has taken place in the value of this capital in October, 1843, as compared with 1842; and the premium or discount per cent. at which it was quoted in the share lists for these years:

NAME OF RAILWAY.	Sum to be raised by shares.		1842.		1843.		1844.	
	£	1842.	£	1842.	£	1843.	£	1844.
Birmingham and Gloucester	1,187,000	59	1,143,000	47	1,143,000	5	1,143,000	5
Birmingham and Derby	1,161,000	59	1,050,000	50	1,050,000	20	918,000	20
Bristol and Exeter	1,500,000	36	925,000	11	925,000	8	510,000	8
Edinburgh and Glasgow	1,125,000	6	135,000	26	135,000	26	360,000	26
Grand Junction	2,479,000	72	803,000	108	803,000	6	893,000	6
Gt. North of England	969,000	45	148,000	26	148,000	25	427,000	25
Great Western	4,656,000	19	279,000	69	279,000	69	232,000	69
Liverpool and Manchester	1,200,000	75	448,000	100	448,000	100	303,000	100
London and Birmingham	6,875,000	91	1,827,000	112	1,827,000	112	1,444,000	112
London and Brighton	1,704,000	95	36,000	26	36,000	26	395,000	26
South Western	2,252,000	51	267,000	72	267,000	72	666,000	72
South Eastern	2,936,000	72	540,000	15	540,000	15	1,888,000	15
Total	28,167,000		5,112,000		5,112,000		10,989,000	

Thus, in 1843 the value of these twelve lines was upwards of £5,000,000 more than in 1842, and nearly 11,000,000 in 1844.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at date of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	NEW AND PROPOSED RAILWAYS.		Share Capital.
							Per share.	Per cent.		Value of share.	Share Capital.	
Arboath and Forfar.....	15	102,000	35,000	138,870	.....	.....	0 12 6 2	10 0	25	27	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203 1	5 0 2	10 0	100	100	Barnsley Junction.....	200,000
Branding Junction.....	23	161,700	365,470	481,452	.....	.....	.....	.....	50	54	Belfast and Ballymena.....	385,000
Bristol and Gloucester.....	37 1-2	400,000	211,000	.....	.....	.....	.....	.....	30	36	Blackburn, & Accrington.....	400,000
Chester and Birkenhead.....	14 1-2	750,000	143,170	518,989	5,856	13,148 0	8 6 1	14 0	50	57	Birk. and Chesb. Junction.....	1,000,000
Dublin and Drogheda.....	31	450,000	150,000	500,869	.....	.....	.....	.....	100	166	Bolt. Wigan and Liverpool.....	800,000
Dublin and Kingston.....	6	200,000	152,200	359,000	.....	.....	6 0 0 6	0 0	100	29	Caledonian.....	1,800,000
Dundee and Arbroath.....	16 3-4	100,000	49,445	153,416	2,989	6,993 1	5 0 5	0 0	25	29	Cambridge and Lincoln.....	1,250,000
Durham and Sunderland.....	18 3-4	169,350	124,055	270,392	9,889	17,702	.....	.....	100	34	Chatham and Portsmouth.....	5,000,000
East County and North and East.....	86 1-4	443,200	1,341,155	3,931,905	47,385	118,726 1	6 6	.....	45	57	Chester and Wrexham.....	120,000
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866 1	2 6 4	10 0	50	60	Churnet valley.....	1,800,000
Glasgow, Paisley and Ayr.....	51	937,500	1,066,951	12,446	36,736 1	2 6 4	10 0	50	60	Direct Northern to York.....	4,000,000	
Glasgow Paisley and Greenock.....	22 1-2	650,000	216,666	787,884	11,572	23,177 0	5 0	2 0 0	25	34	Dublin and Belfast.....	950,000
Grand Junction.....	104	2,478,712	.....	2,453,169	84,309	195,080 5	0 10 0	0 0	100	210	Dundee and Perth.....	250,000
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189 1	12 6 3	5 0	75	119	Edinburg and Northern.....	800,000
Great Western.....	221 3-4	4,650,000	3,679,343	7,272,539	132,235	369,904 3	10 0	7 0 0	100	138	Ely and Bedford.....	270,000
Hartlepool.....	15 1-2	438,000	155,540	719,205	.....	.....	.....	.....	50	57	Glasgow, Dum. & Carlisle.....	1,300,000
Leicester and Swannington.....	16 1-4	140,000	.....	140,000	2,207	6,317 1	5 0	5 0 0	50	57	Gt. South. and West. Ext.....	1,200,000
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559 5	0 10 0	0 0	100	303	Gt. Grimsby and Sheffield.....	600,000
Llanelly.....	27	200,000	44,000	221,624	.....	.....	1 0 0	2 0 0	87	10	Harwich & E. coun. June.....	160,000
London and Birmingham.....	112 1-2	6,874,976	1,928,845	6,393,468	92,823	405,768	.....	10 0 0	100	218	Huddersfield & M. r. & c. l.....	630,000
London and Blackwall.....	3 3-4	804,000	266,000	1,315,640	15,978	23,870	.....	.....	16	6	Kendal and Windermere.....	125,000
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880 0	12 0	2 8 0	50	47	Leeds and Dewsbury.....	400,000
London and Croydon.....	8 1-2	550,000	229,000	761,885	7,583	10,545 0	5 0	2 10 0	14	17	Leeds and Thirsk.....	800,000
London and Greenwich.....	3 3-4	759,383	233,300	1,040,930	15,193	28,933	.....	.....	13	10	Liv. Ormskirk & Preston.....	600,000
London and South Western.....	92 3-4	2,222,100	630,100	2,596,291	68,457	150,469 1	12 6	6 10 0	41	73	London and Portsmouth.....	1,750,000
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162 1	0 6	5 0 0	40	45	London and York.....	5,000,000
Manchester and Bolton.....	10	778,100	197,730	773,743	8,565	21,140 2	2 0	4 10 0	93	110	Lodonderry & Enniskillen.....	500,000
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761	.....	7 1/2 & 10 1/2	100	88	Lyn and Ely.....	200,000
Midland railway.....	178 1-4	5,159,900	1,719,630	6,279,056	76,983	281,898	.....	.....	100	96	Manchester, Bury & Ross.....	300,000
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947 4	0 0	4 0 0	100	105	Manchester and Buxton.....	250,000
Newcastle and Darlington.....	23	500,000	.....	405,728	.....	.....	.....	.....	21	49	Mullingar and Athlone.....	.....
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466	.....	2 0 0	50	37	Newcastle and Berwick.....	700,000
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794 2	10 0	6 16 8	100	104	Richmond & W. End Jun.....	.....
Paris and Orleans.....	82	1,600,000	400,000	1,978,415	.....	.....	0 16 0	8 0 0	20	39	Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000	.....	.....	31,247	91,171	.....	8 0 0	20	35	Sheffield and Lincolnshire.....	650,000
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066	.....	.....	50	18	Shrewsbury and Gd. June.....	400,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876	.....	.....	82	93	Shrew. Wolv. Dudley & B.....	900,000
South Eastern.....	88	2,996,000	1,530,277	3,461,172	40,993	81,482 0	10 6	2 2 0	50	39	Trent Valley.....	900,000
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414 1	0 0	6 5 0	100	55	West London Extension.....	64,000
Ulster.....	25	519,150	20,000	348,626	5,401	13,856 0	15 0	5 1 8	29	37	West Yorkshire.....	1,000,000
Yarmouth and Norwich.....	20 1-2	187,500	62,500	230,250	.....	.....	.....	.....	16	25	Whitehaven & Maryport.....	100,000
York and N. Mid., and Leeds and Selby.....	28	1,062,500	167,500	676,644	27,132	55,752 2	10 0 10 0	0 0	50	100	FRENCH RAILWAYS.	.....

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo-Mexican Mint.....	10,000	10	10	.....	15 7-8	15 7-8	Loughborough.....	70	142 3-4	142 3-4	70	1140	1140
Anti-dry Rot.....	10,000	10	18 1-2	.....	2	.....	Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust company.....	5,700	100	35	.....	34 1-2	.....	Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation.....	20,000	15	14	10	27 1-2	27	Mersey and Irwell.....	500	100	100	10	.....	.....
Gt. Western Steam Pa.....	.....	.....	100	.....	25	.....	Macclesfield.....	3,000	100	100	2 1-2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6 5-8	.....	Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1 3-4	.....	Oxford.....	1,786	100	100	30	505	505
Peninsular and Oriental.....	11,493	50	50	7	61 3-4	65	Regents or London.....	21,418	33 3-4	33 3-4	2 5-8	25	25
Ditto.....	3,200	50	40	7	.....	.....	Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....	.....	.....	6	.....	.....	.....	Somerset coal.....	800	150	150	7 1-2	123	123
Reversionary Int. Soc.....	5,387	100	100	4 1-2	104	104	Stafford and Worcester.....	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60	.....	36 1-2	37	Shrewsbury.....	509	125	125	12	230	230
South Western Steam.....	4,000	25	5	.....	.....	.....	Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7 1-2	10	15	.....	Stroudwater.....	200	150	150	19	.....	.....
Thames Tunnel.....	4,000	50	50	.....	.....	.....	Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100	.....	.....	.....	Severn & Wye & Rail. Av.....	3,762	26 1-2	26 1-2	5 1-2	30	30

Canals.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Ashby de la Zouch.....	1,432	113	av.	4	70	70	Warwick and Birmingham.....	7,000	100	100	10 1-2	167	167
Barnsley.....	720	100	100	14	180	180	Warwick and Napton.....	980	100	100	8 1-2	122	122
Birmingham, 1-16 share.....	3,000	118 3-4	79	10	150	160	Water Works.	.....	.....	.....	.....	.....	
Do. and Liverpool Junct.....	4,000	160	100	.....	13 1-2	13 1-2	Birmingham.....	4,800	25	25	3 5-8	28	28
Coventry.....	500	100	100	20	365	365	East London.....	4,433	100	100	8	223	223
Cromford.....	460	do.	do.	24	250	250	Grand Junction.....	5,500	av.	41 2-3	7 1-4	88	90
Derby.....	600	do.	do.	9	105	105	New River L. B. Ann.....	1,500	.....	.....	2 1-2	.....	.....
Erewash.....	231	do.	do.	32	440	440	Manchester and Salford.....	6,486	av.	30	8 3-8	57	57
Forth and Clyde.....	1,297	400 1-2	40 1-2	4	440	440	Vauxhall, lt. S. London.....	1,000	100	5	5 5-5	55	55
Grand Junct.....	11,600	100	100	7	162	161 1-2	West Middlesex.....	8,294	av.	63 5-8	6 5-8	126	127
Grand Surrey.....	1,500	do.	do.	.....	20	.....	Docks.	.....	.....	.....	.....	.....	
Gloucester and Berkeley.....	5,000	do.	do.	.....	8	8	Commercial Dock.....	1,065	100	100	3	0	0
Grantham.....	749	150	150	8	185	185	East and West India.....	.....	sto.	.....	5 1-4	137	137
Lancaster.....	11,699	47 1-4	47 1-4	3	40	40	London.....	3,239,310	sto.	.....	4 1-2	114 3-4	115
Leeds and Liverpool.....	2,897	100	100	34	640	640	St. Katharine.....	1,352,752	sto.	.....	5	116	117
Leicester.....	545	140	140	9	139	139	Southampton.....	7,000	50	50	.....	.....	.....



RAILROADS.		Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
				Gross.	Nett.		Gross.	Nett.			
Me.	1 Incl'd. in "Bost. & Me." & "Eastern"										We have no returns from the Maine or New Hampshire roads. The annual reports of the Massachusetts roads will soon be out. The increase for '44 is very great; the receipts of the Western road being about \$850,000.
N. H.	2 Concord							13			
Mass.	3 Boston and Maine	109	1,384,050	178,745	68,499	6					
"	4 Boston and Lowell	28	1,863,746	277,315	144,000	8					
"	5 Boston and Providence	41	1,900,000	233,388	110,823	6			109		
"	6 Boston and Worcester	48	2,885,200	404,141	162,000	6					
"	7 Berkshire	21	250,000		17,500	7					
"	8 Charlestown branch		250,000			13					
"	9 Eastern	105	2,388,631	279,563	140,595	6					
"	10 Fitchburg		322,538								
"	11 Hartford and Springfield	25 1-2									
"	12 Nashua and Lowell	14 1-2	380,000	84,079		8					
"	13 New Bedford and Taunton	20	428,543	50,671	24,000	6					
"	14 Norwich and Worcester	59	2,166,566	162,336	24,871			3	67		
"	15 Taunton branch	11	250,000		20,000	8					
"	16 West Stockbridge	3									
"	17 Western, (117 miles in Mass.)	150	8,319,520	573,882	284,432					92	
"	18 Worcester branch		5,500								
Con.	19 Hartford and New Haven	38								92	
"	20 Housatonic	74	1,244,123				150,000				
"	21 Stonington, (year ending 1st Sept.)	48	2,600,000	113,889			154,724	79,845		40	
N. Y.	22 Attica and Buffalo	31 1-2	268,275	45,896	7,522						
"	23 Auburn and Rochester	78	1,727,361	189,693	112,000					110	
"	24 Auburn and Syracuse	26	743,931	86,291	27,334						
"	25 Buffalo and Niagara										
"	26 Erie, (446 miles, )		5,000,000							28	
"	27 Erie, opened	53			48,000						
"	28 Harlem	26	2,200,000								
"	29 Hudson and Berkshire										
"	30 Long Island	95	1,500,000							77	
"	31 Mohawk	16 3-4	1,030,949	69,948	58,780						
"	32 Tonawanda	43	600,000	76,227							
"	33 Troy and Greenbush	6	180,000								
"	34 Troy and Saratoga	25	475,865	44,325	21,000						
"	35 Troy and Schenectady	20 1-2	633,520	28,043	32,621						
"	36 Schenectady and Saratoga	22	300,000	42,242	3,000	1					
"	37 Utica and Schenectady	78	2,124,013	277,164	180,000	9				131	
"	38 Utica and Syracuse	53	1,080,219	163,701	72,000					119	
N. J.	39 Camden and Amboy	92	3,200,000	682,832	383,880						
"	40 Elizabethtown and Somerville	26	500,000								
"	41 Morris and Essex										
"	42 New Jersey	32	2,600,000								
"	43 Paterson	16	300,000							80	
Pa.	44 Beaver Meadow	26	1,000,000								
"	45 Cumberland valley	46	1,250,000								
"	46 Franklin	10 1-2									
"	47 Harrisburg and Lancaster	36	860,000								
"	48 Hazleton branch	10	120,000								
"	49 Little Schuylkill	29	900,000								
"	50 Lykens valley	16 1-2									
"	51 Mauch Chunk	9	100,000								
"	52 Minehill and Schuylkill Haven	18	315,000			12					
"	53 Norristown	20	800,000								
"	54 Philadelphia and Trenton	30	400,000								
"	55 Pottsville and Danville	29 1-2	1,500,000								
"	56 Reading	94	9,000,000							22	
"	57 Schuylkill valley	10	1,000,000								
"	58 Williamsport and Elmira	25	400,000	20,000							
"	59 Philadelphia and Baltimore	93	1,400,000								
Del.	60 Frenchtown	16	600,000								
Md.	61 Baltimore and Ohio, (1st Oct.)	188	7,623,600	575,235	279,402		658,620	346,946		50	
"	62 Baltimore and Susquehanna	58	3,000,000							5	
"	63 Baltimore and Washington	38	1,800,000	177,227	71,691		212,129	104,529		84	
Va.	64 Greensville and Roanoke	17 1-2	260,000								
"	65 Petersburg and Roanoke	60	766,000								
"	66 Portsmouth and Roanoke	78 1-2	850,000								
"	67 Richmond and Fredericksburg	61 1-2	1,200,000								
"	68 Richmond and Petersburg	22 1-2	700,000								
"	69 Winchester and Potomac	32	500,000								
N. C.	70 Raleigh and Gaston	84 1-2	1,360,000								
"	71 Wilmington and Raleigh	161	1,800,000								
S. C.	72 Charleston and Hamburg	136	2,400,000							8	
"	73 Louisville and Cincinnati	66	800,000								
Ga.	74 Central	190	2,581,723	227,532	93,190						
"	75 Georgia	147 1-2	2,650,000	248,026	158,207		248,096	147,523			
Ala.	76 Tusculumbia	46									
Can.	77 Champlain and St. Lawrence	15	212,000		12,000		58,000	24,000		110	
Ky.	78 Lexington and Ohio	40	500,000								
Ohio	79 Little Miami	40	450,000								
"	80 Mad river	40	400,000								
"	81 Monroeville and Sandusky										
Mich.	82 Detroit and Pontiac	25									
"	83 Erie and Kalamazoo	33									
Ind.	84 Madison and Indianapolis	56	152,000								

Ithaca and Oswego and Catskill and Canajoharie roads were sold by the state. The former does little, the latter nothing.

Part of the New York and Albany.

The costs of those roads marked \* were taken from de Gerstner's report, published in the Journal in 1840.

Purchased from the state.

SALES OF RAILROAD & CANAL SHARES IN BOSTON, NEW YORK, PHILADELPHIA & BALTIMORE.

NAME OF COMPANY.	Monday.		Tuesday.		Wednesd.		Thursday.		Friday.		Saturday.	
	Sh'rs.	Price.	Sh'rs.	Price.	Sh'rs.	Price.	Sh'rs.	Price.	Sh'rs.	Price.	Sh'rs.	Price.
<b>Boston.</b>												
Old Colony					35	100 1-2						
Norwich and Worcester.							50	66 1-4			25	66 1-4
Western					23	91 5-8			12	92	20	92 1-2
Long Island							240	78 1-2	150	75 1-2	50	74 1-2
Eastern	6	116			5	112						
Portland and Saco			4	99 3-4	10	99 7-8						
Boston and Worcester.	31	118 1-2							50	120 1-2		
Lowell					1	121					22	119 1-4
Reading							25	21 5-8				
Boston and Maine.	1	107	5	107 1-2			37	107 1-2	21	107 3-4		
Fitchburg					26	109 1-4						
Concord					50	129						
Taunton branch.					5	118						
Nashua and Lowell.					75	120						
Auburn and Rochester.					100	107 1-2						
Boston and Providence.							4	108				
<b>New-York.</b>												
Erie	175	28	120	28			50	28 1-4	493	28 1-4	50	28 1-4
Harlem							100	64 3-4			50	65
Long Island			700	75 1-4			350	75 3-4	975	75 1-2	925	74 1-4
Stonington	610	39 1-2	500	39 1-8			75	39 1-2	100	38 1-4	150	38 1-2
Paterson							30	80 1-4	280	81		
Hudson and Delaware.												
Camden and Amboy												
New Jersey	20	90							34	93 1-2		
Mohawk			50	59			95	59 3-4	80	60 1-4	75	59 3-4
Reading	100	43 3-4	50	43 1-2			450	43 3-4				
Morris canal.	150	30 1-2	450	29			325	29 1-4	375	28 1-2	505	28 1-2
Reading bonds, 6's.												
Norwich and Worcester.	425	66	350	66 1-2			525	67 1-2	325	67	177	67
<b>Philadelphia.</b>												
Reading									25	21 7-8		
Reading bonds, 6's.												
Wilmington	50	21 7-8	700	21 5-8			225	21 5-8	202	21 5-8	900	21 1-2
Wilmington bonds, 6's.									1,000	80		
Lehigh mortgage			1,450	66 1-2					347	66 1-2		
Lehigh 6's.			1,000	36					600	36	3,160	35 1-2
Chesapeake and Del. 6's.			1,000	66 1-4								
Schuylkill Nav.							24	28 1-2			22	30
Lehigh Nav.									10	10 1-2		
<b>Baltimore.</b>												
Baltimore and Ohio.			10	49 1-2	10	49						
Baltimore and Ohio bonds	160	102										
Baltimore & Washington												
Baltimore & Susquehanna												
Philadelphia & Baltimore												

Notes to sales of Stocks.

The prices given are the average of each day. When there is any sudden rise or fall in one day it will be alluded to in a note. When the sale of bonds is noticed, the figures in the column headed "Shares" give the amount sold in dollars. The prices at which shares are sold do not always give the true value of the stock. No considerable quantity of the stock of the dividend paying works of Massachusetts or New York could be purchased without raising the price so high as to take away all inducement to invest. The stocks which do not pay dividends would be reduced 10 or 20 per cent., or even more, were any large amount offered at once; and in some cases they would be altogether unsaleable.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.

Thursday, January 9, 1845.

In our last we gave such extracts from the messages of the Governors of Ohio and Indiana as would enable our readers to judge of the condition of the public works of those States. The messages of the Governors of Maryland, Pennsylvania, New York and Michigan will claim our immediate attention.

These States, and Illinois—in all seven—are the States which have incurred large debts for public works; hence the propriety of giving a pretty full view of their financial condition in a Journal devoted to the cause of internal improvements.

Mr. Ryan, who was sent out by the State of Illinois to London, has ascribed his failure to procure the \$1,600,000 to the representations made by the Boston committee to the English capitalists interested in the completion of the Illinois canal, and from whom the State expected to receive the above loan, or who were to finish the canal themselves on certain terms. Mr. Ryan now says that further legislation is necessary; the Boston committee said so before, and the English capitalists, we need scarcely say, followed their advice. Still Mr. R. is dissatisfied, and only withholds his reply in order not to, in any way, interfere with the measures now before the legislature to aid the construction of the canal. The whole difficulty arises from the very different codes of financial morals in use among politicians and the higher order of mercantile men in Boston. We can assure our western neighbors that the opinions of

half a dozen eminent Boston merchants—if decidedly unfavorable—will be quite sufficient to deter foreign capitalists from investing in the securities of the western States, be the advantages offered ever so great. The only result which can follow will be to sink the faith of the now paying States to a still lower depth. The entire power of their governors and legislatures will be shattered in the encounter with a single individual of standing who cares not a straw for public opinion, when at variance with his own sense of honor. With the general run of politicians it may be sufficient to say that the loan failed on account of the representations of the Boston committee, and nothing further is required to prove their guilt; but it may be well for Illinois and other commissioners to learn, that there is a class of very influential persons here who would inquire as to the accuracy of the representations of the Boston committee, and then give the very same advice to the London bondholder as to their nearest friend here.

WELLAND CANAL TRADE.

A meeting has been called in Rochester to discuss the propriety of petitioning the State to charge discriminating tolls on western produce, so as to force that portion of the trade coming to the Hudson, via the Welland canal and Oswego, to enter the Erie canal at Buffalo and pay tolls over its entire length. The excitement appears to have been caused by the great increase of tolls at Oswego; as if it were of the slightest moment whether the State derived revenue from the business of that port or of Buffalo. The tolls have immensely increased, and that is all the people care about. The papers are all publishing statements of the receipts of the Welland canal, in which—for some cause or other—the receipts of the years 1842 and 1843 are omitted. But even since 1841, the increase is only 25 per cent.; whereas, on the Erie canal it is 25 per cent. since 1843, and about 70 per cent. on the Oswego canal.

This very singular movement of the Rochester people is nominally caused by the small increase in the tolls of the Welland canal—25 per cent. in four years—but is in reality owing to the sudden increase of 70 per cent. in the tolls of Oswego in a single year. The pampered canal counties view the trade of the west as their's by right; the grand object of settling the western States is to increase the tolls of the Erie canal: the people exist for the Erie canal, not the canal for the people. This most degrading idea pervades the legislation of New York, and is—unconsciously perhaps—an axiom with nearly all her public men. But we have not space to pursue this subject at present. The emancipation of the New York farmer is, we hope, at hand.

## NEW-YORK AND ERIE RAILROAD.

In examining the merits of any undertaking, the first point to be determined is—the main object of the work in question. The late Board considered that “remunerating dividends” could only be expected after the completion of the road to the lake. The present Board, who had merely retired for a year, for reasons which we shall explain in a future number, had carried out this principle to its fullest extent in commencing the work in a variety of places, between the Hudson and Lake Erie, so that no part should be productive until the whole was completed. Besides this, it is uniformly advocated in the public prints as a new route to the West. Both Boards highly value the way business, but the great object of the road is the through-travel. We stated in our Dec. No. that “we take a different view of the work, from either the present or the late Board.” This is in nothing less than the main object of the work that we differ. We consider that “remunerating dividends” must be derived from the country through which the road passes. These dividends will be increased by such portions of the through-travel as the road may draw to itself—perhaps materially increased; but still, this must be a merely secondary consideration. It is to this grand fundamental error that we attribute the failure of all the innumerable efforts made during the last six years.

Viewed as a thoroughfare to the West, the Erie railroad must compete with the Albany and Buffalo railroads and the Hudson river. We will briefly examine its claims to superiority in distance, speed and economy. As regards the length of the routes, it is impossible to speak with precision at this time; but, on the most favorable supposition, the Erie will at least equal the northern route to the lake. Dunkirk, the western terminus of the Erie railroad, is, however, 40 miles southwest of Buffalo, so that there would be a saving of about three hours in time—on the supposition that the speed would be equal on the two routes. The Erie road relies on its being in the hands of a single company, and on its more heavy rail; but as yet the northern route fully equals it in speed, and altogether surpasses it in accommodations, though built at half the cost; as yet they are both inferior in speed to the steamboats of the Hudson. The northern route is very far superior in grades and curves, and, with the heavy rail, would admit of greater velocity than its southern rival. They are already relaying the northern line, and we may safely assume

a good track to Buffalo by the time the southern line reaches Dunkirk. A rival route will make the northern as one company, and the distance from this city to Buffalo, via Albany, will be performed about as quickly as to Dunkirk, via Piermont. But this is a very limited view of the subject. The opening of the Erie railroad would at once lead to the construction of a line hence to Albany; for the vast interests of the country, and the railroads from Albany to Buffalo, would be at once enlisted in its favor. With a continuous railroad to Buffalo, the northern line could with ease reach Dunkirk in time to take on board passengers who started simultaneously from New-York, via the Erie railroad. As regards cost, the steamboats running to Albany for \$1,50, and the railways thence to Buffalo, having a way-business yielding “remunerating” dividends, would be able to carry as cheaply as the Erie road, relying mainly on the through-travel. Then the greater number and choice of boats at Buffalo, the greater ease (to some,) of a night on the Hudson than in a car, and the attraction of the Falls, would not be without influence, supposing other things equal. Lastly, there are the periods of opening and closing; for, as both lines terminate on Lake Erie, and as that Lake is closed about four months of each year, neither offers an uninterrupted communication with the West, an advantage many suppose the Erie railroad to possess. Now, as the storms of winter drive vessels from the Lake somewhat earlier than the ice stops the navigation to Albany, this question is reduced to a determination of the superiority of Dunkirk over Buffalo in the time of opening in the spring. The former port was fixed on as the western terminus of the Erie railroad at least 8 years ago, and it is very singular that an exact statement of the times of its opening has not been made public. In the Report of 1841, it is said of the harbor of Dunkirk, “it is open earlier, and occasionally some weeks earlier, in the spring, and later in the autumn, than that of Buffalo.”

The relative merits of the harbors of Buffalo and Dunkirk, must be known to the company, as the opening of the former is regularly published.

The last report states the difference at about a week. These things cannot be too fully and candidly stated. We recollect a Buffalo paper making itself very merry, at the expense of Dunkirk, because a steamer made a trip from the former port to the west and returned before the harbor of Dunkirk was open. It is important that this point

should be cleared up, and the superiority of Dunkirk fairly established, or the claim abandoned.

The people of the southern tier view the road as destined to accommodate them, and consider the through-travel as nothing, compared with their claims; other parts of the State will be at least also indifferent to making a present of three millions of dollars to a work whose main object is to aid the trade and travel of other States, when such large portions of our own are in want of better communications. In short, this regarding the Erie railroad mainly as a thoroughfare is as impolitic, as it is, in our opinion, incorrect. It has done much toward bringing about the present apathy in the southern counties, where repeated disappointments have produced a feeling of despair of success, unless conducted on entirely different principles. The only real claim this work has on the favor of the Legislature is, that it is a New-York work. What do the people of this State care about a railroad which may by possibility shorten the trip from the seaboard to Ohio and Michigan by one or two hours?

The Board sink the work to the level of a mere competing line, we regard it as having its main resources in the country through which it passes; as observed in our Dec. No. we place its claims on higher ground—we might say the highest. There is another difficulty in the way when it is necessary to prepare the means for the entire work. We allude to the doubts as to the confidence to be placed in the estimates. Now, if the road yield remunerating dividends as it proceeds, the total cost is not important; there is no necessity for locations any great distance beyond the part in operation: and the nature of the ground and the wants and capabilities of the succeeding portion of country become intimately known, with little expense, so that the best location may be chosen, both as regards facility of construction and amount of revenue, with certainty and economy.

In another number, we will briefly trace what has been done, regarding the western trade and travel as the grand object of the work; and what might have been done, had wiser counsels prevailed.

[For the American Railroad Journal.]

## PENNY POSTAGE AND RAILROADS.

In your December number, there is a very friendly communication from the Hon. F. O. J. Smith, of Maine, in which that gentleman makes some pertinent remarks on the importance of a Journal devoted to the cause of American Railroads. In Hunt's Merchants' Maga-

zine for the same month, there is also a paper from the same pen, on the—to the public—all important subject of cheap, or, rather, reasonable postage. The object of these few lines is to point out a singular error; the more singular, as a glance at the November number of your Journal would have given Mr. Smith correct information as to the sums paid on English railroads for mail service. But, perhaps, an official document was viewed as carrying more weight than the carefully collected information of a Railway Journal was entitled to. Mr. S. quotes Rep. No. 843, U. S. H. of R. 1844:

"The highest rate of railroad compensation, in Great Britain, is only \$107 50 per mile annually, and the average rate but \$90. In the United States, more than \$300 are paid in many instances, and the average cost of railroad service exceeds \$143 a mile."

The London and Birmingham railway, 112 miles long, receives £14,700 per annum for mail service, or \$600 per mile per annum. This is nearly six times as much as given in by the Postmaster-General, and is about as near the mark as that unhappy personage generally comes in matters connected with his office.

The error may have arisen from confounding the modes of estimating. Here \$300 per mile means \$300 per mile of road per annum, without reference to the number of miles carried; there the price per mile may refer to the actual number of miles per day over which the mail is transported—or most likely of all, pounds sterling have been taken for dollars, on the equalizing principle which the Post Office department values so highly.

The United States roads, therefore, notwithstanding their comparatively small income, only receive half as much as the English railways, which, with their hourly trains, are enabled to give the department every facility. Most fortunately, Mr. Smith observes that steamboats are as extortionate as railroads on the P. M. G.'s hypothesis; most fortunately, because there is no possibility of calling a steamboat a monopoly, the great war-cry of the enemies of railroads.

Great ignorance prevails as to the actual cost to a company in running extra trains. The total cost per train per mile is about 55 cts. on an average, carrying say 200 passengers in four large cars. Now, the cost of the cars, including repairs, oil, etc. will not exceed from 15 to 20 cts. per mile: so that the actual cost to the company is not less than 35 cts. per mile for the locomotive alone, and if the speed be greatly increased, the wear and tear will be greater than with the entire train at the ordinary velocity; in the former case, the repairs of road and engine will exceed the repairs of road, engine and cars, on the latter supposition. An extra train will, therefore, cost 70 cts. per mile per day, or (365 × 70) \$255 50 cts. per mile per annum. When the profits of a railway do not at least equal half the receipts, the shareholders are apt to suffer. But the mere cost is not the only difficulty. Where single tracks are more frequent than double

tracks, additional trains are attended with inconveniences, of which the public, and, *a fortiori*, the authorities at Washington, know very little. An allowance of \$300 per mile on the great routes in the United States is anything but unreasonable: and if extra trains are required, at least double that sum per mile should be allowed. In many cases, it will be almost impossible to run extra trains on single tracks, on account of their interference with the most important business of the road; at least, at any price which the department could reasonably entertain.

Should the Post Office department be disposed to make such reductions as the public have a right to expect, they will undoubtedly be met half way by the railroad companies; but as long as Government charges as much for an ounce as some companies charge for a barrel of flour, it does not become the Post-Master-General to talk of extortion. The idea that the populous districts are to pay exorbitant rates of postage, in order to support mails where they carry few letters, and where they are consequently little wanted, is carrying out the principle that all men are born equal, a little too far. The next step will be to equalize the transportation of produce and merchandize all over the country, which is just about as reasonable. Let the department act as the department of the people, and not of the politicians, and then we shall see whether the railroad companies will be found in the way of its advancement. C.

New-York, January, 1845.

#### GERMAN RAILWAYS.

As much interest is felt in, and little known of, German Railroads in this country, the following article from the *Railway Times* will be perused with interest:

Like most other speculations of the kind, the traffic in German railway shares has had its baneful influence upon certain individuals who are prone to enter into such without adequate means to carry them through, in a manner anticipated; and to such an extent was this traffic carried on a few months ago, that the Prussian Government issued a decree (in order to anticipate the fatal effects of time bargains in shares, and to prevent, as much as possible, irresponsible persons from entering into new schemes, and signing their names to projects with a mere nominal capital, for the purpose of drawing others with capital into them to their advantage) declaring all bargains in foreign shares upon which the whole of the capital had not been paid up, and all time bargains in them upon the domesticated lines, upon which only a part had been paid, null and void.

This decree has had a very salutary effect. It has prevented parties from entering into time-bargains, who, when it came to the push for payment, could not find the needful. It kept the capital at home in a great measure, and prevented adventurers from neighboring states taking advantage of the more credulous, but really wealthy persons from purchasing shares run up by false and spurious bargains, and thus gave to the market a sound and safe basis to operate in.

The decree in question, although it was not published in time to prevent much harm, had the effect of at once placing the value of all

shares upon a fair and just footing; a stop was put to a number of schemes in contemplation, by the sudden reaction in the prices of almost all the shares in the Prussian Railways, to the extent of 25 per cent.; and this reaction being felt in all the German lines, has, in consequence, produced a certain feeling of caution among the *bona fide* speculators, generally, whilst it has thrown all the advocates of adventurism in the shade of forgetfulness, to deplore the foresight and wisdom of the Prussian Government in preventing their more respectable subjects from being pilfered, if not ruined altogether.

Much credit is due to his Prussian Majesty, who takes a great interest in any *bona fide* operation tending to benefit his States, and who personally informs himself of all that occurs in railway schemes.

We shall proceed to give a general description of the lines which are nearest the German Ocean.

From Bremen to Hanover a line has been projected, 80 miles long, and will very soon be commenced by the Hanoverian Government. Another, 110 miles long, is in progress between Harburg and Hanover, the former of which is situated on the left bank of the Elbe, on a branch of this river, about 5 English miles from the city of Hamburg, to which it is connected by a line of steamboats. This line will form a junction with lines now in full operation between Hanover, Brunswick, Halberstadt, Magdeburg and Berlin, and Magdeburg and Leipzig, and thence to Dresden.

The Bremen and Hanover line will convey from Hamburg all the goods intended for the interior of Germany, which are now conveyed at a very considerable cost and delay by common road carriages; the extent of this traffic will be very great, and the city of Bremen will at the same time be placed in a more direct communication with the interior. The line between Harburg and Hanover promises also well, and will compete in a certain degree with that from Hamburg to Berlin.

The next projected line, and now in progress, is that between the two last-named cities, passing through the Duchy of Lauenburg, the Grand Duchy of Mecklenburg-Schwerin, and thence to Brandenburg and Berlin. It is expected that this line will be finished in a twelve-month, but a portion at a much shorter period.

The distance is 175 English miles; the cost is estimated at £8,250 per mile; and the shares are 200 thalers, or £30, upon which only 20 per cent. has been called for. It is expected that this line will pay well, the localities through which it passes being extremely favorable, and the management conducted by men of great experience—among them we may mention Mr. Costenoble, who had the principal direction of the Magdeburg Railway, which has served as a model to most of the other German lines, both as to the economy as well as the discipline observed upon it. When completed, travellers will be enabled to arrive at Berlin from Hamburg or Altona in nine hours, instead of having, as at present, to travel in the diligence 36 hours, by the common road, or up the Elbe by the steamers to Magdeburg, and thence by railway to the same place, in 42 hours.

From Hamburg to Bergedorf, a distance of 10 miles, there is a line, of which a considerable share has got into the hands of the proprietors of the Hamburg-Berlin Company, and is among the most expensive ways, having cost £11,160 to the mile. It runs through a low morass ground; and although the cost has been considerable, it reflects great credit on Mr. Lindley, the principal who projected it, and Mr. Giles, the second Engineer, who carried the plan out,

under great difficulties. This small line may be considered more as a patriotic undertaking of a portion of the principal and leading merchants of the city of Hamburg, than otherwise, and was positively established about three years ago as a sort of forerunner to the Hamburg and Berlin line; and it has, fortunately for the city of Hamburg, had its effect.

The next coast line is that from Gluckstadt to Elinshorn, which will be ready in the spring of the ensuing year. It has gained very much in importance by the establishment of the European Steam Navigation Company in London, which intends running steamers between Harwich and the first-named place. It will form a junction with the Altona and Kiel Railway, and connect Kenmünster, Kiel, and Altona, and sundry other, by no means unimportant, places together. It must here be observed, that Hamburg and Altona form almost one great commercial city, and the Altona and Kiel Railway forms a direct communication (with steamboat aid) between Harburg, and Hanover, Magdeburg, Berlin, Kenmünster, and Rendsburg, Hull, Harwich, London, Amsterdam, Havre, Copenhagen, Fuhnen, Sweden, and Russia! The conveyance of all goods to Denmark and Sweden must naturally come to her share, and the whole of the transport of goods between the port of Hamburg and the Baltic must eventually fall to this railway, as it will be too costly to forward them *via* Lubeck, as is now the case.

Numbers of passengers will flock to the baths near Kiel during the spring and summer months, instead of visiting other places where the means of conveyance are so scanty, and at the same time so costly to reach. The yearly outlay for fuel, reparation, salaries, wages, &c. is—

Estimated at . . . . .	£20,190
Interest on capital 4 per cent. . . . .	15,290

Total . . . . .	£35,480
Or weekly . . . . .	£682

During the eight autumn weeks the line has been opened, there have travelled on it 61,626 passengers at an

Income of . . . . .	£4,262
Goods transported . . . . .	1,406

Total . . . . .	£5,668
Averaging weekly . . . . .	£109

The time for tourists and sea-bathing people was over when it opened; of the lines which will form a junction with it, none are finished; of the turnpike roads, which were begun to carry passengers to the stations, none were ready; and of the steamboats running between the cities before mentioned, several had ceased for the season, and only the London and a couple of Hull steamers have continued. During the ensuing year it can therefore reasonably be expected that a very considerable increase will follow.

Formerly, all goods coming from London or Hull, or elsewhere, and destined for Kiel, were generally loaded at Hamburg, from lighters, forwarded thence to Altona, and then on to Kiel, occupying three to four days in arriving at the journey's end. If landed at Gluckstadt for the future, they will arrive at Kiel in as short a space of time as the steamers would take to get up to Hamburg, and it is expected that the Danish Government will accede to a reduction of the transit duty through Holstein, which is at present about 4d. per cwt.

There is one feature of great importance as regards the Altona and Kiel Railway, viz., that less fuel will be used on it than perhaps on any other of similar length—and the quantity required can be had at a much cheaper rate, being taken from the ships direct into the Company's repository until used.

#### DESCRIPTION OF A LOCOMOTIVE BUILT ON A NEW SYSTEM, BY M. PALTRINERI.

Having always been pre-occupied with the idea that great dynamic advantages would arise if we could obtain an immediate, continuous, and circular movement from steam power, and that a steam rotatory machine presenting much simplicity, little friction, and preserving and utilizing the greater portion of the active power of the fluid, would be a real benefit to industry, I thought this result might at least in some manner be approached by making use of the power of action and re-action at the same time, and with this view I have invented the mechanism which I had the honor of submitting to the Academy—a mechanism which consists simply of two or several concentric and independent wheels, so as to be able to turn easily in a ratio contrary the one to the other, while they are all placed in the same plane. The steam is introduced on this system by the axis of the interior wheel, and escaping by continuous or intermittent jets through small orifices made in the external circumference in the direction of the tangent, obliges this wheel to take a rotatory movement, according to the reaction, whilst, at the same time, the power of the action, or the impulse of the jets, by meeting with a continual obstacle in the curved shovels with which the fellow of the external wheel is furnished, forces this to take as much motion in a contrary ratio. The two wheels, therefore, act in an opposite way by the two combined powers of action and re-action at the same time, and the steam which has produced this effect escapes by the external circumference of the second wheel through taking the direction of the tangent, on account of the curvature given to the shovels. This steam always preserves on its escape such a power as may be made available by a third wheel, having curved shovels placed in a contrary direction to those of the second, and which would operate also in a contrary ratio, and so afterwards by other wheels until the power be extinct. It appears that, according to this mechanical arrangement, the expansive force of the steam could be used without much loss of the active powers, because there is never any collision between these forces; and the dynamic effects, although they are produced in contrary directions, may be forced to conspire to the same ends as has been done by me by a very simple and easy method in the model which has been presented. In fact, there is no doubt but that the forces, which should naturally destroy each other, go on the contrary, by this system, to unite mutually, by means of cogging, the two wheels in a common pinion, the axis of which represents in this way the principal beam of the machine. My model, which I have applied as a trial to a small locomotive, is only at present the mere development of a principle, and so only presents the first mechanical application, and that very roughly, of my idea. A number of improvements have since presented themselves to my mind, and the proportions and the forms, which for this model have only been arbitrary, should be reduced to more suitable proportions, such as theory and experience will indicate. The plan and operation of this machine are easily understood on inspecting it; but I will give, if necessary, a detailed account of it, and will explain, as far as I possibly can, all the methods which I think capable of improving the invention. In the mean time, I will just say that I have caused small chambers to be constructed in the fellow of the internal wheel, so that the jets of steam may escape from a vessel with their partitions, and of a certain form and size—my intention being to profit by the well-known law of the increase of pressure towards the bottom of a vessel, in

proportion to its form and dimension, and so to utilise a much more considerable force of re-action—a result which I have obtained and verified by experiments made in the most exact manner possible. The model which has been submitted to experiment has given the following results: The two wheels measured separately have given a dynamic effect nearly equal, and an experiment has been made, by letting that wheel of the two turn freely which was not submitted to proof; that would show the impulse of the jet is sufficient to repulse the obstacle it meets with in the shovel of the external wheel, without losing any of its power—and, consequently, that in this first effect, the action has still a power equal to the re-action. The two wheels have also been measured separately, by keeping in a fixed position that of the two which was not submitted to proof, the results of which have again been nearly the same as those of the other experiment, which must go to prove that the dynamic effect produced by the one or the other of the two wheels is entirely independent of the effects of the other. When we caused the two wheels to cog in a common pinion (other things being equal), and we were led to expect a dynamic power which would equal at furthest the sum of the effects produced separately by each of the wheels, I had the pleasure to discover that the effect was much more considerable, and that it was sometimes almost double the sum of the two together. The experiments were varied in many ways, but the results have always been the same; and if each gave, for instance, a dynamic effect equal to one, the effect of the two wheels measured on the axis of the pinion was always not only equal to two—a number which would express the sum—but to three, three and a half, and even to four, when all the circumstances were favorable. Whence arises this augmentation? Should we think that it depends on a diminution in the resistance of friction, or a want of the mechanical disposition of the two wheels, which cog in a contrary sense in one pinion, the mathematical axis of which would not change its place? This explanation does not appear satisfactory, because the value of that resistance spared would be much too little in comparison with the augmentation which almost arrives at a double force. Is it that the two wheels cogging in the same pinion, and serving as a fly-wheel one to the other, would so mutually aid each other as to produce such a result? This explanation clearly shows how the two wheels will be obliged to equipoise themselves, and to take an uniform quickness, but we do not even see by that from what source the augmentation of power is derived. Finally, is it this, that there would be, according to the law of Nature, a dynamic advantage from using the powers from the action and re-action at the same time in the way I have discovered? This is a question which the phenomena I have been speaking of appear to resolve by the affirmative—an opinion which other experiments seem to concur in demonstrating as true. I think, moreover, that there is no difficulty in rigorously demonstrating this fact by analysis, because it seems evident that the two points of application of the resistance, by running over each one a certain space in an identical time, should give their dynamic effect with a double speed; and as the forces are proportioned to the quickness, the dynamic effect would, consequently, be double likewise, and the phenomenon of which we are here speaking, gives an example of the fact. Steam being an elastic fluid, and its expansive force being a constant power which re-acts, as it were, on itself, without interruption of time, is probably the cause of this result of our experiments, representing a value much greater



than the sun. But as this is a principle of the very highest importance in mechanics, I have, consequently, submitted it to the judgment of the Academy of Sciences, which can easily demonstrate its fallacy, if really it be so—or, on the contrary, assist me in bringing to light its truth as a principle, and the conditions under which it might be rendered available.—*Moniteur Industriel*.

#### MISCELLANEOUS NOTICES.

There has been a rise in Western Railroad stock within a short time, and sales made at 92, a higher rate than it has ever before attained.—*Boston Post*.

It must be borne in mind that this Road does not extend further East than Worcester, and was built at an expense of \$7,500,000. Its length is 156 miles. Much of the country through which it passes, is hilly, and comparatively unproductive. Some of its grades are 80 feet to the mile. The only wonder is, how it could be got over the Green Mountains at all. The success of this Road, (far beyond the anticipations of its projectors, probably,) is a guarantee for the success of all other well-managed Railroads, properly situated. The whole population of Massachusetts west of Worcester is less than 200,000, and that of Columbia and Rensselaer counties, N. Y. about 100,000 more. But these 300,000 inhabitants, fully one-third are too remote from the Road to make any use of it, except for long travel and transportation. One secret of the success of this Road, is its connecting Boston with Albany and the West. Yet it appears from actual returns, that the money received from *way* passengers is nearly double that received from *through* passengers, and the same remark is applicable to freight. The *way* business in a populous country, is, after all, the great reliance. It is more so on many other Roads, than on the Western. If the stock of this Road, at the cost of \$7,500,000 for 156 miles, is worth 92 per cent., one would suppose that the Erie Rail-Road, 500 miles long, at about the same cost, (exclusive of \$3,000,000 sunk by the State) could not fail to be a profitable concern. Nor could less be inferred in regard to the New York and New Haven Railroad, 70 miles long, at \$2,000,000, running through a densely populated country, and connecting 800 miles of Railroad in New England and New York, with the commercial emporium. Both these roads will of course be built. It is impossible that routes so important, can long remain unoccupied. So, we trust, will the New York and Albany Railroad be built. All the great routes will eventually be occupied by Railroads, and they must become more and more profitable as the population and business of the country increase.

**ERICSSON PROPPELLER.**—The case involving the question of the patent right to this invention, now on trial in the U. S. Circuit Court in N. Y., is thus minutely stated in the National Intelligencer's New York letter:

It is a suit brought by a Mr. Emerson against Hogg and Delemater, proprietors of the Phoenix Foundry in this city, for an alleged infringement of patent right in the manufacture and sale of the celebrated Ericsson propeller, which the plaintiff claims was substantially included in a patent taken out by him prior to that taken out by Ericsson. The facts as stated by Mr. Emerson's counsel, Francis B. Cutting, Esq., are substantially these: In the year 1834 letters patent were granted to Emerson for an improved spiral paddle-wheel, which letters patent, together with a drawing and model of his invention, were deposited in the Patent Office, although in his specification no reference appears

either to the drawing or model. All these deposited articles were lost in the destruction of the Patent Office by fire. Subsequently to this event, in accordance with the act for the relief of patentees, who were sufferers by the fire, Emerson's letters patent were recorded anew, and in February, 1844, an unattested sketch of his invention was deposited in the Patent Office, which was shortly afterwards returned to him for the purpose of being duly attested, and was again deposited, sworn to by Emerson as a correct delineation of his invention. In the month of May following a *second drawing*, attested in like manner, was deposited, between which and the other there is a very remarkable and essential difference; the explanation given of which discrepancy is, that the first was imperfectly and unskillfully executed, having been made by the inventor himself, who is no draughtsman.

The point on which the question seems principally to depend is as to whether the machine claimed by Emerson really was his original invention. In consequence of the destruction of the original drawings, and of none being referred to in the specification, and of the dissimilarity of the two drawings now on file, as well as of the long time that has elapsed since the issuing of the letters patent, this point seems to be involved in some obscurity. The case will probably occupy several days, and the decision will be looked for with a great deal of interest; as Ericsson's propeller has already been applied to some ninety ships, of which two belong to the United States. If Emerson's claim should be sustained in this case, it will of course be valid in others.

**SCHUYLKILL NAVIGATION COMPANY.**—We learn that a firm in Philadelphia intends building a number of steam tug boats for the purpose of towing the boats on the canal, and thus avoiding horse power. It is alleged that the expenses of transportation will be considerably decreased, and besides the coal can be conveyed to distant ports without transhipment at Philadelphia. Nothing but prompt and energetic action on the part of the Directors of the Navigation Company will enable them to survive the competition waged by the railroad company, which is extending its arms, or feeders, embracing the whole extent of the coal region. They must show to the public that they have the *energy* and the *ability* to sustain the canal, if they wish to gain new friends and retain their old ones. This is absolutely necessary on their part to remove the doubt and uncertainty which now prevails, otherwise all the appendages for shipping by canal will gradually go to ruin in this region.—*Miners' Jour*.

#### RAILWAY ACCIDENTS.

The "Sentinel" of last Saturday has an article, the spirit of which reflects upon the safety of railway travelling. The evident tendency of such articles being to excite the fears of the travelling public, and to raise up anew the old prejudices against the railway system, we feel called upon to notice his remarks. He commences with, "the philanthropist must see and read with unaffected sorrow and unmitigated disgust, the news columns of the daily journals, in which we find from week to week so many painful accidents," &c. We pass over the dubiousness of these expressions, without waiting to inquire whether the writer means that the daily newspapers record the news, or the weekly ones; perhaps, being himself in the latter class, he thinks, as naturally he should do, that by naming the contents of the first, that of the second is understood. It is of the appearance of such "news" that we complain. The majority of accidents placed to the account

of railways does not belong to them. They mostly consist of casualties which have no more to do with railways than an ancient coach and pair with fast travelling. A guard neglects his duty and is maimed in consequence, or a west country goose tries the experiment of laying his neck across the rails as the train is coming up, and meets his death accordingly, as it would be wondrous odd indeed if he did not. "Frightful railway accidents!" appear next morning in the daily journals, and afterwards in the weekly prints, wherein when the "confusion that it is easier to imagine than describe" is got over, the circumstances are detailed, that, in the one case, led to a poor man with a wife and seven children ("lamentable to relate!") losing his leg by the Great Western Railway, and in the other, the awful loss of life suffered by an unfortunate fellow-creature, which the Bristol and Exeter Railway Co. will have to answer for. These accounts generally wind up with the pithy remark, that luckily no passenger met with accident.

Such is the general character of railway accidents recorded in newspapers. There are, perhaps, scarcely ten per cent. of them which are really and truly accidents arising out of the system.

There is something superhuman about railways, and the demon-like, everlastingly hissing engine, that no wonder the public mind is prejudiced against them; no wonder that journals living upon the public appetite, take every opportunity to cram its maw with tasteful food, however unwholesome. The public cravings must be satisfied, and this can better be done by railways than by any other means—at least so it appears by their writings, penny-a-liner's estimate. If a coach upset into a ditch, the lives lost, and the broken limbs, are placed to the account of Providence, and not to the coach. Nay, even if steam, applied in a different shape, be the cause of accident, and a steamer go down with all hands, Providence there, too, alone presides. Such an accident, though attended with greater loss of life than was suffered by the fearful one on the Versailles (French) Railway, is contemplated with a less degree of horror by the public mind!

It is somewhat remarkable, and, we think that every right-minded individual will agree with us, reprehensible, also, that the very party who has assisted in misleading the public by false representations of the safety of railway travelling, should undertake the duties of a censor, and denounce that which has no other foundation than in his own mis-statements. That having given a bad character to an individual—personifying the system of railways—the calumniator proceeds to accuse and condemn on the evidence of his own falsehoods. We trust that the moralisings of the "Sentinel," on the wickedness of railways, will be duly appreciated.

Safety of railways?—Is our cotemporary acquainted with the subject on which he writes, when he calls in question the safety of railway travelling? Is he ignorant that the very mode of transit which he vilifies, *one life only* was lost out of *twenty-four millions* carried!! Surely he must be so well known as the fact is, or he never would have written what he has.

Since the above was in type, we have heard of one or two accidents having occurred, through the unusually dense fog of Thursday night. This, of course, does not affect the superiority which we claim for Railroads, as the safest means of travelling. For in such seasons how fared the old system? There is no comparison. Indeed, it must be self-evident that the very principle of Railways secures them, more than by any other mode, from accident in a fog. When a stage coach would inevitably run into a ditch, the train is guided safe from danger in virtue of the rails.

EXPLOSION OF THE "RICHMOND"  
LOCOMOTIVE.

This fatal accident is well known to the entire country. Since its occurrence, Messrs. Norris, Brothers—the well-known engineers of Philadelphia—have requested Dr. Lardner to investigate the matter. This he has done; his opinion has been published in pamphlet form, and has been pretty generally noticed by the press. He assumes four hypotheses, and decides in favor of the last: which was, that the catastrophe was produced by the "combined agency of atmospheric electricity and steam."

The observation and researches of meteorologists have informed us in considerable detail of the various effects, mechanical, chemical and physical, produced on objects by atmospheric electricity. It is, however, a matter of regret, that the result of their labors have been limited to the mere history of these effects. The mode in which they are brought about by electrical agency has not been conclusively established. Among the effects, the most prominent are those produced upon the temperature of bodies; that lightning fuses metals by raising their temperature, is proved by the fact, that metal fused by lightning has fallen in liquid drops upon a wooden floor, and upon the decks of vessels, in which they have burnt holes. These effects have not been confined to masses of metal of limited dimension, nor have they been merely superficial, considerable masses have been on various occasions melted. When the lightning has not produced fusion, the iron has been rendered incandescent and soft, and reduced to the state necessary for welding it; in a word, metals have been raised suddenly by atmospheric electricity to all conditions of temperature, up to and including their points of fusion. Examples of those effects might be multiplied without end. In April, 1807, lightning passed along a large iron chain in Lancashire, in England, and so softened the links that by their own weight they were welded together, and the chain was converted into a rod of iron. The same effect was produced at different times in different places. In March, 1772, a bar of iron, four inches by half an inch thick, connected with a water pipe on the dome of St. Paul's Cathedral, was rendered red hot.

The mechanical effects of lightning consist in piercing solid bodies with holes, splitting them in pieces, bending and twisting them in various capricious forms, and in projecting their fragments, sometimes of enormous weight, to great distances. Buildings stricken by lightning, have produced a shock felt in their neighborhood like that of an earthquake; the heaviest blocks composing their walls, being scattered in all directions, and projected to distances so great as two hundred feet. A church was stricken in Cornwall, from the roof of which a stone

weighing nearly 200 pounds was projected to a distance of 60 yards, another fragment being thrown to a distance of 400 yards. In another instance in Scotland, a mass of rock, 28 feet long, 7 feet wide, and 5 feet thick, was raised in the air and projected over an eminence to a distance of fifty yards. Similar examples might easily be multiplied.

Large masses of iron are found to have a strong influence in attracting lightning, and this influence appears to be great in proportion to its weight. Thus lightning passing outside the wall of a building, has been drawn through it by an iron boiler within. Some years ago, a chain pier or bridge in England was destroyed during a violent storm, and although from its nature it was continued into the earth, it was broken to fragments, its heaviest parts were bent, doubled, twisted and knotted in most capricious forms, although no signs of fusion appeared upon it.

I have given these particulars in order to inform those not familiar with meteorological inquiries what are the actual effects which have been produced by the agency of atmospheric electricity; the question now is, whether this agency has been operative in the catastrophe before us.

It appears by the general evidence of the entire population round the vicinity of the catastrophe, as well as by the special evidence of the individuals who have been personally examined, that, at the time of this occurrence, a terrific storm of thunder and lightning raged; two of the men upon the train, who survived, proved that the flashes of lightning were incessant, both before and after the explosion, and that the lightning was of the species called "zig-zag lightning." It is proper here to observe that, of the different species of lightning, this is the kind by which terrestrial objects are generally stricken; this species never, (or if ever, very rarely,) passes between cloud and cloud, but always between a cloud and the earth.

There seems to be then present all the conditions necessary for the production of such a phenomenon; the lightning is in continual play; it is of the kind necessary to produce the effect; 18 tons of iron, in the shape of a boiler and machinery, are present to attract it; there are abundance of disjunctions in this machinery, at least as decided as between the links of a heavy chain, by which conduction may be sufficiently broken to give full effect to the heating power of the electricity; finally this mass is broken to pieces, its parts being scattered about in all directions, broken, bent, and twisted, and projected in considerable masses to distances analogous to those recorded in similar cases. But granting the fact supposed, that lightning struck the boiler, how, it may be asked, can the explosion be explained?—for that an explosion did take place, seems extremely probable, if not morally certain. The character and loudness of the report, and the appearance of the remains of the fire-box, are suffi-

ently indicative of this. We answer that an explosion in the present case, with the cylinders in full operation, and the two safety valves free, could only be caused by an almost instantaneous evolution of a great volume of highly elastic fluid in the boiler—so great a volume that, compared with it, the steam escaping through the cylinder, and valves would be as nothing. Such an effect would undoubtedly be produced by a sudden access of heat imparted to any part of the boiler in contact with water, or still more effectually if imparted immediately to the water itself. If, then, the electricity thus heated the boiler or any part of it, and that the water, as it might have done, took up the heat from the metal fast enough to prevent the latter from being fused, or rendered incandescent, the entire catastrophe, with all its concomitant circumstances, would be explained. The absence of marks of fusion or incandescence, the terrific violence of the explosion, the projection of a mass of ten tons to a distance of eighty yards, the fracture and scattering about of all the working parts, and the bending and twisting of them in every conceivable variety of form, would all follow as the natural and usual effects of such agency. The freedom observed upon the bodies of the killed, from the effects of the lightning, would be explained by the superior conducting power of the matter of the boiler, which according to its habit the lightning will seize by preference.

I pass over intentionally a supposition which might be made, to the effect that the water in the boiler might have been decomposed, and the catastrophe produced by its explosive constituents. The explanation we have given renders it necessary to resort to this extreme supposition, which certainly could not be supported by any reasoning which would entitle it to any degree of confident acceptance, if indeed it be tenable at all.

Under all the circumstances of the case, I am therefore of the opinion, that the last supposition must be adopted as the only one which is adequate to the full explanation of this catastrophe. I do not forget that it may be urged that the boiler and its appendages were in metallic communication with the earth, and that during heavy rain, the soil itself was in a favorable condition for the escape of the electricity; but I know that in the structure of the boiler and its appendages, there were interruptions of the metallic continuity greater both in number and degree, than between the links of a chain, and in other cases, in which it is proved that masses of iron have been rendered incandescent by lightning.

In fine, if my evidence were required on this point, in a case where the rights or liabilities of individuals rendered a positive decision of the question indispensable, I should not hesitate a moment to affirm that the decision must be made on the last of the above suppositions.

The following facts and views will aid somewhat towards forming an opinion.

The load at the time was the *lightest* the Richmond had yet hauled, consequently there was no reason to suppose any very high steam. The soot being found still adhering to the crown of the fire-box, shows that it did not explode from want of water. The engine-driver was a very careful man. The explosion took place whilst the engine was *moving*—all other explosions having occurred when at rest, or just at starting.

A flash of sharp lightning was seen to strike the engine immediately before the explosion, and, by the doctrine of chances, there is little probability that an ordinary explosion took place at that moment. Lastly, the two rails on the *other* track were cut across as if by a cold chisel—an occurrence unaccountable in the case of the boiler bursting from too high steam.

Diversity of opinion is to be expected when diversity of interests prevails; but we must decidedly observe that the reputation of such engineers as the Messrs. Norris, or the Messrs. Baldwin & Whitney, is no more to be affected by a single accident of this kind, than is the reputation of the Messrs. Stephenson by the one or two similar accidents which have occurred on their engines in England.

We had occasion some time since to announce the opening of the second track of the Reading Railroad, and in doing so, gave due credit to the spirit and enterprise which led to the completion of this great work. We refer with equal pleasure to a new development of the means of transportation, which it is believed will add greatly to the value of the mineral treasure of the State, promote in an equal degree the prosperity of this city, and help to bring down the cost of one of the great necessities of life to a minimum price throughout the country.

The use of steam as a motive power on canals and slack-water navigation, is producing quite a sensation in the public mind. This is owing to the new modes of application and adaptation of this wonder-working agent. It is believed by scientific and practical men, that all the objections which have heretofore existed to its use upon canals may be overcome, and that an entire revolution is about to take place in the whole system of canal navigation. Many of our citizens had an opportunity recently, of witnessing a signal instance of success, in a canal boat propelled by steam, which, after having plied between New York and St. Johns, in Canada, through Champlain canal, the Lake Champlain and its outlet, throughout the season there, at its close came through the Delaware and Raritan canal to this city, on its way by the route of the Delaware and Chesapeake canal to the Dismal Swamp canal, to find employment for the winter, as it had done in a former season. This boat was moved by propellers in the *bow*, by a very simple application of the power; and the result, without going into remote details, may be stated to have been in all respects, as to the rate of speed, absence of injury to canal banks, cost of construction, expense of working, capacity of towing other boats, and equal adaptation

to ply in canals, rivers, lakes or bays, entirely successful.

In a word, it is believed to have been already demonstrated that the expense of transporting coal from the Schuylkill region to New York may be diminished one half; that the coal may be taken to any point where inland navigation reaches, without transshipments, detention or waste; the trips being performed with regularity and certainty, and within a reasonable time.

This, certainly, is a very important matter to the city of Philadelphia, as a corporation alone, to say nothing of its probable effects upon the general prosperity. The city holds 2440 shares in the stock of the Schuylkill Navigation Company, which having been originally subscribed in a convertible loan at par, cost \$122,000. The city also holds \$266,000 of the Loan of the Schuylkill Navigation—making the aggregate of its investments in this work \$388,000. This, we are informed, is far beyond the interest held by any individual. The stock and loan are, however, very generally, held by our own citizens—friends and neighbors whom we meet every day in the common walks of life, and with whom we have common sympathies.

It has been suggested that the present navigation is susceptible of very great improvement—that its capacity may be enlarged, its facilities increased, and the whole work adapted to the improved use of steam as a motive power, at a limited expense, within a reasonable time, and without interfering greatly with the trade while the work is going on. The importance of this suggestion presses itself upon all now that the success of steam propellers upon canals is demonstrable. The trade of the region, this season, has exceeded 800,000 tons, of which the Navigation has done about one half.

It is confidently asserted every day in our streets that this portion of the trade left to the Navigation, is in danger of being lost. Some, indeed, actually believe that it will be lost, unless strenuous efforts are made to retain it. The entire cost of the work, including capital, loans, and earnings applied to construction, has been near **FOUR MILLIONS**. We learn that the annual report next week will contain an expose of the affairs of the company, and show that the Navigation is indeed susceptible of improvement and enlargement, and proper adaptation to the use of steam, with boats of one or two hundred tons burthen. This, we venture to repeat, is a great subject. We say again and again, that this is more particularly interesting to us, because the city of Philadelphia has so large an investment in the work as a corporation. The coal trade of the Schuylkill, in another year, will reach a million of tons, and must continue to increase with the increasing facilities of transportation. Let there be an honorable competition for the trade; the work which can furnish the greatest facilities and sustain itself, must, eventually, take the greatest share. Upon this subject we express no opinion—but since our friends and neighbors have four millions at stake, including nearly half a million held by the city corporation; and since this large sum was liberally supplied for the first development of the immense treasures of the coal region, we cannot but hope, still, to see the Schuylkill Navigation sustained.

It is, perhaps, due to ourselves here to add, that some weeks ago, a correspondent complained, as we think, unjustly, that the Navigation Company had not sufficiently interested themselves, some years back, in certain contemplated improvements on the west bank of the Schuylkill, opposite to the city. The editor of this paper was at that time Chairman of a Committee of the City Councils, to whom this sub-

ject was referred, and reported against it. The only member of the Board of Directors of the Schuylkill Navigation Company, in Council at the time, signed a minority report *in its favor*. —U. S. Gaz.

**THE NEWCASTLE MANUFACTURING** Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires; Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,

President of the Newcastle Manuf. Co.

**RAILWAY IRON, LOCOMOTIVES,** Etc. The subscribers offer the following articles for sale:

Railway Iron, flat bars, with countersunk holes and mitred joints.	lbs. per ft.
350 tons 2 by 15 ft. in length weighing 468	
250 " 2 " 1 1/2 " " " 350	
70 " 1 1/2 " 1/2 " " " 2 1/2	
80 " 1 1/4 " 1/4 " " " 1 26	
90 " 1 " 1/4 " " " "	

with spikes and splicing plates adapted thereto. To be sold free of duty to State governments, or incorporated companies.

Orders for Pennsylvania Boiler Iron executed.

Railroad Car and Locomotive Engine tires, wrought and turned or unturned, ready to be fitted on the wheels, viz: 30, 33, 36, 42, 44, 54 and 60 inches diameter.

E. V. Patent chain cable bolts for railway car axles, in lengths of 12 feet 6 inches, to 13 feet 2 1/2, 2 3/4, 3, 3 1/2, 3 3/4, and 3 1/2 inches diameter.

Chains for inclined planes, short and stay links, manufactured from the E. V. cable bolts, and proved at the greatest strain.

India rubber rope for Inclined planes, made from New Zealand wax.

Also—Patent hemp cordage for inclined planes and canal towing lines.

Patent felt for placing between the iron chair and stone block of edge railways.

Every description of railway iron, as well as locomotive engines, imported at the shortest notice, by the agency of one of our partners, who resides in England for this purpose.

A highly respectable American Engineer resides in England for the purpose of inspecting all Locomotives, Machinery, Railway Iron, etc., ordered through us.

A. & G. RALSTON & CO.

No. 4 South Front st. Philadelphia, Pa.

**RAILROAD IRON & FIXTURES.**

The subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS, & CO,

21 Broad st., N. Y.

**BOSTON AND MAINE RAILROAD.—UPPER ROUTE.**  
**BOSTON TO PORTLAND**—via Medford, Woburn, Wilmington, Andover, Bradford, Haverhill, Plaistow, Kingston, Exeter, Newmarket, Durham, Maubury, Dover, Somersworth, South and North Berwick, Wells, Kennebunk and Saco.

**WINTER ARRANGEMENT—1844-5.**  
 On and after Monday, Oct. 21, 1844, the Passenger Trains will run daily, Sundays excepted, as follows, viz:—  
 Leave Boston for Portland at 7½ A. M. and 2½ P. M.  
 Leave Boston for Somersworth at 7½ A. M., 2½, and 3½ P. M.  
 Leave Portland for Boston at 7½ A. M. and 3 P. M.  
 Leave Somersworth for Boston at 4½ A. M., 9½ A. M., 4½ P. M.

Passengers are not allowed to carry baggage, beyond \$50 in value, unless notice is given, and an extra amount paid, at the rate of a price of a ticket, for every \$500 additional value.  
**CHAS. MINOT, Superintendent.**

**BOSTON AND LOWELL RAILROAD.**  
 On and after Friday, Nov. 1st, 1844, the Passenger Trains will run as follows:  
 Leave Boston at 7 and 11 A. M., 2 and 5 P. M.  
 Leave Lowell at 7½ and 11 A. M., 2½, 4½, and 5½ P. M.  
**Fare 75 cents.**

The Coaches of Messrs. D. G. Cummings and B. P. Cheney, Nos. 9 and 11 Elm street, will convey passengers between the Depot in Lowell street, and places within a moderate distance, for 12½ cents.  
**CHAS. S. STORROW, Agent B. & L. R. R. Co.**

**CONCORD RAILROAD.**  
**MERCHANDISE TRAINS** will run daily as follows:  
 Leave Boston at 3½ P. M., and arrive at Concord the same evening.  
 Leave Concord at 3½ P. M., and arrive at Boston at 7½ the next morning.

Freight should be delivered at Concord, and Boston an hour before leaving, to ensure a delivery by the first succeeding Train.  
 All passengers' baggage should be marked, and when valued at more than \$50, notice should be given and extra charges paid, or no claim for damage or loss beyond such sum will be allowed.  
**N. G. UPHAM, Supt.**

**NASHUA AND LOWELL RAILROAD.**  
 PASSENGER TRAINS will run as follows:  
 Leave Boston at 7 A. M.; 11 A. M.; and 5 P. M.  
 Leave Nashua at 6½ A. M.; 1½ P. M.; and 5 P. M. **jal**

**BOSTON AND WORCESTER RAILROAD.**  
**CHANGE OF HOURS.—WINTER ARRANGEMENT.**—Commencing December 11, 1844.

**Accommodation Trains, daily, except Sundays.**  
 From Boston at 7 A. M., 9 A. M., and 2½ P. M.  
 From Worcester at 7 A. M., 10 A. M., and 6 P. M.  
**Newton Trains, daily except Sundays.**  
 From Boston at 9½ A. M., 3 P. M., and 5 P. M.  
 From Newton at 8 A. M., 10 A. M., and 4 P. M.

**The New York Train for Norwich.**  
 Monday, Wednesday and Friday, from Boston, at 4 P. M. **New York, via Long Island Railroad.**  
 Tuesday, Thursday and Saturday, from Boston, at 7 A. M. **New York, via New Haven.**  
 From Boston at 9 A. M. and 2½ P. M.—from Worcester at 7 A. M.

All baggage at the risk of its owner.  
 Fares are less when paid at the Ticket Offices than in the Cars. **jal WM. PARKER, Supt.**

**WESTERN RAILROAD.**  
**WINTER ARRANGEMENT.**  
 On and after the 11th December, 1844, the Passenger Trains will leave as follows, Sundays excepted:

Boston at 9 A. M. and 2½ P. M. for Albany.  
 Albany at 8 A. M. and 1½ P. M. for Boston.  
 Springfield at 7 A. M. and 3 P. M. for Albany and Boston.  
 Boston at 2½ P. M. for New York via Springfield and New Haven.

**For Albany and Buffalo.**  
 Leave Boston at 9 A. M., reach Albany at 8½ P. M.—Leave Boston at 2½ P. M., arrive at Springfield at 7½ P. M.—Lodge—leave next morning at 7 o'clock, arrive at Albany at 12½ P. M. Passengers leave Albany for Buffalo at 8 A. M.

**NEW ROUTE FOR NEW YORK.**  
**VIA HARTFORD AND NEW HAVEN.**  
**FARE THROUGH FIVE DOLLARS.**  
 Leave Boston at 2½ P. M., and reach Springfield at 7½ P. M.—thence direct by Railroad to Hartford and New Haven, and thence by Steamboat to New York, arriving at 5 A. M. Returning—leave New York at 6½ A. M. and arrive at Springfield at 3 P. M., and thence to Boston, arriving at 8 P. M. Berths on board the Steamboat may be secured in Boston at the Ticket Office.

**For Northampton, Greenfield, Haverhill, &c.**  
 Stages leave Springfield for the above places, upon the arrival of the evening trains. Stages also run from West Brookfield to Ware, Enfield, New Braintree and Hardwick—from Palmer to Three Rivers, Belchertown, Amherst, Ware and Monson—from Woburn to South Hadley and Northampton, and from Pittsfield to Adams and Williamstown.

The Trains of the Hudson Railroad connect at Chatham—those of the Housatonic Railroad at State line.  
**Merchandise Trains** run daily, Sundays excepted, to Albany, Hudson, Bridgeport, Hartford, New Haven and New York.

For further information, apply to CHARLES A. READ, Agent, 27 State str. et. Boston.  
**jal JAMES BARNES, Superintendent and Engineer.**

**FITCHBURG RAILROAD.**  
**OPEN TO ACTON.**  
 Passenger Trains will run as follows:  
 Leave Charlestown at 8 A. M. and 1 and 4½ P. M. Leave West Acton at 7-36 and 10 51 A. M., and 5 6 P. M.

Stages, on the arrival of the first Train of Cars at Acton, leave daily (Sundays excepted) for Littleton, Groton, Townsend, Lunenburg, Fitchburg, Ashburnham, Wipshedon, Westmore, South Gardner, Templeton, Phillipston, Athol, Mass.; Fitzwilliam, Troy, Swansey, Keene, Walpole, Charlestown, N. H.; Chester, Windsor, Woodstock, Rutland, Middlebury, Royalton, Montpelier, and Burlington, Vt. For further information, apply to THOMAS A. STAPLES, No. 36 Hanover st., or L. BIGELOW, No. 11 Elm st., Boston. Passengers leaving their names at the above offices, will be supplied with Railroad and Stage tickets, and conveyed to the Fitchburg Railroad Depot, free of charge. Coaches will be at the Depot in Charlestown, on the arrival of the Cars, to convey passengers to any part of the city. **jal S. M. FELTON, Engineer.**

**BOSTON AND PROVIDENCE RAILROAD.**  
**PASSENGER NOTICE.—Winter Arrangement.**—To commence Monday, November 4.

On and after Monday, Nov. 4, the Passenger Trains will run as follows:  
 For New York—Night Line, via Sound Steamers—Leave Boston at 4 P. M. on Tuesday, Thursday and Saturday.  
 For New York—Morning Line, via Long Island Railroad—Leave Boston at 8 A. M. on Monday, Wednesday and Friday.

**Boston, Providence, Taunton, New Bedford and Way Trains.**  
 Leave Boston at 8 A. M., and 3½ P. M.; and Providence at 8 A. M. and 3½ P. M.  
 Taunton at 8½ A. M. and 3½ P. M.  
 New Bedford, at 7½ A. M. and 2½ P. M.

**Dedham Trains.**  
 Leave Boston at 9 A. M.—3 P. M., 5½ P. M.  
 Dedham at 7-50 A. M., 10½ A. M., 4½ P. M.  
 All baggage is at the risk of the owners thereof.  
**WM. RAYMOND LEE, Supt.**

**LONG ISLAND RAILROAD COMPANY.**  
 Trains run as follows, commencing November 1st, 1844:

Leave Brooklyn at 8 a. m. (7½ New York side)—Boston Train—for Greenport, daily, Sundays excepted, stopping at Farmingdale and St. George's Manor.  
 Leave Brooklyn at 9½ a. m. for Hicksville and intermediate places, daily; and on Tuesdays, Thursdays and Saturdays, through to Greenport and intermediate places.  
 Leave Brooklyn at 4 p. m. for Hicksville and intermediate places, daily, Sundays excepted; and on Saturdays to Suffolk Station.

Leave Greenport for Brooklyn, Boston Train, at 1 p. m. or on the arrival of the steamers, daily, Sundays excepted, stopping at St. George's Manor and Farmingdale.  
 Leave Greenport at 9½ a. m. Accommodation Train, for Brooklyn and intermediate places, on Mondays, Wednesdays, and Fridays.  
 Leave Hicksville for Brooklyn and intermediate places, daily, Sundays excepted, at 7 a. m. and 1½ p. m.

**ON SUNDAYS.**  
 Leave Brooklyn for Hicksville and intermediate places, at 9½ a. m.  
 Leave Brooklyn at 4½ p. m. for Jamaica.  
 Leave Hicksville at 2½ p. m. for Brooklyn.  
 Leave Jamaica at 8 a. m. for Brooklyn.  
 Leave Jamaica at 3½ p. m. for Brooklyn. **jal**

**FOR ALBANY AND BOSTON.**  
 Via New Haven, Hartford, Springfield, and Western Railroads. Composed of the following steamers:  
**NEW CHAMPION, Capt. Istoue; GLOBE, Capt. R. Peck; NEW YORK, Caps.—**  
 One of which will leave New York, from Peck Slip, daily, (Sundays excepted), at 6½ o'clock.  
 Fare to Boston.....\$5.  
 Railroad Cars leave immediately on the arrival of the above steamers at New Haven, and taking passengers through to Albany and Boston the same afternoon.

The steamboat BELLE, Capt. Roach, will leave New York every Monday, Wednesday, and Saturday afternoon at 4 o'clock.  
 N. B.—Freight for Albany, Springfield, and intermediate places taken by this line at low rates.  
 For further information inquire of D. B. Allen, 34 Broadway, up stairs; or G. W. Curlee, 283 Pearl street.

**NEW YORK AND ERIE RAILROAD.**  
 On and after Monday, December 21, until further notice, the steamboat will leave the foot of Duane street every morning, Sundays excepted, at 8 o'clock, for passengers, and every afternoon at 3 o'clock, for freight and passengers.

Returning, the cars will leave Middletown at 6½ a. m. and 3½ p. m.  
 Stages for the West, leave Middletown upon the arrival of the morning cars, from the city.  
 Freight received from 9 o'clock, a. m. to 2½ o'clock, p. m. For further particulars inquire of the Captain, on board, or of J. Van Rensselaer, Agent, cor. Duane and West streets. **jal H. C. SEYMOUR, Superintendent.**

**PHILADELPHIA AND READING RAILROAD.**  
**WINTER ARRANGEMENTS** on and after December 1, 1844.—No Passenger Trains will run on Sundays.

**Hours of Starting.**  
 From Philadelphia at 9 A. M., daily.  
 From Pottsville at 9 A. M. daily, except Sundays.  
**FARES.**  
 1st Class Cars. 2d Class Cars.  
 Between Philad. and Pottsville, \$3 50 \$3 00  
 " " Reading, 2 25 " 1 90  
 All passengers are requested to procure their tickets before the train starts. **jal**

**NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.**  
**New Arrangement.**  
 Commencing Nov. 11th, 1844.  
**NEW YORK AND NEWARK.**  
 Fare Reduced to Twenty-Five Cents.

From the foot of Courtlandt street—Daily, Sundays excepted.  
 Leave New York, at 9, 11, and 12 o'clock, a. m. and 2, 4, 4½, 6, and 7½ o'clock, p. m.  
 Leave Newark at 7½, 8½, 9, and 11 o'clock, a. m. and 1½, 4, 5½, 7, and 9½ o'clock, p. m.

**ON SUNDAYS,** from the foot of Courtlandt street:  
 Leave New York at 9 o'clock, a. m. and 4½ p. m.  
 Leave Newark, at 11½ a. m. and 9½ p. m.

The Cars of the Morris and Essex Railroad line for Orange, Millville, Summit, Chatham, Madison, and Morristown, run through from Jersey City without change, and connect with 9 a. m. and 3 p. m. trains from New York.  
**New York and Elizabethtown.**  
 Leave New York at 9 and 11 a. m. and 2, 2½ and 6, p. m.  
 Leave Elizabethtown at 7, 7½, 8½, 10½ and 12 a. m. and 3½ and 6, p. m.

The trains for Westfield, Plainfield, Boundbrook, Somerville, &c., connect with the 9 a. m. and 4½ p. m. trains from New York, daily, Sundays excepted.  
**Fare between New York and Elizabethtown, 31 cents; do. New York and Somerville, 75 cents.**

**New York and Rahway.**  
 Leave New York at 9 and 11 a. m. and 3, 4½ and 6, p. m.  
 Leave Rahway at 6½, 7, 8½ and 12 a. m. and 4½ and 9½ p. m.  
**New York and New Brunswick.**  
 From the foot of Courtlandt street, New York, daily.  
 Leave New York at 9 a. m. and 3 and 4½ p. m.  
 Leave New Brunswick at 6, 7½ and 11½ a. m. and 5½ p. m.

**ON SUNDAYS.**  
 Leave New York at 9 a. m. and 4½ p. m.  
 Leave New Brunswick at 11½ a. m. and 6½ p. m.  
 Fare, except in the Philadelphia trains, between New York and New Brunswick, 50 cents; do. Rahway, 31 cents.  
 Newark, Elizabethtown, Rahway, and New Brunswick passengers who procure their tickets at the Ticket Office receive a ferry ticket gratis. Tickets are received by conductors only on the day when purchased.

The Commutation fare between New York and New Brunswick, and intermediate places, (including the Ferry,) has been reduced to \$65 per annum. **jal**

**PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD.—MORNING LINE.**  
 The Train carrying the United States Mail leaves Fruit street Depot daily (except Sundays), at 9 o'clock, A. M.

Passengers arrive in Philadelphia at about 3 o'clock, and in full time for the evening lines for New York.  
**Evening Mail Line to Philadelphia per Railroad.**  
 The Evening Mail Train for Philadelphia, leaves the Pratt street Depot, daily at 8 o'clock P. M. through in seven hours.

The Return Trains leave Philadelphia respectively at 8 A. M. and 4 o'clock P. M., and reach Baltimore at 2½ and 11 o'clock, P. M.  
 Freight to or from Philadelphia, taken daily (except Sundays) from President street Depot, at 50 cents per 100 lbs. **jal A. CRAWFORD, Agent.**

**BALTIMORE AND OHIO RAILROAD.**  
 Hours of departure of the Passenger Trains on the "Main Stem" and "Washington Branch" of the Baltimore and Ohio Railroad, 30th March, 1844:

**"Main Stem," Westwardly.**  
 For Cumberland, Hancock, Martinsburg, Harper's Ferry, Winchester, Frederick, Ellicott's Mills, and intermediate depots by the regular train, daily, at 7½ o'clock, a. m.  
 For Frederick and intermediate stations, by extra train, daily, except Sunday, at 4 p. m.

**Eastwardly.**  
 From Cumberland, daily, regular train, at 8 a. m.  
 " Hancock, do. do. 10½ a. m.  
 " Martinsburg, do. do. 11½ a. m.  
 " Harper's Ferry, do. do. 12½ p. m.  
 " Frederick, daily, except Sunday extra train, 8 a. m.  
 " do. by regular train, 2 p. m.  
 " Ellicott's Mills, daily, by several trains, at 7½ a. m.

12, m. and 4½ p. m.  
 Fare in either direction between Baltimore and Cumberland \$7, and for intermediate distances at the uniform rate of 4 cents per mile.  
 Through tickets are issued between Baltimore and Wheeling, respectively, \$11; between Baltimore and Pittsburg, \$10; between Philadelphia and Wheeling, \$13.

**"Washington Branch"**  
 From Baltimore at 9 a. m., 5 p. m. and 11½ p. m.  
 From Washington at 6 a. m. and 5½ p. m. **jal By order, D. J. FOLEY, Agent.**

**WASHINGTON BRANCH RAILROAD.**  
 In consequence of the adoption of a new schedule by the Post Office Department, the following changes in the departure of the Trains on this road will go into effect this day, viz:

The Train that has hitherto left Baltimore at 2 o'clock, A. M. will now leave on the arrival of the Cars from the East, at or about 11½ P. M. and the departure of the evening train from Washington for this city, will be at 5½ instead of 4 o'clock, as at present. By order, **D. J. FOLEY, Agent. jal**

**RICHMOND AND PETERSBURG RAILROAD.**  
**Winter Arrangement.—Change of Hours.**  
 On and after Wednesday, the 13th day of Nov. 1844:

**Mail Train**  
 Leaves Richmond, daily, at 1½ o'clock, p. m.  
 Leaves Petersburg, daily, at 5½ a. m.  
**Accommodation Train**  
 Leaves Richmond, daily, Sundays excepted, at 10½ a. m.  
 Leaves Petersburg, daily, Sundays excepted, at 8 a. m.

**THEODORE S. GARNETT, Agent.**  
 N. B. The hours are given in Richmond time, which is fifteen minutes in advance of Petersburg time. **jal**

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.

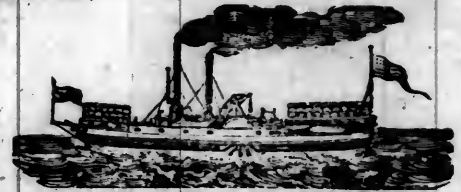
ESTABLISHED 1831.

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SECOND QUARTO SERIES, VOL. I.; No. 3.]

THURSDAY, JANUARY 16, 1845.

[WHOLE No. 446, VOL. XVIII.]



THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)  
TROY IRON AND NAIL FACTORY, H. Burden Agent. (See Adv.)  
ANDREW MENEELY, West Troy. (See Adv.)  
ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
NORRIS, BROTHERS, Philadelphia, Pa.  
KITE'S Patent Safety Beam. (See Adv.)  
FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)  
BALDWIN & WHITNEY, Philadelphia, Pa.  
JOHN F. STARR, Philadelphia, Pa.  
MERRICK & TOWNE, do.  
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. [See Adv.]  
ROSS WINANS, Baltimore, Md.  
SOUTH BOSTON IRON COMPANY, South Boston.  
HINCKLEY & DRURY, South Boston.  
C. C. ALGER, [Stockbridge Iron Works,] Stockbridge, Mass.

## IRON MERCHANTS and IMPORTERS.

DAVIS, BROOKS, & Co. N. Y. [See Adv.]  
A. & G. RALSTON & Co. Philad. Pa. [See Adv.]  
THOMAS & EDMUND GEORGE, Philadelphia. [See Adv.]

## NICOLL'S PATENT SAFETY SWITCH FOR RAILROAD TURNOUTS.

This invention, for sometime in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design. It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them. It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable. Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, Reading, Pa. Jan. 1, 1845.

## TO IRON MANUFACTURERS.

The subscribers as Agents of Mr. Geo. Crane of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licences for the manufacture of Iron according to Mr. Crane's principle. A. & G. RALSTON & Co. No. 4 South Front street, Philadelphia, Pa.

## S. VAIL, Proprietor of the Speedwell Iron Works, near Morristown, N. J. can supply at short notice railroad companies and others, with the following:

Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyres made, and they may rely upon being served according to order, and also punctually, as a large quantity in the strait bar is kept constantly on hand. Crank axles for locomotive engines, made from the best Pennsylvania iron.—Straight axles for locomotives for outside connection engines. Frames for engines.—Wrought iron work for steamboats, and shafting of any size. Cotton screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen: Baldwin, Vail and Hufty, Philadelphia; Wm. Norris, Philadelphia; N. Campfield, Savannah, Ga.; J. and S. Bones, Augusta, Ga.; D. F. Guez, New Orleans, La.; Adam Hall, New York; J. P. Allaire, New York; William Parker, Boston, Mass.; George W. Schuyler, New York.

## VALUABLE PROPERTY ON THE MILL DAM FOR SALE.

A Lot of Land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and East of Parker street, containing 63,497 square feet, with the following buildings thereon standing:  
Main Brick Building, 120 feet long, by 46 feet wide, two stories high. A Machine Shop, 47x43, with large Engine, Face, Screw, and other Lathes, suitable to do any kind of work.  
Pattern Shop, 35x32 feet, with Lathes, Work Benches, &c.  
Work Shop, 86x35 feet, on the same floor with the pattern shop.  
Forge Shop, 118 feet long by 44 feet wide on the ground floor, with two large Water Wheels, each 16 feet long, 9 feet diameter, with all the Gearing, Shafts, Drums, Pulleys, &c., large and small Trip Hammers, Furnaces, Forges, Rolling Mill, with large Balance Wheel and a large Blowing Apparatus for the Foundry.  
Foundry, at end of Main Brick Building, 60x45½ feet, two stories high, with a shed part 45½x20 feet, containing a large Air Furnace, Cupola, Crane and Corn Oven.  
Store House a range of Buildings for Storage, etc., 200 feet long by 20 wide.  
Locomotive Shop, adjoining Main Building, fronting on Parker street, 54x25 feet.  
Also—A Lot of Land on the Canal, west side of, Parker st., containing 6000 feet, with the following buildings thereon standing:  
Boiler House 50 feet long by 30 feet wide, two stories.  
Blacksmith Shop, 49 feet long by 20 feet wide.  
For terms, apply to HENRY ANDREW, 48 State street, or to CURTIS, LEAVENS & CO. 106 State street, Boston, or to A. & G. RALSTON & CO., Philadelphia. jsl

## MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Paterson, N. J.

The Undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.  
Railroad Work.  
Locomotive Steam Engines and Tenders; Driving and other Locomotive Wheels, Axles, Springs and Flange Tyres; Car Wheels of cast iron, from a variety of patterns, and Chills; Car Wheels of cast iron with wrought Tyres; Axles of best American refined iron; Springs; Boxes and Bolts for Cars.  
Cotton, Wool and Flax Machinery of all descriptions and of the most improved Patterns, style and workmanship.  
Mill Gearing and Millwright work generally; Hydraulic and other Presses; Press Screws; Callenders; Lathes and Tools of all kinds; Iron and Brass Castings of all descriptions.  
ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. or 60 Wall street, N. Y.

## MESSRS. EDITORS:—As your paper is devoted to the benefit of the public in general, I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore Railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large eight wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstance attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan, the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Delaware, Sept. 28, 1840.  
The undersigned take pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,  
JAMES ELLIOTT, Sup't Motive Power,  
W. L. ASHMEAD, Agent.  
A model of the above improvement is to be seen at the N. Jersey Railroad and Transportation Office, No. 1 Hanover st., New York. jal

## TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY.—The subscribers have for sale American and English Bar Iron, of all sizes; English Blister, Cast, Shear and Spring Steel; Juniata Rods; Car Axles, made of double refined iron; Sheet and Boiler Iron, cut to pattern; Tyers for Locomotive Engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article.

The Tyres are made by Messrs. Baldwin & Whitney, Locomotive Engine Manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE, N. E. corner 12th and Market streets, Philadelphia, Pa. jal

**TO THOSE INTERESTED** in Railroads. Railroad Directors and Managers are respectfully invited to examine an improved Spark Arrester, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used, is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks, passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust, they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity, to the bottom of this chamber; the smoke and steam passing off at the top of the chimney through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits.

E. A. Stevens, pres't Camden and Amboy railroad company; Richard Peters, superintendent Georgia railroad, Augusta, Ga.; G. A. Nicolls, sup't Philadelphia, Reading and Pottsville railroad, Reading, Pa.; W. E. Morris, pres't Philadelphia, Germantown and Norristown railroad company, Philadelphia; E. B. Dudley, pres't W. and R. railroad co., Wilmington, N. C.; Col. James Gadsden, pres't S. C. and C. railroad comp'y, Charleston, S. C.; W. C. Walker, agent Vicksburg and Jackson railroad, Vicksburg, Miss.; R. S. Van Rensselaer, engineer and sup't Hartford and N. Haven railroad; W. R. M'Kee, sup't Lexington and Ohio railroad, Lexington, Ky.; T. L. Smith, sup't N. Jersey railroad trans. co.; J. Elliott, sup't motive power Philadelphia and Wilmington railroad, Wilmington, Del.; J. O. Sterns, sup't Elizabethtown and Somerville railroad; R. R. Cuyler, pres't Central railroad co., Savannah, Ga.; J. D. Gray, sup't Macon railroad, Macon, Ga.; J. H. Cleveland, sup't Southern r. road Monroe, Mich.; M. F. Chittenden, sup't M. P. Central railroad, Detroit, Mich.; G. B. Fisk, president Long Island railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin and Whitney, of this city, will be promptly executed.

FRENCH & BAIRD.

N. B. The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia Pa., April 6, 1844.

**TO IRON MASTERS—FOR SALE,** Mill Sites in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railroads. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY,  
Civil Engineer,  
No. 23 Chambers st., N. Y.

**SAMUEL NOTT**, Civil Engineer, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES. —

Col. James F. Baldwin and Col. J. M. Fesenden, Civil Engineers, Boston; Wm. Parker Esq. Engineer and Superintendent Boston and Worcester railroad.

**SPRING STEEL** for Locomotives, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/4 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOHN F. WINSLOW, Agent,  
Albany Iron and Nail Works, Troy, N. Y.

**ANDREW MENEELY'S** Manufacturing Establishment, West Troy, Albany County, New York. The subscriber manufactures and keeps constantly on hand Theodolites, Transit instruments, Levels, etc., of the most approved construction. He would invite the attention of surveyors to his Improved Compass, which is almost equal to a Theodolite, inasmuch as angles can be taken without the needle. Angles of elevation can be taken with precisely the same accuracy as horizontal angles. Town clocks, with dead beat escapements, warranted to perform in the best manner, and keep correct time. He still continues to cast Church Bells, warranted not only to stand, but tone such as to give satisfaction and please, and fastens to them cast iron yokes, ready to hang. Also steamboat and factory bells, of all sizes, constantly on hand: and copper and brass castings of every description made to order.

**PATENT** Hammered Railroad, Ship and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of railroad, ship and boat spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works, will be promptly executed.

JNO. F. WINSLOW,

Agent Albany Iron and Nail Works.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; Jas. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

**PATENT RAILROAD, SHIP AND Boat Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of wrought Spikes and Nails from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent,) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with spikes made at the above named Factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. Y., will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory prices by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water street, New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrad & Smith, Boston.

Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand for his spikes.

**W. R. CASEY, CIVIL ENGINEER,** No. 23 Chambers street, New York, will make Surveys, Estimates of Cost and Reports for Railways, Canals, Roads, Docks, Wharves, Dams and Bridges of every description, with Plans and Specifications, and when required, superintend their execution.

He will also make Surveys of Estates, with correct maps and descriptions of the same; and examine and report on the best mode of rendering them productive by draining, mines, quarries, water power, roads, bridges, wharves, etc.

**R. F. LIVINGSTON,** Civil Engineer Hudson, New York. Refer to W. R. Casey, 23 Chambers st., N. Y.

[For the American Railroad Journal]

**NEW YORK AND ERIE RAILROAD.**

As this road is attracting very general attention at this time, and many, not fully informed as to its merits, present condition, and necessities, are desirous of obtaining information upon the subject, we present them with the following condensed statement, made from the Reports of the Board of last year, with such alterations as the statistics, furnished since the date of those Reports, would seem to warrant.

*Present Condition of the Work.*

53 miles are completed and furnished with the necessary engines, cars, &c., and in profitable operation.

11 miles completed, but not in use.  
177 miles of graded and piled road, ready for the superstructure; on one half of which the bridges are constructed

40 miles grading nearly finished.  
The right of way obtained for 325 miles.  
Permanent arrangements completed for building and maintaining fences upon 220 miles.

350 miles finally located, and the necessary surveys nearly complete for locating the remaining distance.

Other property of great value, consisting of rail timbers and cross ties, ready for use; lands for depots, and donations of real estate.

A considerable portion of the road is graded for a double track.

*Cost of finishing the Work.*

Grading, and all other expenses except iron rails, spikes and castings, as per estimates made 3 years since, \$3,849,161 49

36,153 tons iron rails at the present prices, including \$8 50 per ton for distributing along the line, 2,368,021 50

(The heavy I rail has been used upon those portions of the road already completed; and this estimate supposes the same kind will be used upon the unfinished portion.)

1,057,224 lbs. spikes, at 6c. }  
4,383,268 " castings, at 3c. } 194,931 48

\$6,412,114 47

The cost of doing work at the present time, as shown by the proposals for constructing 15 miles lately advertised by the Company for competition, is at least 20 per cent. less than the prices used in making the estimate for grading, &c. embraced in the above. It is reasonable, therefore, to diminish the total cost of completing the grading by that per centage, which amounts to 769,832 29

Leaving the amt'to be expended, \$5,642,282 18

*Cost of the work to stockholders when finished.*

Amount already expended, including the indebtedness of the Company, \$4,734,872 66

Required to complete, 5,642,282 18

\$10,377,154 84

By an act of the Legislature of 1843, the State Loan of \$3,000,000 will be given to the Co. provided the work is resumed before the 18th April, 1845, and completed within 5 years. If the proposed plan for procuring subscrip-

tions should prove successful, and the condition of that act be complied with, then the net proceeds of that loan should be deducted from the cost of the work to the stockholders.

The amount realised from the loan is \$2,639,457 32

Of the earnings of the Eastern division, rent of offices, &c., there has been expended in construction, up to April 15, 1842, 21,848 16

Making to be deducted, 2,661,305 48

Leaving as the cost of the work, \$7,715,849 36

But for safety, let us add for contingencies, 284,150 64

Making the total cost of the road to stockholders, \$8,000,000 00

Or \$17,777 77 per mile, for a road 450 miles long, and in no respect inferior to any work of a similar character in the Union.

*Income.*

The Eastern Division has been in operation 3 years up to Sept. 30th, 1844, and the earnings and net revenue have been as follows:

	Total Earnings.	Net Revenue.
1st year, - -	\$78,526	\$31,732
2d year, - -	95,735	43,216
3d year, - -	122,769	55,790

Making the average annual net revenue \$43,576.

With a view of deducing from the results of the operations of the E. Division, a basis of calculation for determining the net revenue to be expected from the whole road, much pains have been taken in ascertaining—

That the area of country contributing this revenue does not exceed 440,000 acres.

That the population of that area does not exceed 40,000.

That the average annual net revenue derived from the area named is \$43,576.

Now by dividing the area of country tributary to the road into districts, whose centres are 50 miles apart on the line of the road, and assuming \$40,000, instead of \$43,576, to be the net earnings from a population of 40,000, and that a like population on other portions of the line will produce a like amount of surplus products to be sent to market, and allowing for the increase of receipts from the same amount of tonnage, on account of the greater distance to be transported,—the value of the business of each division will be ascertained with great accuracy, and will be found to be as follows:

	Population.	Net Revenue.
1st dist. 50 miles, 40,000,	40,000,	yields \$40,000
2 100 " 28,000 "	28,000 "	56,000
3 150 " 51,000 "	51,000 "	153,500
4 200 " 135,000 "	135,000 "	540,000
5 250 " 87,000 "	87,000 "	435,000
6 300 " 45,000 "	45,000 "	270,000
7 350 " 48,000 "	48,000 "	376,000
8 400 " 35,000 "	35,000 "	280,000
9 450 " 62,000 "	62,000 "	558,000
	Total,	\$2,708,500

To some this amount may seem large—greater than will be realised. Let such bear in mind—

1. That the charges for transportation upon the E.

Division, upon which this estimate is based, are one-third less than upon the principal roads in the country, and that the net revenue last year was over \$15,000 greater than the amount used in these calculations.

2. That no notice is taken of the business to be brought to the road from the lakes, some idea of which may be formed from the fact that the number of tons passing through Buffalo East and West is over 340,000 per annum, as shown by the Report of the Commissioners of the Canal Fund for 1843.

The number of passengers connected with this large and rapidly increasing business must be on the same scale. But the Board have not been able to obtain any accurate statistics by which to present it.

From the best information in their power, it is believed that during seven months of the year at least 300 passengers each day arrive at Buffalo from the lake, and that 600 each day are conveyed westward in steamboats and vessels.

The inducements which the New-York and Erie Railroad can offer to this large amount of business, are as follows:—

By the report of the Superintendent of the Eastern Division of the New-York and Erie Railroad, it appears that passengers can be conveyed from Lake Erie to the city of New-York in 24 to 26 hours; that a charge of \$10 per passenger will afford a profit of \$3 to \$5 per passenger; that light freight can be transported over the road in 24 to 26 hours; that a charge of \$15 to \$20 per ton will give a profit of \$5 to \$10; and that heavy freight can be transported in 48 to 50 hours, and that a charge of \$8 to \$15 will yield a profit of \$3 to \$8 per ton.

The existing communications, which will more immediately compete with the New-York and Erie Railroad for the lake business, are the Erie Canal and the northern line of Railroads to Albany.

From information obtained from parties engaged in the freighting business between Buffalo and New-York, the following table has been prepared:

*Freight from Buffalo to New-York, through in 7 to 9 days.*

On Flour,	\$10 00	per ton
" Wheat, Corn, &c.	9 50	"
" Pork, Beef, &c.	9 50	"
" Wool, Skins, &c.	19 50	"

*Freight from New-York to Buffalo, through in 7 to 9 days.*

On Groceries, &c.	\$21 00	per ton
" Dry Goods, &c.	24 00	"
" Pig Iron,	10 00	"

3. That it is a well established fact, that transportation on a long road will yield larger profits than a short one, the expenses of operating not being in direct proportion to the distance passed over.

4. That this estimate refers strictly to the population and resources of the country as they now exist, and no allowance is made for the increase of either, or for the additional stimulus to surplus products, which invariably follows the creation of improved modes of transportation; and,

5. That no notice is taken of the receipts to be derived from the transportation of the U. S. mail, which alone, at \$250 per mile, (less than is paid on other roads,) would amount to more than \$100,000 per annum.

When all these and other causes, having a direct tendency to increase the revenues, are taken into consideration, every one will see that instead of the amount being too high, it is probably nearly *one-half* too low.

No doubt, therefore, as to the productiveness of the road can exist.

Aside from the large dividends to be reasonably expected, there are other benefits of a general character which will most certainly follow its completion.

First. The increase in the value of real and personal estate in this city.

It is ascertained that the value of the real and personal property of this city, at the close of the war in 1815, was \$81,636,042  
That at the completion of the Erie Canal in 1824, it was 83,075,676  
The first year it was opened, in 1825, it was 101,160,046  
At the completion of the Ohio Canal in 1832, it was 146,302,618  
And in 1840, 252,135,515

During the later period, (from 1832 to 1840,) about 500 miles of railroad were put in operation in this State, and about 2,500 in other States. Thus it will appear that since the introduction of the railroad system, the value of real and personal estate in this city has increased over \$100,000,000. The increased value of real estate alone, from 1831 to 1840, was over \$91,000,000.

Second. The decrease in the cost of articles of country produce consumed in this city.

Great pains have been taken to ascertain the value of produce annually consumed here, and it is believed that the consumption in this city and Brooklyn, and the supplies for shipping, do not fall short of \$25,000,000. Now, the saving to consumers upon the item of milk alone has been about \$400,000 per annum, the price having been reduced *one-third* since the opening of the Eastern Division. The cost of poultry, fresh meats, &c., has been reduced in about the same proportion, but suppose the reduction upon all articles consumed to be but 20 per cent., and yet the saving will be \$5,000,000 per annum.

But this article has already reached a greater length than we intended, we will therefore close by quoting the following plan for resuming the construction of the work, as recommended by the present Board:—

To complete the entire line of the road, six millions of dollars is deemed necessary and sufficient. Towards this sum, the Bonds legally authorized are an eligible and safe reliance for three millions. From a variety of considerations, it is believed to be quite safe to rely upon the interior counties for further aid to the amount of one million. So that to insure the immediate progress and early accomplishment of the entire work, a subscription of two millions of dollars only is required. With such a subscription, the Board would have no hesitation in proceeding with the work, in the confidence that no further call upon the citizens of this city will be necessary.

Believing this to be the smallest amount that would give to the stockholders sufficient confidence of success to render their subscriptions safe

as an investment, and that subscriptions to this amount will not be deemed impracticable, or out of proportion for this city, it is proposed to give notice in due form within a few days, comprising substantially the following conditions, viz.

1. That books of subscription to the capital stock will be opened for two millions of dollars; the option being reserved by the Board of accepting such further subscriptions as may be made prior to the 1st day of April, 1845.

2. That if two millions, and no further sums, should be subscribed by that date, the Board will rely on subscriptions for one million in the interior counties, so as to make an aggregate of three millions, which, with the like amount of bonds, as authorized by the Legislature, is deemed sufficient to complete the Road from the Hudson to the Lake in such time and manner as to secure all the benefits of the Law of April, 1843.

3. That an instalment of \$5 per share be called at the pleasure of the Board after the 1st day of January, 1845, and that subsequent instalments be restricted to \$20 per share in 1845; \$30 in 1846; and \$45 in 1847.

4. That as an equitable, and under existing circumstances, an expedient measure, interest at the rate of six per cent. per annum be allowed on all the instalments on the stock which shall be subscribed, from the dates of the respective payments until the whole line of the road from the Hudson to Lake Erie shall be put in operation; and that the same be liquidated and paid yearly on the 1st day of January.

In pursuance of such views, the books of subscription to the capital stock of the Company have been opened at the office, No. 34 Wall street, and the members of the Board are zealously engaged in making personal applications to our citizens for their subscriptions. We learn from good authority, that over half a million of dollars has already been subscribed.

#### PENNSYLVANIA.

We find the following abstract of the Governor's Message in the Philadelphia Inquirer:

A review is given of the financial condition of Pennsylvania when the Governor entered upon the duties of his office; and of the measures that were immediately taken to improve the condition of public affairs. The various Tax Bills suggested and adopted are analysed, and the difficulties and embarrassments of the State are adverted to.

The entire amount of the public debt at this time is \$40,835,013. The interest due in February next, is \$873,515; in addition to \$97,880 of interest on interest certificates. The amount in the Treasury on the 1st of February is estimated at \$963,030, which embraces the sum of \$50,000 of relief notes, which the State Treasurer withheld from cancellation on the 31st December, and which, if needed, may be applied by the Legislature to the payment of interest on the public debt.

From the facts here presented, the Governor says, it is evident that the Commonwealth will be prepared to meet her interest falling due on the 1st of February. Attempts, it is true, have been made to create doubts in the public mind in relation to the propriety of paying the interest on that day, lest there should be a deficiency in the Treasury, on the 1st of August. But it must be perfectly evident that the Treasury will be in ample funds, not only on the first of August next, but also on the first of February, 1845. And the very fact that the interest is paid on the first of February next, will increase the means and credit of the State to meet its interest in August, and afterwards, when it falls due.

While, on the other hand, if when it is admitted that enough money to discharge the interest on the first of February, is in the Treasury, applicable to that object, and it is not so applied, we shall with much appearance of justice, subject ourselves to the reproach of our traducers, as wilfully dishonest, and regardless of the faith and honor of the State.

The Governor felicitates the public on this cheering aspect of affairs.

The tolls collected in 1844, amount to \$1,167,603 42, being an increase over 1843 of \$172,199 10. The collections for the year exceed the expenditures the sum of \$629,658 82.

The State Treasurer estimates that there will be a balance in the Treasury on the 30th of November, 1845, of \$647,345; and this after the interest on the public debt shall have been paid. There is, therefore, says the Governor, no manner of doubt that, henceforth, the State will be able to meet, not only the interest on her public debt, but all her other engagements of every description; the taxes now imposed by law, (if their collection and payment into the Treasury be strictly enforced,) and the proceeds of the public improvements, with other sources of revenue, constituting a fund amply sufficient for that purpose.

#### RAILROADS IN SCHUYLKILL COUNTY.

The following is the quantity of coal transported over the different Railroads in Schuylkill county, for the year 1844, in comparison with the former year:

	1844.	1843.
West Branch,	334,027	277,474
Mount Carbon,	202,742	147,481
Mill Creek,	75,636	48,878
Schuylkill Valley,	109,865	90,372
Little Schuylkill,	56,669	31,281
Pinegrove,	34,916	22,905
	833,895	618,391

Increase in 1844, 215,504

The whole distance of the West Branch Road, (terminating at Schuylkill Haven,) is laid down with substantial iron rails. The Company is doing a thriving business, declares a dividend annually of at least 12½ per cent., and the stock is now worth \$73 for \$50 paid.

The Mount Carbon Road, which terminates at Pottsville, has never paid a dividend, from some cause or other. Part of this road was laid down with iron rails during the past season, and the same material will also be substituted on the other portions as soon as possible, probably during the present year. This road ought to be profitable to the stockholders.

Arrangements have been made to widen the track of the Mill Creek Road, which terminates at Port Carbon, so as to connect it with the branch of the Reading, Mount Carbon and Port Carbon Railroad. We learn it will be ready for use early in the ensuing season. This road pays annual dividends, and is considered good stock.

The Schuylkill Valley Road is nearly all graded for laying down an iron track the whole distance of 12 miles to Tuscarora. This road will connect with the Mount Carbon Railroad at Port Carbon, and renders accessible an extensive portion of the Schuylkill coal region. It will also be ready for business early in the spring. This road (although it has not yet paid a dividend) ought to be one of the most profitable in the county, and probably will be soon after the new road is laid. Connecting links will be made by the Reading Railroad with all the Roads in the Schuylkill coal region when the two last are completed.



**RAILROAD FROM CLEVELAND TO THE OHIO.**—A project is under discussion to construct a Railroad from Cleveland to the Ohio river at Wellsville, or Beaver, &c. Distance, with the curvatures of the road, say 90 miles, cost \$15,000 a mile. Capital required to complete the road, and place upon it the requisite number of locomotives and cars, \$1,500,000. The income from all sources is estimated at \$700 a day, equal to 14 per cent. per annum! The time to pass from Detroit, by this route, to New York will be about the same as by way of Buffalo and Albany.—*Cin. Gaz.*

**OUR COAL STATISTICS.**—We publish in another part of the Journal, our annual coal statistics. They are not all completed, but correct so far as they go. The dose will, however, be found sufficient for one week. We would also remark that these statistics have cost us both time and money to prepare; and we hope we will receive the proper credit. The only statistics of the anthracite coal trade in the United States have been prepared in this office. They have in several instances been copied without credit—then re-copied, and credited to the papers who cribbed them. This is not 'doing unto others as you would wish to be done by,' to say the least of it.—*Miners' Journal.*

**THE COAL TRADE.**—It was our intention to lay before our readers our annual tables, showing the state and progress of the anthracite coal trade in the United States—but the short period that intervened between the first of January and our day of publication, and having been disappointed in receiving the official quantity shipped from two districts, we have concluded to postpone their publication until next week. In the mean time, we give below the quantity shipped from this region.

<i>By Railroad.</i>		
Schuylkill Haven,	272,528	06
Pottsville,	168,962	08
	441,490	14
<i>By Canal.</i>		
Pottsville & P. Carbon	278,459	00
Schuylkill Haven,	61,675	00
Port Clinton,	58,309	00
	398,443	00
	839,933	14
To which add from Swatara region,	31,531	00

Total from Schuylkill county, 871,464 14  
 Making 871,464 tons of coal shipped from this county during the year 1844, which exceeds the quantity shipped last year by 171,264 tons, and the amount sent from all the Anthracite regions in 1840, by upwards of 6000 tons.

Should nothing intervene to check the growing prosperity of the country, we confidently anticipate a shipment of at least one million of tons of coal from Schuylkill county the present year.—*Miners' Journal.*

**THE IRON TRADE.**—This interest, which is fast growing in importance in our country, appears to be also increasing in Europe somewhat rapidly, a circumstance worthy of note here. Prussia employs in furnaces for the manufacture of pig iron, 8,674 workmen, who produce 120,000 tons annually; and 6,049 workmen, who produce 73,000 tons of bar and plate iron. In Bavaria, 14,750 tons of cast and wrought iron are annually produced. In Wirtemburgh, 8,900; in Baden, 11,750; in Saxony, 12,150; and in the other German States of the Zoll-Verein is, cast iron, 191,156; wrought iron, or works in cast and wrought iron, 187,324 tons. In proportion to the population these quantities are not great, since they only amount to 15 1/2

lbs. for each person throughout the confederation. In France, the proportion is above 22 lbs.; in Belgium it is about 36 lbs.; and in England it is as high as 55 to 56 lbs. to each person.

**A NEW LOCOMOTIVE.**—Many of our scientific fellow citizens were much gratified yesterday, with an examination of the model and principle of a new locomotive, invented by Mr. Ezra Coleman, of this city. The object of the principle discovered by Mr. C. is to overcome the difficulties of railroad travelling which are presented by inclined planes. By this locomotive there will be no occasion for stationary steam engines, as at the Schuylkill Inclined Plane—the new screw power introduced, enabling Mr. C.'s engine to ascend and descend with ease and safety. The model was exhibited at the office of our friends, Messrs. McMakin and Holden, of the Saturday Courier, where it may be seen until one o'clock this afternoon.

**U. S. REVENUE CUTTERS.**—The amount of money expended upon the construction of iron revenue steamers, up to the 1st of December, 1844, is for the John Tyler, at Pittsburg, 469 tons, \$68,468 48; Jefferson, at Oswego, 343 tons, \$65,077 38; Spencer, at New York, 398 tons, \$86,779 27; Legare, at New York, 398 tons, \$82,001 22; Dallas, at Buffalo, 392 tons, \$56,254 65; McLane, at Boston, 368 tons, \$69,705 95. Total, \$425,286 35. There are fourteen revenue cutters now in service, besides the two iron steamers just constructed, the Legare and the Spencer—the first upon Ericsson's, and the latter upon Hunter's plan. The Dallas, now on the stocks at Buffalo, is in a state of forwardness, and will be launched sometime during the early part of next season.—*Philadelphia Inquirer.*

The Philadelphia Inquirer says that a new plan has been adopted for the warming of railroad cars by the Camden and Amboy Railroad Company. It is thus described:

A small boiler is attached to the upper part of the stove in the cars; two inch copper pipes are attached to this boiler, and these pipes are conveyed under the seats; and thus, being constantly filled with hot water, heat is thrown out in every quarter with entire safety, and to the evident enjoyment of travellers. We learn that the public are indebted for this new and very commendable feature, to the forethought and enterprise of Edwin Stevens, Esq., one of the most efficient members of the Board of Managers.

**GEORGIA RAILROAD.**—We are gratified to be informed that the Georgia Railroad has been opened for the accommodation of both freight and passengers to Covington, 25 miles beyond the late terminus at Madison. The road beyond that is graded as far as Whitehall, where it connects with the State road, and will be finished for that distance in September next. At the same period the State road will be in operation as far as Cassville, within 17 miles of the Coosa, and 60 of the Tennessee river.—*Charleston Mercury.*

**BATTIN'S COAL BREAKER.**—It is but ten months since the first Breaking Machine was erected at Mr. Bast's mines, in this region, by Mr. Battin, as an experiment. So superior is this improvement considered to others invented for said purpose, that no less than fourteen have already been erected at the following Collieries in this region, and preparations are making to erect four or five more.

Gideon Bast,	1
M. G. & P. Heilner,	2
Milnes & Co.	1

G. Spencer & Co.	1
A. B. White,	1
Milnes & Haywood,	1
William Payne,	1
Delaware Coal Company,	1
George H. Potts,	1
A. Ronaldson,	1
James C. Oliver,	1
Jonathan Wasley,	1
Lumison & Gaskill, Swatara region,	1

Mr. Battin's receipts for his patent have been considerable during the last season, but so far, we learn, he has been barely remunerated for the expenses he incurred in making the different experiments in perfecting his coal breaker. It is but justice to add, that Messrs. Haywood & Milnes made several alterations in the machine erected at their collieries, which by some are considered improvements, but as the principle is the same, it is embraced in Mr. B.'s patent, and all differences have been adjusted between the parties.—*Miners' Journal.*

**EXTRAORDINARY HYDRAULIC PERFORMANCE.**

A most interesting exhibition of hydraulic prowess recently took place in Her Majesty's Dock-yard at Woolwich, where there is a floating caisson of large dimensions, from which it is occasionally necessary to remove the water. This has hitherto been accomplished by means of a pair of ten-inch pumps, fitted up in the best possible manner by an eminent engineering firm in London. These pumps have been worked by a party of thirty-two convicts, in two gangs of sixteen each, relieving each other at intervals of ten minutes, by which means the water has been pumped out in three hours and a half, the men at the end of that time being much distressed by their continued exertions. Mr. Walker (of Crooked-lane, King William-street,) having offered to raise the required quantity of water in half the time, with half the number of hands, by means of his new invented pump, of which we gave an account in vol. xl. page 307, his proposal was made known to the Board of Admiralty, who immediately called upon Mr. Walker to fulfil his promise. Mr. Walker accordingly fitted up a pair of twelve-inch pumps worked by a rotary motion, which were completed and tried on the 20th of September last, under the superintendence of Captain Dennison, R.E., in the presence of Lord Adolphus Fitzclarence, Sir Francis Collier, Mr. Oliver Lang, and the principal authorities of the Dock-yard, who seemed to take a lively interest in the experiment, as the speedy emptying of the caisson is to them a matter of great moment. The new pumps were manned by fourteen convicts (the same formerly employed in this work) in two gangs of seven each, relieving each other at intervals of fifteen minutes. In one hour and fourteen minutes the required task was accomplished, the men being in no way fatigued! The quantity of water raised was about 3,350 cubic feet, or 95 tons, lifted 13 feet high! The result of this trial created great astonishment among all present. Mr. Walker was warmly congratulated on having more than fulfilled his promise, and a full report of the trial was duly made to the Board.

By placing a second pair of Mr. Walker's improved pumps in the caisson, it may, in case of emergency, be emptied in half an hour by 28 hands, although with the former pumps 32 men could not accomplish that task in less than three hours and a half. It is always very desirable to have the power of quickly emptying the caisson, but under certain circumstances, in the event of fire for instance, it is of the utmost importance to be able to do so.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at date of latest balance sheet.	Cost of working in pounds for six months as stated in latest balance sheet.	Total earnings, in pounds, for six months as stated in latest balance sheet.	Dividend at last meetng.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
							Per share.	Per cent. per annum.				
Arboath and Forfar.....	15	102,000	35,000	138,870			0 12 6	25	27	Aberdeen.....	1,600,000	
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1 5 0	100	100	Barnsley Junction.....	200,000	
Brandling Junction.....	23	161,700	365,470	481,452				50	54	Belfast and Ballymena.....	385,000	
Bristol and Gloucester.....	37 1-2	400,000	211,000					30	36	Blackburn, & Accrington.....	400,000	
Chester and Birkenhead.....	14 1-2	750,000	143,170	518,989	5,856	13,148	0 8 6	14 0	50	Birk. and Chesh. Junction.....	1,000,000	
Dublin and Drogheda.....	31	450,000	150,000	500,869				55	72	Bolt. Wigan and Liverpool.....	800,000	
Dublin and Kingston.....	6	200,000	152,300	359,000				100	166	Caledonian.....	1,800,000	
Dundee and Arbroath.....	16 3-4	100,000	49,445	153,416	2,989	6,993	1 5 0	0 25	29	Cambridge and Lincoln.....	1,250,000	
Durham and Sunderland.....	18 3-4	169,350	124,055	270,392	9,889	17,702		35	32	Chatham and Portsmouth.....	5,000,000	
East County and North and East.....	86 1-4	4,443,200	1,341,155	3,931,905	47,385	118,726	1 6 6	45	57	Chester and Wrexham.....	120,000	
Edinburgh and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1 2 6	4 10 0	50	Churnet valley.....	1,800,000	
Glasgow, Paisley and Ayr.....	51	937,500	1,066,951	12,446	36,736		2 6 4	10 0	50	Direct Northern to York.....	4,000,000	
Glasgow Paisley and Greenock.....	22 1-2	650,000	216,666	787,884	11,572	23,177	0 5 0	2 0 25	60	Ely and Bedford.....	270,000	
Grand Junction.....	104	2,478,712	2,453,169	84,309	195,080		0 10 0	100	210	Glasgow, Dum. & Carlisle.....	1,300,000	
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1 12 6	3 5 0	100	Gt. South. and West. Ext.....	1,200,000	
Great Western.....	221 3-4	4,650,000	3,679,343	7,272,539	132,235	369,904	3 10 0	7 0 75	138	Gt. Grimsby and Sheffield.....	600,000	
Hartlepool.....	15 1-2	438,000	155,540	719,205				100	100	Harwich & E. coun. Junc.....	160,000	
Leicester and Swannington.....	16 1-4	140,000		140,000	2,207	6,317	1 5 0	5 0 50	34	Huddersfield & M. r. & c. l.....	600,000	
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5 0 0	10 0 100	203	Kendal and Windermere.....	125,000	
Llanelly.....	27	200,000	44,000	221,624				87	100	Leeds and Dewsbury.....	400,000	
London and Birmingham.....	112 1-2	6,874,976	1,928,845	6,393,468	92,823	405,768	1 0 0	10 0 100	218	Leeds and Thirsk.....	800,000	
London and Blackwall.....	3 3-4	804,000	266,000	1,315,640	15,978	23,870		16	6	Liv. Ormskirk & Preston.....	600,000	
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0 12 0	2 8 0 50	14	London and Portsmouth.....	1,750,000	
London and Croydon.....	8 1-2	550,000	229,000	761,885	7,583	10,545	0 5 0	2 10 0 50	57	London and York.....	5,000,000	
London and Greenwich.....	3 3-4	759,383	233,300	1,040,930	15,193	28,933		13	100	Londonderry & Enniskillen.....	500,000	
London and South Western.....	92 3-4	2,222,100	630,100	2,596,291	68,457	150,469	1 12 6	6 10 0 41	73	Lynn and Ely.....	200,000	
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,307	58,162	1 0 6	5 0 0 40	48	Manchester, Bury & Ross.....	300,000	
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2 2 0	4 10 0 93	110	Manchester and Buxton.....	250,000	
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761		7 1 & 10 6	88	Mullingar and Athlone.....		
Midland railway.....	178 1-4	5,158,900	1,719,630	6,279,056	76,983	281,898		100	96	Newcastle and Berwick.....	700,000	
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947	4 0 0	4 0 0 100	105	Richmond & W. End Jun.....		
Newcastle and Darlington.....	23	500,000		405,728				21	49	Scottish Central.....	700,000	
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466		2 0 0 50	37	Sheffield and Lincolnshire.....	650,000	
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2 10 0	6 16 8 100	104	Shrewsbury and Gd. Junc.....	400,000	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415			0 16 0	8 0 0 20	39	Shrew. Wolv. Dudly & B.....	900,000	
Paris and Rouen.....	84	1,440,000			31,247	91,171		8 0 0 20	38	Trent Valley.....	900,000	
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066		nihil.	50	West London Extension.....	64,000	
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876		nihil.	82	West Yorkshire.....	1,000,000	
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0 10 6	2 2 0 50	39	Whitehaven & Maryport.....	100,000	
Taff Vale.....	30	465,000	154,785	590,000	8,509	18,414	1 0 0	6 5 0 100	55	FRENCH RAILWAYS.		
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0 15 0	5 1 8 29	37	Boulogne and Amiens.....	1,500,000	
Yarmouth and Norwich.....	20 1-2	187,500	62,500	230,250				nihil.	16	Central of France.....	1,280,000	
York and N. Mid., and Leeds and Selby	23	1,062,500	167,500	676,644	27,132	55,752	2 10 0	10 0 0 50	100	Lyons and Avignon.....	2,400,000	
										Orleans Tours & Bordeaux.....	2,000,000	
										Paris and Lyons.....	2,500,000	
										Paris and Orleans.....	1,600,000	
										Paris and Rouen.....	1,440,000	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo-Mexican Mint.....	10,000	10	10		15 7-8	15 7-8	Loughborough.....	70	142 3-4	142 3-4	70	1140	
Anti dry Rot.....	10,000		18 1-2				Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust company.....	5,700	100	35		34 1-2		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation.....	20,000	15	14	10	27 1-2	27	Mersey and Irwell.....	500	100	100	10		
Gt. Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2 1-2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6 5-8		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1 3-4		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental.....	11,493	50	50	7	64 3-4	65	Regents or London.....	21,418	33 3-4	33 3-4	2 5-8	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....			6				Somerset coal.....	800	150	150	7 1-2	123	123
Reversionary Int. Soc.....	5,387	100	100	4 1-2	104	104	Stafford and Worcester.....	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36 1-2	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7 1-2	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Sewern & Wye & Rail. Av.....	3,762	26 1-2	26 1-2	5 1-2	30	30
							Trent and Mersey.....	2,600	50	50	65	495	
							Thames and Medway.....	8,149	19 1-4	19 1-4		10	10
							Warwick and Birmingham.....	1,000	100	100	10 1-2	167	
							Warwick and Napton.....	980	100	100	8 1-2	122	

Canals.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Ashby de la Zouch.....	1,432	113	av.	4	70	70	Birmingham.....	4,800	25	25	3 5-8	28	28
Barnsley.....	720	100	100	14	180	180	East London.....	4,433	100	100	8	223	225
Birmingham, 1-16 share.....	3,000	118 3-4	79	10	150	160	Grand Junction.....	5,500	av.	41 2-3	7 1-4	88	90
Do. and Liverpool Junc.....	4,000	160	100		13 1-2	13 1-2	New River L. B. Ann.....	1,500			2 1-2		
Coventry.....	500	100	100	20	365	365	Manchester and Salford.....	6,486	av.	30	8 3-8	57	57
Cromford.....	460	do.	do.	24	250	250	Vauxhall, lt. S. London.....	1,000	100	50	5	55	55
Derby.....	600	do.	do.	9	105	105	West Middlesex.....	8,294	av.	63 5-8	6 5-8	126	127
Erewash.....	231	do.	do.	32	440	440							
Forth and Clyde.....	1,297	400 1-2	40 1-2	4	440	440							
Grand Junc.....	11,600	100	100	7	162	161 1-2							
Grand Surrey.....	1,500	do.	do.		20								
Gloucester and Berkley.....	5,000	do.	do.		8	8							
Glantham.....	749	150	150	8	185	185							
Lancaster.....	11,699	47 1-4	47 1-4	3	40	40							
Leeds and Liverpool.....	2,897	100	100	34	640	640							
Leicester.....	545	140	140	9	139	139							

Water Works.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Commercial Dock.....	1,065	100	100	3	70	
East and West India.....		sto.		5 1-4	137	
London.....	3,238,310	sto.		4 1-2	114 3-4	115
St. Katharine.....	1,352,752	sto.		5	116	117
Southampton.....	7,000	50	50			

Docks.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
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RAILROADS.		Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
Me.	Incl'd. in "Bost. & Me." & "Eastern."			Gross.	Nett.		Gross.	Nett.			
N. H.	1 Concord.....								13	129	We have no returns from the Maine or New Hampshire roads. The annual reports of the Massachusetts roads will soon be out. The increase for '44 is very great; the receipts of the Western road being about \$850,000.
Mass.	2 Boston and Maine.....	109	1,384,050	178,745	68,499	6				108	
"	3 Boston and Lowell.....	28	1,863,746	277,315	144,000	8				120	
"	4 Boston and Providence.....	41	1,900,000	233,388	110,823	6				109	
"	5 Boston and Worcester.....	48	2,885,200	404,141	162,000	6				120	
"	6 Berkshire.....	21	250,000		17,50	7					
"	7 Charlestown branch.....		250,000						13		
"	8 Eastern.....	105	2,388,631	279,563	140,595	6				112	
"	9 Fitchburg.....		322,538							109	
"	10 Hartford and Springfield.....	25	1-2								
"	11 Nashua and Lowell.....	14	1-2	380,000	84,079					120	
"	12 New Bedford and Taunton.....	20		428,543	50,671	24,000				6	
"	13 Norwich and Worcester.....	59		2,166,566	162,336	24,871				3	
"	14 Taunton branch.....	11		250,000		20,000				8	
"	15 West Stockbridge.....	3									
"	16 Western, (117 miles in Mass.).....	150		8,319,520	573,882	284,432					
"	17 Worcester branch.....			5,500							
Con.	18 Hartford and New Haven.....	38								92	
"	19 Housatonic.....	74		1,244,123				150,000			
"	20 Stonington, (year ending 1st Sept.).....	48		2,600,000	113,889			154,724	79,845		
N. Y.	21 Attica and Buffalo.....	31	1-2	268,275	45,896	7,522					
"	22 Auburn and Rochester.....	78		1,727,361	189,693	112,000				110	
"	23 Auburn and Syracuse.....	26		743,931	86,291	27,334					
"	24 Buffalo and Niagara.....										
"	25 Erie, (446 miles, ).....			5,000,000						28	
"	26 Erie, opened.....	53				48,000					
"	27 Harlem.....	26		2,200,000						65	
"	28 Hudson and Berkshire.....										
"	29 Long Island.....	95		1,500,000						77	
"	30 Mohawk.....	16	3-4	1,030,949	69,948	58,780				59	
"	31 Tonawanda.....	43		600,000	76,227						
"	32 Troy and Greenbush.....	6		180,000							
"	33 Troy and Saratoga.....	25		475,865	44,325	21,000					
"	34 Troy and Schenectady.....	20	1-2	633,520	28,043						
"	35 Schenectady and Saratoga.....	22		300,000	42,242	3,000				1	
"	36 Utica and Schenectady.....	78		2,124,013	277,164	180,000				9	
"	37 Utica and Syracuse.....	53		1,080,219	163,701	72,000					
N. J.	38 Camden and Amboy.....	92		3,200,000	682,832	383,880					
"	39 Elizabethtown and Somerville.....	26		500,000							
"	40 Morris and Essex.....										
"	41 New Jersey.....	34		2,000,000						93	
"	42 Paterson.....	16		300,000						80	
Pa.	43 Beaver Meadow.....	26		1,000,000							
"	44 Cumberland valley.....	46		1,250,000							
"	45 Franklin.....	10	1-2								
"	46 Harrisburg and Lancaster.....	36		860,000							
"	47 Hazleton branch.....	10		120,000							
"	48 Little Schuylkill.....	29		900,000							
"	49 Lykens valley.....	16	1-2								
"	50 Mauch Chunk.....	9		100,000							
"	51 Minehill and Schuylkill Haven.....	18		315,000							
"	52 Norristown.....	20		800,000							
"	53 Philadelphia and Trenton.....	30		400,000							
"	54 Pottsville and Danville.....	29	1-2	1,500,000							
"	55 Reading.....	94		9,000,000						22	
"	56 Schuylkill valley.....	10		1,000,000							
"	57 Williamsport and Elmira.....	25		400,000	20,000						
"	58 Philadelphia and Baltimore.....	93		4,400,000						22	
Del.	59 Frenchtown.....	16		600,000							
Md.	60 Baltimore and Ohio, (1st Oct.).....	188		7,623,600	575,235	279,402		658,620	346,946		
"	61 Baltimore and Susquehanna.....	58		3,000,000						5	
"	62 Baltimore and Washington.....	38		1,800,000	177,227	71,691		212,129	104,529		
Va.	63 Greensville and Roanoke.....	17	1-2	260,000							
"	64 Petersburg and Roanoke.....	60		766,000							
"	65 Portsmouth and Roanoke.....	78	1-2	850,000							
"	66 Richmond and Fredericksburg.....	61	1-2	1,200,000							
"	67 Richmond and Petersburg.....	22	1-2	700,000							
"	68 Winchester and Potomac.....	32		500,000							
N. C.	69 Raleigh and Gaston.....	84	1-2	1,360,000							
"	70 Wilmington and Raleigh.....	161		1,800,000							
S. C.	71 Charleston and Hamburg.....	136		2,400,000						8	
"	72 Louisville and Cincinnati.....	66		800,000							
Ga.	73 Central.....	190		2,581,723	227,532	93,190					
"	74 Georgia.....	147	1-2	2,650,000	248,026	158,207		248,096	147,523		
Ala.	75 Tusculumbia.....	46									
Ky.	76 Lexington and Ohio.....	40		500,000							
Ohio	77 Little Miami.....	40		450,000							
"	78 Mad river.....	40		400,000							
"	79 Monroeville and Sandusky.....										
Mich.	80 Detroit and Pontiac.....	25									
"	81 Erie and Kalamazoo.....	33									
Ind.	82 Madison and Indianapolis.....	56		152,000							
Can.	83 Champlain and St. Lawrence.....	15		212,000		12,000		58,000	24,000		

Ithaca and Oswego and Catskill and Canajoharie roads were sold by the state. The former does little, the latter nothing.

Part of the New York and Albany.

The costs of those roads marked \* were taken from de Gerstner's report published in the Journal in 1840.

Purchased from the state.

SALES OF RAILROAD & CANAL SHARES IN BOSTON, NEW YORK, PHILADELPHIA & BALTIMORE.

NAME OF COMPANY.	Monday.		Tuesday.		Wednesday.		Thursday.		Friday.		Saturday.	
	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.
<b>Boston.</b>												
Norwich and Worcester.	25	67	13	67	5	68	.....	.....	10	66 3-4	25	65
" " bonds.	.....	.....	.....	.....	3,000	95 1-4	.....	.....	.....	.....	.....	.....
Western .....	15	93	9	93 1-2	.....	.....	20	94 1-4	45	95	50	94 1-2
Long Island .....	.....	.....	.....	.....	.....	.....	.....	.....	50	74 1-4	.....	.....
Eastern .....	5	110	7	108	98	108	85	106	70	103 1-2	83	103 1-2
Portland and Saco .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boston and Worcester .....	.....	.....	.....	.....	76	119 3-4	.....	.....	10	119 1-2	.....	.....
Lowell .....	7	118 3-4	1	117	10	116 3-4	11	116 3-4	.....	.....	.....	.....
Reading .....	.....	.....	.....	.....	30	22 1-8	25	21 1-4	.....	.....	.....	.....
Boston and Maine .....	.....	.....	7	109	7	109	.....	.....	4	110	10	110
Fitchburg .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Concord .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Taunton branch .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nashua and Lowell .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hudson and Delaware .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boston and Providence .....	13	108 1-4	3	108 1-2	.....	.....	13	108	.....	.....	.....	.....
<b>New-York.</b>												
Eric .....	90	29 1-4	100	28	50	28 1-2	100	29	485	28	650	27 1-4
Harlem .....	200	65 1-4	.....	.....	50	65 1-2	100	65	100	64	250	63
Long Island .....	1,325	75	450	75 1-4	500	74 1-2	955	74 1-2	1,000	73 1-2	1,700	71 3-4
Stonington .....	150	39 3-4	325	39 1-2	.....	.....	850	38 3-4	500	38	860	37 1-2
Paterson .....	.....	.....	.....	.....	100	83	.....	.....	.....	.....	.....	.....
Auburn and Rochester .....	.....	.....	5	107 1-2	.....	.....	.....	.....	20	109	10	110 1-2
Housatonic .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	150	37 1-2
New Jersey .....	.....	.....	.....	.....	.....	.....	.....	.....	20	94 1-2	.....	.....
Mohawk .....	125	60	160	60	725	60 1-2	330	61	225	61	150	60 1-4
Reading .....	.....	.....	50	43 1-2	25	44	550	45	.....	.....	.....	.....
Morris canal .....	313	29 1-4	575	29	550	28 1-2	150	28	275	28	200	26 3-4
Lehigh 6's .....	950	67 3-4	275	66 1-2	375	67 1-2	385	67 1-2	775	65 3-4	2,010	64 3-4
<b>Philadelphia.</b>												
Camden and Amboy .....	345	99	.....	.....	.....	.....	.....	.....	50	21 3-4	50	21 3-4
Reading .....	.....	.....	3,000	65	.....	.....	.....	.....	.....	.....	.....	.....
Reading bonds, 6's .....	.....	.....	.....	.....	25	21 1-2	75	21 1-2	.....	.....	100	21 1-4
Wilmington .....	250	21 1-2	296	21 1-2	.....	.....	2,500	80	100	80	.....	.....
Wilmington bonds, 6's .....	.....	.....	1,400	79	.....	.....	259	66 3-4	.....	.....	.....	.....
Lehigh mortgage .....	278	66 1-2	.....	.....	.....	.....	3,500	66 1-4	.....	.....	.....	.....
Chesapeake and Del. 6's .....	.....	.....	.....	.....	1	47	32 1-2	62	33 1-4	4	32	.....
Schuylkill Nav. .....	.....	.....	35	31	.....	.....	.....	.....	.....	.....	.....	.....
<b>Baltimore.</b>												
Baltimore and Ohio .....	.....	.....	.....	.....	.....	.....	20	48 3-4	45	48 1-2	100	48 1-2
Baltimore and Ohio bonds .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Baltimore & Washington .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Baltimore & Susquehanna .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Philadelphia & Baltimore .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

thus enabling the inhabitants of that region to undersell him in his own market."

NEW YORK AND ERIE RAILROAD.

In our remarks on this work in our last, and also in our number for December, we have taken it for granted that the management of the road is substantially in the hands of those who controlled it for many years previous to 1844. We have been informed on good authority that the present directors do not consider themselves in any way identified with the management of the road hitherto, but that all opinion of their capacity and judgment must be formed from their own acts and statements. Our object was to show, that the work must be conducted on entirely different principles, and the above information, together with the plan of putting successive and continuous portions of the work into operation, proposed in the late address, would seem to denote that the difference in our views was fast vanishing. In our future remarks, we shall gladly assume that the New York and Erie railroad is in the hands of a board identified with, and pledged to nothing but an earnest, energetic and well matured effort to render the construction of this work certain within a reasonable time.

We are indebted to the Hon. Wm. Wright, M. C., from Newark, N. J., for Prof. Johnson's elaborate report on American canals.

Also, to Wm. B. Foster, Esq., canal commissioner, of Pennsylvania, for a copy of the report of the commissioners, dated 30th Dec., 1844, copious extracts from which will appear in our next.

In our last number, the credits which we had carefully given to Herapath, for the article on "Railway accidents," to the New York Journal of Commerce, for the remarks on "way business," and to the Miner's Journal, for several items, were all omitted by the printer.

We have deferred the Governor's message in order to lay before our readers the clear and condensed statement of the present condition and prospects of the New York and Erie railroad. The extracts from the message of Governor Wright will appear in our next number.

*Hunt's Merchants' Magazine.*—We are glad to find in this influential and widely circulating Magazine, articles on such subjects as the "penny postage," the "coal trade of Pennsylvania," and the "repeal of the duty on railroad iron;" the two last from the pen of Mr. Bloomfield. These subjects will thus be brought to the notice of a numerous and influential class through their favorite periodical, and good must inevitably result.

We call the attention of Directors to the Tabular Advertisement of the New Jersey Railroad and Transportation Company on our last page. A similar advertisement for each of the principal railroads would afford to the traveller in our widely extended country, information which is at present beyond his reach, even had he access to all the papers in the United States.

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AMERICAN RAILROAD JOURNAL.

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Thursday, January 16, 1845.

NEW YORK.

We have given in the first part of this number Governor Wright's remarks on the finances of New York, which he very properly characterizes as "so intimately connected with the great and leading subjects of

legislation," as to take precedence of all other matters. The governor ranks far above all public men in this State, and his views distinctly point out the course of legislation which will be pursued for some time to come.

We must however say that his excellency's statement of the finances is very indifferently drawn up—clearness and condensation being sacrificed to what the "reviewers" call "American prolixity." The enlargement of the Erie canal, and the completion of the lateral canals are, we are happy to say, postponed to some very indefinite period. The State tax appears to be viewed in a very favorable light, which we are sorry to see, as we consider it every way objectionable. Five years since, when raising our humble voice against the large expenditures of that period, we observed,

"Has the government of New York the right to tax her citizens in order that the property of the inhabitants of other States or provinces may be carried to and from the seaboard more cheaply than at present rates? Not only is the New York farmer to be taxed but the amount so levied is to be expended in reducing the value of his property by adding at his cost, great artificial to the already superior natural advantages of the west, and

## MONTREAL RAILROAD.

We have, in another column, given some extracts from the very able memorial of the Portland committee to the legislature, praying for "a charter for the establishment and construction of a railroad connecting the Atlantic ocean and the river St. Lawrence, and leading from Portland in the general direction of Sherbrooke and Montreal to the boundary of Maine." When this project was first brought forward, we regarded it mainly as a competing line with the routes from Boston, and supposing that the capital must be furnished mainly by that city, we were naturally not very sanguine as to any practical result from the movement. But the case is very different at present. They say that the business of the country will yield a large revenue; and as this is always safe and sure, the entire project assumes a very different appearance. Again, they appear to be quite aware of the hostility of Boston, and consequently rely on other sources for the means. But the spirit of private enterprise is awakened, and it is on this that we rely for ultimate success in the Montreal railroad, as in all other undertakings of real importance. The memorialists say:

It appears from Mr. Hall's report that with all the deviations from a straight line, in the general direction of the route of which he speaks, in order to keep on favorable ground, or to avoid obstacles, or to meet the public convenience, the whole length of the route from the Atlantic at Portland, to the St. Lawrence, at Montreal, is less than two hundred and fifty miles, less than a single day's journey by railroad. Your memorialists also learn from the most satisfactory sources, that the distance from Montreal to Boston, by railroad through Portland, would be nearer by some twenty or thirty miles, than the distance from Montreal to Boston by any other practicable railroad route. But the route through Portland does not fall within the scope of the policy of Boston. Her purposes and views can only be subserved by a different route, a route through Fitchburg, through Concord, or in any other direction than that through Portland. The seaport and harbor of Portland afford attractions and facilities that are inconsistent with her purposes and policy; for even Massachusetts might be in danger in due time, of losing her predominance in New England, from the rising fortunes and importance of Maine. Let a railroad be constructed, connecting the Atlantic and St. Lawrence at Portland and Montreal, and Maine becomes at once the grand thoroughfare of the Canadas. In this great enterprise the interests of Maine on the one part, and of Canada on the other, are mutual, reciprocal and in perfect harmony. In addition to these mutual and reciprocal advantages, each within its own limits would enjoy advantages peculiarly its own; and Maine especially would reap benefits from it, that the most sanguine of her statesmen can scarcely estimate.

But it is the end which crowns the work, and that end is Montreal. The committee are very far from undervaluing that city.

The favorable position of Montreal for a great commercial city is too apparent to need illustration. That city has become the seat of government of Canada, and is the metropolis of the provinces. She sits at the head of navigation from the sea, on the outlet of the lakes of the west, with which and the rich extensive country by which they are surrounded, she has a ready and safe water communication by means of a magnificent canal. The approach to Montreal from the sea by the river St. Lawrence is somewhat difficult and dangerous, even in the summer months; but for more than six months of the year, it becomes impossible by reason of obstruction from the ice. Hence it is apparent, that a more ready and direct and shorter channel of intercourse with the mother country, one free from obstruction at all seasons of the year, must be desirable; and that, too, not only to Montreal, but to the whole province of Canada, and to the mother country itself, both in a commercial and a political point of view. It would even seem necessary to the protection of the special as well as the commercial interests of Montreal and the Canadas. The enterprising and sagacious merchants of N. York and Boston, are contriving and preparing to divert from Montreal and draw off to themselves, as far as practicable, the natural trade of the lakes, by tapping the long line of intercommunication at Ogdensburg, Buffalo, and at the head of lake Erie, by means of canals and railroads already built or now building, or in contemplation; and to divide with her afterwards the balance of the trade, which may still flow to Montreal by having a direct intercourse with her. To defend herself against this draining and exhausting process, the most natural and the most effectual measure would seem to be a railroad connecting in the shortest, most eligible route, the St. Lawrence and the Atlantic.

The committee very wisely avoid all allusion to the relative merits of rival routes. They have ascertained that there exists a route of unexceptionable character, and indeed far more favorable than the most sanguine had ventured to anticipate. The total distance will be *less than 250 miles*: so that Montreal passengers will easily pass from their own city to an Atlantic sea port, open throughout the year, by daylight in summer, and without fatigue, or intruding on the hours of rest at all seasons! The wonders which steam has accomplished in this country have ceased to astonish us; but such a change as this would be to Montreal and the eastern townships of Canada, would exceed anything in the annals of steam on land or water.

We are sorry to show the dark side of this agreeable picture—to which we briefly alluded in our last: the uncompromising hostility of the board of works of Canada. The

most solemn promises may be made, bills introduced and *almost* passed, and every appearance of friendship kept up to the end of the session: but then the mask will be thrown aside. Our eastern friends cannot too fully discuss this point with their countrymen in the eastern townships of Canada. One of the wealthiest American gentlemen of Montreal, well known for the interest he takes in railroads, could (we are informed on good authority) give them some light on this subject. In the mean time we forward to Portland, along with this number, copies of the *Journal*, from which some idea may be formed of the individual filling the most important office in the province, not excepting the governor himself, if we regard the lasting effects of their respective measures on the welfare of the Canadas. But we were exceeded by the "*Montreal Herald*," which, in quoting entire our "pungent" article on the Beauharnois canal, boldly states that the chairman of their board of works is most decidedly *not* an engineer of standing. And this taunting assertion, stripping him at once of all most dear to the professional man and the gentleman, he has been obliged to stomach as best he might—at least we have seen no answer to show that the charge of imposture was unfounded, and believe that none has been made public, though the *Herald* is a staunch supporter of the government, published in Montreal, and the most influential paper in the country. We repeat, there is no time to lose; it is the last opportunity the eastern townships have of receiving any share of the large sum of seven millions of dollars, so lately bestowed on the province by the British government: nominally a loan, but, no doubt, ultimately, a gift.

In conclusion we would observe, that though several routes from the province line to Montreal are referred to in the memorial, but one from the line to Montreal is mentioned; that via Sherbrooke. It may be that this is the best or the only route; but we were under the impression that an union with the Champlain and St. Lawrence railway might be effected, whence would result some diminution of cost and a great accession of influence in Montreal, the stock of that small but flourishing work being mainly held by gentlemen of great wealth and consideration.

It is, however, too soon to consider rival routes—every nerve should be strained by the Canadian friends of the Portland and Montreal railroad to secure some share of "the loan" or the work will be long, very long delayed.

## MADISON AND INDIANAPOLIS RAILROAD.

This is one of the first, if not the very first attempt to induce private enterprise to come to the aid of those States which, forgetting the very objects of all government, have passed by, as unworthy, those subjects in which the people have a general interest, and have sacrificed their energies, means, credit and character in the construction of canals and railroads—even common roads receiving little attention. They now discover that the energy, means and enterprise of the people are fully adequate to any really important work—that these energies have been repressed by the reckless competition of the State governments, but that competition having destroyed the power of the latter to continue the struggle, they—the State governments—have no resource left but to give up all to their rivals on their own terms. It was proposed in Michigan, during the last winter, to sell out their public works, and use the powers of government to other purposes than coming “into conflict with the legitimate pursuits of individual or private enterprise.” (Rep. Mich. Leg. House, No. 3, 1844.) It is to be hoped that, during the coming year, we may be able to announce that the flourishing State of Michigan has forever retired from the business of forwarding and that—unlike New York—she will graciously permit the farmer to avail himself of those communications which the bounty of Providence or the industry of man have placed within his reach, “if not inconsistent with the purity of our republican institutions”—of course.

The bill to amend the law granting this road to the present company, which was reported from the committee on canals and internal improvements, and passed to a second reading, on Thursday last, provides that the said company shall be authorized and empowered, from time to time, to borrow money on the credit of said company, to aid them in constructing and repairing said road, or carrying on the operations of said company, at a rate of interest authorized by the laws of the State where such loan may be negotiated. The company may, at any time, open books for the subscription and transfer of stock, in any city in the United States. The payment to the State of the portion of the net receipts of the road as required by law for the present year, shall be the only amount required of the said company to be so annually paid, for and during the term of eight years from and after the passage of the act; provided, that if the said company shall fail to complete the said road to Edinburg within one year, and thence to Indianapolis within three years from the 1st day of July next, then the portion of the said net receipts to be paid the State shall be ascertained and paid as if the act had not become a law.

After the expiration of the said term of

eight years, the company and state to have equal interest according to the length of road completed by each. No alteration to be made in the charter for fifteen years from the completion of the road to Indianapolis—the State to have the privilege of purchasing the interest of the company in twenty years. All matters of difference between the State and company to be settled by the courts—the act to take effect as soon as accepted by the company, and filed in the office of the secretary of State.

The company have confidence that with these amendments, means can be obtained to complete the road to Indianapolis. Indeed, as will be perceived, they make said completion to Indianapolis, in three years, a part of the consideration for said amendments. The advantages asked, for the term of eight years from the State, which are the only amendments of a pecuniary nature provided for, are insignificant, when contrasted with the general advantages to the State of the completion of the road; particularly in a revenue point of view, for all will acknowledge, that the aggregate valuation of the property of some fifteen or twenty counties will be greatly enhanced by the completion of the road. The present company will have entirely exhausted their resources on completing the road to Edinburg, thirty miles from this city. If the benefits of a completion to Indianapolis were confined to this city alone, we should feel a delicacy in pressing the claims of this work on the legislature; but some twenty counties along the line of the road and around Indianapolis are directly interested, and the whole State indirectly in the enhancement of the general revenue as before stated.—*Ind. Sent.*

## THE FARMERS AND THE RAILROADS.

In our last we observed that public men had long considered the people as made to furnish business to the Erie canal, and not the Erie canal as destined merely to accommodate the people. We regard railways as peculiarly advantageous to all in their vicinity, and particularly so to the farmer. It was our intention to enlarge on this topic, but we prefer giving the following extract from the able report of the Portland committee on the Montreal railroad to any remarks of our own.

Give the farmer a good market for his productions, and enable him to get them to that market at a trifling expense, and he asks for no bounties or favors. Where there are no other facilities for getting to market, but the common roads, and the distance there is considerable, farmers of moderate and limited means must always remain so. They have no encouragement to attempt to do more than live from year to year; for the expense of getting to market any surplus they could raise, would, perhaps, more than absorb the whole. But give to the farmers the facilities offered by modern discoveries and improvements; and, though his farm be a hundred miles distant, he can realize, in many cases, within the merest trifle the same price at his own door, that could be obtained by him at the market

itself. His farm more than doubles in value; for the depressing effect of its remoteness from the market is counteracted through the instrumentality of the railroad. Nor do the advantages resulting to him stop here. The same facilities which enable him to sell at advanced prices, also enable him to obtain his supplies at a cheaper rate. So sensible are the intelligent farmers of Massachusetts and Vermont of the immense value of railroads to the agricultural interests of the interior, that in some towns, as it is said, they have taken nearly stock enough to build the railroad through their towns. In New Hampshire, also, this same spirit is awakened; and the farmers there are giving evidence that they, too, understand their own interest.

But the beneficial influence of railroads is not confined to the agricultural interest. The seaboard and towns on navigable waters have by means of sea ports, the shipping interest, and steamboat navigation, a substitute for railroads. Hence on the seaboard, railroads may be dispensed with in many cases without much inconvenience. But the steamboat of the interior is the railroad train. The railroad into the interior gives value to that which before was an incumbrance, or useless to its owner. It stimulates industry by insuring its reward. It renders accessible remote interior water privileges; and builds up villages, where otherwise there would be a desert. It brings to light and develops resources, that otherwise would forever have lain hidden, or dormant. In no one branch of modern improvement have the calculations of theory been so variant from the results of actual experience, as in that of railroads. It was supposed, that the advantages would be confined almost exclusively to the commercial, the travelling, and the non-productive classes of the community; and, that the farmers and mechanics, the laboring and producing classes would derive very little benefit from them. Experience, however, has proved that the very reverse is the truth. It is the railroad that places all on a level, that revives and stimulates industry, that furnishes facilities and encouragement to labor and production, and distributes and equalizes, within the sphere of its influence, their advantages and profits.

We find the following paragraph in the Pittsburgh Gazette, of Monday. The subject is, indeed, one of deep interest to the people of that city, and assumes a greater degree of importance from the fact that the legislature of Virginia, strange as it may appear, continues to hesitate in granting to the Baltimore and Ohio railroad company the right of way through that State to some suitable point on the Ohio river not lower than Parkersburg. If Virginia positively refuses this grant, the railroad company, responding to the wishes of the people of Baltimore, will, we take it for granted, look to the Pennsylvania route to the western waters. Cumberland is but seventy-three miles from Brownsville, the head of steamboat navigation; and the extension of the railroad to the latter point is an undertaking which could be accomplished without serious difficulty. How important,

therefore, is it to the people of Pittsburg that the railroad company should have offered to it a field of operation free from all legislative restrictions or other artificial difficulties:

**Baltimore and Ohio Railroad.**—At a meeting of the board of trade, held on Friday evening, a resolution was passed directing the president of the board to memorialise the legislature of this State on the subject of removing the onerous restrictions formerly imposed upon the Baltimore and Ohio railroad company, in bringing the road through this State.

This is an important matter to Pittsburg, as if these restrictions are not removed, the company will seek a more southern termination through Virginia, to Parkersburg. We hope our members in the legislature will properly press this matter.—*Balt. American.*

NEW-YORK.

The Governor of New-York commences at once with the finances of the State:

The great and leading subjects of legislation are so intimately connected with the state of our finances, as to render it proper to examine first the financial condition of the State.

A general view of the current annual revenues of the State, taken together, according to the receipts of the fiscal year, ending on the 30th day of September last, is as follows;

The total amount of receipts on account of the General Fund, including the whole of the State tax of one mill on the dollar, and deducting the sum received for temporary loans, was - - - - - 1,073,349 01

The entire revenues of the Canal Fund, including all the receipts for tolls, water rents and interest, for all the canals, were 2,350,615 94

The revenues of the School Fund proper, were - - - - - 133,826 51

The revenues of the Literature Fund were - - - - - 18,490 34

The revenues of the U. S. Deposit Fund, after deducting \$106,412 55, transferred from revenue to capital, were - - - - - 237,304 25

Making a total of - - - - - \$3,813,586 05

Deduct from that aggregate the revenues of the School Fund proper, constitutionally pledged to the support of common schools - \$133,826 51

The revenues of the Literature Fund appropriated by law in aid of Academies, - - - - - 18,490 34

The revenues of the U. S. Deposit Fund, appropriated by law to Common Schools, Academies, Colleges, and other purposes of education, and the New York Eye Infirmary, - - - - - 237,304 25

389,621 10

And there will remain, - - - - - \$3,423,864 95

This balance comprises the revenues of the General Fund and of the Canal Fund, embracing all the revenues from all the canals, as well as from the Canal Fund proper. The part of

this sum comprising the revenues of the General Fund, as will be seen, is - \$1,073,259 01

This, however, embraces the whole of the State tax, while by the first section of the "Act to provide for paying the debt and preserving the credit of the State," passed 29th March, 1842, one half of it, after the year 1842, is to be paid to the Commissioners of the Canal Fund for the use of the canals; and there was so paid, in pursuance of this provision, during the last fiscal year, the sum of - - - - - 278,197 56

Thus leaving of these revenues applicable to calls upon the General Fund, the sum of - - - - - 795,051 45

The payments made from the Treasury, chargeable to this fund, during the last fiscal year, excluding the payments on account of temporary loans, and also the payment to the Canal Fund of half of the mill tax, as before stated, were - - - - - 1,003,753 43

\$208,701 98

Thus showing that the receipts into the Treasury on account of the general fund, from all sources, are less by \$208,701 98, than the sums charged upon the same fund, and paid from the Treasury, for the last fiscal year.

There was an apparent balance in the Treasury at the close of the fiscal year, of \$99,737 26, which so far as it is available, would diminish the deficit before stated in the receipts of the General Fund. This balance, however, included the sum of \$84,358 15, paid to this State out of the proceeds of the sales of the public lands of the United States under a law of Congress, and placed in the Treasury by the Governor, to whom the payment was made; but which has never been brought into the accounts of the General Fund, or any other of the funds of the State, because the Legislature has directed no disposition and authorized no application of the money. It has remained in bank by a special contract with the Treasurer, at a stipulated interest. If this sum be deducted from the above balance in the Treasury, there will remain only \$15,379 11, as the real available balance, applicable to demands against the General Fund. If this sum be deducted from \$208,701 98 cents, the deficit in the revenues of the General Fund as before stated, it still leaves a deficit of \$193,322 87.

By the 5th section of the "act to regulate the accounts between certain funds belonging to this State," passed 25th May, 1841, the Commissioners of the Canal Fund are directed to pay to the Treasury, on or before the 30th day of September in every year, from the canal revenues, the sum of \$200,000. Only one half of this sum has been paid for the use of the General Fund for the last year, the other half having been withheld to make up losses in the fund pledged for the payment of the Erie and Champlain Canal debt, occasioned by the insolvency of certain banks which had loans from the Canal Fund. Hereafter, the whole sum of \$200,000 will be annually paid from the surplus revenues of the Canal Fund for the use of the General Fund. But, with the whole of this appropriation, one half of the state tax, and all its revenues, permanent and miscellaneous, the General Fund, as is shown by the foregoing statement, is wholly inadequate to meet the annual demands upon it.

A further and most important consideration connected with this fund, is the heavy debt charged upon it. This debt is \$5,634,507 68. This is the amount of the positive, unconditional debt charged upon the fund, the annual interest upon which is \$310,499 69, and comprises one of the heaviest items of permanent charge upon its revenues. The debt has been increased by the sum of \$211,092 35, within the last fiscal year; thus showing that the revenues of the fund, with but half of the mill tax, so far from presenting a surplus beyond the annual expenses chargeable upon the fund, are, in fact, deficient, and that the debt continues to augment. More than three-fifths of this debt was contracted by loans of the credit of the State to railroad incorporations, which have wholly failed, and thrown the amount upon the General Fund. Without the debt, the present revenues of the fund would be ample to meet the charges upon it, and would authorize the Legislature moderately to increase those charges, when the public interest should be found to require it; but with it, and its constantly accruing interest, the charges upon the fund must be diminished, or its revenues increased, to prevent a constant annual augmentation of the debt.

True economy, as well as sound policy, requires the arrest of this process. A portion of the revenues of this fund, more than equal to all the aid it derives from the mill tax, is now annually consumed in the payment of interest alone, upon this increasing debt. Such an expenditure, while it makes taxation perpetual, works no public benefit. The money passes from the pockets of the citizens, through the hands of the tax collector, to the pocket of the public creditor, with the loss to the former of the expenses of collection, only that the process may be repeated with the same loss, as regularly as time shall bring around the seasons; and still the demand is undiminished, the weight of the load unmitigated. To reverse this action is the only remedy for the evil. The revenues should be brought to meet the annual expenditures, and leave a balance to wear upon the debt, and then each payment of the tax will bring with it hope and encouragement. The third subdivision of section 2, of the act imposing this tax, looks to its discontinuance after the present year, through an ability in the revenues of the fund to meet and extinguish the debt, without its further aid; but that expectation cannot be realised, while the debt is increasing against the power of these revenues, the tax included.

There is also a contingent debt hanging over this fund, amounting to \$1,920,000. This is for loans of the credit of the State to canal and railroad incorporations, which have hitherto fulfilled their obligations, by making the payments of interest. It is hoped they will be prepared for the reimbursement of the principal at the day. This contingent liability presents another reason for strengthening the condition of the General Fund, and taking prompt measures for the gradual extinguishment of its present increasing debt.

After deducting the revenues of the School, Literature, and United States Deposit Fund, from the aggregate amount of the revenues of the five funds, the balance remaining was - - - - - \$3,423,864 95

Those of the General Fund having been examined, may now be separated. They are - - - - - 1,073,249 01

And the revenues of the Canal Fund will remain - - - - - \$2,350,615 94  
The expenses charged upon and paid out of the revenues of



this fund during the fiscal year were 1,777,970 59

Leaving a surplus, over and above the expenses chargeable upon the canals and the Canal Fund, for the fiscal year, of 572,645 35

Included in these expenses, are the \$100,000 paid to the Treasurer for the use of the General Fund, and \$100,000 paid on account of losses of the Fund pledged for the payment of the canal debt, and \$1,031,123 16, for interest upon that debt, making together the sum of \$1,231,123 16, and leaving \$546,664 86, as the expenses of the canals, including the sums refunded on tolls, and for rents of surplus water from the Oswego canal. The above charge for interest does not include the interest upon the balance unpaid of the old Erie and Champlain Canal debt, that being met by the interest upon the funds set apart and invested for the payment thereof.

By the twelfth section of the act of 1842, "the surplus canal revenue, after paying all just canal current expenses, and the interest on the canal debt, and the payment aforesaid to the General Fund, shall, to an amount at least equal to one third of the interest of the canal debt remaining unpaid, be sacredly devoted and applied as a sinking fund to the redemption of the canal debt now existing and authorized by this act, and shall not be diverted from that object to any other purpose whatsoever."

Such is the language of this law, and such the express pledge it contains, touching the surplus of the canal revenues of the last fiscal year. If the amount of annual interest on the canal debt, as it existed at the close of the fiscal year, \$1,126,397 90, be the correct amount from which to measure the extent of the pledge, and if it be construed with technical strictness to extend no farther than the one third of that interest, then the portion of this surplus to pass to the Sinking Fund is \$375,465 96, leaving a surplus for the last fiscal year, beyond the amount pledged to the Sinking Fund, of \$197,179 39.

By a statement of the canal debt, furnished by the Canal Department, it appears that the whole amount unpaid on the 30th day of September last was \$20,713,905 58. This includes the old Erie and Champlain Canal debt of \$1,380,250 35, for the payment of which, funds have been already set apart, believed to be more than sufficient to cancel it. The portion of the funds set apart, considered available, amounts to \$1,496,306 45, being \$116,056 10 beyond the principal of the debt to be paid, and probably more than sufficient to meet the principal and interest. I am informed by the Commissioners of the Canal Fund, that the holders of the old stock have been personally notified that the money is ready for redemption of the principal, and that payment will be made on the day it falls due. It is the intention of the Commissioners to place the funds in the bank, where the stock is transferable, and where the interest is paid, before the day of payment, which is the first day of July next, and the notice given to the holders, informs them that interest will cease on that day.

This is the last of the Canal debt, upon which the constitutional pledge rests, and it may become material, in the course of your legislation, to consider whether, when these steps shall have been taken, that pledge may not be considered, both in principal and in fact, fully redeemed.

The statement of the Canal debt, before referred to, shows that the whole amount of Canal stocks redeemable in July and January

next, is \$3,742,626 01. This includes the sum of \$1,380,090 35 of the old debt, the redemption of which is provided for in the manner above specified, leaving \$2,362,535 66 reimbursable in January, 1846, for the payment of which the moneys are not yet fully provided.

The Sinking Fund provided for by the twelfth section of the law of 1842, has received the contributions required to be made to it, so far as the canal revenues have furnished the means, although it is believed that the surplus for the years 1842 and 1843 did not equal the one-third of the accruing interest upon the debt.

Carrying the whole surplus of the last year to that fund, with the whole \$278,197 56 paid from the Treasury as the proceeds of the State tax, and the fund, including the accumulations of interest computed at five per cent., amounts to \$1,195,102 01, an aggregate sum more than equal to one-third of the interest on the debt for the last three years, and is supposed to be available to meet the payment of that amount of the stocks before alluded to. This will leave \$1,167,433 65 unprovided for, any farther than there may be a surplus of the funds set apart to redeem the old debt, which can be applied to this object, and the accruing Canal revenues of the current year may yield a surplus also thus applicable.

The third subdivision of the eleventh section of the act of 1842 provides that the contributions from the State tax to the Canal Fund shall cease, whenever the annual revenue from the State Canals, ascertained in the manner pointed out by that act, shall exceed the expenditures upon the Canals, the interest upon the Canal debt, and the payment to be made to the General Fund, by more than one-third in amount of the annual interest upon the Canal debt. The revenues of the last fiscal year have produced that excess, as has been before seen, and have surpassed it; and consequently the collection of the entire mill tax, for the current year, must enure to the benefit of the General Fund, and, after the current year, the collection of that half of the tax, imposed for the use of the Canals, is to cease. Nothing further, therefore, is to be realized from this source, to aid in the redemption of the Canal stocks.

If this be a correct representation of the means and liabilities of the Canal Fund, for the current year, there would seem to be an end to discussion as to the appropriation of these means to any other object than to the payment of the debt, unless the payment is to be postponed. I have already expressed my views in relation to such a diversion; and I am constrained to believe that, whether considered as a question of principle, or one of economy, the policy would be equally unsound.

Our Canal revenues are very large, and nothing but the enormous debt charged upon them keeps the fund so poor as to require the aid of direct taxation to meet its liabilities. Separate from the old debt, more than one million annually of these revenues are consumed in the payment of interest alone. This must be a constant drain upon the fund, and nothing but the payment of the debt can arrest the corroding malady. Postponement can promise no relief, and may bring accumulated dangers.

In any view I am able to take of this portion of our financial affairs, I am constrained to believe that the application of the existing revenues to the existing debts, so far as the current expenses of the public service will permit, has become an imperative duty to the whole people, that the burden of the present State tax may be removed at the earliest practicable day, and that the danger of its recurrence may be obviated by a payment of the debts which have rendered it

necessary. I also believe that true friendship for our system of internal improvements, and its safe and certain extension, equally require, and will demand, the most speedy payment of the canal debt, and the liberation of the present canal revenues from the wasting demands of interest now resting upon them. I recommend, therefore, that course of financial legislation, which shall make these the prominent objects of its policy.

Our financial condition is by no means desperate. The rapid accumulation of debt was arrested, before it had so far surpassed the power of our revenues, as to render a return within the limits of a sound condition hopeless. The able expositions of 1842, and the sound legislation of that year, satisfied the people of this fact, and the taxation necessary to render this return safe and sure, was cheerfully submitted to. The improvement of the revenues of the canals has already laid the foundation of a sinking fund, rendering the speedy reduction of that debt certain, if aided by the whole power of those revenues. Retrenchment of expenditures, it is hoped, may do something towards bringing the payments from the General Fund within its revenues, and the whole State tax, for the present year, will at least relieve it from the accumulation of further debt, and afford time for so strengthening its resources or diminishing its expenses, as to give it power to commence the reduction of its heavy debt. The question submitted to us, therefore, is not that submitted to the legislature of 1843, whether we will attempt to bring to order and soundness deranged finances, and restore a fallen credit; but whether, finding our financial condition substantially sound, and our credit high, we will maintain both in that desirable condition, and as soon as it can be done consistently with these objects, relieve our whole people from the tax which the restoration of 1842 imposed upon them.

We take the following interesting article from the Philadelphia U. S. Gazette:

SCHUYLKILL NAVIGATION.

The report of the Board of Managers to the Stockholders of the Schuylkill Navigation Company, was submitted at the annual meeting yesterday. Dr. George B. Wood in the chair; Geo. W. Smith, Secretary. It shows that coal has been brought to this city from the Pottsville region, during the season past, on the Navigation, at a little over one dollar per ton, including toll, freight, and unloading. The amount of coal brought down this year is 398,000 tons, being but 11 per cent. less than the quantity brought down last year. There has, on the other hand, been an increase of 12 per cent. on ascending miscellaneous trade, and of 21 per cent. on that descending. The increase in the tonnage of the single item of iron, is 60 per cent. The whole amount of miscellaneous weight is 178,000 tons. There has also been an increase of the amount received from rents of water-power, it being now \$20,000. At the very low rate of toll, of one-third of a cent per ton per mile on coal, the receipts of the company have still been adequate to pay expenses and repairs, meet the interest upon loans, and leave a balance of more than twenty thousand dollars. There was, accompanying the report submitted to the stockholders, a detailed plan for the Improvement of the Navigation, prepared at their request by the President, which had been unanimously adopted by them, and was recommended for adoption by the stockholders. This plan proposes a deepening of the Navigation to five feet and a half, and the construction of a new tier of locks of 110 feet in length by 18 feet in width. The entire expense, including a large margin for contingencies, is

estimated at one million and eighty thousand dollars. It is thought that its work may be accomplished in two seasons, and that the trade need not be materially interrupted. It proposes to diminish the number of lift locks, now 96, to 65, by increasing the lifts. It states the length of canal on the line to be 57 miles, and of the slack water navigation to be 51 miles, of which last 20 miles is already of the required depth. It is not supposed that any considerable widening will be necessary, nor is it contemplated to raise materially any of the levels, nor in any way to give rise to heavy claims for damages. The supply of water is stated to be fully adequate to the contemplated improvement.

The present work has cost about one million, of which sum, near half a million has been paid from the earnings. The capacity of the Navigation will be more than doubled by the proposed improvement, at a cost of about one million. The importance of this consideration arises from the constant development of the immense trade of the Schuylkill coal region, already near one million, and soon to reach two millions. The paramount advantages of the trade of this region over others, is stated to consist in this work penetrating the heart of the great coal field, admitting of numberless ramifications tributary to it, whereas in other regions the works attack the extremities. The most interesting and exciting passage in the views of the President is probably that which refers to the successful use of steam in the navigation of canals, thus connecting our great coal field with the most remote point reached by navigation, without the necessity for transhipment or delay. There is no allusion to, or invidious comparison with, any rival work. We are reminded that "cheap coal and cheap iron have made England the workshop of the world;" and an interesting reference is made to the probable immense increase in the manufacture of iron, soon to take place in the valley of the Schuylkill. The report having been read, the following resolutions were submitted by Henry J. Williams, Esq., enforced by some cogent and pertinent remarks from that gentleman, expressive of his high confidence in the source from which it emanated, in the Board who had sanctioned it by their unanimous approval, and his own convictions of the advantages of the improvement. After full discussion they were adopted, with scarcely a dissenting voice. The meeting was unusually large, and all seemed earnest in the work.

Resolved, That the Report of the President of the Company, made in pursuance of the request of the Managers, and recommended in their resolution on the subject of an improvement of the works of the Company, be, and the same is now adopted, and cordially approved by this meeting, and that the Managers be requested to proceed with the execution of the plan proposed, in the most earnest and energetic manner, so soon as means shall be obtained, sufficient in their opinion to warrant them in doing so.

Resolved, That for the purpose of enabling the Managers to carry into effect the foregoing resolutions, and to provide for expenses and contingencies, which may occur during the progress of the work, the Managers be, and they hereby are, authorised to borrow or raise the sum of twelve hundred and fifty thousand dollars, and that an ordinance to that effect be enacted.

We understand there has been some change in the Direction of this Company, which has not arisen from any difference of views as to the policy to be adopted, but from several gentlemen in the old Board having expressed their wishes to retire.

The following gentlemen were elected:  
President—Solomon W. Roberts.

Managers—Thomas Frith, John Sergeant, William E. Hacker, Mordecai D. Lewis, William H. Dillingham, John W. Claghorn, Henry C. Corbit, William Ashbridge, Jacob G. Morris, John C. Cresson, Richard D. Wood, Samuel Bispan.

Treasurer and Secretary—Claudius Harper.

**SUPPLY OF COAL.**—The following statement will show the quantity of Anthracite coal shipped from the different regions in 1844, in comparison with 1843.

	1844.	1843.
Schuylkill Canal,	398,443	447,058
Rail Road,	441,491	230,237
Pinegrove,	34,910	22,905
Schuylkill County,	874,850	700,200
Lehigh,	377,821	267,734
Lackawana,	251,005	227,605
Wilkesbarre,	114,906	58,000
Shamokin,	13,087	10,000
	1,631,669	1,263,539
	1,263,539	

Increase in 1844, 368,130 Tons.

The supply this year, over and above the consumption of last year (which was 1,213,537 tons) is 368,130 tons, a large increase, but it is not believed to be more than the market requires.

Furnaces and factories have been reopened, and new ones erected and put in operation in all parts of the country, and hence a vastly augmented demand for coal. Anthracite coal, too, is very generally used on steamboats, and it is estimated that 500 tons per day are consumed in boats leaving the city of New York alone, and it has been introduced into use in almost every business where a steam engine is employed. This greatly increased consumption has necessarily demanded an increased supply. In every district within the circumference of the different coal regions, there has been a greatly augmented supply over 1843. In the Wilkesbarre region, which belongs to the same formation with the Lackawana, and is part of the same field, it has been augmented from 58,000 to 114,906 tons, although it is probable, that little more than the usual quantity has reached tide water; the furnaces, &c., in the vicinity of Danville, having consumed within the past year from 40,000 to 50,000 tons.—*Miner's Journal.*

#### COAL TRADE.

**Preparations for the Coal Trade of 1845—Back Track Railroad—Increase of Business.**—We are gratified to state that the Lehigh Coal and Navigation Company have completed all their arrangements for mining and delivering their coal into boats, for the present year, on the new system of allotting the work to several distinct companies or sets of contractors, instead of giving the whole to a single company as heretofore.

The Summit Hill or Old Mines, which it is known are principally worked by quarrying out the coal in open day, by first removing the superincumbent rock and earth, have been divided into the following sections, and contracts made for quarrying and delivering therefrom the following quantities of coal.

Summit Mines (Broadrick & Davis Contractors) 70,000 tons. Springdale Tunnel (Mc Lean & Williams) 40,000. South Mines (Broadrick & Bertsch) 60,000. North Mines (Weiss & Belford) 40,000. Making in the aggregate to be taken from these mines 210,000 tons. From the Companies Room Run Mines at Nesquehoning, the contractors, Messrs. Packer, Harlan &

Co., are preparing to deliver from 70 to 80 thousand tons; so that the whole product of the Company's mines, this season, should these arrangements be carried out, will not fall much short of 300,000 tons.

By means of the New Back Track Railroad which the Company are now constructing, which is nearly graded, and will be finished in all its parts and appendages early in the boating season, the Company have been enabled to put into the hands of contractors, Messrs. Lockhart & Barnes, the transporting, screening and delivering into boats the whole of the coal from the Summit Mines, at a reduction of 10 to 15 cents per ton on the cost of delivering last year.

But the advantage of this novel contrivance for returning the cars to the mines by gravity, is not confined simply to the reduction of expenses in the transportation business; for without any great increase in the number of cars now in use, the business of the present descending track, may be augmented three or four fold. How a road can be constructed for returning trains of cars by gravity to the top of a mountain, which is several hundred feet higher than the terminus of the descending track, or point of starting may appear mysterious, and require some explanation. The Mauch Chunk Mountain, upon the summit of which the Lehigh Company's large mines are located at a distance of nine miles from their landing at the town of Mauch Chunk, extends in a direct line from the mines to the latter place, or landing, maintaining its elevation the whole distance; but is broken off abruptly at the landing by the Lehigh river. The descending road upon which the loaded trains run by gravity from the summit mines to the landing, is located down the side of this mountain, at such a grade as that in the distance of nine miles, it reaches its base at the shutes at Mauch Chunk, where the cars are discharged.

The empty cars are then run a short distance to a point near the end and base of the same mountain, whereby an inclined plane and stationary engine power they are elevated at once in trains to the summit of the mountain, from whence by the new Back Track they commence their return by gravity to the mines, wending their way along the side of the Mountain until they reach a point opposite the mines, where they are again elevated by means of a plane and stationary engine to the summit, to be reloaded with coal and sent down the descending road. By this novel arrangement, locomotive power is entirely dispensed with; and the only power required for doing almost any amount of business, is that of the two stationary engines at the points mentioned, for elevating the empty cars; all the rest is accomplished by gravity, which is the cheapest of all powers yet discovered.

The Beaver Meadow and Hazleton Companies, we are informed, have also placed their works under contract for the present year; and the contractors are now busily engaged in preparing for an increased business. The Buck Mountain Company, we are told, intend to put their works in a condition to do a large business this season, and place them under contract; and some expectations are entertained that the Summit Coal Co. will be able to get into operation soon. From the contracts already entered into, and the preparations being made, we anticipate an increase in the coal trade of the region this year over that of last, of at least 100,000 tons; which will bring the shipments of 1845 up to nearly half a million!—*Carbon County Gazette.*

**EXTENSIVE MINING.**—Mr. John Daniels mined from a single slope on the Delaware

Company's property, fifty-five thousand tons of coal during the year 1814, being much the largest quantity of coal ever taken from a single slope in this region, in one year.—*Miner's Jour.*

**THE NEWCASTLE MANUFACTURING COMPANY** continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires; Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

**ANDREW C. GRAY,**  
President of the Newcastle Manuf. Co.

**RAILWAY IRON, LOCOMOTIVES,**  
Etc. The subscribers offer the following articles for sale:

Railway Iron, flat bars, with countersunk holes and mitred joints.	lbs. per ft.
350 tons 2 by 15 ft. in length weighing 4 68	
280 " 2 " 1/2 " " "	3 50
70 " 1 1/2 " 1/2 " " "	2 1/2
80 " 1 1/2 " 1/2 " " "	1 26
90 " 1 " 1/2 " " "	7/8

with spikes and splicing plates adapted thereto. To be sold free of duty to State governments, or incorporated companies.

Orders for Pennsylvania Boiler Iron executed.

Railroad Car and Locomotive Engine tires, wrought and turned or unturned, ready to be fitted on the wheels, viz: 30, 33, 36, 42, 44, 54 and 60 inches diameter.

E. V. Patent chain cable bolts for railway car axles, in lengths of 12 feet 6 inches, to 13 feet 2 1/2, 2 3/4, 3, 3 1/4, 3 1/2, and 3 3/4 inches diameter.

Chains for inclined planes, short and stay links, manufactured from the E. V. cable bolts, and proved at the greatest strain.

India rubber rope for Inclined planes, made from New Zealand wax.

Also—Patent hemp cordage for inclined planes and canal towing lines

Patent felt for placing between the iron chair and stone block of edge railways.

Every description of railway iron, as well as locomotive engines, imported at the shortest notice, by the agency of one of our partners, who resides in England for this purpose.

A highly respectable American Engineer resides in England for the purpose of inspecting all Locomotives, Machinery, Railway Iron, etc., ordered through us.

**A. & G. RALSTON & CO.**  
No. 4 South Front st. Philadelphia, Pa.

**RAILROAD IRON & FIXTURES.**

The subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

**DAVIS, BROOKS, & CO,**  
21 Broad st., N. Y.

**BOSTON AND MAINE RAILROAD.—UPPER ROUTE.**  
BOSTON TO PORTLAND—via Medford, Woburn, Wilmington, Andover, Bradford, Haverhill, Plaistow, Kingston, Exeter, Newmarket, Durham, Madbury, Dover, Somersworth, South and North Berwick, Wells, Kennebunk and Saco.

**WINTER ARRANGEMENT.—1844-5.**  
On and after Monday, Oct. 21, 1844, the Passenger Trains will run daily, Sundays excepted, as follows, viz:—  
Leave Boston for Portland at 7 1/2 A. M. and 2 1/2 P. M.  
Leave Boston for Somersworth at 7 1/2 A. M., 2 1/2, and 3 1/2 P. M.  
Leave Portland for Boston at 7 1/2 A. M. and 3 P. M.  
Leave Somersworth for Boston at 4 1/2 A. M., 9 1/2 A. M., 4 1/2 P. M.

Passengers are not allowed to carry baggage, beyond \$50 in value, unless notice is given, and an extra amount paid, at the rate of a price of a ticket, for every \$50 additional value.  
CHAS. MINOT, Superintendent.

**BOSTON AND LOWELL RAILROAD.**  
ON and after Friday, Nov. 1st, 1844, the Passenger Trains will run as follows:  
Leave Boston at 7 and 11 A. M., 2 and 6 P. M.  
Leave Lowell at 7 and 11 A. M., 2, 4 1/2, and 5 1/2 P. M.  
Fare 75 cents.

The Coaches of Messrs. D. G. Cummings and B. P. Cheney, Nos. 9 and 11 Elm street, will convey passengers between the Depot, in Lowell street, and places within a moderate distance, for 12 1/2 cents.  
CHAS. S. STORROW, Agent B. & L. R. R. Co.

**CONCORD RAILROAD**  
**MERCHANTISE TRAINS** will run daily as follows:  
Leave Boston at 3 1/2 P. M., and arrive at Concord the same evening.  
Leave Concord at 3 1/2 P. M., and arrive at Boston at 7 1/2 the next morning.

Freight should be delivered at Concord and Boston an hour before leaving, to ensure a delivery by the first succeeding Train.  
All passengers' baggage should be marked, and when valued at more than \$50, notice should be given and extra charges paid, or no claim for damage or loss beyond such sum will be allowed.  
N. G. UPHAM, Supt.

**NASHUA AND LOWELL RAILROAD.**  
**PASSENGER TRAINS** will run as follows:  
Leave Boston at 7 A. M.; 11 A. M.; and 5 P. M.  
Leave Nashua at 6 1/2 A. M.; 1 1/2 P. M.; and 5 P. M. jal

**BOSTON AND WORCESTER RAILROAD.**  
**CHANGE OF HOURS.—WINTER ARRANGEMENT.—Commencing December 1st, 1844.**  
Accommodation Trains, daily, except Sundays.  
From Boston at 7 A. M., 9 A. M., and 2 1/2 P. M.  
From Worcester at 7 A. M., 10 A. M., and 6 P. M.  
Newton Trains, daily except Sundays.  
From Boston at 9 1/2 A. M., 3 P. M., and 5 P. M.  
" Newton at 8 A. M., 10 A. M., and 4 P. M.  
The New York Train for Norwich.  
Monday, Wednesday and Friday, from Boston, at 4 P. M.  
New York, via Long Island Railroad.  
Tuesday, Thursday and Saturday, from Boston, at 7 A. M.  
New York, via New Haven.  
From Boston at 9 A. M. and 2 1/2 P. M.  
Sunday Mail from Boston at 2 P. M.—from Worcester at 7 A. M.

All baggage at the risk of its owner.  
Fares are less when paid at the Ticket Offices than in the Cars. jal WM. PARKER, Supt.

**WESTERN RAILROAD.**  
**WINTER ARRANGEMENT.**  
ON and after the 11th December, 1844, the Passenger Trains will leave as follows, Sundays excepted:  
Boston at 9 A. M. and 2 1/2 P. M. for Albany.  
Albany 8 A. M. and 1 1/2 P. M. for Boston.  
Springfield 7 A. M. and 3 P. M. for Albany and Boston.  
Boston 2 1/2 P. M. for New York via Springfield and New Haven.

For Albany and Buffalo.  
Leave Boston at 9 A. M., reach Albany at 8 1/2 P. M.—Leave Boston at 2 1/2 P. M., arrive at Springfield at 7 1/2 P. M.—Jodge—leave next morning at 7 o'clock, arrive at Albany at 12 1/2 P. M. Passengers leave Albany for Buffalo at 8 A. M.

**NEW ROUTE FOR NEW YORK.**  
**VIA HARTFORD AND NEW HAVEN.**  
FARE THROUGH FIVE DOLLARS. jal  
Leave Boston at 2 1/2 P. M., and reach Springfield at 7 1/2 P. M.—thence direct by Railroad to Hartford and New Haven, and thence by Steamboat to New York, arriving at 5 A. M. Returning—leave New York at 6 1/2 A. M. and arrive at Springfield at 3 P. M., and thence to Boston, arriving at 8 P. M. Berths on board the Steamboat may be secured in Boston at the Ticket Office.

For Northampton, Greenfield, Haverhill, &c.  
Stages leave Springfield for the above places, upon the arrival of the evening trains. Stages also run from West Brookfield to Ware, Enfield, New Brantree and Hardwick—from Palmer to Three Rivers, Belchertown, Amherst, Ware and Monson—from Wilbraham to South Haverhill and Northampton, and from Pittsfield to Adams and Williamstown.

The Trains of the Hudson Railroad connect at Chatham—those of the Housatonic Railroad at State line.  
Merchantise Trains run daily, Sundays excepted, to Albany, Hudson, Bridgeport, Hartford, New Haven and New York.

For further information, apply to CHARLES A. READ, Agent, 27 State street, Boston.  
jal JAMES BARNES, Superintendent and Engineer.

**FITCHBURG RAILROAD.**  
**OPEN TO ACTON.**  
Passenger Trains will run as follows:  
Leave Charlestown at 8 A. M. and 1 and 4 1/2 P. M. Leave West Acton at 7 36 and 10 51 A. M., and 5 56 P. M.

Stages, on the arrival of the first Train of Cars at Acton, leave daily (Sundays excepted) for Littleton, Groton, Townsend, Lunenburg, Fitchburg, Ashburnham, Winchendon, Westminster, South Gardner, Templeton, Phillipston, Athol, Mass.; Fitzwilliam, Troy, Swansey, Keene, Walpole, Charlestown, N. H.; Chester, Windsor, Woodstock, Rutland, Middlebury, Royalton, Montpelier, and Burlington, Vt.

For further information, apply to THOMAS A. STAPLES, No. 36 Hanover st., or L. BIGELOW, No. 11 Elm st., Boston. Passengers leaving their names at the above offices, will be supplied with Railroad and Stage tickets, and conveyed to the Fitchburg Railroad Depot, free of charge.

Coaches will be at the Depot in Charlestown, on the arrival of the Cars, to convey passengers to any part of the city. jal S. M. FELTON, Engineer.

**BOSTON AND PROVIDENCE RAILROAD.**  
**PASSENGER NOTICE.—Winter Arrangement.**—To commence Monday, November 4.  
On and after Monday, Nov. 4, the Passenger Trains will run as follows:

For New York—Night Line, via Sound Steamers—Leave Boston at 4 P. M. on Tuesday, Thursday and Saturday.  
For New York—Morning Line, via Long Island Railroad—Leave Boston at 8 A. M. on Monday, Wednesday and Friday.

Boston, Providence, Taunton, New Bedford and Way Trains.  
Leave Boston at 8 A. M., and 3 1/2 P. M.; and Providence at 8 A. M. and 3 1/2 P. M.  
" Taunton at 8 1/2 A. M. and 3 1/2 P. M.  
" New Bedford, at 7 1/2 A. M. and 2 1/2 P. M.

**Dedham Trains.**  
Leave Boston at 9 A. M.—3 P. M., 5 1/2 P. M.  
Dedham at 7 50 A. M., 10 1/2 A. M., 4 1/2 P. M.  
All baggage is at the risk of the owners thereof.  
WM. RAYMOND LEE, Supt.

**LONG ISLAND RAILROAD COMPANY.**  
Trains run as follows, commencing November 1st, 1844:  
Leave Brooklyn at 8 a. m. (7 1/2 New York side)—Bosum Train—for Greenport, daily, Sundays excepted, stopping at Farmingdale and St. George's Manor.

Leave Brooklyn at 9 1/2 a. m. for Hicksville and intermediate places, daily; and on Tuesdays, Thursday and Saturdays, through to Greenport and intermediate places.  
Leave Brooklyn at 4 p. m. for Hicksville and intermediate places, daily, Sundays excepted; and on Saturdays to Suffolk Station.

Leave Greenport for Brooklyn, Boston Train, at 1 p. m. or on the arrival of the steamers, daily, Sundays excepted, stopping at St. George's Manor and Farmingdale.  
Leave Greenport at 9 1/2 a. m. Accommodation Train, for Brooklyn and intermediate places, on Mondays, Wednesdays, and Fridays.

Leave Hicksville for Brooklyn and intermediate places, daily, Sundays excepted, at 7 a. m. and 1 1/2 p. m.

**ON SUNDAYS.**  
Leave Brooklyn for Hicksville and intermediate places, at 9 1/2 a. m.  
Leave Brooklyn at 4 1/2 p. m. for Jamaica.  
Leave Hicksville at 2 1/2 p. m. for Brooklyn.  
Leave Jamaica at 8 a. m. for Brooklyn.  
Leave Jamaica at 3 1/2 p. m. for Brooklyn. jal

**FOR ALBANY AND BOSTON,**  
Via New Haven, Hartford, Springfield, and Western Railroads. Composed of the following steamers.  
**NEW CHAMPION,** Capt. Istorie; **GLOBE,** Capt. R. Peck; **NEW YORK,** Caps. —

One of which will leave New York, from Peck Slip, daily, (Sundays excepted), at 6 o'clock.  
Fare to Boston.....\$5.  
Railroad Cars leave immediately on the arrival of the above steamers at New Haven, and taking passengers through to Albany and Boston the same afternoon.

The steamboat **BEILLE,** Capt. Roath, will leave New York every Monday, Wednesday, and Saturday afternoon at 4 o'clock.  
N. B.—Freight for Albany, Springfield, and intermediate places taken by this line at low rates.

For further information inquire of D. B. Allen, 34 Broadway, up stairs; or G. W. Corlies, 283 Pearl street.

**NEW YORK AND ERIE RAILROAD.**  
On and after Monday, December 2d, until further notice, the steamboat will leave the foot of Duane street every morning, Sundays excepted, at 8 o'clock, for passengers, and every afternoon at 3 o'clock, for freight and passengers.

Returning, the cars will leave Middletown at 6 a. m. and 3 1/2 p. m.  
Stages for the West, leave Middletown upon the arrival of the morning cars, from the city.  
Freight received from 9 o'clock, a. m. to 2 1/2 o'clock, p. m.

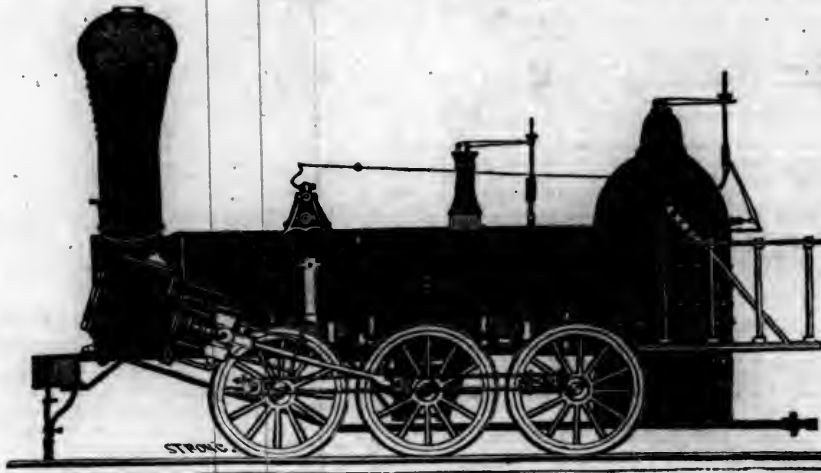
For further particulars inquire of the Captain, on board, or of J. Van Rensselaer, Agent, cor. Duane and West streets. jal H. C. SEYMOUR, Superintendent.

**PHILADELPHIA AND READING RAILROAD.**  
**WINTER ARRANGEMENTS** on and after December 1, 1844.—No Passenger Trains will run on Sundays.  
Hours of Starting.  
From Philadelphia at 9 A. M., daily.  
From Pottsville at 9 A. M. daily, except Sundays.

**FARES**  
1st Class Cars. 2d Class Cars.  
Between Philad. and Pottsville, \$3 50 \$3 00  
" " Reading, 2 25 1 90  
All passengers are requested to procure their tickets before the train starts. jal

# NORRIS' LOCOMOTIVE WORKS,

BUSH HILL, PHILADELPHIA, Pennsylvania.



MANUFACTURE their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15	inches Diameter of Cylinder,	×	20	inches Stroke.
" 2,	14	" " " "	×	24	" "
" 3,	14	" " " "	×	20	" "
" 4,	12	" " " "	×	20	" "
" 5,	11	" " " "	×	20	" "
" 6,	10	" " " "	×	18	" "

With Wheels of any Dimensions, with their Patent Arrangement for Variable Expansion.

Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

NORRIS, BROTHERS.

## NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.

ROBERT SCHUYLER, Esq., Vice President.

J. P. JACKSON, Esq., Secretary.

J. WORTHINGTON, Esq., Treasurer.

	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
Leave New York, foot of Courtland street.	9, 11, 12	2, 3, 4 3-4, 6, 7 1-2	9	4 3-4		
For Newark	9, 11	2, 3, 4 3-4, 6				
" Elizabethtown	9, 11	3, 4 3-4, 6				
" Rahway	9	3, 4 3-4				
" New Brunswick	9	3, 4 3-4				
Leave						
New Brunswick	6, 7 1-2, 11 1-2	8 3-4	11 1-2	8 1-2		
Rahway	6 3-4, 7, 8 1-4, 12	4 3-4, 9 1-4				
Elizabethtown	7, 7 1-2, 8 1-2, 10 1-2, 12	3 1-2, 5				
Newark	7 1-2, 8 1-4, 9, 11	1 1-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4		
For New York.						

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

### TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick.	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York	—	—	9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark	9 1-4	25	—	—	5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown	14 1-2	31 1-4	5 1-2	12 1-2	—	—	5	12 1-2	16 3-4	50
Rahway	19 3-4	31 1-4	10 1-2	25	5	12 1-2	—	—	11 3-4	37 1-2
New Brunswick	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2	—	—

### PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—MORNING LINE.

The Train carrying the United States Mail leaves Pratt street Depot daily (except Sundays), at 9 o'clock, A. M. Passengers arrive in Philadelphia at about 3 1/2 o'clock, and in full time for the evening lines for New York.

**Evening Mail Line to Philadelphia per Railroad**  
The Evening Mail Train for Philadelphia, leaves the Pratt street Depot, daily at 8 o'clock P. M. through in seven hours. The return Trains leave Philadelphia respectively at 8 A. M. and 4 o'clock P. M., and reach Baltimore at 2 1/2 and 11 o'clock, P. M.

Freight to or from Philadelphia, taken daily (except Sundays) from President street Depot, at 50 cents per 100 lbs.  
A. CRAWFORD, Agent.

### RICHMOND AND PETERSBURG RAILROAD.

Winter Arrangement.—Change of Hours.  
On and after Wednesday, the 13th day of Nov. 1844:

**Mail Train**  
Leaves Richmond, daily, at 1 1/2 o'clock, p. m.  
Leaves Petersburg, daily, at 5 1/2, a. m.  
**Accommodation Train**  
Leaves Richmond, daily, Sundays excepted, at 10 1/2, a. m.  
Leaves Petersburg, daily, Sundays excepted, at 8, a. m.

THEODORE S. GARNETT, Agent.  
N. B. The hours are given in Richmond time, which is fifteen minutes in advance of Petersburg time.

## TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

### PASCAL IRON WORKS.

#### WELDED WROUGHT IRON TUBES

From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLOWS.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

## NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

New Arrangement.  
Commencing Nov. 11th, 1844.  
NEW YORK AND NEWARK.  
Fare Reduced to Twenty-Five Cents.

From the foot of Courtland street—Daily, Sundays excepted.  
Leave New York, at 9, 11, and 12 o'clock, a. m. and 2, 4, 4 1/2, 6, and 7 1/2 o'clock, p. m.  
Leave Newark at 7, 8 1/2, 9, and 11 o'clock, a. m. and 1 1/2, 4 1/2, 7, and 9 1/2 o'clock, p. m.

ON SUNDAYS, from the foot of Courtland street:  
Leave New York at 9 o'clock, a. m. and 4 1/2 p. m.  
Leave Newark, at 11 1/2, a. m. and 9 1/2, p. m.  
The Cars of the Morris and Essex Railroad line for Orange, Millville, Summit, Chatham, Madison, and Morristown, run through from Jersey City without change, and connect with 9, a. m. and 3, p. m. trains from New York.

**New York and Elizabethtown.**  
Leave New York at 9 and 11, a. m. and 2, 3 1/2 and 6, p. m.  
Leave Elizabethtown at 7, 7 1/2, 8 1/2, 10 1/2 and 12, a. m. and 3 1/2 and 5, p. m.

The trains for Westfield, Plainfield, Boundbrook, Somerville, &c., connect with the 9, a. m. and 4 1/2, p. m. trains from New York, daily, Sundays excepted.  
Fare between New York and Elizabethtown, 31 1/2 cents; do. New York and Somerville, 75 cents.

**New York and Rahway.**  
Leave New York at 9 and 11, a. m. and 3, 4 1/2 and 6, p. m.  
Leave Rahway at 6 1/2, 7, 8 1/2 and 12, a. m. and 4 1/2 and 9 1/2, p. m.

**New York and New Brunswick.**  
From the foot of Courtland street, New York, daily.  
Leave New York at 9, a. m. and 3 and 4 1/2, p. m.  
Leave New Brunswick at 6, 7 1/2 and 11 1/2, a. m. and 8 1/2, p. m.

ON SUNDAYS.  
Leave New York at 9, a. m. and 4 1/2, p. m.  
Leave New Brunswick at 11 1/2, a. m. and 8 1/2, p. m.  
Fare, except in the Philadelphia trains, between New York and New Brunswick, 50 cents; do. Rahway, 31 1/2 cents.

Newark, Elizabethtown, Rahway, and New Brunswick passengers who procure their tickets at the Ticket Office receive a ferry ticket gratis. Tickets are received by conductors only on the day when purchased.

The Commutation fare between New York and New Brunswick, and intermediate places, (including the Ferry,) has been reduced to \$65 per annum.

### BALTIMORE AND OHIO RAILROAD.

Hours of departure of the Passenger Trains on the "Main Stem" and "Washington Branch" of the Baltimore and Ohio Railroad, 30 March, 1844:

**Main Stem, Westwardly.**  
For Cumberland, Hancock, Martinsburg, Harper's Ferry, Winchester, Frederick, Ellicott's Mills, and intermediate depots by the regular train, daily, at 7 1/2 o'clock, a. m.  
For Frederick and intermediate stations, by extra train, daily, except Sunday, at 4 p. m.

**Eastwardly.**  
From Cumberland, daily, regular train, at 8, a. m.  
" Hancock, do. do. 10 1/2, a. m.  
" Martinsburg, do. do. 11 1/2, a. m.  
" Harper's Ferry, do. do. 12 1/2, p. m.  
" Frederick, daily, except Sunday extra train, 8, a. m.  
" do. by regular train, 2 p. m.  
" Ellicott's Mills, daily, by several trains, at 7 1/2, a. m. 12, m. and 4 1/2, p. m.

Fare in either direction between Baltimore and Cumberland \$7, and for intermediate distances at the uniform rate of 4 cents per mile.

Through tickets are issued between Baltimore and Wheeling, respectively, \$11; between Baltimore and Pittsburg, \$10; between Philadelphia and Wheeling, \$13.

**Washington Branch**  
From Baltimore at 9, a. m. 6, p. m. and 11 1/2, p. m.  
From Washington at 6, a. m. and 5 1/2, p. m.  
By order, D. J. FOLEY, Agent.

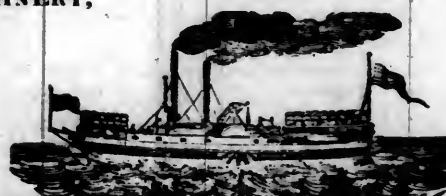
### WASHINGTON BRANCH RAILROAD.

In consequence of the adoption of a new schedule by the Post Office Department, the following changes in the departure of the Trains on this road will go into effect this day, viz:

The Train that has hitherto left Baltimore at 2 o'clock, A. M. will now leave on the arrival of the Cars from the East, at or about 11 1/2 P. M. and the departure of the evening train from Washington for this city, will be at 5 1/2 instead of 4 o'clock, as at present. By order, D. J. FOLEY, Agent.

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 4.]

THURSDAY, JANUARY 23, 1845.

[WHOLE No. 447, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

## RATES OF ADVERTISING.

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One square ".....	2 50
One page, single insertion.....	8 00
One column ".....	3 00
One square ".....	1 00
Professional notices per annum.....	5 00

## ENGINEERS and MACHINISTS.

STILLMAN, ALLEN & Co. N. Y.  
JAS. P. ALLAIRE, N. Y.  
H. R. DUNHAM & Co. N. Y.  
WEST POINT FOUNDRY, N. Y.  
PHENIX FOUNDRY, N. Y.  
R. HOE & Co. N. Y.  
SECOR & Co. N. Y.  
J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)  
TROY IRON AND NAIL FACTORY, H. Burden Agent. (See Adv.)  
ANDREW MENEELY, West Troy. (See Adv.)  
ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
NORRIS, BROTHERS, Philadelphia, Pa.  
KITE'S Patent Safety Beam. (See Adv.)  
FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)  
BALDWIN & WHITNEY, Philadelphia, Pa.  
JOHN F. STARR, Philadelphia, Pa.  
MERRICK & TOWNE, do.  
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)  
ROSS WINANS, Baltimore, Md.  
CYRUS ALGER & CO., South Boston Iron Company.  
HINCKLEY & DRURY, South Boston.  
C. C. ALGER, [Stockbridge Iron Works,] Stockbridge, Mass.

## IRON MERCHANTS and IMPORTERS.

DAVIS, BROOKS, & Co. N. Y. [See Adv.]  
A. & G. RALSTON & Co. Philad. Pa. [See Adv.]  
THOMAS & EDMUND GEORGE, Philadelphia. [See Adv.]

## NICOLL'S PATENT SAFETY SWITCH FOR RAILROAD TURNOUTS.

This invention, for sometime in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design. It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them. It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable. Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.  
G. A. NICOLL'S,  
Reading, Pa.  
Jan. 1, 1845.

## TO IRON MANUFACTURERS.

The subscribers as Agents of Mr. Geo. Crane of Wales, having obtained a patent in the United States for his process of smelting iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licences for the manufacture of Iron according to Mr. Crane's principle.  
A. & G. RALSTON & Co.  
No. 4 South Front street, Philadelphia, Pa.

## S. VAIL, Proprietor of the Speedwell Iron Works, near Morristown, N. J. can supply at short notice railroad companies and others, with the following:

Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyre made, and they may rely upon being served according to order, and also punctually, as a large quantity in the strait bar is kept constantly on hand. Crank axles for locomotive engines, made from the best Pennsylvania Iron.—Straight axles for locomotives for outside connection engines. Frames for engines.—Wrought iron work for steamboats, and shafting of any size. Cotton screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen:  
Baldwin, Vail and Huffy, Philadelphia; Wm. Norris, Philadelphia; N. Campfield, Savannah, Ga.; J. and S. Bones, Augusta, Ga.; D. F. Guez, New Orleans, La.; Adam Hall, New York; J. P. Allaire, New York; William Parker, Boston, Mass.; George W. Schuyler, New York.

## VALUABLE PROPERTY ON THE MILL DAM FOR SALE.

A Lot of Land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and East of Parker street, containing 68,497 square feet, with the following buildings thereon standing:  
Main Brick Building, 120 feet long, by 46 feet wide, two stories high. A Machine Shop, 47x43, with large Engine, Face, Screw, and other Lathes, suitable to do any kind of work.  
Pattern Shop, 75x32 feet, with Lathes, Work Benches, &c.  
Work Shop, 86x35 feet, on the same floor with the pattern shop.  
Forge Shop, 118 feet long by 44 feet wide on the ground floor, with two large Water Wheels, each 16 feet long, 9 feet diameter, with all the Gearing, Shafts, Drums, Pulleys, &c., large and small Trip Hammers, Furnaces, Forges, Rolling Mill, with large Balance Wheel and a large Blowing Apparatus for the Foundry.  
Foundry, at end of Main Brick Building, 60x45 feet, two stories high, with a shed part 45x20 feet, containing a large Air Furnace, Cupola, Crane and Corn Oven.  
Store House—a range of Buildings for Storage, etc., 200 feet long by 20 wide.  
Locomotive Shop, adjoining Main Building, fronting on Parker street, 64x25 feet.  
Also—A Lot of Land on the Canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:  
Boiler House 60 feet long by 30 feet wide, two stories.  
Blacksmith Shop, 49 feet long by 20 feet wide.  
For terms, apply to HENRY ANDREWS, 48 State street, or to CURTIS, LEAVENS & CO. 106 State street, Boston, or to A. & G. RALSTON & CO., Philadelphia. Jan 1

## MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Paterson, N. J.

The Undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.  
Railroad Work.  
Locomotive Steam Engines and Tenders; Driving and other Locomotive Wheels, Axles, Springs and Flange Tyres; Car Wheels of cast iron, from a variety of patterns, and Chills; Car Wheels of cast iron with wrought Tyres; Axles of best American refined iron; Springs; Boxes and Bolts for Cars.  
Cotton, Wool and Flax Machinery of all descriptions and of the most improved Patterns, style and workmanship.  
Mill Gearing and Millwright work generally; Hydraulic and other Presses; Press Screws; Callenders; Lathes and Tools of all kinds; Iron and Brass Castings of all descriptions.  
ROGERS, KETCHUM & GROSVENOR,  
Paterson, N. J. or 60 Wall street, N. Y.

## MESSRS. EDITORS:—As your paper is devoted to the benefit of the public in general, I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore Railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large eight wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstance attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan, the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Delaware, Sept. 23, 1840.

The undersigned take pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,  
JAMES ELLIOTT, Sup't Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the N Jersey Railroad and Transportation Office, No. 1 Hanover st., New York. Jan 1

## TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY.—The subscribers have for sale American and English Bar Iron, of all sizes; English Blister, Cast, Shear and Spring Steel; Juniata Rods; Car Axles, made of double refined iron; Sheet and Boiler Iron, cut to pattern; Tyres for Locomotive Engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article.

The Tyres are made by Messrs. Baldwin & Whitney, Locomotive Engine Manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.  
THOMAS & EDMUND GEORGE,  
N. E. corner 12th and Market streets, Philadelphia, Pa. Jan 1

**TO THOSE INTERESTED** in Railroads. Railroad Directors and Managers are respectfully invited to examine an improved Spark Arrester, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used, is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks, passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust, they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity, to the bottom of this chamber; the smoke and steam passing off at the top of the chimney through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits.

E. A. Stevens, pres't Camden and Amboy railroad company; Richard Peters, superintendent Georgia railroad, Augusta, Ga.; G. A. Nicolls, sup't Philadelphia, Reading and Pottsville railroad, Reading, Pa.; W. E. Morris, pres't Philadelphia, Germantown and Norristown railroad company, Philadelphia; E. B. Dudley, pres't W. and R. railroad co., Wilmington, N. C.; Col. James Gadsden, pres't S. C. and C. railroad comp'y, Charleston, S. C.; W. C. Walker, agent Vicksburg and Jackson railroad, Vicksburg, Miss.; R. S. Van Rensselaer, engineer and sup't Hartford and N. Haven railroad; W. R. McKee, sup't Lexington and Ohio railroad, Lexington, Ky.; T. L. Smith, sup't N. Jersey railroad trans. co.; J. Elliott, sup't motive power Philadelphia and Wilmington railroad, Wilmington, Del.; J. O. Sterns, sup't Elizabethtown and Somerville railroad; R. R. Cuyler, pres't Central railroad co., Savannah, Ga.; J. D. Gray, sup't Macon railroad, Macon, Ga.; J. H. Cleveland, sup't Southern r. road Monroe, Mich.; M. F. Chittenden, sup't M. P. Central railroad, Detroit, Mich.; G. B. Fisk, president Long Island railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin and Whitney, of this city, will be promptly executed.

FRENCH & BAIRD.

N. B. The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia Pa., April 6, 1844.

**TO IRON MASTERS—FOR SALE,** Mill Sites in the immediate neighborhood of *Bituminous Coal* and *Iron Ore*, of the first quality, at Ralston, Lycoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railroads. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY,  
Civil Engineer,  
No. 23 Chambers st., N. Y.

**SAMUEL NOTT**, Civil Engineer, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES. —

Col. James F. Baldwin and Col. J. M. Fessenden, Civil Engineers, Boston; Wm. Parker Esq. Engineer and Superintendent Boston and Worcester railroad.

**SPRING STEEL** for Locomotives, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/4 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOHN F. WINSLOW, Agent;  
Albany Iron and Nail Works, Troy, N. Y.

**ANDREW MENEELY'S** Manufacturing Establishment, West Troy, Albany County, New York. The subscriber manufactures and keeps constantly on hand Theodolites, Transit instruments, Levels, etc., of the most approved construction. He would invite the attention of surveyors to his Improved Compass, which is almost equal to a Theodolite, inasmuch as angles can be taken without the needle. Angles of elevation can be taken with precisely the same accuracy as horizontal angles. Town clocks, with dead beat escapements, warranted to perform in the best manner, and keep correct time. He still continues to cast Church Bells, warranted not only to stand, but tone such as to give satisfaction and please, and fastens to them cast iron yokes, ready to hang. Also steamboat and factory bells, of all sizes, constantly on hand; and copper and brass castings of every description made to order.

**PATENT** Hammered Railroad, Ship and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of railroad, ship and boat spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works, will be promptly executed.

JNO. F. WINSLOW,

Agent Albany Iron and Nail Works.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; Jas. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

**PATENT RAILROAD, SHIP AND BOAT SPIKES.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of wrought Spikes and Nails from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent,) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with spikes made at the above named Factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. Y., will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory prices by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water street, New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand for his spikes.

**W. R. CASEY, CIVIL ENGINEER,** No. 23 Chambers street, New York, will make Surveys, Estimates of Cost and Reports for Railways, Canals, Roads, Docks, Wharves, Dams and Bridges of every description, with Plans and Specifications, and when required, superintend their execution.

He will also make Surveys of Estates, with correct maps and descriptions of the same; and examine and report on the best mode of rendering them productive by draining, mines, quarries, water power, roads, bridges, wharves, etc.

**R. F. LIVINGSTON,** Civil Engineer Hudson, New York. Refer to W. R. Casey, 23 Chambers st., N. Y.

STATE WORKS OF PENNSYLVANIA.

The members of the present Board of Canal Commissioners entered on the duties of their office on the 9th day of January last, in pursuance of the provisions of the law under which they were elected; and now have the honor to submit to the consideration of the Legislature and the people, a report upon the operations of the public works during the last fiscal year from the 30th November, 1843, to the first of December, 1844.

The receipts during the year have been as follow, viz :

For motive power charges on the Philadelphia and Columbia railroad, including charges for the use of trucks, - \$233,000 13  
Ditto, on the Allegheny Portage railroad, - 114,580 20  
\$347,580 33

For tolls on the Philadelphia and Columbia railroad, - \$207,157 01  
Ditto, Allegheny Portage railroad, - 65,200 42  
272,357 43

\$619,937 76

To which add receipts for materials sold (old iron) on the Philadelphia and Columbia railroad, - 3,179 28  
\$623,117 04

For canal tolls on main line of canal, including collections at bridges, aqueducts, and out-let locks, - \$351,101 92

Ditto, on the Delaware division, - 109,277 53

Ditto, on the Susquehanna, North and West Branches, - 101,948 89

Ditto, on the Beaver division, - 7,381 31  
569,709 65

Total gross receipts, \$1,192,826 69

From which deduct certificates of drawbacks received in payment of tolls on main line, by A. B. Cummings, late collector at Philadelphia, - \$ 939 00

By John S. Cash, present collector at Philadelphia, - 24,284 27  
25,223 27

Actual receipts in cash, \$1,167,603 42

The expenses incurred during the year have been as follow :

For maintaining motive power on the Philadelphia and Columbia railroad, including expenses of trucks, - \$144,514 71

Ditto, on Allegheny Portage railroad, - 106,321 40

For repairing and keeping the Philadelphia and Columbia railroad in order, exclusive of \$1,399 89, for bridges, - \$51,303 09

Ditto, on Allegheny Portage railroad, - 29,724 00

Total repair expenses on railroads, - 81,027 09

Total expenses of motive power and repairs on railroads, \$331,863 20

For repairing and keeping main line of canal in order, - 67,817 66

Ditto, Delaware division, - 17,662 64

Ditto, Susquehanna, North and West Branches, - 40,737 21

Breaches and rebuilding dam at Lackawanna feeder, 6,989 38

For repairing and keeping Beaver division in order, - 2,361 04

Compensation of collectors, weighmasters, inspectors of cargoes and assistants, including house rent, stationery, printing, postage, and all other incidental expenses, - 32,837 32

Ditto, lock-keepers, - 31,762 00

Total expenses, 532,030 45

Net receipts over expenditures, \$635,572 97

If from the above be deducted the sum of \$5,914 15, the compensation for the year, of the Canal Commissioners, their secretary, clerk and messenger, including stationery, printing, postage, and all other incidental expenses of their office, the net balance over all the expenditures in any manner pertaining to the fiscal year just closed, exclusive of the appropriation for repairing bridges and the locks at Franklin, will be \$629,658 82.

In order to encourage the coal trade on the public works as far as practicable, the Board were induced to allow liberal drawbacks on neneral coal reaching Columbia along the state improvements, and also on that reaching Bristol by the Delaware division. This method of reducing the tolls on the thr ough trade was adopted, in order to preserve a fair rate of toll on the local or way trade; and it is believed that the receipts on the through trade have been increased by the adoption of the policy. This course seemed to be rendered indispensable to the interests of the State, in consequence of the reduced rate of charges on other improvements in which she has no direct interest, occasioned by the competition of rival corporations.

The certificates of drawback issued on coal were received in payment of subsequent tolls at the office from which it was shipped, and were deducted by the collectors from the clearances, and the amount received in cash only returned as tolls received.

The navigation opened last spring upon the main line on the 14th March, and continued without any serious interruption during the navigable season, except about four weeks from the latter part of August, extending through the greater part of September, during which period the boatmen experienced much detention for want of a sufficient supply of water on the upper levels of the Juniata division. During a great part of this time a full loaded boat could not pass, and for about two weeks the navigation on this portion of canal was entirely sus-

pendent, and the transporters compelled to transship their loading and haul it by wagons between the Portage railroad and the point where the boats were stopped, or suffer delay and suspense for an indefinite period.

Interruptions to the regular transportation of goods have occurred to some extent every year since the line has been in operation, occasioned by the want of a sufficient supply of water at the head of canal navigation, on one or both sides of the Allegheny mountain. Last year the supply on the west side was such as to prevent much delay, but this fact affords no guaranty that it will be sufficient the ensuing season. These interruptions always occur at one of the most important periods of the year for the transportation of merchandise west, and it cannot be doubted, that the State has lost, from this cause, much of the carrying trade, and consequently a very large amount of tolls. They have a tendency to give the route a character for uncertainty, and cause all those who may have made arrangements requiring punctuality in the delivery of their goods, to seek other and more certain routes, even at a greater expense. The Board, therefore, cannot urge upon the Legislature too strongly the necessity of making provision for completing the Eastern and Western reservoirs at the Allegheny mountain as soon as may be practicable, consistent with sound economy; particularly the one on the eastern side of the mountain, which is nearest completion, and the necessity for which is considered the greatest.

The section boatmen experienced some detention for want of a sufficient number of state trucks to pass them over the railroads without unnecessary delay. Whatever may be the relative merits of the two systems of transportation by section boats and cars, the Board believe the section boat system has produced advantages to the State, by regulating the prices of freight and thereby increasing trade. It is, therefore, earnestly recommended, that authority be given to contract for a sufficient number of trucks to afford reasonable accommodation to section boats, either with the owners of those already constructed or for the construction of new ones, as may be most advantageous, to be paid for out of the motive power fund. It is believed they could be obtained on fair terms, and paid in instalments, without embarrassing that fund. Should the Legislature coincide in this recommendation, and make provision for carrying it into effect, it is of the utmost importance it should be done immediately, in order that the trucks may be in readiness for the spring trade, as delay would, in a great measure, defeat the object in view.

In 1842, an act of the Legislature was passed authorizing the incorporation of a company to complete this work, and by a supplement thereto, passed in 1843, the company, on certain conditions, are to have the canal already finished, from the Lackawanna to the out-let into the pool of the Nanticoke dam, at Solomon's creek. The stock in this company has not yet been taken, and the whole subject is consequently within the control of the Legislature. The Board have only to remark in conclusion on this subject, that whatever legislation may hereafter take place in regard to it, the right of the State to resume the work ought to be specially guarded, and no part of the finished line below the Lackawanna should be surrendered. The advantages that this improvement presents to capitalists, as a sure and profitable investment, are such as should afford ample inducement to undertake its completion on fair and liberal terms.

By an act of the Legislature, approved the 7th day of March, 1843, entitled "An Act to in-

corporate the Erie canal company," it is provided, that upon the issuing of letters patent by the Governor to the said company, the Erie division of the Pennsylvania canal, from the town of Erie to the mouth of Beaver, on the Ohio river, together with the French Creek feeder, shall be vested in the corporation, together with the surplus water power, and all the property owned by the Commonwealth pertaining to the same: "Provided, That the Beaver line of said canal, from New Castle to the Ohio river, shall not be surrendered up to the said company until the whole line from New Castle to Erie shall be completed, and in actual use, for the transportation of merchandize throughout its whole length: And provided further, That the Legislature reserves the right to resume the possession of the said Beaver division from New Castle to the Ohio river, with all the privileges and franchises hereby granted in relation to said division, if it shall be deemed necessary to secure the interests of the Commonwealth, or the rights of any other party: And provided further, That in the event of a resumption by the State, it shall be had on such terms as to do no injustice to the incorporators under this act."

This company obtained a charter in pursuance of the said act, and that part of the canal between New Castle and the town of Erie was surrendered on the first day of August, 1843, and the Beaver division has remained in the possession of the State, and under the control of the Canal Commissioners, until the present time.

The members of the Board, however, have learned that the company, on the allegation of having completed the whole line, has obtained an order for the surrender of this part also, on the first of January next.

It cannot but be regarded as a matter of deep regret, that any circumstances should have existed, which, in the opinion of the Executive, rendered it necessary to direct the transfer of a work of so much importance to the interests of the Commonwealth, on the eve of the meeting of the Legislature. The hope was confidently indulged, that as soon as the Legislature could meet, measures would be adopted not incompatible with the provisions of the charter, to continue the possession and control of this portion of the canal in the Commonwealth.

When the other part of the line was surrendered, it was done through the medium of the Board. In this instance they have had no official information on the subject, nor did they know the company had claimed its possession until after the order for its transfer had been issued to the officers on the line.

Strong doubts are entertained as to whether it is completed, and in actual use, for the transportation of merchandize throughout its whole length, as required by the act of incorporation; and if these doubts, upon an actual examination, by competent and disinterested persons, should prove to be well founded, the company has no right to the possession of the Beaver division.

In the opinion of the Board, this subject, above all others, connected with the internal improvements of the State, demands the serious and immediate attention of the Legislature. At the same time the company obtained the charter for this improvement, that part of it, from New Castle to Erie, including the French Creek feeder, had, from the best data the Board have been able to obtain, cost the State \$3,721,056 86; and the Beaver line, including cost of repairs over receipts \$760,148 48; making the aggregate cost of the whole line, contemplated by the act of incorporation to be surrendered to said company, \$4,548,906 29; and the sum necessary to com-

plete the same, as estimated by the engineer on the line, was \$297,926 02; but the chief and most important consideration connected with the subject, is not to be found in the immense cost of the work thus surrendered without consideration, when it required so small an amount for completion. What most claims the earnest attention of every Pennsylvanian, is the effect it may have in the hands of a company of adverse interests, on the commerce of the State, and the carrying trade of the main line of improvements.

The distance from Buffalo to Erie is 90 miles; and from Erie, by the way of the Erie division of the Pennsylvania canal, to the mouth of Beaver is 136 miles; making the whole distance from Buffalo, by this route, to steamboat navigation on the Ohio, 226 miles. The distance from Buffalo to Cleveland is 180 miles; and from Cleveland to Portsmouth, by way of the Ohio canal, 309 miles; making the distance from Buffalo, by this route, to steamboat navigation on the Ohio, at Portsmouth, 489 miles; and from Cleveland, by way of the Pennsylvania and Ohio canal and the Beaver line, to steamboat navigation on the Ohio, at the mouth of Beaver, 143 miles; making the distance from Buffalo, by the last named route, 323 miles.

Thus, it will be perceived, that the Erie division of the Pennsylvania canal is much the shortest route, which connects Lake Erie with steamboat navigation on the Ohio river.

It is not only the nearest and most direct route, but it can be made much the cheapest, in proportion to distance, because of the large donation made by the State, and the trifling sum it will have cost the company.

The mouth of Beaver is 28 miles below Pittsburgh; and there is every reason to believe that a large portion of the trade of the Ohio river, which now comes up to Pittsburgh, and thence along the Pennsylvania improvements to Philadelphia, will be diverted at this point to the lake, and thence to New York; and that a large amount of merchandise from the east to supply the west, which would otherwise pass on the Pennsylvania canals and railroads, will find its way by the lake route and through this canal to the Ohio river.

There is no minimum rate of toll fixed in the act of incorporation, consequently the company may reduce the toll so low as to make it comparatively a free canal; and by the increased amount of business, which may be thus attracted, raise sufficient revenue to make large dividends on the small investment of the stockholders. If this trade could be obtained by the company without being diverted from the state improvements, there would be no just cause of complaint. But when it is considered that this canal has been constructed at a cost of over four millions and a half of the people's money—that they are taxed to pay the interest thereon—and that it is now in the hands of a company and may be so used as to injure the prosperity of the commercial metropolis of the State, and divert the carrying trade from the main line of the State improvements, thereby causing the necessity of increased taxation, it is impossible for any Pennsylvanian to avoid feelings of the deepest mortification. It is a subject which deeply concerns every man interested in the commerce of Philadelphia—every holder of State stock, and every tax-payer in the Commonwealth.

Its effects upon the interests of the State at large, in diminishing her commerce and depreciating the value of her canals and railroads, would be difficult to estimate. Vitaly important, however, as the Board view this subject, as

connected with the interests of the State, they have no disposition to recommend any course that would do injustice to the company. Should the Beaver division, unfortunately, have actually passed into its possession, the right to resume it, at any time the interests of the State require, is reserved; and the right to resume the whole line at any time, on refunding to the company the money expended in its completion, with interest, is also reserved. In order, therefore, that full justice may be done to all parties interested, an immediate and thorough investigation of the whole subject should be instituted. It should be ascertained whether the work has been completed in the correct sense of the term, according to the true intent of the law, and how much it has actually cost in money, preparatory to the resumption by the State of the whole line. In the mean time, if the Beaver division shall have passed into the possession of the company, it ought to be resumed forthwith, so that the State may have the power to regulate the tolls in such manner as to counteract the influence of the low tolls which may be established by the company, or any other arrangement calculated to injure the commerce and trade of Pennsylvania.

In the former part of this report, the necessity of making a reduction of toll on the article of coal, in the form of drawbacks, has been adverted to. The drawbacks allowed, during the year, on the Delaware division of the Pennsylvania canal, on coal arriving at Bristol, amounted to \$17,199 63; and the tolls actually paid in cash on the same article to \$69,114 59. The retention and increase of the coal trade on this division of the public works, are of great importance to the revenue of the State, and since a reduction of tolls on this line has been deemed essential to encourage the trade, and to enable those engaged in it to maintain a successful competition, it is, in the opinion of the Board, a subject worthy of the consideration of the Legislature, whether the interests of the State would not be promoted by a more direct and less expensive mode of reaching the Delaware and Raritan canal, so as to relieve this important item of trade from any unnecessary burden in the shape of freight, and thereby enable it to contribute more to the State, in the form of tolls, for the use of her improvements.

The only consideration that could have justified the projection of this canal, was the extensive coal trade which was anticipated, and its chief value is now derived from the transportation of this article. Whatever, therefore, will tend to facilitate and increase this trade, not incompatible with other paramount interests of the State, ought to be encouraged.

The Board incline to the opinion, that a connection with the Delaware and Raritan canal at New Hope, or somewhere below that point, would not be injurious to the interests of the State, but, on the contrary, would tend to promote them, by increasing the transportation of coal on the canal. They, however, believe if such connection should be permitted, that all tonnage passing out of or into the Delaware division at this point, should pay the same tolls as if it passed out or entered at Bristol. They entertain this belief because this canal has been constructed at great public expense, to afford an out-let for the coal of the Lehigh, and to accommodate the trade between Easton and Philadelphia. If the State should permit any portion of it to pass out before reaching Bristol, for the purpose of saving freight to the transporters, it furnishes no reason why she should lose any of her tolls on a work made purposely for the benefit of such trade. Should the Legislature directly authorize the connection, the interest of the State, in her tolls, should be well secured.



The Board are further of opinion, if this connection be authorized, the State should secure the entire control of the out-let lock at Easton, so that all trade passing through the same be subject to such tolls as she may find it her interest to impose.

The interests of the Commonwealth require that some change should be made in regard to carrying passengers over the Philadelphia and Columbia railroad. At present the cars in which they are carried are owned by individuals, who pay a certain rate of toll per mile for each passenger—the State having no control over the rate of fare.

In 1843, they were carried under a contract with a company who furnished the cars and received a specific part of the fare as their compensation, and all above that sum was paid to the State. In this contract there was a stipulation in regard to the rate to be charged to passengers, but from some cause the arrangement did not seem to meet public approbation, and was abandoned.

The system now existing was in operation when the present Board entered on their duties. The experience of the past year has satisfied them, that it is not the most profitable one to the State, as in their opinion she does not receive a full proportion of the amount paid by those who pass over the road.

On this subject the Board would respectfully refer the Legislature to the annual report of the intelligent and very efficient superintendent of the road, in whose views they entirely concur. It is confidently believed, that if cars were placed on the road by the State, she would gain nearly as much in one year as would pay for the stock required. The authority to place cars on the road, and to use a portion of the motive power fund for that purpose, is therefore, earnestly recommended to the immediate consideration of the Legislature.

The tonnage reports from some of the principal officers, will shew a considerable increase of business during the past year on the public works, over the preceding one. What it may be during the coming year is of course altogether conjectural, but it is not believed it will be in the same ratio of the one just closed. The unfortunate destruction of the railroad bridge, at Harrisburg, may, to some extent, have an unfavorable influence on the business of the Philadelphia and Columbia railroad. The opinion is entertained that there will be a fair increase in the articles of coal, iron, and other productions of the State; and should the trade on the Main line not be injured by a diversion to the Erie extension and other rival routes, or by interruptions to the navigation that cannot be foreseen, there is no reason to doubt an increase on all the public works, corresponding with that of the growing wealth, population, and prosperity of the country.

MICHIGAN.

The Albany Argus says of the public works of Michigan :

As these topics are interesting to the citizens of New York, we give the following summary of the present condition of the public works. They show a steady progress during the last year.

The Central road was finished to Marshall about the 10th of August last, and since that time has been in use between Detroit and that place, a distance of 110 miles. The total amount of receipts the past year was \$211,169 84, of which \$83,551 03 was for passengers, and the balance for freight. The whole expense

of repairs and running the cars during the same period was \$89,419 51, leaving a net profit, according to the statement of the acting Commissioner, of \$121,750 33. Of the net revenue, \$25,345 41 have been paid into the State Treasury, \$57,424 53 paid for iron, and the balance, except about \$3000 on hand, mostly expended in the increase of stock and further improvement of the facilities of the road, in the construction of side tracks, and building a warehouse at Detroit. The board estimate the receipts on this work the ensuing year at \$275,000 00.

This road is also mostly graded from Marshall to Kalamazoo, a further distance of 36 miles, and will be ready to receive the iron on that part of it at an early period of the ensuing season. The state would meet with but little difficulty in obtaining the necessary supply of iron, but for the high price of that article, caused by the tariff of 1842, the cost of the quantity wanted to lay the track between the places named being increased, in consequence, little less than thirty thousand dollars. It is confidently believed, however, notwithstanding its enhanced price, that the iron can be obtained without further legislative action upon the subject, and the road made available to Kalamazoo before the close of the current year. A further small appropriation of 20,000 acres of land is required for the erection of buildings at the several stations and for construction of the necessary side tracks.

The whole amount of receipts upon the Southern road the last year was \$60,340 51, being an excess of \$36,276 01 above those of the preceding year. The receipts were all required and have been expended in running cars, in repairs of the road and in the further increase of stock; and a debt previously incurred for like objects, estimated to be about \$10,000 00, still remains unpaid.

The road being in a dilapidated condition at the commencement of the year and its stock being insufficient, the expenditures that have been made were anticipated, and the legislature, at its last session, advised of their necessity. The improvement of the harbor at Monroe, affording, as it does, greater facilities to commerce, the present good condition of the road and the increased quantity of its stock, now valued above \$50,000, all warrant an estimate of receipts upon this work the ensuing year, greatly exceeding that of any preceding one; and it is confidently believed, that besides paying current expenses, the revenue will be sufficient to pay a portion of the indebtedness contracted by the board for iron.—The cost of the iron purchased for this road, under the act of February 21, 1843, including two locomotives, was \$58,612 74, of which \$45,006 94 have been paid from receipts from the Central road, and the balance being \$13,605 80, remains a charge upon the future proceeds of the public works, and is part of the debt above-mentioned. The Board estimate the receipts on the Southern road at \$100,000 the present year.

Contracts for the completion of the Clinton & Kalamazoo Canal, between the villages of Rochester and Frederick, were made in the spring, in accordance with the provisions of the Acts of March 1, 1843, and of March 2, 1844, at a price not exceeding the estimates of a competent engineer, and for a sum less than the appropriation made. In the progress of the work it has been found that, by reason of subsequent dilapidation, a greater amount of labor is required than had been estimated, and that in consequence, the object of the acts named cannot be fully carried into effect without additional legislation. The

contractors have, however, continued their work, relying on the legislature for recompense of their labor, by a further appropriation.

Contracts were also made, during the summer, for the improvement of the navigation of the Flint River below the village of Flint. The unusual high state of water during most of the season in all our rivers afforded facilities for making the improvements required in this stream, which consisted mostly in the removal of the flood-wood that had accumulated at various points; and the work has progressed to the satisfaction of the board, and its entire completion may be expected according to the terms of the contracts.

The necessary improvements in the navigation of the St. Joseph river, between Union city in Branch county, and Sturgeon Lake in St. Joseph county, being of the character required upon the Flint, have been made with advantage the past season; but the improvements needed below that lake, being such as can only be made at a low stage of water, have been necessarily postponed until the ensuing summer, when it is hoped that the causes of delay, which have existed the last two years, will no longer prevent their completion.

Gov. Barry is evidently in favor of selling the public works, believing that this would be the best means to wipe out the state debt, and at the same time, to finish the Central Railroad to St. Joseph.

The Message contains a summary of the present debt of the state, and the means of payment, showing the following results :

Total funded debt, including interest,	\$3,355,242 48
Ditto unfunded debt, do.	721,934 90
<b>Total debt of the state,</b>	<b>\$4,077,177 38</b>
RESOURCES.	
Central railroad, cost to Dec. 1, 1844,	\$1,842,308 00
Southern do. do. do.	936,295 00
<b>Total</b>	<b>\$2,778,603 00</b>
Ten per cent. added for interest, paid during construction, and for other incidental expenses, Palmyra and Jacksonburg railroad, cost including interest,	277,860 00
Locomotives and cars on Central railroad,	30,000 00
Do. on Southern do.	110,000 00
Materials on other works,	51,000 00
<b>Total</b>	<b>161,500 00</b>
<b>Total value of railroads and fixtures at cost,</b>	<b>\$3,247,963 00</b>
Due from Detroit and Pontiac railroad company,	130,000 00
Value of unsold internal improvement lands at a minimum price	467,500 00
Sak Spring lands, 72 sections at \$2 per acre	92,160 00
Taxes uncollected and cash on hand,	179,000 00
Assets of Michigan State Bank and other assets estimated,	33,377 00
<b>Total available resources of the state,</b>	<b>\$4,150,000 00</b>
<b>Excess of resources over liabilities,</b>	<b>\$72,822 62</b>

SMITH'S PATENT WIRE ROPE.—H. M.'s steam-frigate Penelope, from 10th Sept., 1843, to 5th July, 1844, had steamed and sailed 14,256 nautical miles; the Patent Wire Rope Rigging answers exceedingly well.—Hampshire Tel.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.		Share Capital.
							Per share.	Per cent. per annum.			Value of share.	Share Capital.	
Arbroath and Forfar	15	102,000	35,000	138,870			0 12 6	2 10 0	25	27	Cambridge and Lincoln	1,250,000	
Birmingham and Gloucester	55	1,187,500	407,336	1,500,806	39,261	53,203	1 5 0	2 10 0	100	100	Chatham and Portsmouth	5,000,000	
Braundling Junction	23	161,700	365,470	481,452				4 10 0	50	54	Chester and Wrexham	120,000	
Bristol and Gloucester	37 1-2	400,000	211,000					nihil.	30	36	Churnet valley	1,800,000	
Chester and Birkenhead	14 1-2	750,000	143,170	518,989	5,856	13,148	0 8 6	1 14 0	50	32	Direct Northern to York	4,000,000	
Dublin and Drogheda	31	450,000	150,000	500,869				nihil.	55	72	Dublin and Belfast	950,000	
Dublin and Kingston	6	200,000	152,200	359,000			6 0 0	6 0 100	166	166	Dundee and Perth	250,000	
Dundee and Arbroath	16 3-4	100,000	49,445	153,416	2,989	6,993	1 5 0	5 0 0	25	29	Edinburg and Northern	800,000	
Durham and Sunderland	18 3-4	169,350	124,055	270,392	9,889	17,702		nihil.	34	29	Ely and Bedford	270,000	
East County and North and East	86 1-4	4,443,200	1,341,155	3,931,905	47,385	118,726	1 6 6		45	57	Glasgow, Dum. & Carlisle	1,300,000	
Edinburg and Glasgow	46	1,125,000	375,000	1,649,523	29,429	55,866	2 6 4	10 0 50	50	57	Gt. South. and West. Ext.	1,200,000	
Glasgow, Paisley and Ayr	51	937,500		1,066,951	12,446	36,736	1 2 6	4 10 0	50	60	Gt. Grimsby and Sheffield	600,000	
Glasgow Paisley and Greenock	22 1-2	650,000	216,666	787,884	11,572	23,177	0 5 0	2 0 0	25	12	Harwich & E. coun. Junc.	160,000	
Grand Junction	104	2,478,712		2,453,169	84,309	195,080	5 0 0	10 0 100	210	119	Huddersfield & M. r. & c.	6,000,000	
Great North of England	45	969,000	581,017	1,262,518	12,201	36,189	1 12 6	3 5 0	100	119	Kendal and Windermere	125,000	
Great Western	221 3-4	4,650,000	3,679,343	7,272,539	132,235	369,904	3 10 0	7 0 0	75	138	Leeds and Dewsbury	400,000	
Hartlepool	15 1-2	438,000	155,540	719,205				8 0 0	100		Leeds and Thirsk	800,000	
Leicester and Swannington	16 1-4	140,000		140,000	2,207	6,317	1 5 0	5 0 0	50		Liv. Ormskirk & Preston	600,000	
Liverpool and Manchester	32	1,209,000	497,750	1,739,835	57,239	117,559	5 0 0	10 0 100	203	203	London and Portsmouth	1,750,000	
Llanelli	27	200,000	44,000	221,624			1 0 0	2 0 0	87		London and York	5,000,000	
London and Birmingham	12 1-2	6,874,976	1,928,845	6,393,468	92,823	405,768		10 0 0	100	218	Londonderry & Enniskillen	500,000	
London and Blackwall	3 3-4	804,000	266,000	1,315,640	15,978	23,870			16	6	Lynn and Ely	200,000	
London and Brighton	56	1,793,800	998,350	2,630,451	29,372	84,880	0 12 0	2 8 0	50	47	Manchester, Bury & Ross	300,000	
London and Croydon	8 1-2	550,000	229,000	761,885	7,583	10,545	0 5 0	2 10 0	14	17	Manchester and Buxton	250,000	
London and Greenwich	3 3-4	759,383	233,300	1,040,930	15,193	28,933		nihil.	13	10	Mullingar and Athlone		
London and South Western	92 3-4	2,222,100	630,100	2,595,291	68,457	150,469	1 12 6	6 10 0	41	73	Newcastle and Berwick	700,000	
Manchester and Birmingham	31	2,100,000	690,586	9,233,699	15,397	58,162	1 0 6	5 0 0	40	48	Richmond & W. End Junc.		
Manchester and Bolton	10	778,100	197,730	773,743	8,585	21,140	2 2 0	4 10 0	93	110	Scottish Central	700,000	
Manchester and Leeds and Hull	81	2,937,500	1,943,932	3,921,593	46,653	156,761		7 1/2 10 1/2	60	88	Sheffield and Lincolnshire	650,000	
Midland railway	178 1-4	5,158,900	1,719,630	6,279,056	76,983	281,898			100	96	Shrewsbury and Gd. Junc.	400,000	
Newcastle and Carlisle	61	878,240	188,563	1,135,069	26,499	73,947	4 0 0	4 0 0	100	105	Shrew. Wolv. Dudley & B.	900,000	
Newcastle and Darlington	23	500,000		405,728				nihil.	21	49	Trent Valley	900,000	
Newcastle and North Shields	7	150,000	153,876	309,629	8,943	18,466		2 0 0	50	37	West London Extension	64,000	
North Union	39	739,301	308,306	1,015,447	9,071	37,794	2 10 0	6 16 8	100	104	West Yorkshire	1,000,000	
Paris and Orleans	82	1,600,000	400,000	1,978,415			0 16 0	8 0 0	20	39	Whitehaven & Maryport	100,000	
Paris and Rouen	84	1,440,000			31,247	91,171		8 0 0	20	38	FRENCH RAILWAYS.		
Preston and Wyre	19	830,000	179,852	355,161	4,191	7,066		nihil.	50	18	Boulogne and Amiens	1,500,000	
Sheffield and Manchester	19	1,150,000	311,759	951,455	11,895	14,876		nihil.	82	93	Central of France	1,280,000	
South Eastern	88	2,996,000	1,530,273	3,464,172	40,993	81,482	0 10 6	2 2 0	50	39	Lyons and Avignon	2,400,000	
Taff Vale	30	465,000	154,785	590,006	8,509	18,414	1 0 0	6 5 0	100	55	Orleans Tours & Bordeaux	2,000,000	
Ulster	25	519,150	20,000	348,626	5,401	13,856	0 15 0	5 1 8	29	37	Paris and Lyons	2,500,000	
Yarmouth and Norwich	20 1-2	187,500	62,500	230,250				nihil.	16	25	Paris and Orleans	1,600,000	
York and N. Mid., and Leeds and Selby	23	1,062,500	167,500	676,644	27,132	55,752	2 10 0	10 0 0	50	100	Paris and Rouen	1,440,000	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.
Anglo-Mexican Mint	10,000	10	10		15 7-8	15 7-8	Loughborough	70	142 3-4	142 3-4	70	1140	
Anti-dry Rot	10,000			18 1-2			Monmouthshire	2,409	100	100	10	160	160
Australian Trust company	5,700	100	35		34 1-2		Melton Mowbray	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27 1-2	27	Mersey and Irwell	500	100	100	10		
Gt. Western Steam Pa.			100		25		Macclesfield	3,000	100	100	2 1-2	15	15
Metropolitan Wood Pav.	15,000	10	6	5	6 5-8		Neath	247	100	100	17	365	365
Patent Elastic Pav.	10,000	1	5	1 3-4			Oxford	1,786	100	100	30	505	
Peninsular and Oriental	11,493	50	50	7	64 3-4	65	Regents or London	21,418	33 3-4	33 3-4	2 5-8	25	25
Ditto	3,200	50	40	7			Shropshire	500	125	125	6	120	120
Polytechnic Institution				6			Somerset coal	800	150	150	7 1-2	123	123
Reversionary Int. Soc.	5,387	100	100	4 1-2	104	104	Stafford and Worcester	700	140	140	25	480	480
R. Mail Steam Packet	15,000	100	60		36 1-2	37	Shrewsbury	500	125	125	12	230	230
South Western Steam	4,000	25	5				Stourbridge	300	145	145	14	360	360
Ship Owners' Towing	3,000	10		7 1-2	15		Stroodwater	200	150	150	19		
Thames Tunnel	4,000	50	50				Swansea	533	100	100	15	240	240
University College	1,500	100	100				Sewern & Wye & Rail. Av.	3,762	26 1-2	26 1-2	5 1-2	30	30
							Trent and Mersey	2,600	50	50	65	495	
							Thames and Medway	8,149	19 1-4	19 1-4		10	10
							Warwick and Birmingham	1,000	100	100	10 1-2	167	
							Warwick and Napton	980	100	100	8 1-2	122	

Canals.

Ashby de la Zouch	1,432	113	av.	4	70	70
Barnsley	720	100	100	14	180	180
Birmingham, 1-16 share	3,000	118 3-4	79	10	150	160
Do. and Liverpool Junc.	4,000	160	100		13 1-2	13 1-2
Coventry	500	100	100	20	365	365
Cromford	460	do.	do.	24	250	250
Derby	600	do.	do.	9	105	105
Erewash	231	do.	do.	32	440	440
Forth and Clyde	1,297	400 1-2	40 1-2	4	440	440
Grand Junc.	11,600	100	100	7	162	161 1-2
Grand Surrey	1,500	do.	do.		20	
Gloucester and Berkeley	5,000	do.	do.		8	8
Grantham	749	150	150	8	185	185
Lancaster	11,699	47 1-4	47 1-4	3	40	40
Leeds and Liverpool	2,897	100	100	34	640	640
Leicester	545	140	1.0	9	139	139

Water Works.

Birmingham	4,800	25	25	3 5-	28	28
East London	4,433	100	100	8	223	225
Grand Junction	5,500	av.	41 2-3	7 1-4	88	90
New River L. B. Ann.	1,500			2 1-2		
Manchester and Salford	6,486	av.	30	8 3-8	57	57
Vauxhall, lt. S. London	1,000	100	5	5	55	55
West Middlesex	8,294	av.	63 5-8	6 5-8	126	127

Docks.

Commercial Dock	1,065	100	3	0		
East and West India		sto.	5 1-4	137		
London	3,238,310	sto.	4 1-2	114 3-4	115	
St. Katharine	1,352,752	sto.	5	116	117	
Southampton	7,000	50	50			



AMERICAN RAILROADS.										REMARKS.
RAILROADS.	Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	
			Gross.	Nett.		Gross.	Nett.			
Me. 1	Incl'd. in "Bost. & Me." & "Eastern."									We have no returns from the Maine or New Hampshire roads. The annual reports of the Massachusetts roads will soon be out. The increase for '44 is very great; the receipts of the Western road being about \$850,000.
N. H. 2	Concord.							13.	129	
Mass 3	Boston and Maine.	109	1,384,050	178,745	68,499	6			108	
" 4	Boston and Lowell.	28	1,863,746	277,315	144,000	8			120	
" 5	Boston and Providence.	41	1,900,000	233,388	110,823	6			109	
" 6	Boston and Worcester.	48	2,885,200	404,141	162,000	6			120	
" 7	Berkshire.	21	250,000		17,50	7				
" 8	Charlestown branch.		250,000			13				
" 9	Eastern.	105	2,388,631	279,563	140,595	6			112	
" 10	Fitchburg.		322,538						109	
" 11	Hartford and Springfield.	25 1-2								
" 12	Nashua and Lowell.	14 1-2	380,000	84,079		8			120	
" 13	New Bedford and Taunton.	20	428,543	50,671	24,000	6				
" 14	Norwich and Worcester.	59	2,166,566	162,336	24,871			3	67	
" 15	Taunton branch.	11	250,000		20,000	8			118	
" 16	West Stockbridge.	3								
" 17	Western, (117 miles in Mass.)	150	8,319,520	573,882	284,432				92	
" 18	Worcester branch.		5,500							
Conn. 19	Hartford and New Haven.	38							92	
" 20	Housatonic.	74	1,244,123				150,000			
" 21	Stonington, (year ending 1st Sept.)	43	2,600,000	113,889			154,724	79,845	40	
N. Y. 22	Attica and Buffalo.	31 1-2	268,275	45,896	7,522					
" 23	Auburn and Rochester.	78	1,727,361	189,693	112,000				110	
" 24	Auburn and Syracuse.	26	743,931	86,291	27,334					
" 25	Buffalo and Niagara.									
" 26	Erie, (446 miles, )		5,000,000						28	
" 27	Erie, opened.	53			48,000					
" 28	Harlem.	26	2,200,000						65	
" 29	Hudson and Berkshire.									
" 30	Long Island.	95	1,500,000						77	
" 31	Mohawk.	16 3-4	1,030,949	69,948	58,780				59	
" 32	Tonnawanda.	43	600,000	76,227						
" 33	Troy and Greenbush.	6	180,000							
" 34	Troy and Saratoga.	25	475,865	44,325	21,000					
" 35	Troy and Schenectady.	20 1-2	633,520	28,043						
" 36	Schenectady and Saratoga.	22	300,000	42,242	3,000	1				
" 37	Utica and Schenectady.	78	2,124,013	277,164	180,000	9			131	
" 38	Utica and Syracuse.	53	1,080,219	163,701	72,000				119	
N. J. 39	Camden and Amboy.	92	3,200,000	682,832	383,880					
" 40	Elizabethtown and Somerville.	26	500,000							
" 41	Morris and Essex.									
" 42	New Jersey.	34	2,000,000						93	
" 43	Paterson.	16	300,000						80	
Pa. 44	Beaver Meadow.	26	1,000,000							
" 45	Cumberland valley.	46	1,250,000							
" 46	Franklin.	10 1-2								
" 47	Harrisburg and Lancaster.	36	860,000							
" 48	Hazleton branch.	10	120,000							
" 49	Little Schuylkill.	29	900,000							
" 50	Lykens valley.	16 1-2								
" 51	Mauch Chunk.	9	100,000							
" 52	Minehill and Schuylkill Haven.	18	315,000			12				
" 53	Norristown.	20	800,000							
" 54	Philadelphia and Trenton.	30	400,000							
" 55	Pottsville and Danville.	29 1-2	1,500,000							
" 56	Reading.	94	9,000,000						22	
" 57	Schuylkill valley.	10	1,000,000							
" 58	Williamsport and Elmira.	25	400,000	20,000						
" 59	Philadelphia and Baltimore.	93	4,400,000						22	
Del. 60	Frenchtown.	16	600,000							
Md. 51	Baltimore and Ohio, (1st Oct.)	188	7,623,600	575,235	279,402		658,620	346,946		
" 52	Baltimore and Susquehanna.	58	3,000,000						5	
" 53	Baltimore and Washington.	38	1,800,000	177,227	71,691		212,129	104,529	84	
Va. 64	Greensville and Roanoke.	17 1-2	260,000							
" 65	Petersburg and Roanoke.	60	766,000							
" 66	Portsmouth and Roanoke.	78 1-2	850,000							
" 67	Richmond and Fredericksburg.	61 1-2	1,200,000							
" 68	Richmond and Petersburg.	22 1-2	700,000							
" 69	Winchester and Potomac.	32	500,000							
N. C. 70	Raleigh and Gaston.	81 1-2	1,360,000							
" 71	Wilmington and Raleigh.	161	1,800,000							
S. C. 72	Charleston and Hamburg.	136	2,400,000						8	
" 73	Louisville and Cincinnati.	66	800,000							
Ga. 74	Central.	190	2,581,723	227,532	93,190					
" 75	Georgia.	147 1-2	2,650,000	248,026	158,207		248,096	147,523		
Ala. 76	Tuscumbia.	46								
Kv. 77	Lexington and Ohio.	40	500,000							
Ohio 78	Little Miami.	40	450,000							
" 79	Mad river.	40	400,000							
" 80	Monroeville and Sandusky.									
Mich. 81	Detroit and Pontiac.	25								
" 82	Erie and Kalamazoo.	33								
Ind. 83	Madison and Indianapolis.	56	152,000							
Can. 84	Champlain and St. Lawrence.	15	212,000		12,000		58,000	24,000	110	

The costs of those roads marked \* were taken from de Gerstner's report published in the Journal in 1840.

Purchased from the state.

SALES OF RAILROAD & CANAL SHARES IN BOSTON, NEW YORK, PHILADELPHIA & BALTIMORE.

NAME OF COMPANY.	Monday.		Tuesday.		Wednesday.		Thursday.		Friday.		Saturday.	
	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.
<b>Boston.</b>												
Old Colony					50	100 1-2					10	100
Norwich and Worcester.	35	64 1-4	50	63 3-4	50	61 1-4					20	64 1-2
Western			4	94	12	93	33	94 1-4			40	94 1-2
Long Island	50	71 1-4			150	68 1-2						
Eastern	204	103	94	103	185	102 1-2	11	102 1-2	15	104	92	105 1-2
Portland and Saco							10	98 1-2				
Boston and Worcester	4	119			88	118		1 118 3-4				
Lowell		8 117			8	117 1-2			4	117		
Reading					50	20 1-2			50	20 1-2		
Boston and Maine		9 110			47	109 1-2						
Fitchburg			10	110							4	110
Concord												
Taunton branch												
Nashua and Lowell												
Boston and Providence	10	107 3-4			30	107 1-2			64	107		
Reading bonds									1,000	70		
<b>New-York.</b>												
Erie			25	26 1-4	260	26	325	25 1-2	195	25 3-4	100	25 1-2
Harlem	100	62 1-2										
Long Island	990	71	1,375	68 1-2	450	69 1-2	1,575	70 3-4	1,940	71 1-2	925	71 1-2
Stonington	100	36 3-4	150	36 3-4	375	36	50	36 1-4	150	37	325	38 1-2
Paterson					75	80 3-4	50	79	200	78 1-2		
New Haven & Hartford									5	92		
Housatonic							50	25 1-2				
New Jersey	75	94					10	94 1-2			200	94 1-2
Mohawk	425	59 1-4	260	60	425	58 1-2	185	58 1-2	50	59	316	60
Reading			325	42	100	42					75	42
Morris canal	1,055	26 1-4	665	22 3-4	805	23	1,530	28	666	26 3-4	300	27
Utica and Syracuse					20	119						
Norwich and Worcester	1,400	63 1-2	550	63	1,025	62	555	64	425	64 1-2	1,125	64 1-2
<b>Philadelphia.</b>												
Camden and Amboy											10	110
Camden and Amboy 6's									1,052	98		
Reading			200	21 3-8	50	21 1-2					150	20 3-4
Reading bonds, 6's							2,000	63 1-2	4,000	63 1-2	1,000	63 1-2
Wilmington	150	21 1-4	450	20 3-8	190	20 1-2	392	20 1-4	119	20	1,707	19 1-4
Wilmington bonds, 6's							1,000	78 1-2	500	78		
Lehigh mortgage							2,400	67				
Chesapeake and Del. 6's			10, M	65 1-2	13, M	66 1-2					800	66 1-2
Schuylkill Nav.	39	31					25	30				
Lehigh Nav.							50	11				
<b>Baltimore.</b>												
Baltimore and Ohio	4	83	65	48 1-2			20	48 3-4	30	48 1-2		
Baltimore & Washington												
Baltimore & Susquehanna											20	23-4
Philadelphia & Baltimore												

Notes to sales of Stocks.

The prices given are the average of each day. When there is any sudden rise or fall in one day it will be alluded to in a note. When the sale of bonds is noticed, the figures in the column headed "Shares" give the amount sold in dollars. It will be seen that the sales have been very heavy. Two of the solid Boston stocks have fallen on account of the projection of rival lines, but on the whole it shows that the confidence in the dividend paying stocks rather increases with the "stock panics."

We call the attention of Directors to the Tabular Advertisement of the New Jersey Railroad and Transportation Company on our last page. A similar advertisement for each of the principal railroads would afford to the traveller in our widely extended country, information which is at present beyond his reach, even had he access to all the papers in the United States.

The attempt to sell the "main line" of canals and railroads from Philadelphia to Pittsburgh has turned out a failure—the attendance being trifling, and no bids.

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AMERICAN RAILROAD JOURNAL.

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We defer any farther remarks on the State works of New York, until the publication of the reports of the canal commissioners.—Everything seems to denote that the general policy of the State, with reference to the canal system, is likely to be very generally agitated during this session, both in and out of the halls of legislation. The meeting at Rochester on the 29th of this month, by provoking discussion, must inevitably draw public attention to the present odious and unjust tax, and thus prepare the community to understand the far more serious injury inflicted on almost all classes by that most "peculiar institution," which denies to western New York the use of the most extraordinary invention of modern times—the railroad.

The advertisement of Messrs. Norris, Brothers, engineers, of Philadelphia, on the last page, has been delayed from the impossibility of sooner procuring the cut from the engravers, who are overrun with business at the close of the year. Even now we have

only the "freight engine" on six wheels, all drivers, but are promised the passenger engine for our next number. These engines are so arranged that inequalities in the road do not diminish the number of points of bearing, and on a road in tolerable order, the weight on the drivers may, practically speaking, be considered uniform. They also traverse curves with remarkable facility, a quality which, highly creditable to the maker, is very apt to lead inexperienced engineers and directors into irreparable mistakes in locations. Messrs. Norris, Brothers continue to execute large orders from Europe, notwithstanding the high price of iron. In fact, engines are built for less in Philadelphia, than in England, as far as labor and profits are concerned. After numerous trials, the attempt to make tyre for the driving wheels of locomotives has been given up, and the Philadelphia engineers use exclusively English tyres, paying four cents per pound duty! Notwithstanding all this, the price of an engine here is about the same as in England.

The Railway Times announces the appearance of the first number of the "Railway Register," edited by Hyde Clark, Esq., C. E., a name well known to all educated engineers, from his valuable papers in the "Civil Engineer." The Railway Times speaks highly of the contents of its new auxiliary.

We would draw attention to the advertisement of Messrs. Morris, Tasker & Morris, next that of the Messrs. Norris, Brothers, on our last page. Welded wrought iron tubes are extensively used in England, and we understand that they have given satisfaction on the Reading railroad. They are heavier than copper tubes, and their conducting power is said to be a very little less. On the other hand, the equality of their expansion with that of the boiler must render them less liable to leak, and we should suppose that they would stand the intense heat of mineral coal better than copper flues. The wrought iron tubes of Messrs. Morris, Tasker and Morris are used by Messrs. Norris, Brothers, and Messrs. Baldwin and Whitney, the eminent engineers of Philadelphia, and we can speak from observation of the neatness and excellent quality of the workmanship.

A bill has been introduced into the U. States Senate to purchase the right of sending the mails by railroad by paying a sum in advance. But there is little probability of this or indeed any bill diminishing the rates of postage, passing at this session. In our next we hope to give a full account of the trial trips of the Great Britain, which are said to have been remarkably successful.

## THE FARMERS AND THE CANALS.

We are glad to find that the baneful effects of legislation on the interests of the farmer, are attracting general attention in western New York. The *Rochester Democrat*, of the 7th inst., contains several articles on the Welland canal, in which the injustice of the State tax is well pointed out. The arguments are, however, entirely for western New York. Thus the competition with the western lands is ruinous to their farmers, whose produce—a few miles from the canal—costs more for transportation than from Ohio and Michigan; never reflecting that the Erie canal has built up the central counties and part of the west, at the expense of northern and southern New York. Again, in estimating "the loss to the revenue," they add to "the additional toll which the same property would have paid" if entered at Buffalo, the tolls paid at Oswego. The tolls at that port are a loss to the revenue, i. e. to the revenue "as the Buffalo people understand it." But we proceed to make an extract from the communication of a "farmer" who very pithily observes, that the citizens of other States, using the canal, should be "taxed like our own citizens," a project not very easy to carry out.

"If there is any good reason why we should build the canals, and pay a heavy premium to the very destruction of our own best interests, to induce the products of other States to pass through them, I have yet to learn it. The people of the western States will not pretend that it is pure patriotism of country, or great love for New York, that they use her public works; no, they will tell you it is because here they find a better and surer market, a cheaper and quicker and safer communication. I am glad we are able to accommodate them, and glad to see their products come to us: but my benevolence to them cannot extend to granting them greater privileges than our own citizens enjoy. Using our canals as they do, only when their interest guides them this way, and freed from the cost of building and maintaining them, as we are not, it is no more than right and proper that when they do make use of our public works, they should be taxed like our own citizens, and be required to pay, both on their up and down freight, from lake Erie to the Hudson river, whether they pass in or out of the canal at Buffalo or Oswego, the same rate of toll paid by any citizen of New York who runs the entire length of the Erie canal.

"This great direct tax must be removed from western New York by legislative action. I am glad to see measures being taken to invite a general convention of western N. York, and from any other part of the State disposed to meet with us, to assemble in Rochester, some time in the month of January, to take the great subject into consideration, and there devise a plan or a method to more equally distribute the burthens for the sup-

port of our canals, upon those who use them, and through the medium of that convention, present our claims for relief to the legislature soon to assemble.

Under the operations of the present system the State is losing a very large revenue which this property from other States should pay, the value of our real estate rapidly depreciating, our canal debts unpaid, our taxes increasing, and at the same time our means and resources are diminishing.

## A TAX PAYER AND FARMER.

We find the whole case, as it now exists, stated in the *Journal* for January, 1840.

"Now, the Erie canal is a work as general in its character as any undertaking of the kind can well be, yet, beyond a distance of 25 or 30 miles, its beneficial influence ceases, and it is notorious, that it has been the means of retarding the advancement of the southern and northern counties by offering every inducement to the husbandman to leave his native State, because it costs less to send his produce to market from Ohio and Michigan than from nearly one-half of the State of New York. The western States offer great natural inducements to settlers, and it would be as unfair to them to attempt to check the tide of emigration as it is unjust to our own citizens to use indirect but most powerful means to retard the settling of our northern and southern counties. Not only is the New York farmer to be taxed, but the amount so levied is to be expended in reducing the value of his property by adding, at his cost, great artificial to the already superior natural advantages of the west, and thus enabling the inhabitants of that region to undersell him in his own market."

The following extracts will show the light in which the competition of the Welland canal is viewed in "western New York;" or rather the western canal counties, for there is not a crumb of comfort for the northern and southern parts of the State, whose young men have been drawn off to the west by the Erie canal, and who now avenge their native districts by underselling the farmers of the canal counties. They even speak of reducing the tolls west of Syracuse, the enormous additional taxation which such a course would impose on other parts of the State not being even an element in the investigation.

"In relation to the canal policy, the following facts would appear to exist:

"A canal has been constructed from Albany to Buffalo as a channel for the trade of lake Erie and the chain of lakes west, and the States bordering on the same.

"A side cut from this canal has been constructed from Syracuse to Oswego, as a channel for the trade of lake Ontario and the surrounding territory.

"The British government has constructed the Welland canal, connecting the waters of lake Erie with those of lake Ontario, by a communication navigable for the largest class of vessels.

"By reason of this British canal the produce of the western States can be transported to the tide waters by way of Oswego, through the length of the canals of this State, 164 miles less than if so transported by way of Buffalo through the channel created by this State for that trade, and at a cheaper rate.

"The people of this State have incurred a debt for the construction of these canals, which is a mortgage upon their property, and for the payment of which it has been thought necessary to resort to taxation.

"The resources for the payment of the interest of the debt and the eventual liquidation of the principal, are the tolls upon the property transported on the canals, which tolls are graduated by the distance of transportation.

"The trade of the western States passing through the Oswego and Welland canals, pays tolls to the State upon 154 miles less of canal transportation than that passing through the whole length of the Erie canal.

"The tolls received at Buffalo the present year, are about \$5,000 less, and those received at Oswego about \$55,000 greater than the tolls received at the same places last year, showing in some measure the extent of the diversion of the western trade the present year, while the Welland canal is in some degree incomplete.

"From these facts the following consequences result:

"That the tolls derived from the canals are diminished by the trade through the Welland canal.

"That the amount of the reduction will be increased after the entire completion of the Welland canal.

"That this diminution is to be supplied by taxation upon the citizens of this State.

"That if the full amount of tolls are realized which legitimately belong to our canal system, our citizens will the sooner be relieved from taxation.

"That the introduction of the produce of the western States under this evasion of legitimate tolls, brings such produce into injurious competition with that of our own citizens.

"That by it the value of our own products, particularly wheat, our great staple, is diminished, and the land upon which it is raised is consequently reduced in value.

"That it thus affects the interests of all our citizens who have property to be taxed; and affects the interests of western New York, by diminishing the value of her products, and reducing the price of her lands.

"That all these results are produced, or threatened by the construction of the Welland canal, an enterprise of a foreign government to whom we are under no obligations, and against the consequences of which it is the duty of the State to guard its citizens."

We would draw particular attention to the last paragraph. The immense depreciation of property in the northern, southern and river counties, occasioned by the Erie canal, and the producers it has raised in the west, is all very right. That canal benefited them. As long as the people were taxed to keep

down the tolls on western produce passing their doors, no complaint was heard. Even when the produce *via* the Welland canal went to Montreal, not yielding a farthing to "the revenue," no injustice was complained of; but now that this trade passes over 150 miles of the Erie canal, yielding largely to "the revenue,"—at least as we understand it—the State is called on to "guard its citizens." In plain English, the canal forwarders, millers and others between Syracuse and Buffalo cannot bear that any considerable amount of western trade should pass *via* Oswego. They do not object to its going down the St. Lawrence to Montreal, but to build up a rival, and that rival Oswego! Though not unused to gales at Buffalo they cannot stand a blow from that quarter. We asserted sometime since that the Welland canal was more for New York than Canada. We derive the benefit of an easier, cheaper and—more than all—earlier communication with the west; and when the Welland canal yields a surplus beyond interest and expenses, the people of Canada will draw a revenue from our trade: till that time they must continue to be taxed for our convenience. Both countries have constructed useless canals under the guidance of designing men with little ability and still less integrity; taxation follows with tolerable certainty, unless, indeed, repudiation lend its softening influence.

We will state our views on the present tax. The object is to supply the deficiencies of the canals with their *present* tolls—in other words—to keep down the rates of freight on western produce, which, more cheaply produced than our own, is to be carried to market, in part, at our expense. The English corn laws are not much admired here; but there was no necessity for running into the opposite extreme. Suppose American wheat admitted free into England, and that the British farmer paid a property tax to keep down freights to Liverpool—in what would his situation differ from that of the farmer of New York?—Taxation for the support of the canals is justifiable only, when the tolls are arranged so as to produce the greatest revenue possible. The canal will be used no longer than interest requires; hence, when yielding the greatest revenue possible, it still offers advantages above all other routes. An increase of 30 per cent. in the tolls would relieve the people from taxation; if this increase would not divert any considerable amount of trade, then is taxation not less oppressive than impolitic. Can the rates of toll be materially increased and, at the same time, a greater revenue be collected? As the trade of the Erie canal is entirely with this city and State, the increase

in revenue will be equal to the increase in the rates of toll, unless the trade be in some degree destroyed, for there is no other *practicable* route from lake Erie to New York than by the Erie canal. An increase of 30 per cent. is equal to 11 cents per barrel of flour or 2 cents and 2 mills per bushel of wheat carried from Buffalo to Albany; to assert that this is sufficient to divert trade from New York to New Orleans, Philadelphia or Montreal is to show little knowledge of prices in this country, where even the weekly fluctuations are at least as much. Disguise it as we may, the New York farmer is fleeced for the benefit of the western people, or the forwarders or the consumers here, it is immaterial which.

Again, referring to the last paragraph we find it stated that "all these results are produced or threatened by the construction of the Welland canal." Now these results are not threatened—they are and have been matters of fact for some years; and they are exclusively due to the legislation of this State. The canal meeting at Rochester had the cause of two-thirds of the State tax under their very noses: the enlargement of the Erie canal, and that most unprincipled affair, the Genesee valley canal. The Welland canal has nothing to do with the matter. Had that work never existed, the situation of the New York farmer would have been little changed; the tax would have been only 8 per cent. less than at present. Now, as the legislature of New York has brought the farmer into the tantalizing position of paying a bounty of a shilling per barrel of flour brought from the cheap lands of the west to his own market, he has some claim for relief from the suicidal course into which they have forced him. By no means can relief be granted so easily and justly as by drawing the maximum of toll from the Erie canal, so as to render unnecessary the present galling tax and to clear off the debt as soon as practicable.

We confine ourselves to a general view of the question; and, when it is admitted that those who benefit by the canals should pay for their support—and not those whose property is depreciated by them—it will be time enough to go into detail. What we never can consent to, is: that the New York farmer shall be taxed to keep down freights on the produce of his western competitors. Most sincerely do we wish that we could place a copy of the *Journal*, which has uniformly and perseveringly advocated his interests, in the hands of every farmer in the State; his rights and interests have been too long trampled on by the politicians and forwarders. We are not a little curious to know what

measures will be recommended by the canal meeting at Rochester, to meet on the 29th inst., for the purpose of considering and devising measures to remove the present unjust taxes imposed on the farmer.

## COAL.

The Philadelphia Inquirer announces a new work on coal, by R. C. Taylor, Esq. We are happy to have it in our power to state that this gentleman is peculiarly well qualified for the task; not from hearsay, but from close personal examination of coal districts, which he had thoroughly examined and reported on. Mr. Taylor is also intimately acquainted with all the routes from the coal regions to the seaboard, and can thus give information necessary to a complete knowledge of the actual value of any part of our numerous and wide spreading coal regions.

"A new work is about to be published, entitled 'Statistics of Coal.' It will embrace an immense amount of valuable matter, and will be comprised in a royal 8vo volume of 750 pages, illustrated with maps. The compiler is Rich'd C. Taylor, Esq., and the publisher J. W. Moore. Mr. Taylor, in his prospectus, says:

"One part of our plan, requiring no inconsiderable labor, is the rendering into familiar denominations the measures, weights, prices and currency of those commercial countries to which we refer. We have adopted for our standards those of Great Britain, France and the United States.

"Our plan embraces a wider range than the consideration of bituminous coal alone. We could not in all cases, distinguish the nature of substances that have been announced as true coal by unscientific persons. Anthracites, of course form an important feature, especially in the United States. The lignites, too, in their various modifications and conditions, constitute a class of fuel too valuable, particularly to continental Europe, to be omitted. The nature of some of the soled bitumens has, not unfrequently, been mistaken. Even the fluid bitumens, the naphtha and petroleum; and, moreover, the asphaltes and the mineral resins, possess claims to notice. Finally, in treating of a certain class of combustibles, we are led to note that of turf or peat; a substance entitled to much higher consideration than it has always enjoyed.

"In the three hundred tables of coal statistics we have brought down the returns to the latest practicable period. In the thousand tables of coal analysis, we have inserted none without the sanction of the highest scientific authority. In these our classification has been partly mineralogical and partly geographical. For our authorities in geology, we have an extensive catalogue. So much as results from our own observations will, of course, be judged by its own merits."

Speaking of the payment of the interest on their debts, the Philadelphia Inquirer wisely urges the sale of their public works, a policy

certainly demanded by "our republican institutions," if they would even rival the limit monarchy of Great Britain, in giving fair play to the energy and enterprize of her subjects.

"In a work of this kind, however, it is the duty of every good citizen to encourage rather than discourage the authorities in their efforts to redeem the credit of the Commonwealth. We cherish the opinion, moreover, that the very fact of full payment in February, with a favorable prospect as to future resources, would greatly tend to inspire confidence. We trust, moreover, that the emphatic and decisive vote of the people, with regard to the sale of the public works, will be duly heeded by the legislature. With those works sold, and the amount received for them applied to a liquidation of a portion of the debt, no difficulty would be experienced in raising by taxation, not only enough to pay the interest in full and promptly on the balance of the debt, but to provide a sinking fund, for the gradual and ultimate liquidation of the principal."

#### POSTAGE BILL.

The attempts of the governments—federal as well as state—to interfere with the ordinary business of the citizens and the very commonest rights of civilized communities, are becoming intolerable. The farmer of western New York has been hitherto debarred the *privilege (!)* of sending his produce to market by railway. We believe that the free negro of Maryland enjoys this right denied to the farmer of our western counties. The fondness for "peculiar institutions" is becoming very general, and the new Postage Bill bids fair to add one to the number. The New York Journal of Commerce says on this subject:

Glorious liberty of an American citizen! He may carry a newspaper with him to read by the way, and that by express *allowance of the law*. Sovereignty grants thus much, in compassion and grace towards the subject. But then the distinction between "mailable matter" and "merchandise,"—that is the curiosity. The distinction is not in the chattels themselves, but in sordid attendant circumstances.

First, merchandise must be intended for sale as merchandise.

Secondly, it must be transported in the usual mode of transporting merchandise.

Thirdly, it must be consigned to some *bona-fide* dealer or agent for the sale.

And fourthly, but standing first and above all, it must "not be marked, directed, or intended for immediate distribution to subscribers or others."

Here are distinctions for "Philadelphia lawyers" and the Courts to decide.

But to prevent the people from carrying mails is not necessary to the fullest exercise of the powers of Congress. Even upon the plan of making the Department support itself, no man can show that a monopoly is necessary. The necessity even in this case, exists nowhere but in opinion, and that opinion is held against other equally respectable opinion. Mr. Wickliffe and the Post Office Committee of both Houses put together, cannot prove that with an universal postage of two cents, the Department would not support itself. The English P. Office establishment

supports itself with a penny postage, and yields a large surplus revenue. There is no good reason to believe that our own establishment would not support itself at the same rate; especially as by the use of steam, heavy mails can be transported at almost the same price with light ones. Give the Department fair play. Let the Government pay its own postage, as the citizens do. Give us a rate of postage in accordance with the spirit of the age, and the liberty to use the national mails or not, as we please, and then see whether the liberal policy of generous designs will not support the Department quite as well as the miserable quarter-cent, skin-flint tyranny of the bill before Congress.

We are happy to find that there is something to be said on the other side, and that the existence of the people, and their claims to some little notice, are not entirely forgotten at Washington:

MAIL CONVEYANCE AND RAILROADS.—Mr. Merrick has introduced into the Senate of the United States a bill, of which (remarks the New York American) the principle is sound in itself, and carried out into practice would at the same time promote economy and swiftness in the transportation of mails, and afford substantial, and, in some instances, much needed aid to Railroad enterprise yet unfinished.

Section 1st, authorizes the Postmaster General to enter into permanent contracts with Railroad Companies for the transportation, during the existence of their charters, of the United States mail, or for a shorter period, and to pay therefor a sum in gross, in advance, either in money or in stock, bearing 4 1-2 per cent. interest—provided that the sum so advanced shall not exceed that of which the interest of 4 1-2 per cent. would exceed the amount now paid annually for the transportation of such mail.

Section 2d, authorizes the Postmaster General, when a Railroad is not finished, to enter into like contracts for such portions of the road as are finished, and for an extension of the service through the whole road when finished—making advances on sections of not less than ten miles in length, as completed.

Section 3. All contracts under the law to be submitted to Congress before they become binding.

We extract the following from the Report of a Committee on the change lately made in the great Northern and Southern mail, from the *Wilmington Journal*:—

That they have applied to the President of the Rail Road Company, and been put in possession of the correspondence between himself and the Post Office Department, and of the facts connected with the subject, so far as they are revealed.

The conclusion which results from our investigation is, that the whole difficulty has grown out of a conviction on the part of the Company that they have not been treated with even hand justice, but have been denied both sufficient time and sufficient compensation. Sufficient time to perform with punctuality and free of fines and complaints, the onerous service of their long and varied line of 337 miles, and sufficient pay to compensate them for the wear and tear consequent upon the night service and the rapid speed required of them. These, we find, have been for years the matters in dispute; and though the pay was materially increased some 12 months ago, yet it did not meet either the bid or the expectations of the Company, who considered themselves justly entitled to an allowance commensurate to that granted to other Companies for similar service.

The most important point of difference, in the opinion of your committee, between the Railroad Company and the Postmaster General is, that the Postmaster General persists in asserting that he has an existing contract with the Company to carry the mail for \$75,000 per annum; whilst, on the other hand, the Railroad Company deny the existence of any such contract, and your committee find the facts to be as follows:

At the letting of the mail contract in 1843, the Company proposed to carry the mail at \$104,000 per annum, and to have 33 hours going South, and 32 hours going North, which was declined by the Postmaster General. But subsequently an agreement was made at \$75,000 per annum, with the provision and understanding on the part of the Company that they would be allowed the time required by them in their first proposal, which it appears they might reasonably have expected to obtain, but they were disappointed, and the Postmaster General required them to perform the service under a less advantageous schedule than they had ever done, and under increased penalties for failures; whereupon the Company in 1843 refused to confirm the contract under the terms insisted upon by the Postmaster General, and have ever since been transporting the mail for the accommodation of the public, at the nominal rate of compensation of \$75,000, without one word of consent or refusal on the part of the Postmaster General, until within a month or six weeks past, and with the understanding on their part all the time, of which they had fully apprised the Postmaster General, that they were doing the duty until the Post Office Department could make other provision.

The Company complains, and it seems to us with great show of justice, that for service of 32 hours each way daily, 20 hours of which is in the night, they are allowed but \$220 per mile, while the average pay to other railroads is at least \$237½ per mile for day service only; and that the mail boat between Mobile and New Orleans, for a speed of less than 7 miles per hour, receives \$426 per mile.

These are the only matters of controversy that we can discover, which have produced a result so disastrous to the whole Atlantic seaboard, particularly of the South. The Department is solicitous to economise and save. The Company is unwilling longer as a matter of principle to submit to terms, of which they have always complained, and which they see by the Report of the Postmaster General, are not imposed on Companies North of us, where the constant stream of profitable travel would render it much more tolerable.

We deplore the misunderstanding. We are sure that the whole commercial country will deplore it, and we think the difference between the parties too small, and the consequences too great, to be allowed to continue. The road asks for simple justice. That the same terms may be conceded to it as are granted to others, and no more.

#### THE PROPOSED NEW RAILROAD.

A writer in a late number of the *Boston Mail* has come out with a great deal of venom and ridicule against the project of another Railroad to Boston, pronouncing it "the wildest vagary that ever entered the head of folly." He however confesses his ignorance of the route, and asks for information in relation to the expectations of its projectors. It is but fair that he should be so informed. Those who have embarked in this undertaking have been urged to it by considerations of the public wants. They have been aware that the existing road origi-



nated in the mistaken idea that its termination at East Boston would greatly enhance the value of the East Boston Company lands, and was indeed a part of that speculation. They knew that the route was unsatisfactory to the public at the time, and that it has been the cause of much complaint since. They know that another route, a better and a cheaper one, was surveyed at the time, and ought to have been chosen. They did not see why, because a company of interested individuals chose to build a road where the travelling public did not want it, and at a very great expense, the community should be obliged to support such an expensive route, and suffer the inconvenience and delay of the Ferry at the end of it. The time had arrived when a road should be built where the public wished it, and at moderate expense, requiring only moderate fares for its support. They have taken zealous hold of the work, and depend for its support on the excellent location of the route, and the accommodation it will give to the public by placing the passengers, when they leave the cars, almost in the centre of the city of Boston. They also see the advantage of passing through Danvers, (a town which the writer in the *Mail* contemptuously calls a "mighty village,") which has a population of over 6000 inhabitants, and whose business will afford a large merchandize income to the road. They also expect a good share of patronage from the western portion of Lynn, as well as from Sangus. They find the route unexpectedly favorable for the construction of a cheap and durable road. We have the authority of a highly intelligent member of the Committee, who accompanied the Engineer over the route, for saying that the portion of it from Lynn to the junction with the Maine Road, (about seven miles,) scarcely varies ten feet from a dead level. Nature appears to have graded the route, and only left it for man to lay the superstructure.

With these advantages, (and we might name many more,) the writer in the *Mail* will not deem the estimated cost (\$300,000) extravagantly low, especially when he sees it publicly stated that the Eastern Railroad propose building a longer road to Gloucester for \$200,000. We hope he will not now consider our estimate much too low.

The writer objects to the greater length of the new road, calling it three or four miles. Now the distance to the centre of the city is scarcely two and a half miles greater, and this will be accomplished before the boat gets half over the Ferry, and in many cases before she leaves the East Boston Depot, so that the saving of time will actually be in favour of the new route.—  
LOCOMOTIVE. *Salem Register.*

**SOUTH-EASTERN (LONDON AND DOVER) RAILWAY.**—Sir John Kirkland, Mr. W. H. Thomas, (deputy chairman of the Chester and Holyhead Railway,) and Mr. R. Browne (of Liverpool,) have been elected directors of the London and Dover Railway, in the place of General Hodgson, Mr. Cardwell, M. P., and Mr. L. Cubitt, who have resigned; and Mr. F. Mills has been elected deputy-chairman of the board of directors in the place of Mr. W. P. Richards, who has also retired from the direction.

**IMPROVEMENTS IN STEAM BOAT PROPULSION.**—In the *Mining Journal* of the 26th Oct. we published some interesting particulars respecting Mr. Smart's newly-invented elliptical convex metallic paddle-float. We are glad to find the favourable opinion we then expressed of the advantages of the invention, as applied to steam-boat propulsion, followed by their increased adoption. The satisfaction rendered the Bristol General Steam Navigation Company by

the performances of the *Shamrock* and *Swift*, to which we referred in our notice, have been such as to induce the directors to avail themselves of their use, and Mr. Smart, we understand, has just concluded granting licenses for all their vessels, comprising steamers from 40 to upwards of 200-horse power, and running to various ports in Ireland, the Welsh and English coasts, &c.

**COMPARISON OF THE TUBULAR WITH THE COMMON BOILER.**—Messrs. Bury, Curtis, & Kennedy, of Liverpool, are now making two steam-vessels for the Russian Government, the boilers of one of which is to be of the tubular, and that of the other of the flue description. The vessels and engines are as nearly as possible the same, and the result will be to establish a very fair comparison between the merits of the different kinds of boilers. The flue boilers are, as might be expected, something larger than those upon the tubular plan.

We understand that 20,000 tons of iron tubing have been ordered of Mr. May, of Ipswich, for the South Devon Railway.

**THE LEAD TRADE.**—Operations, larger in extent than have taken place for many years, have within the last few days occurred in lead. The quantity purchased by the leading houses in the trade amounts to nearly ten thousand tons of pig lead, which has completely exhausted the stocks held by the producers. These large operations have been induced by actual demand for foreign shipment, considerable advance is anticipated in the value of this article.

#### IRISH RAILWAYS.

We copy from the *Railway Times* the following remarks on Irish railways, and hail with pleasure the announcement of an "*Irish Railway Gazette*." So much has been said of these projects during the last few years, and so much is generally expected from them in ameliorating the condition of the people, that we know not to what nobler cause an *Irish Journal* can well be devoted.

The success and prosperity which have attended the construction and working of railways in this country, render the daily increasing probability of their being extensively brought to bear in Ireland, a matter of deep satisfaction. If there be anything which is calculated to remedy local grievances, and to repair the injuries arising from social disorganisation, it must be looked for in the working of an improved intercourse—the gradual and easy infusion of a more wholesome blood. Politics are not our province; we therefore hope to be considered as speaking generally—as rejoicing at the probable exhibition of a cure for disease, without requiring to look at the peculiar symptoms of the patient.

We very much regret that it is not in our power to chronicle more than a limited number of the meetings which have recently taken place in Ireland on the subject of railway communication. But this defect on our part, which is unfortunately unavoidable, is likely to be remedied by the appearance, during the past week, of the first number of the *Irish Railway Gazette*, a journal which has been called into existence by the number and importance of railway projects in Ireland—and to which, as a valuable means of keeping alive and promoting these, the essence of national prosperity and improvement, we heartily wish success.

A question has been raised among a number of "alarmists," as to the probable security of capital invested in the sister isle, in such under-

takings. But whether the doubt is intended to apply to the capital outlay or to its probable results in the shape of dividend, we think there is little room for question: The construction of railways will carry its own security in the certain improvement, moral as well as commercial, which must as a necessary consequence ensue; and in a commercial point of view, if we only trace the development of the resources of Ireland which has resulted from steam navigation, it requires no conjuror to predict a far greater result, when the difficulties and depreciations of inland travelling shall have been surmounted.

Referring to the official notice of the Board of Trade, dated October 24, we find the attention of their Lordships directed to no less than seven lines emanating from Dublin, and three from Cork. Among the former are communications with the most important cities of Cork, Limerick, Londonderry, and Waterford—besides which the route between Belfast and Dublin is to be completed.

In correspondence with the communication which will thus be opened with the south of Ireland, we are glad to observe the effort which is being made on our side to render the advantages as complete as possible. This is proposed to be effected by means of the South Wales railway, which is to run from the Great Western, through South Wales, to Fishguard, from which port an easy and regular communication may be kept up in six hours with Wexford, and thence onward to Dublin and Waterford.

Among the Irish railway schemes now before the public, there are several having for their terminus the town of Enniskillen, and all contributing to supply the traffic on the great line of communication between Dublin and Belfast. Taking them in order, we have the Dundalk and Enniskillen scheme, which was first in the field; but the very fact of the shares in this project having been taken up in England, should operate strongly by way of caution to parties who trust the interested statements of a prospectus, without having the means or opportunity of satisfying themselves. Suffice it to say, that there is not a single public conveyance between the termini of this proposed line—that the goods traffic is very trifling, certainly not more than 100 tons per week—the country of a most difficult character, and to crown the whole, the Port of Dundalk is only known as being one of the worst in Ireland. True, Sir J. Macneil is a Dundalk man, which may account in some way for a blindness to these defects which marks the prospectus.

Next we find the Great North-Western, from Dublin to Cavan and Enniskillen, as recommended by the Commissioners. Passing through a fine extent of country, much of which is unusually favorable for railway construction, and with a fair estimate according to the present traffic, this line may be considered as promising well.

The Derry and Enniskillen, being the third proposed, is only worthy of notice from the extreme folly which seems to have originated it. The passenger traffic of late has been insufficient to support a solitary public conveyance, which has in consequence been taken off the road. The Commissioners also reported "That they were satisfied that the expected intercourse through that country would not be sufficient to warrant the commencement of a railway for some time to come."

The last, but by no means the least, of these projects, is that for a line from the port of Newry, taking in the large towns of Armagh, Monaghan, Clones, &c., to Enniskillen, with power to extend it to Sligo, on the west coast. On this

we may remark, that the country from Armagh to Enniskillen is very favorable—in proof of which may be stated the small cost of forming the existing canal; and from Clones to Enniskillen the road is almost level, the canal and Lake Erne having a fall of only about 30 feet in a distance of 23 miles. This line, embracing as it does the main stream of traffic, which is almost entirely with Belfast and Newry, and forming a junction with the Ulster railway at Armagh, leaves no doubt of the superiority of its claim to support.

We have offered these few remarks for the purpose of showing how much care and caution is requisite before embarking capital without due investigation. We say this, not in disparagement of Irish investment—some of which we hold to be most desirable—but because the encouragement of bubbles not only produces loss and distrust, but because, also, every shilling uselessly thrown away, diminishes the stock of available capital which we would gladly see applied to Ireland, besides encouraging a mistaken feeling that improvement is hopeless. It is not only money that is required, but judgment. With "the sinews of war" well directed, we confidently hope for Ireland all that her best wishers could suggest—the full benefit of those advantages we are so signally enjoying ourselves.

The following extracts from late numbers of the *Railway Times* are not altogether inapplicable here:

The *modus operandi* at the present time is pretty nearly as follows. At a meeting of certain inhabitants of a district, it is resolved that a railway would be very desirable—no doubt of it—and, in order to construct it, money must be had. Now comes the question how to induce the public to come forward? The neighboring magnates must first be won over to lend their countenance—to one, it will facilitate the carriage of his produce—to another, an easy access will be afforded—a third will get a good price, by way of compensation for a barren waste—all will derive benefit from the construction of the line. But to promote this important advantage, how many shares does the public spirit of the Lord of the Upper, or the Member of the Lower House, prompt him to take? Here is the true test of value, when applied to high sounding names. To an application of this kind it is easy to imagine the reply—"We never take shares in any speculation." We know you do not; but the *Public*, who see your names thus paraded think you do, and trusting in the respectability and weight which attach to such names, they unhesitatingly place their money in reliance on their connection. And what is the result in nine cases out of ten? When the dazzle of titled patronage is withdrawn, and shareholders see clearly their own position, they find that the risk is with themselves only, while a certain gain rests with their quondam patrons, whether the dividends be shillings or pounds.

There is an old adage to the effect, that "good wine needs no bush," and very little thought is requisite to apply it to railway schemes. Those which are intrinsically sound are rather impeded than assisted by a long array of titled patrons—a few thorough men of capital and business-like habits being all that is required: while, on the other hand, an unprofitable bubble will never gain solidity from the patronising association of high sounding names. As in the war of nations, the battle is fought by the sword, though led on by the trumpet, so in the vast efforts which these national undertakings demand, the vaunted utterance of sounding names is but to lead others on to the struggle.

In plain English, let it be always borne in mind by those who have money to invest in railways, that the risk is with the shareholders, and with them only. All parade, therefore, of names, however great and respectable, not being shareholders, should be looked upon with suspicion, either as intended to conceal facts, or to supply defects. Those who have the public good at heart, as well as their own private ends, will not hesitate to enter upon something more than a nominal alliance in proof of their sincerity—inasmuch as no one is justified in placing himself in a position which may induce another to incur ruinous consequences, from which he himself is altogether protected.

The vast amount of the capital represented by the new lines of railway, which may now be said to be fairly within the probability of construction, has necessarily caused great alarm in the minds of many, who being interested in the monopoly of the existing lines, look with suspicion and fear upon the pretensions of those whom they deem intruders, and by a specious outcry in favor of public interest, seek to crush a rising antagonism; or, among a still more numerous class, in the persons of those who, being slow to venture upon improvements, are contented to hold the good they have obtained, and can only see, in the efforts of others towards a similar result, the worse consequences of ill-founded daring.

It is commonly remarked, that the railway world is overstocked with schemes—but it must be recollected that the moment a line has been pushed into any particular district, the advantages are so palpable, that unless the neighboring localities are speedily furnished with the same accommodation, they must be content to remain behind in the march of improvement. Again, it is said, that the locking up such an enormous amount of capital in a short time, will have a tendency to embarrass the money market. But there seems no ground for present alarm. Taking the present state of the country, we find great activity in commerce—an abundance of money—a flourishing revenue—the funds at par—and the prospect of undisturbed peace—all of which, by creating a dearth of investment, induce men's minds to look to railways as the best mode of placing their capital.

The most important feature that should attach to railway speculation, and we may add legislation, is, that a project or measure either for the creation or guidance of a railway, is not of to-day only. It is but a unit in a wide-spreading system, by which the greatest permanent results are to be obtained—a domestic security by which the revenues of individuals are sustained, without exhausting the source from whence they come—the wealth of to-day is not enjoyed at the expense of future depreciation—and the product of this year although consumed, so far from impairing the resources of the next, is only an evidence of improving vigor.

The effect of the present mighty movement in railways, if well directed, appears to us to insure a most favorable result. A large amount of capital, which is now choking the outlets of investment, will be removed out of the field of competition, to the relief of the remainder. The value of property of all kinds will derive an improved value from the facilities of transit. Cheapness, and an extension of the comforts and luxuries of life, will follow as a necessary consequence. And, above all, the vast capital which is required for the construction of these undertakings, will be dispersed chiefly among a class of operatives who have been called into existence by the growth of these undertakings, and whose sudden suspension would throw them back, an unproductive dead weight, upon the resources of the country.

The following statement on the advantage of conveying cattle by railway, is extracted from the columns of the *Railway Bell*, a weekly journal of great utility, and conducted with considerable skill. In addition to all information necessary for the guidance of travellers, as to starting of trains, &c., corrected up to the latest hour, there will be found a fund of information, amusing as well as instructive, which will materially relieve the tediousness of a journey:—

"Slight knowledge of physiology is sufficient to show us that unusual labor unavoidably produces a wasting of the animal substance; and even that slight knowledge is hardly necessary, since the fact is daily set before us by instances. The practice of driving fat cattle over considerable distances was, doubtless, resorted to in the absence of any means of conveyance whose cost was tolerable; but that it should be continued where railway or steamboat transit can be employed, must be attributed to blind adherence to usage, and neglect of the plainest principles on which the profit of the parties concerned depend. A long journey will, of course, walk flesh and fat off the bones where it had been laid with all the skill of the grazier, and at no little care and cost. This fact is presented with considerable effect, because with precision and the authority of actual experiment, in the sailing bill of the *Enterprise* steamer, which plies between London and Boston. It is there stated that Mr. David Martin, of Wainfleet, sent five sheep to London to walk the whole distance on the road, and killed five others at home. The two lots were of exactly equal weight (858 lbs.) when alive. The carcasses were weighed when dead, when it was found that the sheep which had walked to London weighed 435 lbs., and their loose fat 60 lbs.; while the five killed at home reached 489 lbs. their loose fat weighing 74½ lbs. The total difference of weight amounted to 68½ lbs., or 14 per cent. of the original weight of mutton, and this was evidently the loss of meat occasioned by compelling the five sheep to walk from Lincolnshire to London. It is hardly necessary to point out the consequences of this important fact. Fourteen pounds of every hundred of the best of human food are absolutely thrown away in the performance of such a journey by the living animals, not a single human being is benefited by the waste or the process. To abolish the practice would be equivalent to adding many thousands of acres to the grazing districts of the kingdom, and those of a kind to require no expense for management. Nor is this all. At the end of so long a journey, the animal, unused to effort, is wearied and diseased, and its flesh is, to say the least, less wholesome than it ought to be as human food. There can now be no excuse for the continuance of this practice, or if some districts still remain unprovided with railways, the want is likely to be very speedily supplied. Steam conveyance, both coasting and inland, now supplies or soon will supply, every grazing district with the means of sending its living produce, at reasonable cost, to the great seats of population, without waste or deterioration, and without unnecessary suffering to animals destined to die for the sustenance of man. But why should not the advance make another step? Why should these animals be killed in the crowded yards and dingy cellars of the metropolis, where causes of disease are rife enough without adding to them the unavoidable filth and putridity of innumerable slaughterhouses? The reasonable plan is evidently to send, not live, cattle but dead meat, to great towns and cities, and to locate in the country the processes by which the various parts of the animal are rendered serviceable to

man. Whatever may have been the difficulties which have hitherto prevented the establishment of this reasonable practice, they now exist no longer, thanks to the rapidity and economy of steam locomotion by land and water."

**THE NEWCASTLE MANUFACTURING COMPANY** continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires; Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

**ANDREW C. GRAY,**

President of the Newcastle Manuf. Co.

**RAILWAY IRON, LOCOMOTIVES, Etc.** The subscribers offer the following articles for sale:

Railway Iron, flat bars, with countersunk holes and mitred joints.

	lbs. per ft.
350 tons 2 by 15 ft. in length weighing 4 68	
280 " 2 " 1/2 " " " 3 50	
70 " 1 1/2 " 1/2 " " " 2 1/2	
80 " 1 1/4 " 1/2 " " " 1 26	
90 " 1 " 1/2 " " " "	

with spikes and splicing plates adapted thereto. To be sold free of duty to State governments, or incorporated companies.

Orders for Pennsylvania Boiler Iron executed.

Railroad Car and Locomotive Engine tires, wrought and turned or unturned, ready to be fitted on the wheels, viz: 30, 33, 36, 42, 44, 54 and 60 inches diameter.

E. V. Patent chain cable bolts for railway car axles, in lengths of 12 feet 6 inches, to 13 feet 2 1/2, 2 2/3, 3, 3 1/3, 3 1/2, and 3 3/4 inches diameter.

Chains for inclined planes, short and stay links, manufactured from the E. V. cable bolts, and proved at the greatest strain.

India rubber rope for Inclined planes, made from New Zealand wax.

Also—Patent hemp cordage for inclined planes and canal towing lines

Patent felt for placing between the iron chair and stone block of edge railways.

Every description of railway iron, as well as locomotive engines, imported at the shortest notice, by the agency of one of our partners, who resides in England for this purpose.

A highly respectable American Engineer resides in England for the purpose of inspecting all Locomotives, Machinery, Railway Iron, etc., ordered through us.

**A. & G. RALSTON & CO.**

No. 4 South Front st. Philadelphia, Pa.

**RAILROAD IRON & FIXTURES.** The subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

**DAVIS, BROOKS, & CO,**

21 Broad st., N. Y.

**BOSTON AND MAINE RAILROAD.—UPPER ROUTE.**  
BOSTON TO PORTLAND—via Medford, Woburn, Wilmington, Andover, Bradford, Haverhill, Plaistow, Kingston, Exeter, Newmarket, Durham, Marlbury, Dover, Somersworth, South and North Berwick, Wells, Kennebunk and Saco.

**WINTER ARRANGEMENT.—1844-5**  
On and after Monday, Oct. 21, 1844, the Passenger Trains will run daily, Sundays excepted, as follows, viz:—  
Leave Boston for Portland at 7 1/2 A. M. and 2 1/2 P. M.  
Leave Boston for Somersworth at 7 1/2 A. M., 2 1/2, and 3 1/2 P. M.  
Leave Portland for Boston at 7 1/2 A. M. and 3 P. M.  
Leave Somersworth for Boston at 4 1/2 A. M., 9 1/2 A. M., 4 1/2 P. M.  
Passengers are not allowed to carry baggage, beyond \$50 in value, unless notice is given, and an extra amount paid, at the rate of a price of a ticket, for every \$500 additional value.  
jal CHAS. MINOT, Superintendent.

**BOSTON AND LOWELL RAILROAD.**  
ON and after Friday, Nov. 1st, 1844, the Passenger Trains will run as follows:  
Leave Boston at 7 and 11 A. M., 2 and 5 P. M.  
Leave Lowell at 7 1/2 and 11 A. M., 2, 4 1/2, and 5 1/2 P. M.  
Fare 75 cents.  
The Coaches of Messrs. D. G. Cummings and B. P. Cheney, Nos. 9 and 11 Elm street, will convey passengers between the Depot, in Lowell street, and places within a moderate distance, for 12 1/2 cents.  
jal CHAS. S. STORROW, Agent B. & L. R. R. Co.

**CONCORD RAILROAD**  
**MERCHANDISE TRAINS** will run daily as follows:  
Leave Boston at 3 1/2 P. M., and arrive at Concord the same evening.  
Leave Concord at 3 1/2 P. M., and arrive at Boston at 7 1/2 the next morning.  
Freight should be delivered at Concord and Boston an hour before leaving, to ensure a delivery by the first succeeding Train.  
All passengers' baggage should be marked, and when valued at more than \$50, notice should be given and extra charges paid, or no claim for damage or loss beyond such sum will be allowed.  
jal N. G. UPHAM, Sup't.

**NASHUA AND LOWELL RAILROAD.**  
**PASSENGER TRAINS** will run as follows:  
Leave Boston at 7 A. M.; 11 A. M.; and 5 P. M.  
Leave Nashua at 6 1/2 A. M.; 1 1/2 P. M.; and 5 P. M. jal

**BOSTON AND WORCESTER RAILROAD.**  
**CHANGE OF HOURS.—WINTER ARRANGEMENT.—**Commencing December 11, 1844.  
Accommodation Trains, daily, except Sundays.  
From Boston at 7 A. M., 9 A. M., and 2 1/2 P. M.  
From Worcester at 7 A. M., 10 A. M., and 6 P. M.  
Newton Trains, daily except Sundays.  
From Boston at 9 1/2 A. M., 3 P. M., and 5 P. M.  
" Newton at 8 A. M., 10 A. M., and 4 P. M.  
The New York Train for Norwich.  
Monday, Wednesday and Friday, from Boston, at 4 P. M.  
New York, via Long Island Railroad.  
Tuesday, Thursday and Saturday, from Boston, at 7 A. M.  
New York, via New Haven.  
From Boston at 9 A. M. and 2 1/2 P. M.  
Sunday Mail from Boston at 2 P. M.—from Worcester at 7 A. M.

All baggage at the risk of its owner.  
Fares are less when paid at the Ticket Offices than in the Cars. jal WM. PARKER, Sup't.

**WESTERN RAILROAD.**  
**WINTER ARRANGEMENT.**  
ON and after the 11th December, 1844, the Passenger Trains will leave as follows, Sundays excepted:  
Boston at 9 A. M. and 2 1/2 P. M. for Albany.  
Albany at 8 A. M. and 1 1/2 P. M. for Boston.  
Springfield 7 A. M. and 3 P. M. for Albany and Boston.  
Boston 2 1/2 P. M. for New York via Springfield and New Haven.  
For Albany and Buffalo.  
Leave Boston at 9 A. M., reach Albany at 8 1/2 P. M.—Leave Boston at 2 1/2 P. M., arrive at Springfield at 7 1/2 P. M.—Lodge—leave next morning at 7 o'clock, arrive at Albany at 12 1/2 P. M. Passengers leave Albany for Buffalo at 8 A. M.

**NEW ROUTE FOR NEW YORK.**  
**VIA HARTFORD AND NEW HAVEN.**  
**FARE THROUGH FIVE DOLLARS.**  
Leave Boston at 2 1/2 P. M., and reach Springfield at 7 1/2 P. M.—thence direct by Railroad to Hartford and New Haven, and thence by Steamboat to New York, arriving at 5 A. M. Returning—leave New York at 6 1/2 A. M. and arrive at Springfield at 3 P. M., and thence to Boston, arriving at 8 P. M. Berths on board the Steamboat may be secured in Boston at the Ticket Office.  
For Northampton, Greenfield, Haverhill, &c.  
Stages leave Springfield for the above places, upon the arrival of the evening trains. Stages also run from West Brookfield to Ware, Enfield, New Braintree and Hardwick—from Palmer to Three Rivers, Belchertown, Amherst, Ware and Nonson—from Wilbraham to South Hadley and Northampton, and from Pittsfield to Adams and Williamstown.  
The Trains of the Hudson Railroad connect at Chatham—those of the Hoosatic Railroad at State line.  
Merchandise Trains run daily, Sundays excepted, to Albany, Hudson, Bridgeport, Hartford, New Haven and New York.  
For further information, apply to CHARLES A. READ, Agent, 27 State street, Boston.  
jal JAMES BARNES, Superintendent and Engineer.

**FITCHBURG RAILROAD.**  
**OPEN TO ACTON.**  
Passenger Trains will run as follows:  
Leave Charlestown at 8 A. M. and 1 and 4 P. M. Leave West Acton at 7 36 and 10 31 A. M., and 5 56 P. M.  
Stages, on the arrival of the first Train of Cars at Acton, leave daily (Sundays excepted) for Littleton, Grifton, Townsend, Lunenburg, Fitchburg, Ashburnham, Winchendon, Westminster, South Gardner, Templeton, Phillipston, Athol, Mass.; Fitzwilliam, Troy, Swanton, Keene, Walpole, Charlestown, N. H.; Chester, Windsor, Woodstock, Rutland, Middlebury, Royalton, Montpelier, and Burlington, Vt.  
For further information, apply to THOMAS A. STAPLES, No. 86 Hanover st., or L. BIGELOW, No. 11 Elm st., Boston. Passengers leaving their names at the above offices, will be supplied with Railroad and Stage tickets, and conveyed to the Fitchburg Railroad Depot, free of charge.  
Coaches will be at the Depot in Charlestown, on the arrival of the Cars, to convey passengers to any part of the city. jal S. M. FELTON, Engineer.

**BOSTON AND PROVIDENCE RAILROAD.**  
**PASSENGER NOTICE.—Winter Arrangement.**—To commence Monday, November 4.  
On and after Monday, Nov. 4, the Passenger Trains will run as follows:

For New York—Night Line, via Sound Steamers—Leave Boston at 4 P. M. on Tuesday, Thursday and Saturday.  
For New York—Morning Line, via Long Island Railroad—Leave Boston at 8 A. M. on Monday, Wednesday and Friday.  
Boston, Providence, Taunton, New Bedford and Way Trains.  
Leave Boston at 8 A. M., and 3 1/2 P. M.; and Providence at 8 A. M. and 3 1/2 P. M.  
" Taunton at 8 1/2 A. M. and 3 1/2 P. M.  
" New Bedford, at 7 1/2 A. M. and 2 1/2 P. M.  
Dedham Trains.  
Leave Boston at 9 A. M.—3 P. M., 5 1/2 P. M.  
Dedham at 7 50 A. M., 10 1/2 A. M., 4 1/2 P. M.  
All baggage is at the risk of the owners thereof.  
WM. RAYMOND LEE, Supt.

**LONG ISLAND RAILROAD COMPANY.**  
Trains run as follows, commencing November 1st, 1844:  
Leave Brooklyn at 8 a. m. (7 1/2 New York side)—Boston Train—for Greenport, daily, Sundays excepted, stopping at Farmingdale and St. George's Manor.  
Leave Brooklyn at 9 a. m. for Hicksville and intermediate places, daily; and on Tuesdays, Thursdays and Saturdays, through to Greenport and intermediate places.  
Leave Brooklyn at 4 p. m. for Hicksville and intermediate places, daily, Sundays excepted; and on Saturdays to Suffolk Station.  
Leave Greenport for Brooklyn, Boston Train, at 1 p. m. on the arrival of the steamers, daily, Sundays excepted, stopping at St. George's Manor and Farmingdale.  
Leave Greenport at 9 1/2 a. m. Accommodation Train, for Brooklyn and intermediate places, on Mondays, Wednesdays, and Fridays.  
Leave Hicksville for Brooklyn and intermediate places, daily, Sundays excepted, at 7 a. m. and 1 1/2 p. m.

**ON SUNDAYS.**  
Leave Brooklyn for Hicksville and intermediate places, at 9 1/2 a. m.  
Leave Brooklyn at 4 1/2 p. m. for Jamaica.  
Leave Hicksville at 2 1/2 p. m. for Brooklyn.  
Leave Jamaica at 8 a. m. for Brooklyn.  
Leave Jamaica at 3 1/2 p. m. for Brooklyn. jal

**FOR ALBANY AND BOSTON.**  
Via New Haven, Hartford, Springfield, and Western Railroads.  
Composed of the following steamers:  
NEW CHAMPION, Capt. Stone; GLOBE, Capt. R. Peck; NEW YORK, Caps. One of which will leave New York, from Peck Slip, daily, (Sundays excepted,) at 6 1/2 o'clock.  
Fare to Boston, . . . . . \$5.  
Railroad Cars leave immediately on the arrival of the above steamers at New Haven, and taking passengers through to Albany and Boston the same afternoon.  
The steamboat BELLE, Capt. Roath, will leave New York every Monday, Wednesday, and Saturday afternoon at 4 o'clock.  
N. B.—Freight for Albany, Springfield, and intermediate places taken by this line at low rates.  
For further information inquire of D. B. Allen, 34 Broadway, up stairs; or G. W. Corlies, 253 Pearl street.

**NEW YORK AND ERIE RAILROAD.**  
On and after Monday, December 21, until further notice, the steamboat will leave the foot of Duane street every morning, Sundays excepted, at 8 o'clock, for passengers, and every afternoon at 3 o'clock, for freight and passengers.  
Returning, the cars will leave Middletown at 6 1/2 a. m. and 3 1/2 p. m.  
Stages for the West, leave Middletown upon the arrival of the morning cars, from the City.  
Freight received from 9 o'clock, 4 a. m. to 2 1/2 o'clock, p. m.  
For further particulars inquire of the Captain, on board, or of J. Van Rensselaer, Agent, cor. Duane and West streets. jal H. C. SEYMOUR, Superintendent.

**PHILADELPHIA AND READING RAILROAD.**  
**WINTER ARRANGEMENTS** on and after December 1, 1844.—No Passenger Trains will run on Sundays.  
Hours of Starting.  
From Philadelphia at 9 A. M., daily.  
From Pottsville at 9 A. M. daily, except Sundays.

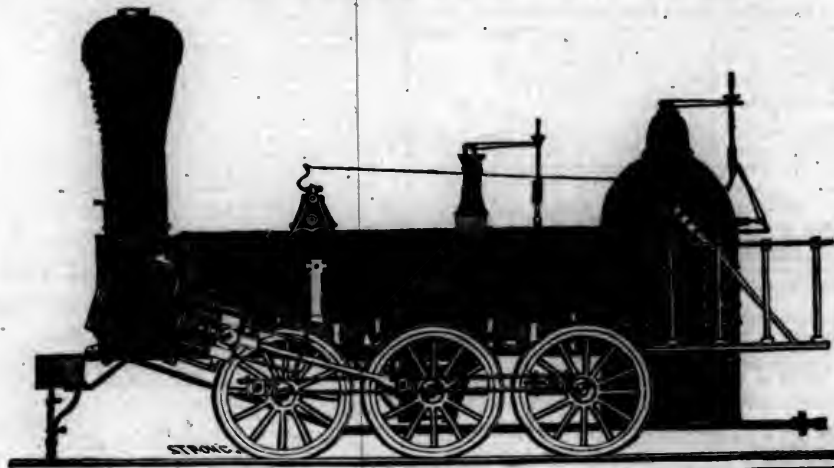
**FARES**

	1st Class Cars.	2d Class Cars.
Between Philad. and Pottsville,	\$3 50	\$3 00
" " Reading,	2 25	1 90

All passengers are requested to procure their tickets before the train starts. jal

# NORRIS' LOCOMOTIVE WORKS,

BUSH HILL, PHILADELPHIA, Pennsylvania.



MANUFACTURE their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	15 inches Diameter of Cylinder, × 20 inches Stroke.
" 2, 14	" " × 24 " "
" 3, 14½	" " × 20 " "
" 4, 12½	" " × 20 " "
" 5, 11½	" " × 20 " "
" 6, 10½	" " × 18 " "

With Wheels of any Dimensions, with their Patent Arrangement for Variable Expansion.

Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

NORRIS, BROTHERS.

## NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.

ROBERT SCHUYLER, Esq., Vice President.

J. P. JACKSON, Esq., Secretary.

J. WORTHINGTON, Esq., Treasurer.

Leave New York, foot of Courtland street.	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
For Newark.....	9, 11, 12.....	2, 3, 4, 3-4, 6, 7 1-2	9.....	4 3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4, 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4, 3-4, 6.....				
" New Brunswick.....	9.....	3, 4, 3-4.....				
Leave New Brunswick.....	6, 7 1-2, 11 1-2.....	8 3-4.....	11 1-2	8 1-2		
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12.....	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	1 1-2, 4, 5 1-2, 7, 9 3-4.....	11 3-4	9 3-4		

For New York. 9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

### TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick.	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

### PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—MORNING LINE.

The Train carrying the United States Mail leaves Pratt street Depot daily (except Sundays,) at 9 o'clock, A. M. Passengers arrive in Philadelphia at about 3¼ o'clock, and in full time for the evening lines for New York.

The Evening Mail Train for Philadelphia per Railroad leaves Pratt street Depot, daily at 8 o'clock P. M. through in seven hours.

The return Trains leave Philadelphia respectively at 8 A. M. and 4 1/2 o'clock P. M., and reach Baltimore at 2½ and 11 o'clock, P. M.

Freight to or from Philadelphia, taken daily (except Sundays,) from President street Depot, at 50 cents per 100 lbs. A. CRAWFORD, Agent.

### RICHMOND AND PETERSBURG RAILROAD.

Winter Arrangement.—Change of Hours.

On and after Wednesday, the 13th day of Nov. 1844:

Leaves Richmond, daily, at 1¼ o'clock, p. m.  
Leaves Petersburg, daily, at 5½, a. m.

#### Accommodation Train

Leaves Richmond, daily, Sundays excepted, at 10½, a. m.  
Leaves Petersburg, daily, Sundays excepted, at 8, a. m.

THEODORE S. GARNETT, Agent.

N. B. The hours are given in Richmond time, which is fifteen minutes in advance of Petersburg time.

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

### PASCAL IRON WORKS.

#### WELDED WROUGHT IRON TUBES

From 4 inches to ½ in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER PRESS.



Manufactured and for sale by MORRIS, TASKER & NORRIS. Warehouse S. E. Corner of Third & Walnut Streets, PHILADELPHIA.

### NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

New Arrangement. Commencing Nov. 11th, 1844. NEW YORK AND NEWARK. Fare Reduced to Twenty-Five Cents.

From the foot of Courtland street—Daily, Sundays excepted. Leave New York, at 9, 11, and 12 o'clock, a. m. and 2, 4, 4½, 6, and 7½ o'clock, p. m.  
Leave Newark at 7½, 8½, 9, and 11 o'clock, a. m. and 1½, 4, 5½, 7, and 9½ o'clock, p. m.

ON SUNDAYS, from the foot of Courtland street: Leave New York at 9 o'clock, a. m. and 4½ p. m. Leave Newark, at 11½, a. m. and 9½, p. m.

The Cars of the Morris and Essex Railroad line for Orange, Millville, Summit, Chatham, Madison, and Morristown, run through from Jersey City without change, and connect with 9, a. m. and 3, p. m. trains from New York.

New York and Elizabethtown. Leave New York at 9 and 11, a. m. and 2, 3, 4½ and 6, p. m. Leave Elizabethtown at 7, 7½, 8½, 10½ and 12, a. m. and 3½ and 5, p. m.

The trains for Westfield, Plainfield, Boundbrook, Somerville, &c., connect with the 9, a. m. and 4½, p. m. trains from New York, daily, Sundays excepted.

Fare between New York and Elizabethtown, 31½ cents; do. New York and Somerville, 75 cents.

New York and Rahway. Leave New York at 9 and 11, a. m. and 3, 4½ and 6, p. m. Leave Rahway at 6½, 7, 8½ and 12, a. m. and 4½ and 9½, p. m.

New York and New Brunswick. From the foot of Courtland street, New York, daily. Leave New York at 9, a. m. and 3 and 4½, p. m. Leave New Brunswick at 6, 7½ and 11½, a. m. and 8½, p. m.

ON SUNDAYS. Leave New York at 9, a. m. and 4½, p. m. Leave New Brunswick at 11½, a. m. and 8½, p. m.

Fare, except in the Philadelphia trains, between New York and New Brunswick, 50 cents; do. Rahway, 31½ cents; Newark, Elizabethtown, Rahway, and New Brunswick passengers who procure their tickets at the Ticket Office receive a ferry ticket gratis. Tickets are received by conductors only on the day when purchased.

The Commutation fare between New York and New Brunswick, and intermediate places, (including the Ferry,) has been reduced to \$65 per annum.

### BALTIMORE AND OHIO RAILROAD.

Hours of departure of the Passenger Trains on the "Main Stem" and "Washington Branch" of the Baltimore and Ohio Railroad, 31 March, 1844:

"Main Stem," Westwardly. For Cumberland, Hancock, Martinsburg, Harper's Ferry, Winchester, Frederick, Ellicott's Mills, and intermediate depots by the regular train, daily, at 7½ o'clock, a. m. For Frederick and intermediate stations, by extra train, daily, except Sunday, at 4, p. m.

Eastwardly. From Cumberland, daily, regular train, at 8, a. m. "Hancock, do. do. 10½, a. m. "Martinsburg, do. do. 11½, a. m. "Harper's Ferry, do. do. 12½, p. m.

"Frederick, daily, except Sunday extra train, 8, a. m. "do. by regular train, 2, p. m. "Ellicott's Mills, daily, by several trains, at 7½, a. m. 12, m. and 4½, p. m.

Fare in either direction between Baltimore and Cumberland 67, and for intermediate distances at the uniform rate of 4 cents per mile.

Through tickets are issued between Baltimore and Wheeling, respectively, \$11; between Baltimore and Pittsburg, \$10; between Philadelphia and Wheeling, \$13.

Washington Branch. From Baltimore at 9, a. m. 5, p. m. and 11½, p. m. From Washington at 6, a. m. and 5½, p. m.

By order, D. J. FOLEY, Agent.

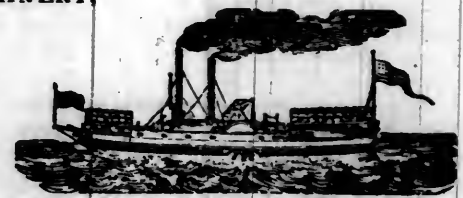
### WASHINGTON BRANCH RAILROAD.

In consequence of the adoption of a new schedule by the Post Office Department, the following changes in the departure of the Trains on this road will go into effect this day, viz:

The Train that has hitherto left Baltimore at 2 o'clock, A. M. will now leave on the arrival of the Cars from the East, at or about 11½ P. M. and the departure of the evening train from Washington for this city, will be at 5½ instead of 4 o'clock, as at present. By order, D. J. FOLEY, Agent.

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 5]

THURSDAY, JANUARY 3<sup>o</sup>, 1845.

[WHOLE No. 448, VOL. XVIII.

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

## RATES OF ADVERTISING.

One page per annum.....	\$125 00
One column ".....	50 00
One square ".....	15 00
One page per month.....	20 00
One column ".....	8 00
One square ".....	2 50
One page, single insertion.....	8 00
One column ".....	3 00
One square ".....	1 00
Professional notices per annum.....	5 00

## ENGINEERS and MACHINISTS.

STILLMAN, ALLEN & Co. N. Y.  
JAS. P. ALLAIRE, N. Y.  
H. R. DUNHAM & Co. N. Y.  
WEST POINT FOUNDRY, N. Y.  
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R. HOE & Co. N. Y.  
SECOR & Co. N. Y.  
J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)  
TROY IRON AND NAIL FACTORY, H. Burden Agent. (See Adv.)  
ANDREW MENEELY, West Troy. (See Adv.)  
ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
NORRIS, BROTHERS, Philadelphia, Pa.  
KITE'S Patent Safety Beam. (See Adv.)  
FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)  
BALDWIN & WHITNEY, Philadelphia, Pa.  
JOHN F. STARR, Philadelphia, Pa.  
MERRICK & TOWNE, do.  
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. [See Adv.]  
ROSS WINANS, Baltimore, Md.  
CYRUS ALGER & CO., South Boston Iron Company.  
HINCKLEY & DRURY, South Boston.  
C. C. ALGER, [Stockbridge Iron Works,] Stockbridge, Mass.

## IRON MERCHANTS and IMPORTERS.

DAVIS, BROOKS, & Co. N. Y. [See Adv.]  
A. & G. RALSTON & Co. Philad. Pa. [See Adv.]  
THOMAS & EDMUND GEORGE, Philadelphia. [See Adv.]

## NICOLL'S PATENT SAFETY SWITCH FOR RAILROAD TURNOUTS.

This invention, for sometime in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLL'S,

Jan. 1, 1845.

Reading, Pa.

## TO IRON MANUFACTURERS.

The subscribers as Agents of Mr. Geo. Crane of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licences for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & Co.

No. 4 South Front street, Philadelphia, Pa.

## S. VAIL, Proprietor of the Speedwell Iron Works, near Morristown, N. J. can supply at short notice railroad companies and others, with the following:

Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyres made, and they may rely upon being served according to order, and also punctually, as a large quantity in the strait bar is kept constantly on hand. Crank axles for locomotive engines, made from the best Pennsylvania iron.

—Straight axles for locomotives for outside connection engines. Frames for engines.—Wrought iron work for steamboats, and shafting of any size. Cotton screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen:

Baldwin, Vail and Huffy, Philadelphia; Wm. Norris, Philadelphia; N. Campfield, Savannah, Ga.; J. and S. Bones, Augusta, Ga.; D. F. Guez, New Orleans, La.; Adam Hall, New York; J. P. Allaire, New York; William Parker, Boston, Mass.; George W. Schuyler, New York.

## VALUABLE PROPERTY ON THE MILL DAM FOR SALE.

A Lot of Land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and East of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main Brick Building, 120 feet long, by 46 feet wide, two stories high. A Machine Shop, 47x43, with large Engine, Face, screw, and other Lathes, suitable to do any kind of work.

Pattern Shop, 35x32 feet, with Lathes, Work Benches, &c. Work Shop, 86x35 feet, on the same floor with the pattern shop.

Forge Shop, 118 feet long by 44 feet wide on the ground floor, with two large Water Wheels, each 16 feet long, 9 feet diameter, with all the Gearing, Shafts, Drums, Pulleys, &c., large and small Trip Hammers, Furnaces, Forges, Rolling Mill, with large Balance Wheel and a large Blowing Apparatus for the Foundry.

Foundry, at end of Main Brick Building, 60x45 feet, two stories high, with a shed part 45x20 feet, containing a large Air Furnace, Cupola, Crane and Corn Oven.

Store House—a range of Buildings for Storage, etc., 200 feet long by 20 wide.

Locomotive Shop, adjoining Main Building, fronting on Parker street, 54x25 feet.

Also—A Lot of Land on the Canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler House 60 feet long by 30 feet wide, two stories.

Blacksmith Shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State street, or to CURTIS, LEAVENS & CO. 106 State street, Boston, or to A. & G. RALSTON & CO., Philadelphia. j1

## MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Paterson, N. J.

The Undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

### Railroad Work.

Locomotive Steam Engines and Tenders; Driving and other Locomotive Wheels, Axles, Springs and Flange Tires; Car Wheels of cast iron, from a variety of patterns, and Chills; Car Wheels of cast iron with wrought Tires; Axles of best American refined iron; Springs; Boxes and Bolts for Cars.

### Cotton, Wool and Flax Machinery

of all descriptions and of the most improved Patterns, style and workmanship.

Mill Gearing and Millwright work generally; Hydraulic and other Presses; Press Screws; Callenters; Lathes and Tools of all kinds; Iron and Brass Castings of all descriptions.

## ROGERS, KETCHUM & GROSVENOR.

Paterson, N. J. or 60 Wall street, N. Y.

## MESSRS. EDITORS:—As your paper is devoted to the benefit of the public in general, I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore Railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large eight wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstance attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan, the same kind of accident would undoubtedly have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Delaware, Sept. 28, 1840.

The undersigned take pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,

GEORGE CRAIG, Superintendent.

JAMES ELLIOTT, Supt. Motive Power,

W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the N Jersey Railroad and Transportation Office, No. 1 Hanover st., New York. j1

## TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY.

The subscribers have for sale American and English Bar Iron, of all sizes; English Blister, Cast, Shear and Spring Steel; Juniata Rods; Car Axles, made of double refined iron; Sheet and Boiler Iron, cut to pattern; Tiers for Locomotive Engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article.

The Tires are made by Messrs. Baldwin & Whitney, Locomotive Engine Manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,

N. E. corner 12th and Market streets, Philadelphia, Pa. j1

**TO THOSE INTERESTED** in Railroads. Railroad Directors and Managers are respectfully invited to examine an improved Spark Arrester, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used, is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks, passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust, they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity, to the bottom of this chamber; the smoke and steam passing off at the top of the chimney through a capacious and unobstructed passage, thus arresting the sparks without inparing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits.

E. A. Stevens, pres't Camden and Amboy railroad company; Richard Peters, superintendent Georgia railroad, Augusta, Ga.; G. A. Nicolls, sup't Philadelphia, Reading and Pottsville railroad, Reading, Pa.; W. E. Morris, pres't Philadelphia, Germantown and Norristown railroad company, Philadelphia; E. B. Dudley, pres't W. and R. railroad co., Wilmington, N. C.; Col. James Gadsden, pres't S. C. and C. railroad comp'y, Charleston, S. C.; W. C. Walker, agent Vicksburg and Jackson railroad, Vicksburg, Miss.; R. S. Van Rensselaer, engineer and sup't Hartford and N. Haven railroad; W. R. McKee, sup't Lexington and Ohio railroad, Lexington, Ky.; T. L. Smith, sup't N. Jersey railroad trans. co.; J. Elliott, sup't motive power Philadelphia and Wilmington railroad, Wilmington, Del.; J. O. Sterns, sup't Elizabethtown and Somerville railroad; R. R. Cuyler, pres't Central railroad co., Savannah, Ga.; J. D. Gray, sup't Macon railroad, Macon, Ga.; J. H. Cleveland, sup't Southern r. road Monroe, Mich.; M. F. Chittenden, sup't M. P. Central railroad, Detroit, Mich.; G. B. Fisk, president Long Island railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin and Whitney, of this city, will be promptly executed.

FRENCH & BAIRD.

N. B. The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia Pa., April 6, 1844.

**TO IRON MASTERS—FOR SALE,** Mill Sites in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railroads. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY,  
Civil Engineer,  
No. 23 Chambers st., N. Y.

**SAMUEL NOTT**, Civil Engineer, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES. —

Col. James F. Baldwin and Col. J. M. Fessenden, Civil Engineers, Boston; Wm. Parker Esq. Engineer and Superintendent Boston and Worcester railroad.

**SPRING STEEL** for Locomotives, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/4 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOHN F. WINSLOW, Agent,  
Albany Iron and Nail Works, Troy, N. Y.

**ANDREW MENEELY'S** Manufacturing Establishment, West Troy, Albany County, New York. The subscriber manufactures and keeps constantly on hand Theodolites, Transit instruments, Levels, etc., of the most approved construction. He would invite the attention of surveyors to his Improved Compass, which is almost equal to a Theodolite, inasmuch as angles can be taken without the needle. Angles of elevation can be taken with precisely the same accuracy as horizontal angles. Town clocks, with dead beat escapements, warranted to perform in the best manner, and keep correct time. He still continues to cast Church Bells, warranted not only to stand, but tone such as to give satisfaction and please, and fastens to them cast iron yokes, ready to hang. Also steamboat and factory bells, of all sizes, constantly on hand: and copper and brass castings of every description made to order.

**PATENT Hammered Railroad, Ship and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of railroad, ship and boat spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works, will be promptly executed.

JNO. F. WINSLOW,

Agent Albany Iron and Nail Works.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; Jas. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

**PATENT RAILROAD, SHIP AND Boat Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of wrought Spikes and Nails from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent), are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with spikes made at the above named Factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. Y., will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory prices by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water street, New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\* \* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand for his spikes.

**W. R. CASEY, CIVIL ENGINEER,** No. 23 Chambers street, New York, will make Surveys, Estimates of Cost and Reports for Railways, Canals, Roads, Docks, Wharves, Dams and Bridges of every description, with Plans and Specifications, and when required, superintend their execution.

He will also make Surveys of Estates, with correct maps and descriptions of the same; and examine and report on the best mode of rendering them productive by draining, mines, quarries, water power, roads, bridges, wharves, etc.

**R. F. LIVINGSTON,** Civil Engineer Hudson, New York. Refer to W. R. Casey, 23 Chambers st., N. Y.

Statement, showing the quantity of iron of every description, shipped at the following offices, in the years 1843 and 1844, and the increase or decrease at each office.

COLLECTOR'S OFFICES.	No. of lbs. of iron shipped in 1843.	No. of lbs. of iron shipped in 1844.	Increase.	Decrease.
Philadelphia,	1,375,595	1,742,741	367,146	
Pach,	4,024,289	6,332,681	2,308,392	
Parkesburg,	602,384	1,359,932	757,548	
Lancaster,	2,033,439	2,680,103	646,664	
Columbia,	745,932	7,000,061	6,254,149	
Portsmouth,	1,246,620	8,333,212	7,086,592	
Harrisburgh,	6,679,601	10,167,781	3,488,180	
Newport,	992,816	1,468,982	476,166	
Huntingdon,	4,493,622	5,429,925	936,303	
Hollidaysburg,	7,109,445	4,773,567		2,335,878
Johnstown,	13,253,611	19,249,517	5,995,906	
Blairsville,	no return.	7,958,000		
Freeport,	446,612	981,085	534,473	
Pittsburg,	7,600	60,500	52,900	
Berwick,	3,873,137	3,425,608		448,129
Dunnasburg,	74,300	4,317,216	4,242,916	
Northumberland,	5,354,575	8,016,863	2,662,288	
Liverpool,	302,066	443,790	141,724	
Junction,	12,146,737	22,445,040	10,298,303	
Bridgewater,	149,863	405,119	255,256	
Easton,	1,742,964	1,876,116	133,152	
New Hope,	6,476,504	14,839,723	8,363,219	
Bristol,	10,293,447	20,750,595	10,457,148	
Pounds,	215,260	84,404		130,846
	1,529,710	3,106,599	1,576,889	
	85,170,119	157,948,580	67,638,314	2,914,853

Whole amount of toll received on iron of every description, transported on the several lines of improvement, during the fiscal year ending November 30, 1844 — \$64,378 39.

This statement is copied from the report of the canal commissioners of Pennsylvania, for 1844. In connection with the table of the coal trade it will show that, in mining coal, and in the manufacture of iron, Pennsylvania must continue to be without a rival.

The Schuylkill Navigation company, we are gratified to learn, are so far assured of their ability to procure the requisite sum of money to complete the proposed enlargement of the Navigation, that they have elected Edward Miller, Esq., engineer, to superintend the work. He entered upon his duties

on Monday. The estimated cost of the proposed improvement is \$10,000 per mile for 108 miles; or \$1,800,000, and not \$488,000, as was some days since stated. The stockholders have authorized the borrowing of a million and a quarter for this object.

Anthracite Coal Trade of the United States.

The following table exhibits the quantity of anthracite coal sent to market from the different regions in Pennsylvania, from the commencement of the trade in 1820, to 1844, inclusive, with the annual increase, consumption, etc.,

Yrs.	SCHUYLKILL.			LEHIGH.			OTHER REGIONS.						
	Canal.	Rail-road.	Total.	Total.	Pine-grove.	Shamokin.	Lackawanna.	Wilkes-barre.	Aggregate.	Annual Increase.	Consumption.	Unsold, April 1.	Sold on canal.
1820	..	..	..	365	..	..	..	..	365	708	..	..	..
1821	..	..	..	1,073	..	..	..	..	1,072	1,167	..	..	..
1822	..	..	..	2,240	..	..	..	..	2,240	3,588	..	..	..
1823	..	..	..	5,523	..	..	..	..	5,523	9,541	..	..	..
1824	..	..	..	9,541	..	..	..	..	9,541	34,593	..	..	..
1825	6,500	..	6,500	28,390	..	..	..	..	34,593	26,352	..	..	3,154
1826	16,776	..	16,776	31,360	..	..	..	..	48,047	13,154	..	..	3,372
1827	31,360	..	31,360	47,984	..	..	..	..	63,434	15,837	..	..	3,332
1828	47,984	..	47,984	79,973	..	..	..	..	112,083	32,651	..	..	5,321
1829	79,973	..	79,973	80,984	..	..	..	..	174,734	62,651	..	..	6,150
1830	80,984	..	80,984	81,853	..	..	..	..	176,520	2,086	..	..	10,048
1831	81,853	..	81,853	209,271	..	..	..	..	363,871	187,051	..	..	13,429
1832	209,271	..	209,271	252,971	..	..	..	..	487,748	123,877	..	..	19,429
1833	252,971	..	252,971	236,692	..	..	..	..	376,636	Decrease.	..	..	17,762
1834	236,692	..	236,692	339,508	..	..	..	..	560,758	184,122	..	..	17,863
1835	339,508	..	339,508	432,045	..	..	..	..	682,428	121,670	..	..	4,035
1836	432,045	..	432,045	433,874	..	..	..	..	881,476	199,048	..	..	28,775
1837	433,874	..	433,874	442,608	..	..	..	..	739,293	Decrease.	..	..	30,320
1838	442,608	..	442,608	452,291	..	..	..	..	819,327	80,034	..	..	28,924
1839	452,291	..	452,291	452,291	..	..	..	..	865,444	46,087	..	..	41,223
1840	452,291	..	452,291	584,692	..	..	..	..	958,899	93,685	..	..	40,584
1841	584,692	..	584,692	540,872	..	..	..	..	1,108,001	149,102	..	..	34,619
1842	540,872	..	540,872	677,321	..	..	..	..	1,263,539	155,538	..	..	60,000
1843	677,321	..	677,321	839,934	..	..	..	..	1,631,669	368,130	..	..	90,000
1844	839,934	..	839,934	5,587,930	721,018	6,308,948	2,773,651	185,354	81,985	1,875,435	220,252	11,445,628	

In 1820, only 365 tons were sent to market. In 1830, the quantity had reached 174,737 tons; in 1840, 865,414; and in 1844, 1,631,699 tons. By this statement it will be observed that the trade has nearly doubled within the last four years.

The above interesting and comprehensive table we owe to the "Miners' Journal," published at Pottsville, Pa., a paper which gives the earliest and most authentic information of the vast operations going on in that wonderful district. This table distinctly points out the rapid increase of the trade in the several localities, and gives a clear and correct idea of the anthracite coal trade of Pennsylvania, from its very beginning to the end of 1844. Still the supply is altogether inadequate to the demand.

FOURTEENTH ANNUAL REPORT OF THE BOSTON AND LOWELL RAILROAD CORPORATION.

The Directors of the Boston and Lowell Railroad Corporation hereby make their fourteenth annual report of their acts and doings, receipts and expenditures, under their act of incorporation.

The total amount of capital paid in is	\$1,800,000 00
The amount of current expenses for the past year, is	
Repairs of road and bridges,	26,053 33
" " engines and cars,	26,424 41
Fuel, oil, salaries, wages, loading merchandize, and all other miscellaneous expenses,	82,780 10
Interest paid more than received,	4,036 04
Charged to the repairs of engines and cars, on account of depreciation in value,	30,000 00
The amount received during the past year, is	169,293 88
For transporting passengers between Boston and Lowell only,	98,963 13
For transporting passengers in connection with Boston and Maine railroad,	26,061 12
For transporting passengers in connection with the Nashua and Lowell road,	17,483 32
For transporting passengers in connection with Concord railroad,	22,776 81
For transporting merchandise between Boston and Lowell only,	83,345 17
For transporting merchandise in connection with Bost. and Maine railroad,	13,850 24
For transporting merchandise in connection with the Nashua and Lowell road,	16,923 88
For transporting merchandise in connection with the Concord railroad,	31,796 33
For transporting U. S. mail, rents and miscellaneous,	5,709 08
	\$316,909 58
The number of miles run by locomotives during the past year, is	
With passenger trains,	100,243
With merchandize trains,	49,034
With miscellaneous,	15,097
	164,374
The amount of profits divided during the past year is \$144,000, being two dividends of four per cent. each, on a capital of 1,800,000 dollars.	
The amount of freight during the past year has been much greater than in any preceding one.	
We have carried,	
To and from Lowell, for the factories,	45,420 tons.
To & from Lowell, for the town,	16,214 "

To and from the Boston and Maine railroad	30,778	"
To and from the Nashua and Lowell railroad,	20,505	"
	151,731	"

Also, from the Concord railroad 4,731 cords of wood, equivalent in weight to about 12,000 tons more.

Our freight and passenger tariff has been reduced since our last annual report. It is as follows:

1st class cars for passengers from Boston to Lowell, 75 cents. 2d class do. 50 cents.

Merchandise generally at \$1 50 per ton: if in cargoes landed on our wharves, \$1 25 per ton, without any charge for wharfage. Coal, lime, flour, plaster, lumber, wheat, pig iron and salt, are taken in this way to a considerable extent. With the Lowell factories we have a special bargain. They furnish their own depots at Boston and at Lowell, and either load and unload the cars themselves, or pay us extra for so doing. We therefore charge them \$1 25 for all cotton or wool, and cotton or woollen goods, and \$1 per ton for all other articles.

The stockholders of the Woburn branch railroad, incorporated at the last session of the legislature, having unanimously voted at a meeting duly called for that purpose, to transfer their rights, privileges and franchise under their charter, to the Boston and Lowell railroad corporation, and the stockholders of the latter corporation having voted to receive and hold the same by a unanimous vote at a meeting called for the purpose, at which a majority in interest of all the stockholders was represented, according to a section in the charter of the Woburn branch railroad, authorizing such a transfer and acceptance, this corporation has, during the past year, laid out and constructed the said branch railroad, which is expected to be opened for travel on the 30th of Dec., 1844.

The Woburn branch railroad is all within the town of Woburn, in the county of Middlesex.

It begins at a point on the Boston and Lowell railroad, seven miles, and 3,781 1/2 feet from the depot of said road in Boston.

Thence it diverges to the west by a curve to the left 662, with a radius of 1,975 feet. Thence curves to the left 775, " " 2,000 " straight 2,739, course N. 24° W. 15'. " curves to the right 586, radius 3,000 " curves to the right 200, radius 4,000 " straight 4,157, course N. 10° W. 15'. " curves to the left 274, radius 625 " curves to the right 237 1/2, radius 500 " straight 195 course N. 8° W. 6'. ending near the centre village in Woburn.

It has 7,091 feet of straight line. " 2,734 1/2 feet of curved line. " 9,825 1/2 feet total length.

The grades of the road are as follows, beginning at the junction with the Boston and Lowell railroad.

362 feet, level.	
5000 ft. ascending at the rate of 53 85-100 ft. pr. mile.	
900 ft. " " 16 54-100 " "	
800 ft. " " 39 60-100 " "	
2100 ft. " " 34 50-100 " "	
663 1/2 feet, level.	
9825 1/2	

The whole ascent is 73 54-100 feet.

The road has a single track with a heavy T rail of 56 pounds to the yard, upon chestnut sleepers 7 ft. long and 6 inches in depth, 2 feet 7 inches apart, resting upon a bed of clear gravel, at least 2 feet deep. The rails are in lengths of 18 feet, and the joints are secured by a clasp chair of 20 lbs. weight.

The whole cost of the road thus far has been \$35,440 68.

The new stock which the Boston and Lowell railroad corporation were authorized to make for the purpose of defraying the expense of building this branch, has not as yet been created.

At the close of the accounts of the corporation for the present year, the directors, aware that a depreciation must have been going on in their stock of engines and cars, many of which have been in use ever since the opening of the road in 1835, have caused a valuation of the same to be made, to ascertain the amount of this depreciation. This valuation, made by the agent of the corporation, after a personal inspection of every engine and car, shows them to be worth at the present day, not more than \$100,000. They stand charged in our books at their original cost, \$157,237 43. To meet a part at least of this depreciation, the directors have ordered \$30,000 to be charged to the expenses, and credited to this account, in order to prevent this perishable species of property from standing charged on their books at a rate so much above its real value.

The whole cost of the Boston and Lowell railroad, with its depots, cars, engines and appurtenances, and about 58 miles of single track, amounts to \$1,902,555 67, of which

Land for tracks and land damages,	\$73,909 48
Depot lands and buildings,	276,079 48
Engines and cars,	127,238 43
Iron rails, bolts and chairs,	282,833 95
Bridges (66 in No.) and culverts,	196,831 58
Road, excavation and embankment, trench walls, stone blocks and sleepers, laying rails, branch tracks at Lowell, superintendence, engineering, etc.,	910,222 06
Woburn branch railroad,	35,440 68
	\$1,902,555 67

The directors herewith submit a statement in a tabular form, showing the capital, income, and expenses of the road, from its opening on the 24th of June, 1835, to this day, by which it appears that the surplus on hand on the 30th of November, 1844, after paying the dividends of that year, amounts to \$18,433 36, which is the whole surplus remaining undivided after nine or ten years operations. The amount on hand in the year 1841, when it was largest, more than half of which was derived from withholding the winter dividend of 1836, (in which year only 2 per cent. was divided,) has been absorbed by the necessary expense of taking up and relaying the first track, on which too light a rail had originally been laid, as has been more fully stated in former reports. The cost of this work was \$121,558 84, and is spread over the three years 1841-42-43.

CAPITAL ACCOUNT.

Nov. of the years	Capital paid in at that date.	Charged to construction in that year.	Credited to construction in that year.	Whole cost of construction at the end of the year.
	Dollars.	Dollars.		Dollars.
1835	1,200,000			1,312,239 54
1836	1,440,000	193,405 69		1,505,645 33
1837	1,500,000	2,740 52		1,508,294 75
1838	1,500,000	67,268 75		1,575,663 50
1839	1,650,000	32,812 71		1,698,476 21
1840	1,800,000	120,796 38		1,729,242 59
1841	1,800,000	105,650 48		1,834,893 07
1842	1,800,000	143,393 02		1,978,286 09
1843	1,800,000	10,743 10	31,638 24*	1,863,746 16
			20,886 07†	
			72,758 72‡	
1844	1,800,000	68,809 51	30,000	1,902,555 67

Year	Gross receipts from all sources.		Expenses.	Charged for depreciation of machinery.	Net profits.	Dividends of that year.	Rate per cent.	Surplus of the year.	Deficiency of the year.	Surplus on hand on 30th of year.
	Dollars.	Dollars.								
1835	64,654 39	19,125 36	45,529 03	45,000 00	34	529 03	529 03	60,327 22	2,738 13	529 03
1836	165,124 30	75,326 11	87,798 19	30,000 00	2	59,798 19	59,798 19	57,583 09	2,738 13	60,327 22
1837	180,770 04	78,598 17	102,261 87	105,000 00	7	11,180 63	11,180 63	68,769 72	30,864 11	68,769 72
1838	191,778 57	75,597 94	116,180 63	105,000 00	7	11,180 63	11,180 63	94,998 85	60,696 71	68,769 72
1839	241,219 94	92,151 44	158,229 13	132,000 00	8	26,229 13	26,229 13	111,306 46	60,696 71	94,998 85
1840	231,575 27	91,400 17	154,307 61	138,000 00	8	16,307 61	16,307 61	115,378 48	60,696 71	111,306 46
1841	267,541 34	119,469 32	146,072 02	144,000 00	8	4,072 02	4,072 02	84,514 37	60,696 71	115,378 48
1842	278,310 68	165,174 79	113,135 89	144,000 00	8	74,303 29	74,303 29	14,817 66	60,696 71	84,514 37
1843	277,315 06	109,366 88	74,303 29	144,000 00	8	147,615 70	147,615 70	14,817 66	60,696 71	14,817 66
1844	316,909 58	139,293 88	147,615 70	144,000 00	8	3,615 70	3,615 70	18,433 36	60,696 71	147,615 70
	2,238,492 31	1,059,058 95	1,149,433 36	1,131,000 00						

- \* Cash received for old rail iron sold.
- † Balance of interest account charged to expenses.
- ‡ Cost of rail iron for repairs, originally charged with rail iron for construction, and now transferred to its proper head.
- § Depreciation in value of engines and cars.
- ¶ Advance on 600 shares new stock sold at auction for account of the corporation.

The cost of a share on the 30th November, 1835, when the first annual settlement of accounts was made, after the opening of the road, including interest at 6 per cent. on the assessments from the time when they were laid, and deducting the dividend paid for the fraction of that year, amounted to \$540 75, or almost exactly 8 per cent. advance on the par value. Since then, in the nine years which have followed, the dividends have averaged seven and one-ninth per cent. on the par value of the shares. November 30th, 1845.



MISCELLANEOUS NOTICES.

**THE BALTIMORE AND OHIO RAILROAD IN VIRGINIA.**—The message of Governor McDowell to the Legislature of Virginia in relation to the proceedings of the Clarksburg Convention, which we publish below, will attract the attention of our readers and elicit their commendation for its good sense and propriety.

To persons at a distance, and unacquainted with the minute particulars which may influence opinions and feelings at the place of action, it must seem strange that a proposition to carry a valuable railroad through a long extent of her territory at the expense of the party asking the privilege, should meet with opposition in Virginia. It may be true that a portion of the State will not be directly benefitted by the work—but what a reason is that to give why another portion which should be benefitted by it must be denied the proffered advantage! It cannot be that any portion would be injured by so useful an improvement.

The message of Gov. McDowell, however, takes the proper view of the case. Virginia, if she refuses the use of her territory to the road, will only deprive herself of a benefit. Her refusal will not prevent the completion of the road to the Ohio river. There are other routes besides the projected one through Virginia; and efforts of the most earnest kind are now on foot to induce the Company to go direct to Pittsburg. Efficient means no doubt would be soon forthcoming if the Pittsburg and Pennsylvania interest should be brought to bear upon this project. The Company, however, are desirous of having the choice of the most eligible route.—*Balt. Amer.*

**BALTIMORE AND OHIO RAILROAD.**—A correspondent at Richmond writes us that "the memorial of the Baltimore and Ohio Railroad Company is still before the Committee of the Virginia House of Delegates; its discussions having been thus protracted by the opposition of the various interests adverse to its prayer; and that President McLane having several times addressed the Committee during the progress of the argument, delivered his concluding reply at considerable length and with marked effect, on Saturday, the 18th instant. A decision of the Committee may now be expected within a few days, and the case will then come before the House for the consideration which its merits and importance demand."

The subject of the extension of the railroad to the Western waters is one of deep interest in Pennsylvania as well as in Virginia. A committee from Pittsburg is now in Baltimore, whose object is to induce the railroad company to extend the road to Pittsburg by the offer of an unconditional right of way, &c. If, therefore, the application now before the Virginia Legislature should fail, there is no doubt that a route will be offered through Pennsylvania on acceptable terms.—*Balt. Amer.*

On motion of Mr. Phelps, an order was adopted, calling on the President of the Baltimore and Ohio Railroad Company to report, at what rate, under an arrangement to exist for ten years, they would transport coal and iron for, from Cumberland to Dam No. 6; and what amount of tons they would agree to deliver annually. Also to report what would be the relative cost of transportation by the railroad and canal, and by the canal alone, if completed to Cumberland. Also, what amount of stock, if any, they would take, in a company, should the same be incorporated, to construct a railroad from Cumberland, to the coal region at Frostburg.—*Balt. Am.*

The House, after considerable debate, adopted by 35 yeas to 27 nays, an order submitted yes-

terday by Mr. Clarke of Washington Co., providing for the appointment of a committee of seven, to visit the western section of the canal route, and the western portion of the Baltimore and Ohio Railroad, with a view to ascertaining the expediency of postponing the liens of the state on the canal, to allow the company to obtain means to complete the work; and for judging of the practicability of using the railroad as a feeder.—*Balt. American.*

**THE CHESAPEAKE AND OHIO CANAL.**—When it is considered that this Company can obtain the means for its own completion without its costing the state one cent, and all that the state is asked to do, is, to postpone its liens from which it cannot receive anything until the canal is finished, it is indeed extraordinary that any opposition should be made to so reasonable a request.

**THE LOPER PROPELLER.**—A NEW IRON STEAMSHIP.—A beautiful model of an iron steamship of 300 tons, now building at Wilmington by Messrs. Bates, Harlem and Hollingsworth, for the Bengal Iron Steamboat Company, intended to trade between Boston and Bengal, is now to be seen at the Merchants' Exchange. The Loper propeller is attached, and the recent improvement of Mr. Loper is applied, so as to house the wheel in case of a storm at sea, or when other circumstances should render it necessary. The means by which this desirable object is attained is at once simple and effectual. The wheel is fitted in a frame which supports the whole weight of the wheel, and thus relieves the shaft. The wheel, by being brought into a particular position, is uncoupled, and a chain working in the top of the frame is attached to the shaft, by a few revolutions of which the wheel is hoisted completely out of the water, and hangs suspended by the chain until it is wanted for use. The steam can then be applied to lower the wheel, it falls into its proper position, a coupling block is screwed over the joint in which the shaft of the wheel fits, and all is prepared to go ahead again. The frame supporting the wheel works in a groove, which keeps it steady, and at the same time causes the joint of its shaft to fall into the position for coupling with the main shaft. This arrangement is so complete, that the housing of the wheel can be accomplished by the engineer, without the application of any other power than that afforded by the engine, in less than five minutes from the time the order is given by the captain.

The ship now building at Wilmington is 140 feet long, 23 feet beam and 12 feet hold, and is to have two engines with 24 inch cylinders. She is to be completed by the 1st of April. The stern of the model resembles that of the U. S. steamship Princeton.

The Loper propellers are rapidly increasing in number, and are generally admitted to be the form best adapted to either sea, river, or canal navigation.

**THE ERICSSON PROPELLER.**—Yesterday the barque Edith, recently arrived from Boston, sailed for China. This vessel is provided with an auxiliary steam power, for use in calm weather, or against moderate head winds. Her engines, two in number, are of 26 inch stroke, 18 inches in diameter, and work the propeller. They are so compactly and symmetrically arranged that to a spectator they appear to occupy not a great deal more room than two water casks. The distinguishing feature, however, of this application, is an apparatus recently patented by Capt. Ericsson, and now first used, for unshipping the propeller when the steam power is not required. In a trial of the vessel on the day before she sailed, a measured distance of 4½ statute miles was gone over in 27½ minutes precisely, without

any assistance from her sails, giving a speed of 9 4-5 miles per hour. The time required to ship and unship the propeller, in a number of experiments, did not exceed 7 minutes.

The Edith is owned by Messrs. R. B. Forbes and Thomas H. Perkins, of Boston. She is of exquisitely beautiful model and finish, and no expense necessary to give her all the qualities of a fast sailer, has been spared. Previous to her departure, she was visited by many of our ship owners.—*J. of Com.*

The Cleveland Herald of the 13th instant, gives the details of the trade of that port. From an examination of these we find that for 1844 the tonnage belonging to that port amounted to 11,738 ts.; arrivals of that year (exclusive of steamboats) 1,561; departures (exclusive of steamboats) 1,567.

Imports coastwise for the same year	\$5,670,622
Imports from Canada	12,043
Exports coastwise	4,933,326
Exports to Canada	579,711

Making a total of exports and imports of . . . . . \$11,195,702

During the same year there were 2,400 arrivals and departures of steamboats, and the number of men employed as mariners in the trade of this port amounted to 681.

The foregoing facts are taken from a statement, signed by M. Milford, the Collector, in which he enumerates also the articles of which the vast trade of the port consists. We wish the Collector of every port on the Lakes would follow the example of Mr. Milford, as we feel confident that no better arguments could be adduced in favor of the economy, advantages, and necessity of the Lake harbor improvements.—*Nat. Intel.*

**THE COAL TRADE.**—The Allegany papers state that this trade is daily increasing, orders for coal reaching from all quarters.—*Fred. Herald.*

**GOLIATH ENGINES.**—Four of the largest locomotive engines ever constructed, are about to be built for the Sheffield and Manchester Railway. The cylinders are to be 18 inches, the stroke 5 feet, the wheels, six of them, 4½ feet diameter, and all six coupled. The weight of the engine alone, when loaded with fuel and water, is 24 tons. It is calculated that on a level they will draw separately from 1000 or 2000 tons.

**THE BRITISH POST OFFICE SYSTEM.**—In the Senate, on Thursday, the President *pro tem.* submitted a report of the Post Master General, in compliance with a resolution of the Senate, relative to the operation of the British Post Office system, and the effect of the reduced rates of postage on the revenues of the Post Office. We make the following abstract of some of its contents:

The expenditures of the Post Office for the year ending Jan. 5th, 1844, £977,140.

The gross revenue for do. 1,620,867.

The amount of revenue under the penny-postage system, as compared with the five years preceding its adoption, exhibits a loss of £1,240,000.

The nett revenue for the year ending Jan. 5th, 1844, was £643,727.

But the expense of the packet service was £564,577.

Reducing the nett revenue to £79,150.

Estimated number of letters subject to penny postage, which passed through the Post Office in 1843, £213,328,972.

Foreign and Colonial letters, \$7,108,330.

Internal Colonial letters, £2,025,348.

Post Offices in the United Kingdom, £4,758.

The document was ordered to be printed.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months, as stated in latest balance sheets.	Total earnings, in pounds, for six months, as stated in latest balance sheets.	Dividend at last meeting.				Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.		
							Per share.		Per annum.							
							£	s. d.	£	s. d.						
Arboath and Forfar.....	15	102,000	35,000	138,870			0	12	6	2	10	0	25	27	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5	0	2	10	0	100	100	Barnsley Junction.....	200,000
Branding Junction.....	23	161,700	365,470	481,452									50	54	Belfast and Ballymena.....	385,000
Bristol and Gloucester.....	37	400,000	211,000										30	36	Blackburn, & Accrington.....	400,000
Chester and Birkenhead.....	14	750,000	143,170	518,989	5,856	13,148	0	8	6	1	14	0	50	32	Birk. and Chesh. Junction.....	1,000,000
Dublin and Drogheda.....	31	450,000	150,000	500,869									55	72	Bolt. Wigan and Liverpool.....	800,000
Dublin and Kingston.....	6	200,000	152,200	359,000									100	166	Caledonian.....	1,800,000
Dunee and Arbroath.....	16	100,000	49,445	153,416	2,989	6,993	1	5	0	5	0	0	25	29	Cambridge and Lincoln.....	1,250,000
Durham and Sunderland.....	18	169,350	124,055	270,392	9,889	17,702							34	29	Chatham and Portsmouth.....	5,000,000
East County and North and East.....	86	4,443,300	1,341,153	3,931,905	47,385	118,726	1	6	6				45	57	Chester and Wrexham.....	120,000
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1	2	6	4	10	0	50	57	Churnet valley.....	1,800,000
Glasgow, Paisley and Ayr.....	51	937,500	1,066,951		12,446	36,736	1	2	6	4	10	0	50	60	Direct Northern to York.....	4,000,000
Glasgow Paisley and Greenock.....	22	650,000	216,666	787,884	11,572	23,177	0	5	0	2	0	0	25	19	Dublin and Belfast.....	950,000
Grand Junction.....	104	2,478,712	2,453,169		84,309	195,080	5	0	10	0	0	0	100	210	Dunee and Perth.....	250,000
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1	12	6	3	5	0	100	119	Edinburg and Northern.....	800,000
Great Western.....	221	4,650,000	3,679,343	7,272,539	132,235	369,904	3	10	7	0	0	0	75	138	Ely and Bedford.....	270,000
Hartlepool.....	15	438,000	155,540	719,205									100		Glasgow, Dum. & Carlisle.....	1,300,000
Leicester and Swannington.....	16	140,000	140,000		2,207	6,317	1	5	0	5	0	0	50		Gt. South. and West. Ext.....	1,200,000
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5	0	0	10	0	0	100	203	Gt. Grimshy and Sheffield.....	600,000
Llanely.....	27	200,000	44,000	221,624									87		Harwich & E. coun. Junc.....	160,000
London and Birmingham.....	12	6,874,976	1,928,845	6,393,468	92,823	405,768							10	0	Huddersfield & M. r. & cl.....	600,000
London and Blackwall.....	3	804,000	266,000	1,315,640	15,978	23,870							16	6	Kendal and Windermere.....	125,000
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0	12	0	2	8	0	50	47	Leeds and Dewsbury.....	400,000
London and Croydon.....	8	550,000	220,000	761,885	7,583	10,545	0	5	0	2	10	0	14	17	Leeds and Thirk.....	800,000
London and Greenwich.....	3	759,383	233,300	1,040,930	15,193	28,933							13	10	Liv. Ormskirk & Preston.....	600,000
London and South Western.....	92	2,222,100	630,100	2,596,291	68,457	150,469	1	12	6	10	0	0	41	73	London and Portsmouth.....	1,750,000
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1	0	6	5	0	0	40	48	London and York.....	5,000,000
Manchester and Bolt n.....	10	778,100	197,730	773,743	8,585	21,140	2	2	0	4	10	0	93	110	Londonderry & Enniskillen.....	500,000
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761							71	& 101.	Lynn and Ely.....	200,000
Midland railway.....	178	5,158,900	1,719,630	6,279,056	76,983	281,898							100	96	Manchester, Bury & Ross.....	300,000
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947	4	0	0	4	0	0	100	103	Manchester and Buxton.....	250,000
Newcastle and Darlington.....	23	500,000		405,728									21	49	Mullingar and Athlone.....	
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466							50	37	Newcastle and Berwick.....	700,000
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2	10	6	16	8	0	100	104	Richmond & W. End Jun.....	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415									20	39	Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000			31,247	91,171							8	0	Sheffield and Lincolnshire.....	650,000
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066							50	18	Shrewsbury and Gd. Junc.....	400,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876							82	93	Shrew. Wolv. Dudley & B.....	900,000
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0	10	6	2	0	0	50	39	Trent Valley.....	900,000
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1	0	0	6	5	0	100	53	West London Extension.....	64,000
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0	15	0	5	1	8	29	37	West Yorkshire.....	1,000,000
Yarmouth and Norwich.....	20	187,500	62,500	230,250									16	25	Whitehaven & Maryport.....	100,000
York and N. Mid., and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2	10	0	10	0	0	50	100	FRENCH RAILWAYS.	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo-Mexican Mint.....	10,000	10	10		15 7-8	15 7-8	Loughborough.....	70	142 3-4	142 3-4	70	1140	
Anti dry Rot.....	10,000				18 1-2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust company..	5,700	100	35		34 1-2		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation..	20,000	15	14	10	27 1-2	27	Mersey and Irwell.....	500	100	100	10		
Gt. Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2 1-2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6 5-8		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1 3-4		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental.....	11,493	50	50	7	64 3-4	65	Regents or London.....	21,418	33 3-4	33 3-4	2 5-8	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....				6			Somerset coal.....	800	150	150	7 1-2	123	123
Reversionary Int. Soc.....	5,387	100	100	4 1-2	104	104	Stafford and Worcester.....	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36 1-2	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7 1-2	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Seyern & Wye & Rail. Av.....	3,762	26 1-2	26 1-2	5 1-2	30	30

Canals.

Ashby de la Zouch.....	1,432	113	av.	4	70	70
Barnsley.....	720	100	100	14	180	180
Birmingham, 1-16 share.....	3,000	118 3-4	79	10	150	160
Do. and Liverpool Junc.....	4,000	160	100		13 1-2	13 1-2
Coventry.....	500	100	100	20	365	365
Cromford.....	460	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forth and Clyde.....	1,297	400 1-2	40 1-2	4	440	440
Grand Junc.....	11,600	100	100	7	162	161 1-2
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Berkley.....	5,000	do.	do.		8	8
Grantham.....	749	150	150	8	185	185
Lancaster.....	11,699	47 1-4	47 1-4	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	640
Leicester.....	545	140	140	9	139	139

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Warwick and Birmingham..	8,149	19 1-4	19 1-4			10
Warwick and Napton.....	980	100	100	10 1-2	167	167
Water Works.						
Birmingham.....	4,800	25	25	3 5-8	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7 1-4	83	90
New River L. B. Ann.....	1,500			2 1-2		
Manchester and Salford.....	6,486	av.	30	8 3-8	57	57
Vauxhall, lt. S. London.....	1,000	100	5	5	55	55
West Middlesex.....	8,294	av.	63 5-8	6 5-8	126	127
Docks.						
Commercial Dock.....	1,065	100	100	3	20	
East and West India.....		sto.		5 1-4	137	
London.....	3,238,310	sto.		4 1-2	114 3-4	115
St. Katharine.....	1,352,752	sto.		5	116	117
Southampton.....	7,000	50	50			



AMERICAN RAILROADS.										REMARKS.
RAILROADS.	Length in miles.	Cost.	1843 Income.		Div. per cent.	1844 Income.		Div. per cent.	Value of stock.	
			Gross.	Nett.		Gross.	Nett.			
Me.	1 Incl'd. in "Bost. & Me." & "Eastern."									We have no returns from the Maine or New Hampshire roads. The annual reports of the Massachusetts roads will soon be out. The increase for '44 is very great; the receipts of the Western road being about \$850,000.
N. H.	2 Concord.							13	129	
Mass.	3 Boston and Maine.	109	1,384,050	178,745	68,499	6			108	
"	4 Boston and Lowell.	28	1,863,746	277,315	144,000	8			120	
"	5 Boston and Providence.	41	1,900,000	233,388	110,823	6			109	
"	6 Boston and Worcester.	48	2,885,200	404,141	162,000	6			120	
"	7 Berkshire.	21	250,000		17,50	7				
"	8 Charlestown branch.		250,000			13				
"	9 Eastern.	105	2,388,631	279,563	140,595	6			112	
"	10 Fitchburg.		322,538						109	
"	11 Hartford and Springfield.	25 1-2								
"	12 Nashua and Lowell.	14 1-2	380,000	84,079		8			120	
"	13 New Bedford and Taunton.	20	428,543	50,671	24,000	6				
"	14 Norwich and Worcester.	59	2,166,566	162,336	24,871			3	67	
"	15 Taunton branch.	11	250,000		20,000	8			118	
"	16 West Stockbridge.	3								
"	17 Western, (117 miles in Mass.)	150	8,319,520	573,882	284,432				92	
"	18 Worcester branch.		5,500							
Con.	19 Hartford and New Haven.	38							92	
"	20 Housatonic.	74	1,244,123				150,000			
"	21 Stonington, (year ending 1st Sept.)	48	2,600,000	113,889			154,724	79,845	40	
N. Y.	22 Attica and Buffalo.	31 1-2	268,275	45,896	7,522					
"	23 Auburn and Rochester.	78	1,727,361	189,693	112,000				110	
"	24 Auburn and Syracuse.	26	743,931	86,291	27,334					
"	25 Buffalo and Niagara.									
"	26 Erie, (446 miles.)		5,000,000						28	
"	27 Erie, opened.	53			48,000					
"	28 Harlem.	26	2,200,000						65	
"	29 Hudson and Berkshire.									
"	30 Long Island.	95	1,500,000						77	
"	31 Mohawk.	16 3-4	1,030,949	69,948	58,780				59	
"	32 Tonawanda.	43	600,000	76,227						
"	33 Troy and Greenbush.	6	180,000							
"	34 Troy and Saratoga.	25	475,865	44,325	21,000					
"	35 Troy and Schenectady.	20 1-2	633,520	28,043						
"	36 Schenectady and Saratoga.	22	300,000	42,242	3,000	1				
"	3 Utica and Schenectady.	78	2,124,013	277,164	180,000	9			131	
"	38 Utica and Syracuse.	53	1,080,219	163,701	72,000				119	
N. J.	39 Camden and Amboy.	92	3,200,000	682,832	383,880					
"	40 Elizabethtown and Somerville.	26	500,000							
"	41 Morris and Essex.									
"	42 New Jersey.	34	2,000,000						93	
"	43 Paterson.	16	300,000						80	
Pa.	44 Beaver Meadow.	26	1,000,000							
"	45 Cumberland valley.	46	1,250,000							
"	46 Franklin.	10 1-2								
"	47 Harrisburg and Lancaster.	36	860,000							
"	48 Hazleton branch.	10	120,000							
"	49 Little Schuylkill.	29	900,000							
"	50 Lykens valley.	16 1-2								
"	51 Mauch Chunk.	9	100,000							
"	52 Minehill and Schuylkill Haven.	18	315,000			12				
"	53 Norristown.	20	800,000							
"	54 Philadelphia and Trenton.	30	400,000							
"	55 Pottsville and Danville.	29 1-2	1,500,000							
"	56 Reading.	94	9,000,000						22	
"	57 Schuylkill valley.	10	1,000,000							
"	58 Williamsport and Elmira.	25	400,000	20,000						
"	59 Philadelphia and Baltimore.	93 1/2	4,400,000						22	
Del.	60 Frenchtown.	16	600,000							
Md.	61 Baltimore and Ohio, (1st Oct.)	188	7,623,600	575,235	279,402		658,620	346,946		
"	62 Baltimore and Susquehanna.	58	3,000,000						5	
"	63 Baltimore and Washington.	38	1,800,000	177,227	71,691		212,129	104,529	84	
Va.	64 Greensville and Roanoke.	17 1-2	260,000							
"	65 Petersburg and Roanoke.	60	766,000							
"	66 Portsmouth and Roanoke.	78 1-2	850,000							
"	67 Richmond and Fredericksburg.	61 1-2	1,200,000							
"	68 Richmond and Petersburg.	22 1-2	700,000							
"	69 Winchester and Potomac.	32	500,000							
N. C.	70 Raleigh and Gaston.	84 1-2	1,360,000							
"	71 Wilmington and Raleigh.	161	1,800,000							
S. C.	72 Charleston and Hamburg.	13 1/2	2,400,000						8	
"	73 Louisville and Cincinnati.	66	800,000							
Ga.	74 Central.	190	2,581,723	227,532	93,190					
"	75 Georgia.	147 1-2	2,650,000	248,026	158,207		248,096	147,523		
Ala.	76 Tusculumbia.	46								
V.	77 Lexington and Ohio.	40	500,000							
Ohio	78 Little Miami.	40	450,000							
"	79 Mad river.	40	400,000							
"	80 Monroeville and Sandusky.									
Mich	81 Detroit and Pontiac.	25								
"	82 Erie and Kalamazoo.	33								
Ind.	83 Madison and Indianapolis.	56 1/2	152,000							
Can.	84 Champlain and St. Lawrence.	15	212,000		12,000		58,000	24,000	110	

We have no returns from the Maine or New Hampshire roads. The annual reports of the Massachusetts roads will soon be out. The increase for '44 is very great; the receipts of the Western road being about \$850,000.

Ithaca and Oswego and Catskill and Canajoharie roads were sold by the state. The former does little, the latter nothing.

Part of the New York and Albany.

The costs of those roads marked \* were taken from de Gerstner's report published in the Journal in 1840.

Purchased from the state.

SALES OF RAILROAD & CANAL SHARES IN BOSTON NEW YORK, PHILADELPHIA & BALTIMORE.

NAME OF COMPANY.	Monday.		Tuesday.		Wednesday.		Thursday.		Friday.		Saturday.	
	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.
<b>Boston.</b>												
Old Colony	10	100	10	100	10	100	60	100	50	100		
Norwich and Worcester	40	64 1-4			50	65 1-4			125	65 1-2		
Western	15	94 1-2	5	94	7	93 3-4	11	95	24	96		
Long Island												
Eastern			27	105	20	105 1-2	1	104	32	106		
Portland and Saco									9	98 3-4		
Boston and Worcester			1	118 3-4	4	118 1-2			12	118 1-2		
Lowell	2	117 1-4										
Reading	150	20 1-2	25	20 1-2			125	20			25	19 3-4
Boston and Maine			50	109					9	109		
Fitchburg												
Concord									50	130		
Taunton branch												
Nashua and Lowell												
Boston and Providence					11	107						
Reading bonds									1,000	70		
<b>New-York.</b>												
Erie					225	25 3-4	400	26 1-2	475	27	475	27 1-2
Harlem					1,000	63 1-4	200	63	150	63	50	64
Long Island	635	71 1-2	1,050	73	975	72 1-2	600	72 1-2	675	72 1-4	875	73 1-4
Stonington	125	38	83	39 1-4			350	38			25	38 3-4
Paterson							100	79				
New Haven & Hartford							10	91				
Housatonic					60	119						
New Jersey							10	94 1-2			200	94 1-2
Mohawk	275	60	25	60 1-2	100	60 1-2	100	60 1-4	25	60 1-2		
Reading	450	41					50	40	200	40		
Morris canal	535	25 1-2	825	27 1-2	550	26 1-2	550	26 1-2	400	26 1-2	525	27
Utica and Syracuse					20	119						
Norwich and Worcester	545	64 1-2	1,400	66	1,000	65 1-2	862	65 1-4	456	64 3-4	905	66
<b>Philadelphia.</b>												
Camden and Amboy											3	100
Camden and Amboy 6's												
Reading	50	20 1-2	25	20 1-4								
Reading bonds, 6's	4,000	63 1-8	5,000	62 1-2			1,000	62			5,000	63 1-2
Wilmington	125	18 3-4	777	28 3-4	319	18 1-2	550	18 1-2	310	19	775	20 1-2
Wilmington bonds, 6's	3,000	78 1-2			800	78 1-2						
Lehigh mortgage									500	68	2,100	68
Chesapeake and Del. 6's			4,500	67							5,000	66 3-4
Schuylkill Nav.					10	30			20	30	10	30
Lehigh Nav.							50	11				
<b>Baltimore.</b>												
Baltimore and Ohio	35	48 1-2			38	48 3-4						
Baltimore & Washington					10	83						
Susquehanna Canal											20	4 1-2
Philadelphia & Baltimore												

kill Navigation Company, and will notice the enlargement in our next. Also the report of the Little Miami Railroad Company.

THE FARMERS AND THE RAILROADS.

We think it proper to commence by stating, that if we oppose canals and favor railroads in any particular case, it is not on account of any objection to canals generally, but because we believe that railroads would give superior accommodations. For example, if the State of New York had speculated in railroads, instead of canals, and had bolstered them up in the same manner, we should be just as desirous to see the people allowed to use canals as we now are that they should be permitted to forward to and from the west by railroad.

There is, however, a grand distinction between the kind of accommodation offered by canals and railroads. By the canals, the farmer of western New York can send flour, pork in barrels and grain to market during seven and a half months of the year. The very same articles are sent from the cheap lands of the west, at a trifling additional cost of transportation, across the lakes, during the same period, and the consequences are only too well known in both country and city. By the railroad fresh meat and butter, poultry, fruit, eggs, milk, etc., may be sent to market throughout the year. The low rate of speed on the canals renders this impracticable during summer; and in the winter they are closed by ice. The above mentioned articles must therefore go by some other conveyance, or not at all. The only practicable conveyance is by railroad, but the use of that mode of transportation is prohibited by the government; hence the farmer loses the sale of his cheaply produced and high selling articles, and the city pays an exorbitant sum for supplies, which—though their present actual amount be immense, would not meet one-half the demand at reasonable prices.

In our last we endeavored to show the injustice of the State tax; but that is a trifling affair compared with the monopoly of the State government. For example, we will assume the average valuation of western farms, at \$5,000 each; then the mill tax for the support of the canals will be five dollars. Now, the difference in the value of a single hog, of the common weight of 250 pounds, in western New York, and in this city or Boston, is more than five dollars. A couple of dozen of common sized turkeys would sell for five or six dollars more in these cities than at, say, Binghamton, Owego, Ithaca, Elmira, Geneva, etc. Yet, \$5,000 is very far above the average valuation—perhaps double.

We call the attention of Directors to the Tabular Advertisement of the New Jersey Railroad and Transportation Company on our last page. A similar advertisement for each of the principal railroads would afford to the traveller in our widely extended country, information which is at present beyond his reach, even had he access to all the papers in the United States.

We particularly request weekly statements of the traffic, also of the corresponding weeks of last year to be regularly sent to us. At present they are scattered over many papers, and are of little value, as they can never be found when wanted. The inaccuracies also are often very great.

We are endeavoring to devise a mode of advertising the rates of fare and distances of the principal railroads in the country, and have opened a correspondence on the subject with gentlemen connected with some of the most important works.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Thursday, January 30, 1845.

Notice has been given of numerous applications to the legislature for charters, amendments, etc. The New York and Erie request permission to locate part of their line in Pennsylvania; the Utica and Schenectady and Syracuse railroads petition for an increase of capital to enable them to relay their roads with the heavy rail; the New York and New Haven railroad company ask for a charter from this city to the State line, and the New York and Albany company for an extension of the time at the end of which a certain quantity of work was to have been done. That these most reasonable requests will be granted would appear to be a matter of course, unless the railroad companies quarrel among themselves.

There are however other applications which will meet with strenuous opposition. The petition of certain persons in Troy to have that portion of the New York, Albany and Troy railroad, between Greenbush and Troy, struck off from the main line and erected into a "sovereign" work, in order to divert from Albany to Troy the trade for which the former city contributed so largely to the construction of the Western railroad. An application will also be made for permission to build a bridge at Albany to prevent the western trade from going round by Troy. It is a contention between the rival cities.

We have received the Report of the Schuyl-

Now there is no possibility of competition from the west in those products, and we confidently assert that, with free access to market by railroads, several millions per annum would be put into the pockets of the farmers of western New York by the consumers of Boston and this city, to say nothing of Albany, Troy, Worcester, Hartford, etc. The reports of the New York and Erie railroad company show that a canal on the line of that road would have yielded as little as the Chenango canal; a mere nominal income. But we have other evidence and direct to the point. Some years since the State—virtually—prohibited the great majority of her citizens from travelling in steamboats. Fortunately a higher authority overruled this audacious assumption of power over the free gifts of nature—the rivers, lakes and bays of this State—and now, not only do the people travel by steamboat whenever they please, but an immense quantity of produce is daily brought to this city by steamboats from innumerable landings on the rivers and bays, a large proportion of which produce could never have reached us, had the State been permitted still to sway her leaden sceptre over the energies of our citizens. The difference will be as great with railroad as with steamboat emancipation. The steamboat skirts the shore to landings whence roads lead into the interior. The railroad plunges at once into the bowels of the land and drains the produce from either side like a mighty river and its tributaries. The present travelling between Albany and Buffalo at the rate of 15 miles per hour in comfortable cars, as compared with the former mode by stage, at the rate of two miles per hour (often walking, or rather wading half the way) will show what may be expected, when our citizens are no longer trammelled by legislative enactments as to the time and mode of transporting western freight. The difference will not be less in the latter than in the former case. We may incidentally allude to the railroads of New Jersey, which bring large quantities of fruit and vegetables to this city. Nothing of this kind exists on the line west of Albany—it would be a reflection on the "State canals," and might tend to dangerous consequences.

But some will ask, can the railroads carry freight at rates which will insure all or any of these advantages. That the public men of the State believe they would, is sufficiently plain from the pertinacity with which they cling to the "peculiar institution;" but, as we place little value on their opinions when against us, we have little inclination to weaken our position by such "auxiliaries."

We find the annexed rates of freight in the western papers:

"Freights between Buffalo and the Hudson.—The following rates will hereafter be charged upon the Buffalo and Hudson railroad, we understand from the Buffalo Advertiser, for the winter 1844-5, exclusive of State tolls:

"Freight tariff between Buffalo and Hudson river.  
By the passenger train, per 100 pounds, \$1 66  
By the freight train—  
1st class merchandize, - - - 1 00  
2d class, butter, cheese, grass seed, etc., - 82  
3d class, beef, pork, pig iron, coal, etc., - 66  
4th " flour, meal and salt, - - - 50

"Wool and feathers unpressed, and sheep pelts, will be charged twice second rates.

"State tolls on produce of the country generally, 4½ mills per mile, per 1,000 pounds, or 15 cents per 100 pounds from Buffalo to the Hudson river.

"On merchandize, 9 mills per mile, per 1000 lbs., from Buffalo to the Hudson river."

Flour is therefore charged one dollar per barrel, exclusive of canal tolls, about thirty-five cents. The average rates during the season of navigation are seventy-five cents per barrel from Buffalo to Albany, carried in large quantities during the best season of the year, and with considerable return freights of merchandize. Now, this is twenty-five per cent. less than the charge by railroad, at six times the speed, during the suspension of navigation only, at the most expensive time of the year, and when there is the least business to indemnify them for the great expense they have incurred in preparing accommodations which are idle during the seven months of the year when they should be most busy. In short, under every disadvantage, with which even legislative ingenuity could fetter their energies and capabilities, the railways have shown the vast benefits the people might derive from their unrestricted use, as enjoyed by the inhabitants of other States and foreign countries—for few of our readers can doubt, that it would be more profitable for the companies to carry flour throughout the year at 75 cents per barrel (two cents per ton per mile,) than during the winter only at \$1. Those who are more intimately acquainted with the cost of transportation on railroads know very well, that 60 cents per barrel through the year would pay much better than \$1 during winter only. On the Eastern Railroad, in Massachusetts, the winter rates are 35 cents per barrel of flour carried 200 miles, or at the rate of 56 cents for 320 miles of railroad from Buffalo to Albany. The average canal rates are, therefore, 30 per cent. higher than the winter rates by railroad to Boston.

But flour will be carried much more cheaply than those articles the transportation of which by railroad we consider of such vast importance. A charge on these of four cents per ton per mile will pay very well; and, assuming 250 miles as the dis-

tance to Albany, we have a charge of \$10 per ton, or ¼ cent per pound to that city, and less than that sum thence to Boston. By the Housatonic Railroad to New York the cost will be about ⅓ ds of a cents per pound, or say a total cost of one cent per pound. But this cannot be expected until the freighting business is thrown open to competition. It will require large investments in cars, engines, warehouses, additional portions of track, and a well arranged system of doing business. Without these, the attempt to do a large general trade can never succeed, and such expenditures will not be incurred until the use of railways, "ad libitum," is accorded to our citizens. All friends of internal improvements have a peculiar interest in this question. The line from Albany to Buffalo is the only one in the Union on which there is a very large general traffic in existence, and consequently offers the best opportunity of testing the capabilities of the railroad for the business of transportation in all its branches.

The discussion of this subject brings up so many and such varied topics of interest, that it is difficult to keep within the limited range we prescribe to ourselves, and we shall conclude our present remarks by expressing the opinion, that—hard as is the State tax—it would be better for the farmers, of all those portions of the State which can be materially benefitted by railroads, to pay all the canal deficiencies which complete emancipation might produce than to suffer longer under the present most wretched arrangement, by which they are both taxed and denied the use of railroads. The canal deficiencies could, under any circumstances, scarcely reach a million per annum, and the markets of this city would benefit both producer and consumer to many times that amount.

The consumption of produce of all kinds in this city is entirely unknown in the country, and could scarcely be credited by persons who have given little attention to statistics. An increase of half a million in the canal tolls is considered a matter of general congratulation, though it is all required to pay for the canals. How much more important, then, would be a measure which would put five times that sum into the pockets of the farmers? Let no one pronounce this statement overdrawn until he has made himself acquainted with the difference in country and city prices, and has obtained some idea of the almost miraculous manner in which the demand in city markets increases with a diminution in the prices of the supply.



for the remainder of the time the line was open to Middletown, 53 miles."

It will be seen that in the last year the receipts were \$122,769, while at the ratio of the Baltimore road they would have been about \$440,000.

To persons acquainted with the particulars this may appear an unfair comparison, but it is the view taken by the vast majority, and, explanations and apologies to the contrary notwithstanding, remains a "great fact." The various interests along the line, the unfortunate laws requiring the road to be located in this State exclusively, and directing the work to be commenced in every county at the same time offer no justifications in the eyes of the shareholders. Their reply is, that trusting all to the judgment and good faith of the directors it was the duty of the latter to oppose all restrictions calculated seriously to affect the interests of the company, and to incur no liabilities beyond mere preliminary expenditures until they could conscientiously state that all the important interests of the shareholders had been properly secured. Suppose the Baltimore and Ohio Railroad had built a few miles at either end, and had done little patches of work all along the line, the receipts would have borne a strong resemblance to those of the Erie road. But even taking the fifty miles in very inefficient operation, as the directors state, costing about two and a quarter millions, and we have only a gross income of 5 per cent., equal to the net income of the capital invested in the Baltimore and Ohio Railroad. We are, therefore, forced to admit that the management has been unfortunate or that the project is worthless. We have already stated that we consider it equal to the Baltimore and Ohio road in resources, and conclude with expressing our belief that, "had wiser counsels prevailed" an income of 5 or 6 per cent. on the amount expended would have been certain. Under such circumstances the completion of the work would have been insured—not improbably by this time.

#### GENERAL VIEW OF STATE WORKS.

The five numbers of the *Journal* which go by the *Cambria*, will give our European readers a better idea of the canals and railroads of the United States than they have as yet been able to obtain. Still, though the best, it is not what the public have a right to expect; and, we repeat that it will be some time before a full and fair statement can be presented, more especially of the "fancies" as they are technically called, the only ones which figure to any amount in the sales of shares. The documents relating to the finan-

ces of the indebted States of New York, Pennsylvania, Maryland, Ohio, Indiana, Illinois and Michigan, give the latest and most authentic information of the condition of their public works. The amount expended is about one hundred and ten millions of dollars, and the receipts over expenses for 1844 were about two and three quarters millions of dollars, to which sum New York contributed above one million and three quarters. Hence there is not quite one million net revenue from all the works of the other six States costing eighty millions. We are sorry to add, that our tables show many failures in private undertakings, though the loss does not then fall on the public as in the case of State works.

Hereafter, there is every reason to believe, that the public works of this country will be conducted on correct principles, and we think we may safely announce, that private enterprise will be no longer crippled by competition with the State governments: we believe that no more canals or railroads will be undertaken by them, and that the completion of many of their works, as the enlargement of the Erie canal, the Black river canal, etc., is more than uncertain. Of the above seven States, Ohio and New York, alone pay the interest; the former, principally by means of a property tax of above one half per cent. levied for that purpose, the latter from the income of the Erie canal, which is more than sufficient to meet interest and expenses though not enough to pay off small sums of the principal falling due. Hence, about \$700,000 per annum is raised by a direct tax. But the only successful State work in the Union is protected from competition by a monopoly unknown in any other country, and which citizens from neighboring States at first refuse to credit. Taken altogether, the system of State works has turned out a most lamentable failure; bringing taxation and repudiation in its train, destroying confidence in public works generally and thus preventing their extension often where most wanted; diverting the attention of government from the high duties of general legislation to the merest details of forwarding—the very rates of toll on the canals being established by the constitution of New York!—and, in every way, retarding, the advancement of the country. For example, in Ohio, there is a tax of 5½ mills on the dollar to support the canals and of ¼ mill for "purposes of education,"—the relative value of these "articles" being precisely 11 to 1, according to law.

The coal and iron tables, give much useful and interesting information on these im-

portant subjects, the former giving the anthracite trade from its very birth to the present time.

By the next steamer we hope to give a statement, from official sources, of the last year's business of the railroads of Massachusetts and New York. This will go far to show, that works exist in the United States, which would do honor to any country; in fact, second only to the works of Great Britain. The report of the Lowell railroad in this number exhibits the condition of one of the very best works we possess.

Of the immense works going on in Canada, we are unable to give any information beyond that in our Tables. The Canadian papers teem with outrages of every description, inflicted on those in the vicinity of the canals by the Irish laborers—murders being by no means uncommon. The governor has not even alluded to the public works in his late speech—yet they are important beyond every other subject to which the attention of the legislature is called. He however speaks favorably of a communication with the Eastern townships, that is, the much talked of railroad from Montreal to Boston or Portland. We follow the example of his Excellency in one respect: we say nothing good of the works, their projection, management, or of the character or ability of those to whom they are entrusted.

#### MONTREAL RAILROAD.

The *Portland Journal* contains no less than seven articles on railroads, principally on the numerous contemplated routes to Montreal. We think we see the grand issue. At a meeting lately held at the outlet of Lake Magog, the Hon. P. H. Knowlton in the chair, resolutions were passed adverse to the claims of the route to Portland. The third resolution is as follows:

"Resolved, 3d. That the connection of Montreal and Boston being the principal object of the great thoroughfare now in contemplation, it is the interest as well as duty of every man who would advance the common well-being of this important section of Canada to contribute his mite and influence to the accomplishment of this great desideratum through the most direct and practical route, and construction of such a route uninfluenced by local interest or sectional feeling."

We do not know anything of the comparative merits of the routes in Canada; but it is clear that this meeting looks to Montreal and Boston, not, Portland. They obviously expect to draw in the vast influence of Massachusetts, and Boston, in order to make the issue "Boston or Portland," well knowing that the influence of Montreal will favor a connexion with Boston. But, as previously observed, all this is premature: the first object is to secure a portion of the loan, without which, there is scarcely a possibility of anything being done in Canada. These rivalries will undoubtedly be fanned by the canal



people, who very naturally have a horror of railroads, and have thus far been successful in preventing their extension beyond the little work at the foot of our list. We confess we have little hope of success, unless the people on this side shoulder the whole undertaking.

The *Advertiser* well observes, "that if the State of Maine can open a railroad communication with the St. Lawrence, that we can not only get our own bread stuffs by this route, but also be able to supply a considerable part of New England." Some years since flour was sent to Lake Champlain via the Champlain and St. Lawrence railroad, and, as that article can be placed on the cars of that road as cheaply as on the wharf at Albany, it is certain that the entire country from Montreal to Portland would receive its supplies from the proposed railroad. The great advantage of all the routes is, that they plunge at once into the heart of the country, almost at right angles to the lines of navigation, and are thus at once and permanently secure of the trade of a broad belt of land on either side. But a portion of the loan *must* be secured, and that can be effected by concentrated effort only.

The two following extracts—the latter from the Cincinnati Gazette—portray in striking colors the great extent of the present trade and mechanical capabilities of the great city of the West.

**TRADE OF CINCINNATI.**—The extent and importance of the trade of Cincinnati, especially in the articles classed under the head of Provisions, says the Baltimore American, are strikingly shown in the following table published in the Cincinnati Gazette of the 1st instant. It appears that the "Queen City" sends to New Orleans full one-half of the immense supplies which are annually concentrated in the latter port from the interior. If the Baltimore and Ohio Railroad were extended to some suitable point on the Ohio river—the mouth of the Little Kanawha, for instance—there can be no doubt that a very large proportion of the trade which now goes to New Orleans, with its serious disadvantages of climate, would seek the nearer and more favorable market in the centre of the Atlantic sea-board presented by the city of Baltimore:

A statement of the shipments southward, from Cincinnati, of eight staple articles, during the year ending 31st October, 1844, compared with the receipts at New Orleans, of the same articles, during the year ending 31st August, 1844—and exhibiting the proportions which the shipments from the one port bear to the receipts at the other.

	Receipts at N. Orleans.	Shipments from Cincinnati.	Proportions.
Pork, bbls.,	484,460	209,040	43 per ct.
Beef, bbls.,	49,363	20,992	42½ "
Bacon, hhd& tcs.	40,305	22,754	53½ "
Lard, kegs,	976,166	660,525	37 "
Flour, bbls.,	502,507	185,633	37 "
Cheese, lbs.,	2,264,940	998,946	44 "
Butter, kegs,	20,831	16,566	79½ "
Whiskey, bbls.,	66,947	94,231	108½ "
Average per cent. 56.			

Of these eight leading articles of Western Produce, it would seem that Cincinnati alone ships more than one half of the entire receipts at New Orleans, leaving to the several ports above this on the Ohio river, to Madison, Lou-

isville, and the other ports below this, to the rich valleys of the Wabash and the Illinois, to St. Louis, and all the other ports on the Mississippi river, to supply the balance.

**STEAMBOAT BUILDING IN CINCINNATI.**—We present below a complete list of the Steam Boats built and fitted out at this port during the year 1844, with a statement of the cost and tonnage of each. The whole number it will be seen is 38. The number built in 1843, was 36: In the statement of either year, the boats built at other points within the Cincinnati District, are not included. The lists embrace only those built here.

The aggregate tonnage of these thirty-eight boats, (Custom House measurement,) is 8,248 tons, and the aggregate cost \$568,000. Of the thirty-six boats built last year, the aggregate Custom House measurement was 8,415 tons, and the aggregate cost \$605,250. Of the boats built here in 1844, the average size is 219 tons, and the average cost \$14,947; of those built here in 1843, the average size was 236 tons, and the average cost \$16,812. The cost per ton of the boats built here in 1844, was \$68:87; the cost per ton of those built here in 1843, was \$71:94. These are interesting facts, and for the purpose of presenting them more directly to the eye at a glance, we construct the following table:

Tonnage.	Cost.	Ave size.	Ave cost.	Cost pr ton
1843—8,415	\$605,250	236 tons	\$16,812	\$71:94
1844—8,248	\$568,000	217 do	14,947	68:87½

Although, as this table shows, the average size of the steamboats built here the last year was smaller than that of those built here in 1843, yet several of those built in 1844 were considerably larger than any built the previous year. The five largest built in each of the two years were as follows:

1843.		1844.	
Harry of the West,	490 tons.	Maria,	692 tons.
Concordia,	470 do	Superb,	536 do
Congress,	334 do	Pike No. 7,	481 do
Queen of the West,	328 do	Princess,	388 do
Champion,	321 do	Yorktown,	337 do

The boats generally built here the past year have been remarkable for their strength, their exterior beauty, and the taste and comfort of their interior finish and fitting up.—*Gazette*.

**PHILADELPHIA BOARD OF TRADE.**—After alluding to the injury the inspection laws inflict on the State, the Board proceeds to recommend a reduction of tolls, to draw trade to their canals.

Prior to the opening of the state canals last spring, a letter was addressed to the canal commissioners, asking a further reduction of the rates of toll on the public works, in order to enable those engaged in the Western trade to compete successfully with the route opened to the seaboard through neighboring states. It was believed that such reduction would augment the revenue of our own commonwealth. The reduction proposed was in the form of a drawback on all articles passing along the whole line of the state works between Pittsburg and Philadelphia. The application succeeded in part, and during the past season a drawback has been allowed on flour, bacon, pork, and several other articles of produce. But no material reduction has been made in the rates generally. The consequence is, that a vast amount of produce from the western states, including some from the western part of our own state, annually seeks the seaboard by the circuitous but cheaper route of the Erie Canal. A slight reduction would prevent this state of things, and add materially to our present trade. An application has been made to the present

Legislature upon this important subject, which it is hoped may prove successful.

The line of steam tow-boats between this city and Havre de Grace, which was established through the instrumentality of this Board, has fully realized the anticipations of the early friends of the enterprise. During the past year, 2353 boats, most of them larger than that vessel in which Columbus made his perilous voyage for the discovery of a New World, have been towed between Philadelphia and Havre de Grace. Instead of losing a portion of the interior trade, we have augmented it, partly by the energetic aid of the managers of this company. The following comparative statement of the business on the Tide Water and Chesapeake and Delaware Canals, will best elucidate this subject:

Passed west by Ches. and Del. Canal, to Havre de Grace—

Coffee,	lbs.	1,272,458
Groceries,		5,925,523
Dry Goods,		1,934,496
Hardware,		719,162
Queenware,		651,304
Salt,	bushels,	114,498
Plaster,	tons,	7,682

Shipped south on Tide-water Canal from Wrightsville—

Flour,	bbls.	71,104
Wheat,	bush.	463,018
Corn, Rye, Oats,		243,080
Butter,	lbs.	417,534
Leather,		654,976
Wool,		219,744

Passed north by Tide-water Canal from Havre de Grace—

Coffee,	lbs.	2,129,032
Groceries,		8,478,435
Dry Goods,		2,284,392
Hardware,		759,515
Queenware,		813,564
Salt,	bush.	132,219
Plaster,	tons,	8,994

Passed east through Ches. and Del. Canal from the Chesapeake—

Flour,	bbls.	58,411
Wheat,	bush.	233,448
Corn, Rye, Oats,		147,458
Butter,	lbs.	379,590
Leather,		533,179
Wool,		180,230

A Memorial was presented at the last session of the Legislature, asking for the repeal of the Non-Imprisonment Act of 1842, so far as that act had reference to persons not residents of this state. Similar memorials, signed by a large number of citizens, were presented, but the applications were not successful.

The utility of trucks upon the state railroads has been fairly tested, and the experiment has been entirely successful. An application has been made to the present Legislature, to increase the number, and thus facilitate the transportation of produce and merchandize between the Great West and the seaboard, by the Central or Pennsylvania route.

The management of the Lehigh Canal Co. was never more efficient and vigorous than now; and we hope that a liberal policy will be pursued towards this association—by our state legislature—in relation to an outlet for their coal and produce on the Delaware. The interests of northern Pennsylvania should not be lost sight of.—*Phil. Inquirer*.

**CANNEL COAL.**—A couple of barrels of this description of bituminous coal has been received at the Merchants' Exchange from Beaver county, in this state. The curious in such matters can see a quantity of it burning in the grate of the reading-room.—*Phil. Ledger*.

**GEORGIA AND ALABAMA IMPROVEMENTS.**—Apart from any consideration of interest, because of their connection with the internal improvements of our own state, the following paragraph from the Alabama Journal cannot but be read with interest by all who feel a just pride in the progressive improvement of the country. But when it is considered that these roads are but links by which our own great works are to be extended yet farther into the South-west, the intelligence is of the most gratifying character, and we can but indulge the hope that the Senate of Alabama will act as wisely as the House has done.

**Two per Cent. Fund—Railroad Bill.**—After much discussion and much unnecessary delay, the bill appropriating the two per cent. fund (from the sale of lands in this state,) to the purposes prescribed by Congress, has at last passed the House by a decided majority, and will, there is now little question, pass the Senate, and we trust to be able soon to chronicle the final accomplishment of a measure of so much interest to our citizens, and this section. This fund, it will be recollected, was, by an act of Congress, Sept. 4, 1841, relinquished to the state, to be used exclusively for the construction of a line of internal improvement from West Point, in the direction of Jackson, Miss., and also a line connecting the Tennessee River with the waters of Mobile Bay. The fund was accepted by the Legislature in 1841, on the terms prescribed.

Sincere efforts, prompted by local jealousies and other causes, have been made to frustrate the designed application of the fund, and divert it to other purposes, and have defeated, until the present moment, the bills for its appropriation. The present bill divides the fund, which amounts to \$220,000—one half to the Tennessee and Coosa Railroad, for the purpose of establishing a line of communication between North and South Alabama, from a point on the Tennessee to Will's Creek on the Coosa, a distance of 40 miles. From the proposed terminus of the road, the Coosa is navigable down to the Ten Islands at all seasons. From thence the proposed line of communication is by a Railroad intersecting the Montgomery and West Point Road at the nearest point. The other half has been loaned to the Montgomery and West Point Railroad Company on adequate security, and will enable the directors to complete the road at an early period. Of the great importance of this road to our section and Mobile, as bringing within reach of these markets a vast and fertile country, we have often spoken, and our citizens, who have looked at the subject, are sufficiently aware.—*Augusta Chronicle.*

**IMPORTANT ROUTE.**—We perceive by a Jacksonburgh (Michigan) paper, that a company has sent a petition to the legislature of that state, offering to improve for \$150,000 the Grand River, from its mouth to Jacksonburgh, so that steamboats can navigate the same. They include in the offer the building a steamboat, and agree to give good security for the fulfilment on their part. There is said to be no doubt of the feasibility of this route, which, when completed, will form an important link in the route from the "Great West" to "Down East." It will form a direct steamboat route from Milwaukee to Jacksonburgh, 75 miles from Detroit, and reduce the distance from Milwaukee to Detroit to 24 hours' ride.

#### IRISH RAILWAYS.

We take the following from the *Railway Times*;

We perceive from the various Irish journals, that our remarks on the subject of the railways

of that country have caused no little stir—and it is with great satisfaction that we find our views supported by the most respectable and influential of them. We have already hinted at the difficulty of obtaining sound information, owing to the spirit of partizanship which prevails in that portion of the United Kingdom—especially in the immediate localities of the lines themselves. We have therefore been induced to push our inquiries still further in quarters where the suspicion of interested motives cannot throw a doubt over the value of otherwise authentic information.

A great deal of interest has attached to the proceedings of the Great Western Company, (from Dublin to Mullingar and Athlone) in consequence of the novel proposition of purchasing the royal canal, and converting one of its banks to the purposes of a railway, for a distance of 92 miles from Dublin. All preliminaries having been now concluded, upon terms satisfactory to both Companies, the prevailing opinion seems to be that this will turn out one of the best projects in Ireland, on account of its direct course through the centre of the kingdom, and its connection with the river Shannon, at the two important towns of Athlone and Longford. The Royal Canal will afford two termini in Dublin of incalculable advantage; one for passengers, almost in the heart of the city—the other for cattle and goods, at the river Liffey and docks. A doubt has been raised as to whether such a railway can be efficiently worked, on account of several sharp curves along the route, and also because the traffic may be materially interfered with by the obligation which has been imposed by the Government on the company, of keeping the navigation of the canal in an unimpaired state, for the transit of merchandise of the heavier kind, and for agricultural produce.

The facilities which the canal will afford for conveying the materials along the entire course of the line during its construction, will materially enhance the already favorable engineering features of the line of country. The rivalry of a competing line from Dublin to Galway has given rise to a good deal of acrimonious feeling, which has been exhibited lately in the publication of counter statements in the public newspapers. We are informed, however, that the shares are equally distributed in England and Ireland amongst a sound constituency—and that the directors, who are both wealthy and respectable, hold a large number in their own hands.

**ENGLISH AND FOREIGN RAILROADS.**—It is remarkable, that though iron, and all engines and apparatus made of iron, are cheaper here than anywhere else, while labor, properly estimated, is not dearer, yet railways are made at a much smaller cost in other countries than in Britain. The two most important railways in France are the lines from Paris to Orleans and Paris to Rouen. We have travelled on both, and could not discover that they were in any respect inferior to our own great lines. Now, the former cost 24,800*l.* per mile; the latter, 24,000*l.* The three leading English lines—viz. the London and Birmingham, the Great Western, and the South Western, cost 47,000*l.* per mile; and the average cost of all the English passenger lines was 34,600*l.* The small state of Belgium has more than 300 miles of railway in operation. Some are single, but the double railways measure 272 miles; and the cost of construction of these, including stations and carrying establishment, was only 16,000*l.* per mile. Some of the lines pass over very uneven and difficult ground. The United States had 3500

miles of railway open in 1839. None of these cost more than 10,000*l.* per mile, and the average of the whole was only 4,800*l.* It is true some of these are single, and others are of slight construction; but it is a startling fact, that the best American railways, which are said to be very little inferior to ours, are made at one-third the expense.

Mr. Laing, from whom we have borrowed these details, (appendix to 5th Report,) has analysed the elements of cost in seven of the English railways, of which the following is something like an average:—

#### British Railways.

	Per mile.
Parliamentary expenses, - - -	£1,000
Law charges, engineering, and direction, - - -	1,600
Land and compensation, - - -	5,000
Railway works and stations, - - -	26,000
Carrying establishment - - -	3,000

#### Paris and Rouen Railway.

Parliamentary expenses, - - -	nothing.
Law charges, engineering, and direction, - - -	800
Land and compensation, - - -	2,300
Railway works and stations, - - -	17,000
Carrying establishment, - - -	2,400

#### Belgian Railways.

Parliamentary expenses, - - -	nothing.
Law charges, engineering, and direction, - - -	430
Land and compensation, - - -	2,750
Railway works and stations, - - -	10,600
Carrying establishment, - - -	2,350

A part of the excess of expense of the British lines over the continental is accounted for by the greater weight of the rails, and the greater amount of accommodation required at the stations. But, apart from these heads of charge, Mr. Laing estimates the additional outlay entailed on British railways by the forms and mode of proceeding they are subjected to, at 2700*l.* per mile. Hitherto it has actually been much more. The parts of the outlay that chiefly require the pruning-knife are the following:—First, the expense of carrying the bill through Parliament, which often amounts to 1000*l.* per mile. It is scandalous that a company should be compelled to pay 100,000*l.* for permission to make a work like the London and Birmingham railway, which is an inestimable public good to one-half of the kingdom. Secondly, the law expenses are unduly increased by our burdensome stamp duties affecting the sale and transfer of land, and by the general costliness of our legal proceedings. Thirdly, what Mr. Laing says is strictly true, that companies are forced to make great sacrifices to purchase support or buy off opposition; and that they are made to give twice the value for their land, and to pay extravagant sums in name of compensation. Useless expense, too, has often been incurred in the execution of railways, from the ambition of engineers to render the works monuments of their own skill, by making all the parts unnecessarily strong or unnecessarily perfect.—*London Mining Journal.*

**RAILWAYS IN ALGIERS.**—It is a question at Algiers, whether a line of railway shall be granted in perpetuity between Algiers and Blidah. The party who solicits this concession promise, as they say, in exchange, to convey the Post office service gratuitously, and the troops at the rate of 1*l.* 50*c.* per man. One hour and a quarter would be the time for the journey between the two places.

**RAILROADS IN SPAIN.**—The *Observateur des Pyrenees* states that a proposition has been made to the Spanish government, by an English company, to construct a railroad from the bridge of Aviles (Asturias) to Madrid. Its capital is said

to be 2,000,000. It demands a lease of eighty years, and permission to bring into Spain, free of duty, all the matters necessary to construct and work the line.

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BOSTON AND MAINE RAILROAD.—UPPER ROUTE. BOSTON TO PORTLAND.—Via Medford, Woburn, Wilmington, Andover, Bradford, Haverhill, Plaistow, Kingston, Exeter, Newmarket, Durham, Madbury, Dover, Somersworth, South and North Berwick, Wells, Kennebunk and Saco.

WINTER ARRANGEMENT.—1844-5. On and after Monday, Oct. 21, 1844, the Passenger Trains will run daily, Sundays excepted, as follows, viz:— Leave Boston for Portland at 7 1/2 A. M. and 2 1/2 P. M. Leave Boston for Somersworth at 7 1/2 A. M., 2, and 3 1/2 P. M. Leave Portland for Boston at 7 1/2 A. M. and 3 P. M. Leave Somersworth for Boston at 4 1/2 A. M., 9 1/2 A. M., 4 1/2 P. M.

Passengers are not allowed to carry baggage, beyond \$50 in value, unless notice is given, and an extra amount paid, at the rate of a price of a ticket, for every \$500 additional value. CHAS. MINOT, Superintendent.

BOSTON AND LOWELL RAILROAD. On and after Friday, Nov. 1st, 1844, the Passenger Trains will run as follows: Leave Boston at 7 and 11 A. M., 2 and 5 P. M. Leave Lowell at 7 1/2 and 11 A. M., 2 1/2, 4 1/2, and 5 1/2 P. M. Fare 75 cents.

The Coaches of Messrs. D. G. Cummings and B. P. Clieuey, Nos. 9 and 11 Elm street, will convey passengers between the Depot, in Lowell street, and places within a moderate distance, for 12 1/2 cents. CHAS. S. STORROW, Agent B. & L. R. R. Co.

CONCORD RAILROAD. MERCHANDISE TRAINS will run daily as follows: Leave Boston at 3 1/2 P. M., and arrive at Concord the same evening. Leave Concord at 3 1/2 P. M., and arrive at Boston at 7 1/2 the next morning. Freight should be delivered at Concord and Boston an hour before leaving, to ensure a delivery by the first succeeding train. All passengers' baggage should be marked, and when valued at more than \$50, notice should be given and extra charges paid, or no claim for damage or loss beyond such sum will be allowed. N. G. UPHAM, Supt.

NASHUA AND LOWELL RAILROAD. PASSENGER TRAINS will run as follows: Leave Boston at 7 A. M.; 11 A. M.; and 5 P. M. Leave Nashua at 6 1/2 A. M.; 1 1/2 P. M.; and 5 P. M. CHAS. S. STORROW, Agent B. & L. R. R. Co.

BOSTON AND WORCESTER RAILROAD. CHANGE OF HOURS.—WINTER ARRANGEMENT.—Commencing December 11, 1844. Accommodation Trains, daily, except Sundays. From Boston at 7 A. M., 9 A. M., and 2 1/2 P. M. From Worcester at 7 A. M., 10 A. M., and 6 P. M. Newton Trains, daily, except Sundays. From Boston at 9 1/2 A. M., 3 P. M., and 5 P. M. From Newton at 8 A. M., 10 A. M., and 4 P. M. The New York Train for Norwich. Monday, Wednesday and Friday, from Boston, at 4 P. M. New York, via Long Island Railroad. Tuesday, Thursday and Saturday, from Boston, at 7 A. M. New York, via New Haven. From Boston at 9 A. M. and 2 1/2 P. M. Sunday Mail from Boston at 2 P. M.—from Worcester at 7 A. M.

All baggage at the risk of its owner. Fares are less when paid at the Ticket Offices than in the Cars. WM. PARKER, Supt.

WESTERN RAILROAD. WINTER ARRANGEMENT. On and after the 11th December, 1844, the Passenger Trains will leave as follows, Sundays excepted: Boston at 9 A. M. and 2 1/2 P. M. for Albany. Albany at 8 A. M. and 1 1/2 P. M. for Boston. Springfield at 7 A. M. and 3 P. M. for Albany and Boston. Boston at 2 1/2 P. M. for New York via Springfield and New Haven.

For Albany and Buffalo. Leave Boston at 9 A. M., reach Albany at 8 1/2 P. M.—Leave Boston at 2 1/2 P. M., arrive at Springfield at 7 1/2 P. M.—Lodge leave next morning at 7 o'clock, arrive at Albany at 12 1/2 P. M. Passengers leave Albany for Buffalo at 8 A. M.

NEW ROUTE FOR NEW YORK. VIA HARTFORD AND NEW HAVEN. FARE THROUGH FIVE DOLLARS. Leave Boston at 2 1/2 P. M., and reach Springfield at 7 1/2 P. M.—thence direct by Railroad to Hartford and New Haven, and thence by Steamboat to New York, arriving at 5 A. M. Returning—leave New York at 6 1/2 A. M. and arrive at Springfield at 3 P. M., and thence to Boston, arriving at 8 P. M. Berths on board the Steamboat may be secured in Boston at the Ticket Office.

For Northampton, Greenfield, Haverhill, &c. Stages leave Springfield for the above places, upon the arrival of the evening trains. Stages also run from West Brookfield to Ware, Enfield, New Braintree and Hardwick—from Palmer to Three Rivers, Belchertown, Amherst, Ware and Monson—from Wilbraham to South Hadley and Northampton, and from Pittsfield to Adams and Williamstown.

The Trains of the Hudson Railroad connect at Chatham—those of the Housatonic Railroad at State line. Merchandise Trains run daily, Sundays excepted, and Albany, Hudson, Bridgeport, Hartford, New Haven and New York.

For further information, apply to CHARLES A. READ, Agent, 27 State street, Boston. JAMES BARNES, Superintendent and Engineer.

FITCHBURG RAILROAD. OPEN TO ACTION. Passenger Trains will run as follows: Leave Charlestown at 8 A. M. and 1 and 4 P. M. Leave West Acton at 7 36 and 10 1 A. M., and 5 30 P. M.

Stages, on the arrival of the first Train of Cars at Acton, leave daily (Sundays excepted) for Littleton, Groton, Townsend, Lunenburg, Fitchburg, Ashburnham, Winchendon, Westminster, South Gardner, Templeton, Phillipston, Athol, Mass.; Fitzwilliam, Troy, Swasey, Keene, Walpole, Charlestown, N. H.; Chester, Windsor, Woodstock, Rutland, Middlebury, Royalton, Montpelier, and Burlington, Vt.

For further information, apply to THOMAS A. STABLES, No. 36 Hanover st., or L. BIGELOW, No. 11 Elm st., Boston. Passengers leaving their names at the above offices, will be supplied with Railroad and Stage tickets, and conveyed to the Fitchburg Railroad Depot, free of charge. Coaches will be at the Depot in Charlestown, on the arrival of the Cars, to convey passengers to any part of the city. S. M. FELTON, Engineer.

BOSTON AND PROVIDENCE RAILROAD. PASSENGER NOTICE.—Winter Arrangement.—To commence Monday, November 4. On and after Monday, Nov. 4, the Passenger Trains will run as follows:

For New York—Night Line, via Sound Steamers—Leave Boston at 4 P. M. on Tuesday, Thursday and Saturday. For New York—Morning Line, via Long Island Railroad—Leave Boston at 8 A. M. on Monday, Wednesday and Friday. Boston, Providence, Taunton, New Bedford and Way Trains. Leave Boston at 8 A. M., and 3 1/2 P. M.; and Providence at 8 A. M. and 3 1/2 P. M. Taunton at 6 1/2 A. M. and 3 1/2 P. M. New Bedford, at 7 1/2 A. M. and 2 1/2 P. M.

DeDham Trains. Leave Boston at 9 A. M.—3 P. M., 5 1/2 P. M. DeDham at 7 50 A. M., 10 1/2 A. M., 4 1/2 P. M. All baggage is at the risk of the owners thereof. WM. RAYMOND LEE, Supt.

LONG ISLAND RAILROAD COMPANY. Trains run as follows, commencing November 1st, 1844: Leave Brooklyn at 8 a. m. (7 1/2 New York side)—Boston Train—for Greenport, daily, Sundays excepted, stopping at Farmingdale and St. George's Manor. Leave Brooklyn at 9 1/2 a. m. for Hicksville and intermediate places, daily; and on Tuesdays, Thursdays and Saturdays, through to Greenport and intermediate places. Leave Brooklyn at 4 p. m. for Hicksville and intermediate places, daily, Sundays excepted; and on Saturdays to Suffolk Station.

Leave Greenport for Brooklyn, Boston Train, at 1 p. m. or on the arrival of the steamers, daily, Sundays excepted, stopping at St. George's Manor and Farmingdale. Leave Greenport at 9 1/2 a. m. Accommodation Train, for Brooklyn and intermediate places, on Mondays, Wednesdays, and Fridays. Leave Hicksville for Brooklyn and intermediate places, daily, Sundays excepted, at 7 a. m. and 1 1/2 p. m.

ON SUNDAYS. Leave Brooklyn for Hicksville and intermediate places, at 9 1/2 a. m. Leave Brooklyn at 4 1/2 p. m. for Jamaica. Leave Hicksville at 2 1/2 p. m. for Brooklyn. Leave Jamaica at 8 a. m. for Brooklyn. Leave Jamaica at 3 1/2 p. m. for Brooklyn. jal

FOR ALBANY AND BOSTON. Via New Haven, Hartford, Springfield, and Western Railroads. Composed of the following steamers: NEW CHAMPION, Capt. Istone; GLOBE, Capt. R. Peck; NEW YORK, Caps. One of which will leave New York, from Peck Slip, daily, (Sundays excepted,) at 6 o'clock. Fare to Boston, \$5. Railroad Cars leave immediately on the arrival of the above steamers at New Haven, and taking passengers through to Albany and Boston the same afternoon. The steamboat BELLE, Capt. Roath, will leave New York every Monday, Wednesday, and Saturday afternoon at 4 o'clock. N. B.—Freight for Albany, Springfield, and intermediate places taken by this line at low rates. For further information inquire of D. B. Allen, 34 Broadway, up stairs; or G. W. Corlies, 283 Pearl street.

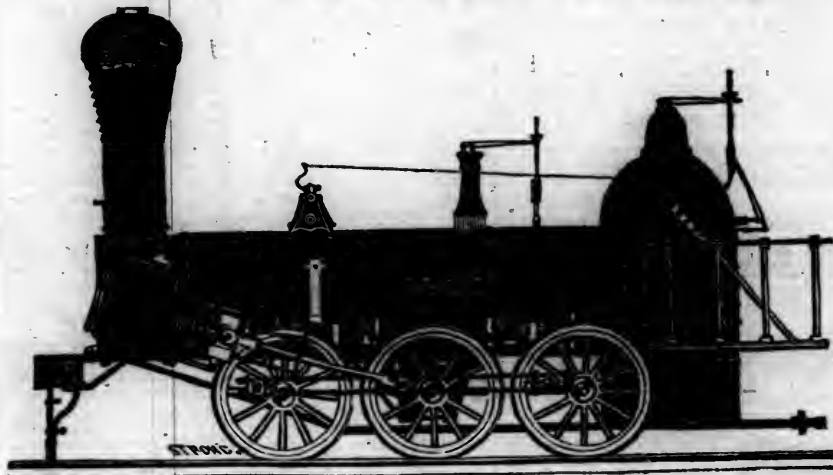
NEW YORK AND FRIE RAILROAD. On and after Monday, December 2d, until further notice, the steamboat will leave the foot of Duane street every morning, Sundays excepted, at 8 o'clock, for passengers, and every afternoon at 3 o'clock, for freight and passengers. Returning, the cars will leave Middletown at 6 1/2 a. m. and 3 1/2 p. m. Stages for the West, leave Middletown upon the arrival of the morning cars, from the city. Freight received from 9 o'clock, a. m. to 2 1/2 o'clock, p. m. For further particulars inquire of the Captain, on board, or of J. Van Rensselaer, Agent, for Duane and West streets. H. C. SEYMOUR, Superintendent.

PHILADELPHIA AND READING RAILROAD. WINTER ARRANGEMENTS on and after December 1, 1844.—No Passenger Trains will run on Sundays. Hours of Starting. From Philadelphia at 9 A. M., daily. From Pottsville at 9 A. M. daily, except Sundays.

FARES. 1st Class Cars, \$3 50. 2d Class Cars, \$3 00. Between Philad. and Pottsville, 2 25. " " Reading, 1 90. All passengers are requested to procure their tickets before the train starts. jal

# NORRIS' LOCOMOTIVE WORKS,

BUSH HILL, PHILADELPHIA, Pennsylvania.



MANUFACTURE their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches	Diameter of Cylinder,	× 20 inches	Stroke.
" 2,	14	"	× 24	"
" 3,	14½	"	× 20	"
" 4,	12½	"	× 20	"
" 5,	11½	"	× 20	"
" 6,	10½	"	× 18	"

With Wheels of any Dimensions, with their Patent Arrangement for Variable Expansion.

Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

NORRIS, BROTHERS.

## NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.

ROBERT SCHUYLER, Esq., Vice President.

J. P. JACKSON, Esq., Secretary.

J. WORTHINGTON, Esq., Treasurer.

	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
Leave New York, foot of Courtland street,						
For Newark.....	9, 11, 12.....	2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4 3-4, 6.....				
" New Brunswick....	9.....	3, 4 3-4.....				
Leave						
New Brunswick....	6, 7 1-2, 11 1-2.....	8 3-4.....	11 1-2	8 1-2		
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	11 1-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4		

For New York.  
9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

### TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick.	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

#### PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—MORNING LINE.

The Train carrying the United States Mail leaves Pratt street Depot daily (except Sundays) at 9 o'clock, A. M. Passengers arrive in Philadelphia at about 3½ o'clock, and in full time for the evening lines for New York.

The Evening Mail Line to Philadelphia per Railroad. The Evening Mail Train for Philadelphia, leaves the Pratt street Depot, daily at 8 o'clock P. M. through in seven hours.

The return Trains leave Philadelphia respectively at 8 A. M. and 4 o'clock P. M., and reach Baltimore at 2½ and 11 o'clock, P. M.

Freight to or from Philadelphia, taken daily (except Sundays) from President street Depot, at 50 cents per 100 lbs.

A. CRAWFORD, Agent.

#### RICHMOND AND PETERSBURG RAILROAD.

Winter Arrangement.—Change of Hours.

On and after Wednesday, the 13th day of Nov. 1844:

Mail Train

Leaves Richmond, daily, at 1½ o'clock, p. m.

Leaves Petersburg, daily, at 5½, a. m.

Accommodation Train

Leaves Richmond, daily, Sundays excepted, at 10½, a. m.

Leaves Petersburg, daily, Sundays excepted, at 8, a. m.

THEODORE S. GARNETT, Agent.

N. B. The hours are given in Richmond time, which is 67 minutes in advance of Petersburg time.

## TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

### PASCAL IRON WORKS.

#### WELDED WROUGHT IRON TUBES

From 4 inches to 1 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T. L's, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by

MORRIS, TASKER & MORRIS.

Warehouse S. E. Corner of Third & Walnut Streets, PHILADELPHIA.

#### NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

New Arrangement. Commencing Nov. 11th, 1844.

#### NEW YORK AND NEWARK.

Fare Reduced to Twenty-Five Cents.

From the foot of Courtlandt street—Daily, Sundays excepted.

Leave New York, at 9, 11, and 12 o'clock, a. m. and 2, 4, 4½, 6, and 7½ o'clock, p. m.

Leave Newark at 7½, 8½, 9, and 11 o'clock, a. m. and 1½, 4, 5½, 7, and 9½ o'clock, p. m.

ON SUNDAYS, from the foot of Courtlandt street:

Leave New York at 9 o'clock, a. m. and 4½ p. m.

Leave Newark, at 11½, a. m. and 9½, p. m.

The Cars of the Morris and Essex Railroad line for Orange, Millville, Summit, Chatham, Madison, and Morristown, run through from Jersey City without change, and connect with 9, a. m. and 3, p. m. trains from New York.

#### New York and Elizabethtown.

Leave New York at 9 and 11, a. m. and 2, 3, 4½ and 6, p. m. Leave Elizabethtown at 7, 7½, 8½, 10½ and 12, a. m. and 3½ and 5, p. m.

The trains for Westfield, Plainfield, Boundbrook, Somerville, &c., connect with the 9, a. m. and 4½, p. m. trains from New York, daily, Sundays excepted.

Fare between New York and Elizabethtown, 31½ cents; do. New York and Somerville, 75 cents.

#### New York and Rahway.

Leave New York at 9 and 11, a. m. and 3, 4½ and 6, p. m. Leave Rahway at 6½, 7, 8½ and 12, a. m. and 4½ and 9½, p. m.

#### New York and New Brunswick.

From the foot of Courtlandt street, New York, daily.

Leave New York at 9, a. m. and 3 and 4½, p. m.

Leave New Brunswick at 6, 7½ and 11½, a. m. and 8½, p. m.

#### ON SUNDAYS.

Leave New York at 9, a. m. and 4½, p. m.

Leave New Brunswick at 11½, a. m. and 8½, p. m.

Fare, except in the Philadelphia trains, between New York and New Brunswick, 50 cents; do. Rahway, 31½ cents; Newark, Elizabethtown, Rahway, and New Brunswick passengers who procure their tickets at the Ticket Office receive a ferry ticket gratis. Tickets are received by conductors only on the day when purchased.

The Commutation fare between New York and New Brunswick, and intermediate places, (including the Ferry,) has been reduced to \$65 per annum.

#### BALTIMORE AND OHIO RAILROAD.

Hours of departure of the Passenger Trains on the "Main Stem" and "Washington Branch" of the Baltimore and Ohio Railroad, 31 March, 1844:

#### "Main Stem," Westwardly.

For Cumberland, Hancock, Martinsburg, Harper's Ferry, Winchester, Frederick, Ellicott's Mills, and intermediate depots by the regular train, daily, at 7½ o'clock, a. m.

For Frederick and intermediate stations, by extra train, daily, except Sunday, at 4, p. m.

#### Eastwardly.

From Cumberland, daily, regular train, at 8, a. m.  
" Hancock, do. do. 10½, a. m.  
" Martinsburg, do. do. 11½, a. m.  
" Harper's Ferry, do. do. 12½, p. m.  
" Frederick, daily, except Sunday extra train, 8, a. m.  
" do. by regular train, 2, p. m.  
" Ellicott's Mills, daily, by several trains, at 7½, a. m. 12, m. and 4½, p. m.

Fare in either direction between Baltimore and Cumberland \$7, and for intermediate distances at the uniform rate of 4 cents per mile.

Through tickets are issued between Baltimore and Wheeling, respectively, \$11; between Baltimore and Pitsburg, \$10; between Philadelphia and Wheeling, \$13.

#### "Washington Branch"

From Baltimore at 9 a. m., 5, p. m. and 11½, p. m.

From Washington at 6, a. m. and 5½, p. m.

By order, D. J. FOLEY, Agent.

#### WASHINGTON BRANCH RAILROAD.

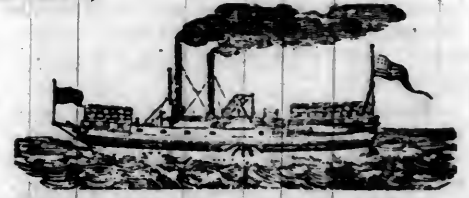
In consequence of the adoption of a new schedule by the Post Office Department, the following changes in the departure of the Trains on this road will go into effect this day, viz:

The Train that has hitherto left Baltimore at 2 o'clock, A. M. will now leave on the arrival of the Cars from the East, at or about 11½ P. M. and the departure of the evening train from Washington for this city, will be at 5½ instead of 4 o'clock, as at present.

By order, D. J. FOLEY, Agent.

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 6.]

THURSDAY, FEBRUARY 6, 1845.

[WHOLE No. 449, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

### RATES OF ADVERTISING.

One page per annum.....	\$125 00
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One square ".....	15 00
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One column ".....	8 00
One square ".....	2 50
One page, single insertion.....	8 00
One column ".....	3 00
One square ".....	1 00
Professional notices per annum.....	5 00

### ENGINEERS and MACHINISTS.

STILLMAN, ALLEN & Co. N. Y.  
JAS. P. ALLAIRE, N. Y.  
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WEST POINT FOUNDRY, N. Y.  
PHENIX-FOUNDRY, N. Y.  
R. HOE & Co. N. Y.  
SECOR & Co. N. Y.  
J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)  
TROY IRON AND NAIL FACTORY, H. Burden Agent. (See Adv.)  
ANDREW MENEELY, West Troy. (See Adv.)  
ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
NORRIS, BROTHERS, Philadelphia, Pa.  
KITE'S Patent Safety Beam. (See Adv.)  
FRENCH & BAIRD, Philadelphia, Pa. [See Adv.]  
BALDWIN & WHITNEY, Philadelphia, Pa.  
JOHN F. STARR, Philadelphia, Pa.  
MERRICK & TOWNE, do.  
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. [See Adv.]  
ROSS WINANS, Baltimore, Md.  
CYRUS ALGER & CO., South Boston Iron Company.  
HINCKLEY & DRURY, South Boston.  
C. C. ALGER, [Stockbridge Iron Works,] Stockbridge, Mass.

### IRON MERCHANTS and IMPORTERS.

DAVIS, BROOKS, & Co. N. Y. [See Adv.]  
A. & G. RALSTON & Co. Philad. Pa. [See Adv.]  
THOMAS & EDMUND GEORGE, Philadelphia. [See Adv.]

### NICOLL'S PATENT SAFETY SWITCH FOR RAILROAD TURNOUTS.

This invention, for sometime in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Plans, Specifications, and all Information obtained on application to the Subscriber, Inventor, and Patentee,  
G. A. NICOLLE,  
Reading, Pa.

Jan. 1, 1845.

### IRON MANUFACTURERS.

The subscribers as Agents of Mr. Geo. Crane of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenbaler, are prepared to grant licences for the manufacture of Iron according to Mr. Crane's principle  
A. & G. RALSTON & Co.  
No. 4 South Front street, Philadelphia, Pa.

### S. VAIL, Proprietor of the Speedwell Iron Works, near Morristown, N. J. can supply at short notice railroad companies and others, with the following:

Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyre made, and they may rely upon being served according to order, and also punctually, as a large quantity in the strait bar is kept constantly on hand. Crank axles for locomotive engines, made from the best Pennsylvania iron.—Straight axles for locomotives for outside construction engines. Frames for engines.—Wrought iron work for steamboats, and shafting of any size. Cotton screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen:

Baldwin, Vail and Huffy, Philadelphia; Wm. Norris, Philadelphia; N. Campfield, Savannah, Ga.; J. and S. Hones, Augusta, Ga.; D. F. Guez, New Orleans, La.; Adam Hall, New York; J. P. Allaire, New York; William Parker, Boston, Mass.; George W. Schuyler, New York.

### VALUABLE PROPERTY ON THE MILL DAM FOR SALE.—A Lot of Land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and East of Parker street, containing 63,497 square feet, with the following buildings thereon standing:

Malu Brick Building, 120 feet long, by 46 feet wide, two stories high. A Machine Shop, 47x43, with large Engine, Face, Screw, and other Lathes, suitable to do any kind of work.

Pattern Shop, 35x32 feet, with Lathes, Work Benches, &c. Work Shop, 85x35 feet, on the same floor with the pattern shop.

Forge Shop, 118 feet long by 44 feet wide on the ground floor, with two large Water Wheels, each 16 feet long, 9 feet diameter, with all the Gearing, Shafts, Drums, Pulleys, &c., large and small Trip Hammers, Furnaces, Forges, Rolling Mill, with large Balance Wheel and a large Blowing Apparatus for the Foundry.

Foundry, at end of Main Brick Building, 60x45 feet, two stories high, with a shell part 45x20 feet, containing a large Air Furnace, Cupola, Crane and Corn Oven.

Store House—a range of Buildings for Storage, etc., 200 feet long by 20 wide.

Locomotive Shop, adjoining Main Building, fronting on Parker street, 54x25 feet.

Also—A Lot of Land on the Canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler House 50 feet long by 30 feet wide, two stories.  
Blacksmith Shop, 49 feet long by 20 feet wide.  
For terms, apply to HENRY ANDREWS, 48 State street, or to CURTIS, LEAVENS & CO. 106 State street, Boston, or to A. & G. RALSTON & CO., Philadelphia. jal

### MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Paterson, N. J.

The Undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

#### Railroad Work.

Locomotive Steam Engines and Tenders; Driving and other Locomotive Wheels, Axles, Springs and Flange Tyres; Car Wheels of cast iron, from a variety of patterns, and Chills; Car Wheels of cast iron with wrought Tyres; Axles of best American refined iron; Springs; Boxes and Bolts for Cars.

#### Cotton, Wool and Flax Machinery

of all descriptions and of the most improved Patterns, style and workmanship.

Mill Gearing and Millwright work generally; Hydraulic and other Presses; Press Screws; Callenders; Lumber and Tools of all kinds; Iron and Brass Castings of all descriptions.

### ROGERS, KETCHUM & GROSVENOR.

Paterson, N. J. or 60 Wall street, N. Y.

### MESSRS EDITORS.—As your paper is devoted to the benefit of the public in general, I feel desirous to contribute to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore Railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large eight wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstance attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan, the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Delaware, Sept 28, 1840.

The undersigned take pleasure in attesting to the value of Mr Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,  
JAMES ELLIOTT, Supl Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the N. Jersey Railroad and Transportation Office, No. 1 Hanover st., New York. jal

### TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY.

The subscribers have for sale American and English Bar Iron, of all sizes; English Blister, Cast, Shear and Spring Steel; Juniata Rods; Car Axles, made of double refined iron; Sheet and Boiler iron, cut to pattern; Tiers for Locomotive Engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article.

The Tyres are made by Messrs. Baldwin & Whitney, Locomotive Engine Manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheels is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE.

N. E. corner 12th and Market streets, Philadelphia, Pa. jal

**TO THOSE INTERESTED** in Railroads. Railroad Directors and Managers are respectfully invited to examine an improved Spark Arrester, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimneys of engines on which they are used, is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks, passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust, they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity, to the bottom of this chamber; the smoke and steam passing off at the top of the chimney through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits.

E. A. Stevens, pres't Camden and Amboy railroad company; Richard Peters, superintendent Georgia railroad, Augusta, Ga.; G. A. Nicolls, sup't Philadelphia, Reading and Pottsville railroad, Reading, Pa.; W. E. Morris, pres't Philadelphia, Germantown and Norristown railroad company, Philadelphia; E. B. Dudley, pres't W. and R. railroad co., Wilmington, N. C.; Col. James Gadsden, pres't S. C. and C. railroad comp'y, Charleston, S. C.; W. C. Walker, agent Vicksburg and Jackson railroad, Vicksburg, Miss.; R. S. Van Rensselaer, engineer and sup't Hartford and N. Haven railroad; W. R. McKee, sup't Lexington and Ohio railroad, Lexington, Ky.; T. L. Smith, sup't N. Jersey railroad trans. co.; J. Elliott, sup't motive power Philadelphia and Wilmington railroad, Wilmington, Del.; J. O. Sterns, sup't Elizabethtown and Somerville railroad; R. R. Cuyler, pres't Central railroad co., Savannah, Ga.; J. D. Gray, sup't Macon railroad, Macon, Ga.; J. H. Cleveland, sup't Southern r. road Monroe, Mich.; M. F. Chittenden, sup't M. P. Central railroad, Detroit, Mich.; G. B. Fisk, president Long Island railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin and Whitney, of this city, will be promptly executed.

**FRENCH & BAIRD.**

N. B. The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia Pa., April 6, 1844.

**W. R. CASEY, CIVIL ENGINEER,** No. 23 Chambers street, New York, will make Surveys, Estimates of Cost and Reports for Railways, Canals, Roads, Docks, Wharves, Dams and Bridges of every description, with Plans and Specifications, and when required, superintend their execution.

He will also make Surveys of Estates, with correct maps and descriptions of the same; and examine and report on the best mode of rendering them productive by draining, mines, quarries, water power, roads, bridges, wharves, etc.

**TO IRON MASTERS—FOR SALE,**

Mill Sites in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railroads. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer,*  
No. 23 Chambers st., N. Y.

**PATENT RAILROAD, SHIP AND Boat Spikes.** The Troy Iron and Nail

Factory keeps constantly for sale a very extensive assortment of wrought Spikes and Nails from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent,) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with spikes made at the above named Factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. Y., will be punctually attended to.

**HENRY BURDEN, Agent.**

Spikes are kept for sale, at Factory prices by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water street, New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand for his spikes.

**PATENT Hammered Railroad, Ship and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of railroad, ship and boat spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works, will be promptly executed.

**JNO. F. WINSLOW,**

Agent Albany Iron and Nail Works.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; Jas. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co., Boston.

**ANDREW MENEELY'S** Manufacturing Establishment, West Troy, Albany County, New York. The subscriber manufactures and keeps constantly on hand Theodolites, Transit instruments, Levels, etc., of the most approved construction. He would invite the attention of surveyors to his Improved Compass, which is almost equal to a Theodolite, inasmuch as angles can be taken without the needle. Angles of elevation can be taken with precisely the same accuracy as horizontal angles. Town clocks, with dead beat escapements, warranted to perform in the best manner, and keep correct time. He still continues to cast Church Bells, warranted not only to stand, but tone such as to give satisfaction and please, and fastens to them cast iron yokes, ready to hang. Also steamboat and factory bells, of all sizes, constantly on hand: and copper and brass castings of every description made to order.

**THE NEWCASTLE MANUFACTURING** Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires; Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives. The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

**ANDREW C. GRAY,**

President of the Newcastle Manuf. Co.

**SPRING STEEL** for Locomotives, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/4 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

**JOHN F. WINSLOW, Agent,**  
Albany Iron and Nail Works, Troy, N. Y.

**MONROE RAILROAD AND BANKING COMPANY.**

The undersigned Committee, instructed by a Resolution of the Board, to examine into the actual condition and resources of this institution, and to report thereon, beg leave to submit the subjoined statement, as the result of their investigations and labor.

Upon a careful and thorough examination of the books of the company, we find that the entire amount of liabilities of the Monroe Railroad and Banking Company, on the 1st of December, 1844, are as follows—

Bills in circulation,	-	\$186,010 00
Bonds	-	247,754 16
Certificates "	-	13,872 00
Checks "	-	24,818 00
Railroad Tickets,	-	1,442 27
Time Checks,	-	47,619 70
Due Central Bank,	-	228 00
Unclaimed Dividends,	-	14,835 02
Individual Deposits,	-	132,631 35

Amounting in all to the sum of \$669,210 50

To meet this amount, the Company have assets as follows, to wit—

1st, The Monroe Railroad. The amount expended for construction of the Railroad, and for purchase of machinery, &c. Macon to Forsyth, \$526,630 29	
Extension above Forsyth,	887,933 15
	<u>\$1,414,563 44</u>

2d, Notes lying over and in suit,	\$196,465 74
Checks,	6,000 00
Due by individual subscribers to Extension Stock,	133,425 46
Due by State of Georgia, to Extension Stock,	200,000 00

\$535,891 20

Your Committee regret to say, that, upon a detailed examination of the item, "Notes lying over and in suit," to the amount \$196,465 74—they find only \$33,824 40, that can be put down as positively good. The item \$6000 in Checks, are vouchers for cash. The entire amount of \$133,425 46, due from individuals for subscription to the Extension Stock, your Committee believe and consider to be good. It is possible that it may be necessary to compel payments from delinquent subscribers in a few instances; but, from information upon which they can rely, your Committee are warranted in expressing the opinion that the whole amount so due and unpaid by individual subscribers, can be collected without much difficulty; and, therefore, this item of the assets may be set down as positively good.

The amount due by the state of Georgia for subscription to the capital stock, we likewise set down as among the available assets of this company; for your Committee cannot bring themselves to doubt, that this will be, ultimately, paid, for the following reasons—

This subscription by the state, of \$200,000 in the capital stock of the Monroe Railroad and Banking Company, was made under the sanction of an act of the legislature, which expressly requires that, upon due evidence of certain conditions being complied with on the part of this company, the Governor shall subscribe for 2000 shares of the stock of said company. Now this company did furnish incontestible proof of having fulfilled the conditions required in the act of the legislature, (to the entire satisfaction of the executive,) and the Governor having no discretion in the matter, accordingly subscribed on the part of the state for the amount of stock so authorized.

Your Committee are aware that, with this

evidence before them, the legislature have heretofore declined to be bound by the obligations of a contract thus entered into under their own authority, between the state of Georgia and this company, virtually repudiating the authorized act of the chief magistrate, where they had left him no option. Your Committee are aware, also, that although individual delinquents can be readily coerced through our courts of law, yet, that the amount due from the state, as authorized by act of the legislature, cannot be collected by any similar process—the law-making power remaining above the reach of law—still your Committee confidently rely upon the equity of the case, to influence another legislature to an act of sheer justice to the stockholders of this company.

Your Committee are not without strong hope that the legislature will not lend themselves to perpetuate a measure of gross injustice, by any longer delaying to fulfil the obligations of their contract with this company.

Under these impressions, your Committee cannot reconcile it to themselves to class this legal and just claim against the state of Georgia, in any otherwise than as one among the good, undoubted claims eventually. And this amount of \$200,000 is put down among the available assets.

Thus, therefore, by reference to the foregoing statement, it will be perceived that the liabilities of the company at this time are, as above stated,

While the assets, available in time, amount to	373,240 84
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Showing a balance of \$295,960 66 being the excess of the company's liabilities over and above the assets.

Your Committee would call the attention of the creditors generally, as well as the stockholders of this company, to the accompanying communication from the general agent, I. D. Gray, Esq., in relation to the embarrassed position of the company; with his suggestions as to the mode of liquidating the remaining liabilities of this institution. And, in conclusion, your Committee would earnestly recommend that some such arrangement as that therein proposed, may be acted on at the ensuing general meeting of stockholders, believing, as we do, that it would be the means of retrieving the fortunes of this institution, and placing her once more on a firm and stable basis.

**RAILROADS IN OHIO.**

We are agreeably surprised to find that we have not overrated the energies of our citizens either in the east or west: in proof of the former, we refer to the extraordinary spirit, intelligence, and perseverance, manifested in favor of the Portland and Canada Railroad, and the last mail brings the welcome news, that even in Ohio, where private enterprise has been almost annihilated by a "system" of government jobbing and political engineering, a determination is manifested to undertake works of the opposite character. Only four weeks ago we observed—

"The unfortunate but natural result of a 'system' of government works—heavy taxes on all, whether benefitted or injured—causes all public undertakings to be viewed with suspicion, or even with a still stronger feeling. Private enterprise has now to construct all the really important works in the state, and, in addition to the difficulties inseparable from such vast undertakings, has to clear away the odium with which the state has clothed the very name of internal improvements."

The prophecy in the last sentence has been pretty rapidly verified. Referring to the proposed Canton and Akron Railroad in Ohio, the "Repository" of the 24th ult. says—

"We have, above, given the proceedings on this subject thus far, and we recommend a careful and candid perusal and examination of them to every reader, as we humbly conceive them to present interesting matter for reflection, to every man in the community, be he engaged in whatever pursuit he may. Among the first questions that will present themselves will be, What interest has the farmer in the construction of this railroad? Some of the answers to which are, if your land lies in the vicinity of the road, its value will be increased thereby—the value of your agricultural productions will be enhanced from the fact, that it will create a market and demand for them at your door—they will command an increased price, because they can, at all seasons, be transported to the head of the market at a cheaper rate than can be done by any other means, and they will be of more value to you, for the reason that it will take less of your time, and cost you less money to dispose of them, in consequence of the diminished distance you will be required to transport them.

To those having coal banks on their land, and there are many such, the interest is still greater. It will more than quadruple the demand for that article for transportation to the lake shore, to supply the great and increasing market in that quarter for that description of fuel. The mechanic, the laborer, the manufacturer, the merchant, and the capitalist, are all deeply interested in the success of the project—because it will increase the demand for what each has to furnish. Nor will this impetus to business be merely temporary. It will continue while there are fertile fields to cultivate, yielding their rich fruits—while the mines are unexhausted—and while there are industry and enterprise to carry on the vast business which can and will be done in the event of a railroad being completed."

**LITTLE MIAMI RAILROAD.**—The total amount expended on this road to 1st December, 1844, is \$575,526 49, of which sum \$123,871 46 was spent last year. The receipts from all sources have been \$597,697 87, the subscriptions to capital stock \$525,950 00, the indebtedness of the Company is \$99,313 19, their means of meeting it \$98,417 60.

Received for the year ending December 1st, 1844—

For carrying passengers,	-	\$8,052 95
" " freight,	-	10,579 31

Total, \$18,632 26

The cost of working the road for the year ending December 1st, has been—

For repairs of track,	-	\$2,841 62
" " of machinery,	-	642 37
" wages of men, fuel, horse power, &c.	-	5,152 79
" renewal of superstructure,	-	438 63

Total, \$9,075 41

Leaving a net revenue over current expenses of - \$9,556 85

The total amount received for the year ending December 1st, 1842, was	-	9,912 49
Expenses,	-	6,868 57

Leaving, as a net revenue, \$3,043 92

It will be seen, on comparison, that while the receipts have increased but 100 per cent., the sum realized over the current expenses of management has been increased more than 300 per

cent., thus sustaining the position taken in the last annual report, and affording gratifying proofs of the ultimate productiveness of the work when it shall have been extended to Xenia.

It should be remembered, too, that the road was not opened for travel to Deerfield until the month of July, and the further extension to its present terminus, at the mouth of Todd's Fork, was not accomplished in time to realize any considerable benefit from it during the present fiscal year. From present indications, the estimate of receipts for the coming year would be justified without an extension of the road, and the completion to Xenia cannot fail to swell the amount, particularly if completed at as early a day as we are now justified in believing.

#### NORTHERN RAILROAD MEETINGS.

We find all the following in the N. H. Patriot of the 30th ult.—

We have received, just as our paper is going to press, a notice of a railroad convention at Orford, to promote the purpose of building a railroad, connecting with the proposed northern road at Lebanon or Canaan, and thence to run up the valley of the Connecticut to some point where it may unite with the contemplated railroad from the eastern line of Vermont to Stanstead and Montreal. The convention is to be held at Orford the 7th day of February next, at 10 o'clock A. M.

A large and highly respectable meeting of the citizens from the different towns upon the route, friendly to the construction of the "Northern Railroad" was held at the town hall at Lebanon, N. H., on the 21st inst.

Roswell Sartwell, Esq., was chosen to preside, and Maj. Geo. H. Lathrop appointed secretary. On motion, the following gentlemen were appointed a committee to prepare resolutions expressive of the sense of this meeting, viz. Messrs. Ransom of Norwich, Vt., Mann of Orford, Latham of Lyme, Blaisdell of Hanover, Kenrick of Franklin, Willis of Enfield, and Dewey of Lebanon, who submitted the following, which were adopted by acclamation:

Resolved, That the railroad route from Boston through Concord and Lebanon, N. H., Montpelier and Burlington, Vt., to be continued to Ogdensburg, N. Y., and Montreal, Canada, has been found by actual survey not only favorable, but is imperiously demanded by the commercial, agricultural, and social interests of this great region of country.

Resolved, That we rely for the success of this great enterprise upon the ascertained fact, that in the "Northern Railroad" we present the shortest and most feasible route, extending from the Atlantic seaboard and the great metropolis of N. E.; through the capitals of New Hampshire and Vermont, to the capital of the Canadas on the one hand, and to the fertile regions of northern New York and the great lakes on the other—a country unsurpassed in agricultural and mineral treasures.

Resolved, That in seeking to obtain the construction of the "Northern Railroad," we wage no contest with the friends of any other route—other than may arise in a firm, consistent, and determined perseverance, in every honorable way, that shall tend to effect its consummation.

At a meeting of the citizens of Coos county, N. H., held at Lancaster in that state on the 11th instant, a committee appointed for the purpose made a report, from which we copy the following extracts—

"A road connecting Boston with Montreal, via Brattleboro, Montpelier, Burlington, &c., would necessarily pass east of Misisque Bay, about 40 miles south-east of Montreal, and run

within ten miles of the line between Portland and Montreal. The distance from Boston to Montreal via Brattleboro, &c., is about 305 miles, giving to the line between Portland and Montreal an advantage of 95 miles in the distance. In fact, the distance between Boston and Montreal via Exeter, Dover, Great Falls, Conway, &c., is between thirty and forty miles less than by Brattleboro, Montpelier, &c.

"A railroad is now in operation from Boston to Great Falls, N. H. The distance from Great Falls to the Connecticut River at Lancaster, via Conway, Jackson, &c., is 97 miles, and the distance from Portland to Lancaster on the line between Portland and Montreal is less than 90 miles.

"Your committee are therefore of opinion that the road to connect Montreal with the sea will commence either at Great Falls, in Somersworth, N. H., or the city of Portland, in the state of Maine. If from Portland, there are two feasible routes, one on the line before indicated, another via Westbrook, Windham, Otisfield, Bethel, Shelburne, &c.

"Your committee recommend that a committee of five be appointed to open a correspondence with gentlemen in Canada, Portland, and other places, who feel an interest in the proposed road, and to communicate to them all such information as may be desired relative to the proposed improvement, and that said committee be authorized to call another meeting of the citizens, whenever in their judgment it may be deemed expedient."

A committee of correspondence was appointed.

MEETING AT WELLS RIVER.—The Committee on resolutions reported the following, which were unanimously adopted—

Resolved, That the route from Concord, via Plymouth and Haverhill, N. H., and thence up the Passumpsic Valley in Vermont to Stanstead, Canada, thence to Montreal, is the most feasible and shortest route for a railroad from Boston to Montreal, entirely practicable, and imperatively demanded by the interests of this community.

Resolved, That the charters for railroads in N. H. and Vermont are, in the opinion of this convention, liberal, affording all the facilities necessary for the purposes of railroad charters, and such as will be acceptable to capitalists who may desire to take stock therein.

Resolved, That the track of this route is through a large and fertile territory, which must be rich in resources seeking railroad accommodation.

Resolved, That for the securing the advantage of a railway upon this route, immediate, energetic and active measures are imperiously demanded.

Therefore, Resolved, That in view of the great object and advantages to be obtained, and the great interest to be promoted by the expeditious construction of a railroad upon said route, we will spare neither time, money, nor personal effort, in its accomplishment; and, Resolved, further, That if competition be brought to bear upon this route from any quarter by misrepresentation or by any other unjustifiable means—and if persevering resistance to any such attempt can avail, no advantages shall be gained by any such unjustifiable effort to prostrate our interests.

Voted to adjourn, to meet at Plymouth, N. H., on the 29th instant.

#### ISTHMUS OF PANAMA.

We give a few extracts from a pamphlet on the Isthmus of Panama, by W. Wheelwright, London. Mr. W. gives the "various lines"—

"First. The Lake of Nicaragua.

"Second. The Boca de Toro and Cherokee.

"Third. The Gulf of Darien.

"Fourth. The Coast of Mandinga.  
"Fifth. Panama and Chagres. All of which are shown in an accompanying map."

He gives a decided preference to the last.

"In 1840, I was desired by the directors of the Pacific Steam Navigation Company to examine the capabilities of the River Chagres, and the best means of communication. The following is an extract from my report on the subject—

"I commenced by sounding the Chagres bar, where I found fourteen feet of water, but as the rains had set in, I ascertained that the river was swollen eighteen inches, reducing the usual depth to twelve and a half feet; from thence I proceeded up the river, sounding in from two and a half to three and a half fathoms, until I reached the junction of the Trinidad, where there were three to four fathoms, and the bank of the river so bold as to admit of vessels discharging with as much facility as at a wharf. A little above the junction, the water shoaled to seven and eight feet. The fork of the two rivers is healthy, and the location favorable and secure for landing and depositing goods; passengers may reach Panama from this point in twenty-four hours, the water carriage to Gorgona being twenty-five miles, from thence mules are taken to Panama, a ride of from five to ten hours, varying according to the season; but a road could be made to transport passengers in about five or six hours from the steamers of the Pacific to those of the Atlantic, and loaded mules could traverse it in ten or twelve hours."

"If further proof be wanting of the existence of nearly a level line on this route, I might mention that this road passes over streams which find their way into both oceans *without the traveller being able to distinguish any perceptible division between their head waters.* These streams are of no great magnitude, and even when swollen by the rains, a bridge of forty feet span would compass the largest."

"If we are not deceived, the level is so complete that it would only be necessary to have locks at either end of the canal, while its total length would not exceed thirty miles. The Chagres could be made its feeder, but the elevation of the Pacific (13,000 feet) above the Atlantic, would, I think, render the canal entirely independent of any tributary streams."

"Both of the termini would require artificial harbors, or must be protected by breakwaters. No substantial difficulty exists on this point; when the work is undertaken, ways and means will soon be found for overcoming all minor obstacles."

"Considering the limited extent of the Isthmus of Panama, together with the very interesting position which it occupies, the paucity of knowledge hitherto obtained respecting it can have but one cause pretty well understood by all. That Spain should have held America for nearly three centuries, and not have been perfectly acquainted with the topography of the Isthmus of Panama, appears impossible; Spanish maps and charts have ever been held the most correct in use, and considering the difficulties under which science labored during the ages referred to, from the imperfection of instruments, it is quite wonderful to see how much was accomplished in this particular, and it is much to be deplored that their minute surveys of the Isthmus should have disappeared; like the records of the kingdom of Montezuma, no trace of them is to be found. I have sought among the documents of the royal academy of Cartagena; I have examined the archives of the city of Panama; I have searched the royal depository in Lima, without being able to discover any thing satisfactory in relation to this important and interesting subject, and it is only to the present and future efforts of science we are



to look for the acquirement of that knowledge which all are so desirous of possessing.

"I am aware that much has been said of recent surveys, the formation of roads and projecting of canals, but it is my perfect conviction that no really scientific research has been made, or a single step gained towards the realization of the object in view—an object which, when attained, will produce some of the most extraordinary results that the combined intelligence, wisdom, science, and energy of man, are capable of effecting."

Mr. Wheelwright considers that an abundant supply of coal may be found on the Isthmus.

ENGLISH AND AMERICAN PROPELLERS.

It is known to most of our readers, that a verdict has been rendered by a jury, in this city, in favor of Ericsson's claim to a well known propeller, in very extensive use, called Ericsson's. The first authentic information we could find was in an excellent report of the trial, made for the "New-York Farmer and Mechanic": a new weekly paper, well got up, and judiciously filled, published by Messrs. Fleet & Starr, 135 Nassau street, New York. It appears that the evidence was, in some respects, contradictory: some witnesses asserting, that they could make the propeller from Emerson's specification, others that they could not.

If, however, the reports of our Philadelphia neighbors be correct, the result of this trial is of little consequence, for it appears that—in their waters—the "Ericsson" has been superseded by the "Loper" propeller, and always with an increase of speed, other things remaining the same. We have given the accounts of two vessels fitted with the rival propellers, and both arranged so as to be unshipped when under canvass only. An experienced English engineer gave it to us as his opinion, that it was best to keep the engines always at work—that no great speed should be attempted by auxiliary power, not beyond 5 miles per hour—that, engineers and firemen being indispensable, that portion of the expense would be diminished by shortening the voyage, and other reasons.

The London Mechanics' Magazine gives an account of a trial in which Mr. Low obtained a verdict establishing his claim to the screw—the favorite propeller in England. It appears, therefore, that the subject of propellers is attracting very general attention, and nowhere can it be more important than here, where bays, lakes, and rivers, almost demand a class of vessels combining the regularity of the steamboat with the capacity of stowage of the sloop or schooner. Again, as a rough sea is to be frequently encountered, a submerged propeller appears the only one adapted to the purpose; for the common wheel destroys the stowing qualities of small craft, and renders them very awkward in a stiff breeze. It would appear almost impossible that some unexceptionable propeller should not spring from the innumerable experiments now going on in this and other countries. A few trips of the Great Britain will furnish some very important "facts" as to the working of the screw on a grand scale, and may be the means of intro-

ducing a new and powerful auxiliary into our mercantile marine, either in the shape of the Ericsson or Emerson, of the Loper, or of the screw propeller.

THE "GREAT BRITAIN" STEAMER.—The following account of some experiments made with her, is given by a correspondent of the Times:

"The steam was then got up (on arriving at Kingroad), and at half-past 11 o'clock the screw-propeller was put in motion. It has been objected against the use of the screw in many steamers, that its action causes them not only to steer very badly, but renders it necessary to have more men at the wheel than under other circumstances, the steering being extremely laborious. The Great Britain, however, steered like a boat with one or two strokes of her wheel, and came round with the helm at 30 degrees in a circle of less than half a mile in diameter. The superintending engineers, Mr. I. K. Brunel and Mr. Guppy, of course, in starting, did not intend that this, the first experiment, should be one of full speed, as no new engines can be expected to have properly come to their bearings until after they have been worked for some time; and accordingly directions were given to Mr. H. S. Harman, the engineer-in-chief, to start her with six revolutions only, at which she made about four knots. On passing Portishead, at 12 o'clock, the revolutions were increased to 9½ per minute, when she made a 6½ log; 10½ revolutions gave a log of 7 knots; 10½ revolutions a rate 7½ knots. The steam was kept at this point for some time, and then increased to 12 revolutions, when she gave 8 knots as her rate of speed. At this period, being then near the Holmes, the experiment of turning her round with the helm hard down was tried; she came round in nine minutes, making a circle of rather more than half a mile in diameter. She was then tried a second time, with the helm at only thirty degrees, when she came round in a most beautiful manner in six minutes, and in a less distance. When going the straight course, the stupendous mass answered her helm most readily, taking not more than one spoke of the wheel, and requiring only one man at it. In returning homewards, the speed of the engines was gradually increased to 13 revolutions, at which she gave 8½ knots, and to 16 and 16½ revolutions, when she went through the water at 11 knots, against a strong head wind, passing easily the Sampson, the fastest paddle-boat out of the port. At this rate of going, the steam was cut off by the expansion-valve at 1 foot, or one-sixth of the stroke, six of the fires not having been lit during the whole trip. The engines worked perfectly smooth, and without the slightest vibration or tremor being felt in any part of the vessel. The screw-propeller during these experiments was not fully immersed, the ship's draught of water abaft being only 14 feet 6, and about 12 feet forward; and no doubt existed in the minds of any of those present versed in such matters, that upon the next experiment, or when the revolutions of the engine are increased to 20 in a minute, a speed of from 12 to 13 knots can be easily obtained. When the vessel was going 11 knots, the screw-propeller was only going 12, making the slip or loss only one-eighth and a third per cent., and which slip will of course be diminished when the screw-propeller is entirely immersed. When going at her best speed, there was no swell whatever under the bows, her stem cutting through the water just as the fastest Thames boats do. The whole experiment lasted five hours; and in every particular the vessel realized the most sanguine expectations. It was supposed that the noise of

the chains passing over the drums to give motion to the screw by which she is propelled, would be so great as to prove an annoyance to the passengers. This, however, has been completely avoided, the chains and wheels upon which they work revolving without noise, and what is still more desirable, there is a complete absence of vibration in the ship."—Mech. Mag.

MISCELLANEOUS NOTICE S.

OCMULGEE AND FLINT RIVER RAILROAD.—At a meeting of the Stockholders of the Ocmulgee and Flint River Railroad Company, in this city, on Monday the 13th inst., the following board of Directors were appointed for the ensuing year: A. H. Brisbane, Pres't; Nelson Tift, Thomas P. Smith, Joseph Bond, Thos. Spalding, Jas. Mercer, T. D. Mathews, H. Morgan, and D. A. Vason.

Col. Nelson Tift was appointed by the board General Agent, for the year 1845.

The reports of the President, Gen. Brisbane, and Agent, Col. N. Tift, to the stockholders, we may at some future period publish, and comment upon. Although no labor has been done on the work for the past year, yet the company have not been idle. It is to be hoped that a work so important to the trade of this section will not be abandoned without one more vigorous effort to carry it through.—Albany (Ga.) Courier.

THE MONONGAHELA IMPROVEMENT.—The route of trade and travel from Baltimore to Pittsburgh, by way of the Ohio Railroad and the steamboat lines from Brownsville, is steadily manifesting its superiority on the score of both expedition and cheapness. We have before us a letter from a very respectable source at Brownsville, under date of 24th instant, which says—

"Our route is daily becoming more important, and so soon as the travelling and forwarding community will have more freely patronized it, it will be decidedly the most popular one between the East and West; and the advantages which will accrue from it to Baltimore, will be great. It will hasten the transit of merchandise very considerably, as the distance to be waded will be shortened almost one half. Your merchants will also have the advantage of seeing Western men first, when nothing remains but to sell low, and they will undoubtedly secure a large portion of the Western business.

"If the rates of transportation on the Baltimore and Ohio Railroad should be reduced, as we hear is contemplated, this route would compete successfully with the Pennsylvania works.

"Our navigation is now in fine order, and boats are running again regularly, after a short interruption while putting on a new lock gate."—Balt. Amer.

THE STEAMBOAT LOPER.—This little iron boat, built by Messrs. Merrick & Towne, was tried yesterday for the first time. Her engine is the one commonly known as the vibrating cylinder engine; and her propellers as those of our townsman, Capt. Loper. In the presence of many of our scientific men, the distance of six miles (three going and three returning,) was accomplished in 20½ minutes. The boat was light, and every thing was of course new and stiff. The performance was considered by those on board to have been the best yet accomplished by any freighting propeller boat.—Phila. Inq.

ILLINOIS DEBT.—The entire debt, principal and interest, calculating the interest on the canal debt up to this time, and on the residue up to January next, will be \$13,777,869.56.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at date of latest balance sheets.	Cost of working in pounds for six months, as stated in latest balance sheets.	Total earnings, in pounds, for six months, as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.		Share Capital.
							Per share.	Per cent. per annum.			NAME OF COMPANY.	Share Capital.	
Arboath and Forfar.....	15	102,000	35,000	138,870			0 12 6	2 10 0	25	27	Aberdeen .....	1,600,000	
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1 5 0	2 10 0	100	100	Barnsley Junction.....	200,000	
Brandling Junction.....	23	161,700	365,470	481,452				4 10 0	50	54	Belfast and Ballymena.....	385,000	
Bristol and Gloucester.....	37 1-2	400,000	211,000					nihil.	30	36	Blackburn, & Accrington.....	400,000	
Chester and Birkenhead.....	14 1-2	750,000	143,170	518,969	5,856	13,148	0 8 6	1 14 0	50	32	Birk. and Chesh. Junction.....	1,000,000	
Dublin and Drogheda.....	31 1/2	450,000	150,000	500,869				nihil.	55	72	Bolt. Wigan and Liverpool.....	800,000	
Dublin and Kingstown.....	6 1/2	200,000	152,200	359,000			6 0 0	6 0 0	100	166	Caledonian.....	1,800,000	
Dundee and Arbroath.....	16 3-4	100,000	49,445	153,416	2,989	6,993	1 5 0	5 0 0	25	29	Cambridge and Lincoln.....	1,250,000	
Durham and Sunderland.....	18 3-4	169,350	124,055	270,392	9,889	17,702		nihil.	34	29	Chatham and Portsmouth.....	5,000,000	
East County and North and East.....	86 1-4	4,443,200	1,341,155	3,931,905	47,385	118,726	1 6 6		45	57	Chester and Wrexham.....	120,000	
Edinburg and Glasgow.....	46	1,125,000	379,343	7,272,539	29,429	55,866	2 6 4	10 0 0	50	60	Churnet valley.....	1,800,000	
Glasgow, Paisley and Ayr.....	51	937,500	1,066,951		12,446	36,736	2 6 4	10 0 0	50	60	Direct Northern to York.....	4,000,000	
Glasgow Paisley and Greenock.....	22 1-2	650,000	216,666	787,884	11,572	23,177	5 0 2	0 0 25	25	34	Dublin and Belfast.....	950,000	
Grand Junction.....	104	2,478,712	2,453,169		84,309	195,060	0 0 10	0 0 100	100	210	Dundee and Perth.....	250,000	
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1 12 6	3 5 0	100	119	Edinburg and Northern.....	800,000	
Great Western.....	221 3-4	4,650,000	3,679,343	7,272,539	132,235	369,904	3 10 0	7 0 0	75	138	Ely and Bedford.....	270,000	
Hartlepool.....	15 1-2	438,000	155,540	719,205				8 0 100			Glasgow, Dum. & Carlisle.....	1,300,000	
Leicester and Swannington.....	16 1-4	140,000		140,000	2,207	6,317	1 5 0	5 0 0	50	57	Gt. South. and West. Ext.....	1,200,000	
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5 0 0	10 0 0	100	203	Gt. Grimsby and Sheffield.....	600,000	
Llanelly.....	27	200,000	44,000	221,624			1 0 0	2 0 0	87	100	Harwich & E. coun. Junc.....	160,000	
London and Birmingham.....	12 1-2	6,874,976	1,928,845	6,393,468	92,823	405,768		10 0 0	100	218	Huddersfield & M. r. & c. l.....	600,000	
London and Blackwall.....	3 3-4	804,000	266,000	1,315,640	15,978	23,870		8 0 100			Kendal and Windermere.....	125,000	
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0 12 0	2 8 0	50	47	Leeds and Dewbury.....	400,000	
London and Croydon.....	8 1-2	550,000	229,000	761,885	7,583	10,545	0 5 0	2 10 0	14	17	Leeds and Thirsk.....	800,000	
London and Greenwich.....	3 3-4	759,383	233,300	1,040,330	15,193	28,933		nihil.	13	10	Liv. Ormskirk & Preston.....	600,000	
London and South Western.....	92 3-4	2,222,100	630,100	2,596,201	68,457	150,469	1 12 6	6 10 0	41	73	London and Portsmouth.....	1,750,000	
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1 0 6	5 0 0	40	48	London and York.....	5,000,000	
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2 2 0	4 10 0	93	110	Lodonderry & Enniskillen.....	500,000	
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761	7 1/2 & 10 1/2	6 16 8	100	104	Lynn and Ely.....	200,000	
Midland railway.....	178 1-4	5,158,900	1,719,630	6,279,056	76,983	281,898		4 0 0	100	96	Manchester, Bury & Ross.....	300,000	
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947	4 0 0	4 0 0	100	105	Manchester and Buxton.....	250,000	
Newcastle and Darlington.....	23	500,000		405,728				nihil.	21	49	Mullingar and Athlone.....		
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466		2 0 0	50	37	Newcastle and Berwick.....	700,000	
North Union.....	39	739,201	308,306	1,015,417	9,071	37,794	2 10 0	6 16 8	100	104	Richmond & W. End Junc.....		
Paris and Orleans.....	82	1,600,000	400,000	1,978,415			0 16 0	8 0 0	20	39	Scottish Central.....	700,000	
Paris and Rouen.....	84	1,440,000			31,247	91,171		8 0 0	20	38	Sheffield and Lincolnshire.....	650,000	
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066		nihil.	50	18	Shrewsbury and Gd. Junc.....	400,000	
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876		nihil.	82	93	Shrew. Wolv. Dudly & B.....	900,000	
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0 10 6	2 2 0	50	99	Trent Valley.....	900,000	
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1 0 0	6 5 0	100	55	West London Extension.....	64,000	
Ulster.....	25	519,150	20,000	348,636	5,401	13,856	0 15 0	5 1 8	29	37	West Yorkshire.....	1,000,000	
Yarmouth and Norwich.....	20 1-2	187,500	62,500	230,250				nihil.	16	25	Whitehaven & Maryport.....	100,000	
York and N. Mid., and Leeds and Selby.....	28	1,062,500	167,500	676,644	27,132	55,752	2 10 0	10 0 0	50	100	Boulogne and Amiens.....	1,500,000	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo-Mexican Mint.....	10,000	10	10		15 7-8	15 7-8	Loughborough.....	70	142 3-4	142 3-4	70	1140	
Anti dry Rot.....	10,000		18 1-2		2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust company.....	5,700	100	35		34 1-2		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation.....	20,000	15	14	10	27 1-2	27	Mersey and Irwell.....	500	100	100	10		
Gt. Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2 1-2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6 5-8		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1 3-4		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental.....	11,493	50	50	7	64 3-4	65	Regents or London.....	21,418	33 3-4	33 3-4	2 5-8	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....				6			Somerset coal.....	800	150	150	7 1-2	123	123
Reversionary Int. Soc.....	5,387	100	100	4 1-2	104	101	Stafford and Worcester.....	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36 1-2	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7 1-2	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Seyern & Wye & Rail. Av.....	3,762	26 1-2	26 1-2	5 1-2	30	30

Canals.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Ashby de la Zouch.....	1,432	113	av.	4	70	70	Thames and Medway.....	8,149	19 1-4	19 1-4		10	10
Barnsley.....	720	100	100	14	180	180	Warwick and Birmingham.....	1,000	100	100	10 1-2	167	
Birmingham, 1-16 share.....	3,000	118 3-4	79	10	150	160	Warwick and Napton.....	980	100	100	8 1-2	122	
Do. and Liverpool Junc.....	4,000	160	100		13 1-2	13 1-2							
Coventry.....	500	100	100	20	365	365							
Cromford.....	460	do.	do.	24	250	250							
Derby.....	600	do.	do.	9	105	105							
Erewash.....	231	do.	do.	32	440	440							
Forth and Clyde.....	1,297	400 1-2	40 1-2	4	440	440							
Grand Junc.....	11,600	100	100	7	162	161 1-2							
Grand Surrey.....	1,500	do.	do.		20								
Gloucester and Berkley.....	5,000	do.	do.		8	8							
Grantham.....	749	150	150	8	185	185							
Lancaster.....	11,699	47 1-4	47 1-4	3	40	40							
Leeds and Liverpool.....	2,897	100	100	34	640	640							
Leicester.....	545	140	140	9	139	139							

Water Works.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Birmingham.....	4,800	25	25	3 5-8	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7 1-4	88	90
New River L. B. Ann.....	1,500			2 1-2		
Manchester and Salford.....	6,486	av.	30	8 3-8	57	57
Vauxhall, lt. S. London.....	1,000	100	5	5 55	55	55
West Middlesex.....	8,294	av.	63 5-8	6 5-8	126	127

Docks.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Commercial Dock.....	1,065	100	100	3	0	
East and West India.....		sto.		5 1-4	137	
London.....	3,238,310	sto.		4 1-2	114 3-4	115
St. Katharine.....	1,352,752	sto.		5	116	117
Southampton.....	7,000	50	50			



AMERICAN RAILROADS.

RAILROADS.	Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
			Gross.	Nett.		Gross.	Nett.			
Me. 1. Portland, Saco and Portsmouth.	50	1,200,000			7			6	100	Competes with steamboats.
N. H. 2. Concord.	35	750,000						12	130	
Mass. 3. Boston and Maine.	56	1,384,050	178,745	68,499	6				108	
" 4. Boston and Lowell.	26	1,863,746	277,315	144,000	8	316,909	147,615		120	
" 5. Boston and Providence.	41	1,900,000	233,398	110,823	6				109	
" 6. Boston and Worcester.	48	2,885,200	404,141	162,000	6				120	
" 7. Berkshire.	21	250,000		17,500	7					
" 8. Charlestown branch.		250,000			13					
" 9. Eastern.	54	2,388,631	279,563	140,595	6			8	112	
" 10. Fitchburg.	50	322,538							109	
" 11. Hartford and Springfield.	25 1-2									
" 12. Nashua and Lowell.	14 1-2	380,000	81,079		8				120	
" 13. New Bedford and Taunton.	20	428,543	50,671	24,000	6					
" 14. Norwich and Worcester.	59	2,166,566	162,336	24,871		230,674		3	67	
" 15. Taunton branch.	11	250,000		20,000	8				118	
" 16. West Stockbridge.	3									
" 17. Western, (117 miles in Mass.).	156	5,319,520	573,882	284,432					92	
" 18. Worcester branch to Milbury.		5,500								
Con. 19. Hartford and New Haven.	38								92	
" 20. Southington, (19 months.)	74	1,244,123				150,000				
" 21. Stonington, (year ending 1st Sept.,)	48	2,600,000	113,889			154,724	79,845		40	
N. Y. 22. Attica and Buffalo.	31 1-2	268,275	45,896	7,522						
" 23. Auburn and Rochester.	78	1,727,361	189,693	112,000					110	
" 24. Auburn and Syracuse.	26	743,931	86,291	27,334						
" 25. Buffalo and Niagara.	22	200,000							100	
" 26. Erie, (446 miles.)		5,000,000							23	
" 27. Erie, opened.	53			48,000						
" 28. Harlem.	26	2,200,000							65	
" 29. Hudson and Berkshire.										
" 30. Long Island.	95	1,500,000							77	
" 31. Mohawk.	16 3-4	1,030,949	69,948	58,780		84,306	40,000		59	
" 32. Tonawanda.	43	600,000	76,227							
" 33. Troy and Greenbush.	6	180,000								
" 34. Troy and Saratoga.	25	475,865	44,325	21,000						
" 35. Troy and Schenectady.	20 1-2	633,520	28,043							
" 36. Schenectady and Saratoga.	22	300,000	42,242	3,000	1					
" 37. Utica and Schenectady.	78	2,124,013	277,164	180,000	9				131	
" 38. Utica and Syracuse.	53	1,080,219	163,701	72,000					119	
N. J. 39. Camden and Amboy.	61	3,200,000	382,832	383,880					109	
" 40. Elizabethtown and Somerville.	26	500,000								
" 41. Morris and Essex.										
" 42. New Jersey.	34	2,000,000							93	
" 43. Paterson.	16	300,000							80	
Pa. 44. Beaver Meadow.	26	1,000,000								
" 45. Cumberland Valley.	46	1,250,000								
" 46. Franklin.	10 1-2									
" 47. Harrisburg and Lancaster.	36	860,000							30	
" 48. Hazleton branch.	10	120,000								
" 49. Little Schuylkill.	29	900,000								
" 50. Lykens Valley.	16 1-2									
" 51. Mauch Chunk.	9	100,000								
" 52. Minehill and Schuylkill Haven.	18	315,000			12				144	
" 53. Norristown.	20	800,000							10	
" 54. Philadelphia and Trenton.	30	400,000							105	
" 55. Pottsville and Danville.	29 1-2	1,500,000								
" 56. Reading.	94	9,000,000							22	
" 57. Schuylkill valley.	10	1,000,000								
" 58. Williamsport and Elmira.	25	400,000	20,000							
" 59. Philadelphia and Baltimore.	93	4,400,000	43,043	200,000			210,000		40	
Del. 60. Frenchtown.	16	600,000								
Md. 61. Baltimore and Ohio, (1st Oct.)	98	7,623,600	575,235	279,402		358,620	346,946		49	
" 62. Baltimore and Susquehanna.	58	3,000,000							5	
" 63. Baltimore and Washington.	38	1,800,000	177,227	71,691		212,129	104,529		84	
Va. 64. Greensville and Roanoke.	17 1-2	260,000								
" 65. Petersburg and Roanoke.	60	766,000						3		
" 66. Portsmouth and Roanoke.	78 1-2	850,000								
" 67. Richmond and Fredericksburg.	61 1-2	1,200,000								
" 68. Richmond and Petersburg.	22 1-2	700,000								
" 69. Winchester and Potomac.	32	500,000								
N. C. 70. Raleigh and Gaston.	84 1-2	1,360,000								
" 71. Wilmington and Raleigh.	161	1,800,000								
S. C. 72. Charleston and Hamburg.	136	2,400,000						8		
" 73. Louisville and Cincinnati.	66	800,000	201,464	77,456		328,425	180,704		55	
Ga. 74. Central.	190	2,581,723	227,532	93,190						
" 75. Georgia.	117 1-2	2,650,000	248,026	158,207		248,096	147,523			
Ala. 76. Tusculumbia.	46									
W. V. 77. Lexington and Ohio.	40	500,000								
Ohio 78. Little Miami.	40	450,000								
" 79. Mad river.	40	400,000								
" 80. Monroeville and Sandusky.										
Mich. 81. Detroit and Pontiac.	25									
" 82. Erie and Kalamazoo.	33									
Ind. 83. Madison and Indianapolis.	56	152,000								
Can. 84. Champlain and St. Lawrence.	15	212,000		12,000		58,000	24,000		110	

Ithaca and Oswego and Catskill and Canajoharie roads were sold by the State. The former does little, the latter nothing.

Part of the New York and Albany.

The costs of those roads marked \* were taken from de Gerstner's report published in the Journal in 1840.

Purchased from the State.

SALES OF RAILROAD & CANAL SHARES IN BOSTON NEW YORK, PHILADELPHIA & BALTIMORE.

NAME OF COMPANY.	Monday.		Tuesday.		Wednesday.		Thursday.		Friday.		Saturday.	
	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.	Sh's.	Price.
<b>Boston.</b>												
Old Colony.....	10	100			55	99 3-4						
Norwich and Worcester.	100	66 1-2	25	65 1-2	25	65	25	65 1-2				
Western.....	10	96 1-4	43	96	141	96	158	96 1-4	98	96 3-4	10	97 1-2
Long Island.....											15	73 1-4
Eastern.....	25	106 1-2	7	106 3-4	47	106 1-2	33	106 1-4				
Portland and Saco.....												
Boston and Worcester.....					62	118 1-2	1	118 1-2				
Lowell.....												
Reading.....	208	20 1-4	25	20 1-2	125	20 3-4	225	21 3-4	225	22 3-4	610	24 1-2
Boston and Maine.....			5	110					16	109	5	110 1-4
Fitchburg.....												
Concord.....												
Taunton branch.....												
Nashua and Lowell.....												
Boston and Providence.....												
Reading bonds.....									1,000	71 1-4		
<b>New-York.</b>												
Erie.....	350	27	395	28	650	28 1-2	225	28	75	29		
Harlem.....	250	65	160	65 1-2					50	65 1-2	150	66
Long Island.....	1,155	73 1-2	150	73 1-4	625	73	525	72 1-2	850	72 1-2	2,325	74 1-4
Stonington.....			190	38	25	37 3-4	250	37 1-2	325	38	275	38 1-2
Paterson.....											12	79
New Haven & Hartford.....	8	91										
Housatonic.....												
New Jersey.....												
Mohawk.....	400	61	125	61								
Reading.....	215	40 1-2					75	42 1-2	100	44 1-2	250	46 3-4
Morris canal.....	450	26 1-2	75	26 1-4	125	26			325	26 1-2	275	27 1-2
Norwich and Worcester.....	1,095	65 1-2	695	66	1,375	65 1-2	1,075	65 1-2	525	66 1-4	500	67 1-4
Utica and Syracuse.....	40	120							19	120		
<b>Philadelphia.</b>												
Camden and Amboy.....	9	109	10	108								
Camden and Amboy 6's.....			2,000	93								
Reading.....							50	21	300	22		
Reading bonds, 6's.....	1,000	63 1-4										
Wilmington.....	172	20 1-2			540	20	300	20 1-2				
Wilmington bonds, 6's.....												
Lehigh mortgage.....			179	68								
Chesapeake and Del. 6's.....			5,000	66 1-2								
Schuylkill Nav.....					1	30	17	29 1-2				
Lehigh Nav.....												
<b>Baltimore.</b>												
Baltimore and Ohio.....							25	48 7-8				
Baltimore & Washington.....			3	83								
Susquehanna Canal.....												
Philadelphia & Baltimore.....												

We call the attention of Directors to the Tabular Advertisement of the New Jersey Railroad and Transportation Company in this number. A similar advertisement for each of the principal railroads would afford to the traveller in our widely extended country, information which is at present beyond his reach, even had he access to all the papers in the United States.

We particularly request statements of the traffic of each week and of the corresponding week of last year to be regularly sent to us.

Correspondents will oblige us by sending in their communications by Monday morning at latest.

We are endeavoring to devise a mode of advertising the rates of fare and distances of the principal railroads in the country, and have opened a correspondence on the subject with gentlemen connected with some of the most important works.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Thursday, February 6, 1845.

WESTERN RAILROAD.—Receipts for the week ending January 18:

	1845.	1844.
Passengers, - - -	\$4770	\$3097
Freight, etc., - - -	6039	3984

Total, - - - \$10,809 \$7031

Week ending Jan. 25:

Passengers, - - -	\$4518	\$3050
Freight, - - -	6868	5905

Total, - - - \$11,386 \$8956

MOHAWK AND HUDSON RAILROAD for the week ending 21st of January, 1845:

Passengers, - - -	\$469.25
Local freight, - - -	17.24
Western freight, - - -	359.13

Receipts for same time last year, \$336.62

Increase equal to 113 per cent., \$443.62

THE COAL TRADE.—Sent by railroad up to Thursday evening last:

Schuylkill Haven, - - -	1,840.07
Pottsville, - - -	4,777.14

Per last report, - - - 6,217.20

21,987.03

28,205.04

The "Traveller's Directory" on the last page will perhaps give all the information required by "through" passengers on the main routes of the Union. It is not yet complete as regards fares and distances, though the times of starting on all the important roads, except some of the southern roads, are given pretty fully. There are included even the trips of the accommodation trains on many roads, though for way-passengers each great thoroughfare in the country should have a table similar to that of the N. J. Railroad Co. Then, with the "Traveller's Directory," with tabular advertisements of the railroads and steamboats on the principal routes, the traveller will easily ascertain the cost and time of a journey to almost any part of the country.

We are under obligations to different gentlemen for the Railway Bell and small pocket Directory, with colored maps, very well got up. These are both English publications; the former is published weekly, and sold at 6s.; the latter is published monthly, and sold for 1s. sterling.

We are also indebted to an eminent engineer of Boston for a small manual of the railways in that vicinity, very conveniently arranged; the price is not stated. Our object is to adapt our publication to this community, and we do not think the English plan would answer here; at the same time we are not fully prepared to submit any definite plan to the companies, and should be happy to receive suggestions from the numerous gentlemen connected with railways, who are seriously turning their attention to this subject. We are inclined to believe that the publication must be weekly, and the price very low; the former in order to be always correct, the latter to make its circulation as extensive as possible.

If the different railroad companies feel disposed to stand by the Journal, they may do much to aid the extension of this incomparable mode of communication, and, at an insignificant cost, give all the information required by the traveller, and obtain for themselves the results of the experience of this country and of Europe in a clear and condensed form. In justice to the companies we feel bound to state that, during the last month, we have received many proofs of their friendship to the Journal.

The report of the Comptroller of New York is published in some of the papers, but we shall wait for the official publication of this and of the report of the canal commissioners, before we attempt these formidable works—almost as extensive as complicated.

The subject of "discriminating tolls," is creating some sensation, and from the discussions to which it leads, will do much to unveil the system of debt and taxation so highly prized by the public men of New York. We are sorry to see such ignorance prevailing as to the diversion of the trade from the Erie canal to the St. Lawrence, the notorious fact being always overlooked: that the flour is destined to New York and New York only; were the tolls of the Erie canal doubled it could not go via. Montreal, Boston, or Philadelphia.

In the legislature of New York we notice a favorable report on giving up the claim of the State on the N. Y. and Erie Railroad Co., on conditions which will be satisfactory to the company. Also motions for inquiry into the charges of the railroad companies for winter freight, and into the nature of the agreement between the Troy and Greenbush and the New York and Albany Railroad companies.

It will be seen by our extracts that the Northern Railroad has even found its way into the English railway journals.

### ENLARGEMENT OF THE SCHUYLKILL CANAL.

We have attentively perused the Report of Mr. S. Roberts, Civil Engineer, to the Schuylkill Navigation Company, in which he strongly recommends an increase in the dimensions of the channel and locks, so as to pass boats of the size contemplated for the enlarged Erie Canal, that is, the locks are to be 110 feet long by 18 feet wide. The total lockage is 616 feet, and the cost of this is estimated at \$592,000, or less than \$1000 per foot lift, and the cost of deepening the channel is estimated at \$488,000, making the entire amount \$1,080,000. If this work be done for one half more than the estimate, we shall be very agreeably surprised. But this is of comparatively little consequence.

Mr. Roberts says, (p. 17,) "The next question is, will the work, when done, repay its cost?" This is the grand consideration; this is the great engineering question, the discussion of which involves as elements, the cost of construction, the saving which these enlarged locks will effect, and the manner in which that saving will increase the receipts of the Company, so as to render an increase of debt a safe and judicious policy.

Of the first we have already spoken. Of the second element Mr. R. says—

"It has been found heretofore, that the decrease in the cost of freighting has been nearly proportional to the increase of the number of tons carried in a boat. Coal in large quantities has been carried upon the Schuylkill Navigation in 60 ton boats at the rate of 65 cents per ton per 100 miles, including unloading. With boats of treble the present capacity, propelled by steam, and running two or more in a train, it is believed that the cost of freighting could be reduced to from 25 to 30 cents per ton, and so as to combine with this great reduction the vast advantage of being able to proceed directly on to the ports where the bulk of the coal is wanted."

Here we ought to have the first cost of boats of 60 and 180 tons, the costs of repairs and renewals, the charges for towing by horses and by steam power, and of manning the two classes of vessels. That the larger boat will carry more cheaply than the smaller craft may be very true, but there should be some proof given, "that the decrease in the cost of freighting" is as the increase in the capacity of the boat. Suppose that the enlarged Schuylkill Navigation should turn out a failure, then will this very same Report show the propriety of a second enlargement as conclusively as it now does the advantages of the first increase in dimensions. And this is by no means a mere supposition. The Lachine Canal at Montreal has locks 20 by 100, (see Table of Canadian Canals,) and we believe it never yet passed over two hundred thousand tons, less than one-third the tonnage of the present Schuylkill canal, with locks 80x134. By a system of high tolls, they raised up a rival with which no canal on earth could contend—the giant St. Lawrence. Finding the trade irrecoverably gone from the (for Canada) small Lachine Canal, they determined to enlarge it from locks of 20 by 100x5 to 45x200x10. The work is to be completed by

December, 1845, and it remains to be seen whether it will be on the whole worth as much to the trade as the old canal, omitting all consideration of cost. There, as in the case of the Erie and Schuylkill Canals, an increase in the size of the boats is to accomplish all; but *how*, is left pretty much to the imagination; indeed, it will require no ordinary powers to believe that freight can be carried for 25 to 30 c. per ton over 108 miles of canal, when the lowest price on the Hudson is 50 c. for the same distance.

But even admitting that this reduction could be effected, it remains to be shown how that will accomplish the end in view; that is, how it will render the canal able to pay a fair interest on its total cost after enlargement, say five millions of dollars (p. 20). The tolls must be raised, or the trade must be greatly increased. All this is passed by very quietly, for general remarks. At the present unexampled low rates of toll of 1 cent per ton per mile, it will require a million of tons of coal to pass over the canal annually to yield the moderate return of 7 per cent., assuming the other business of the canal to clear all expenses whatever. Were the canal to be commenced "*de novo*," we should be disposed to pay very close attention to the English canals, the extraordinary success of which may be seen in our Table of the Canals of that country.

"In England, canals are generally successful, but though doing an immense business, they are very small, some of the most important having locks only eight or ten feet wide.

"The capacity of these little English canals is immense, their cost and management comparatively slight and easy.

"A boat will carry about 30 tons, and as one of the old single locks of the Erie canal passes 116 boats in 15 hours, a lock little more than half the width will easily pass 200 boats per 24 hours, and is abundantly adequate to the trade of any canal likely to exist in this country. The English canals, with a small amount invested in their construction, accommodate an immense traffic, and are as valuable to their proprietors as they are useful and honorable to the country. Here the reverse is generally the case. For example, the Genesee Valley Canal will cost about \$60,000 per mile, the cost of the Lowell Railway, the best in America; the income of the former is estimated by its friends at one-half of one per cent. per annum, the actual income of the latter is 15 per cent. Again, one mile of the Cornwall Canal in Canada cost as much as fifteen miles of the Champlain and St. Lawrence Railway, with cars, engines, buildings, and wharves, and it will be fortunate if the income from the twelve miles of canal equal half the revenue of the railway. The two private railways are adapted to the business of their respective localities; viewed in this light, the two government canals are monstrosities of the first order."—*Journal May 1844.*

We shall be sorry to see the Directors of a respectable Company vying with the "honorable" Canal Commissioners in effecting a maximum of expenditure with a minimum of income; though we confess that the latter part of this report makes us fear the worst, for the *grand engineering consideration is most decidedly blinked*: in place of a close professional analysis, we find only the collateral advantages and the general views which would very appropriately follow

such an examination. By way of illustration, suppose it were the intention of the Reading Co. to lay down a wider track, because the expense of transportation might be reduced somewhat by that change, we should think such a course very similar to that of the Schuylkill Navigation Co. The first question would naturally be, Is the road worked up to its capacity? So with the canal, we ask, What is the capacity of the Schuylkill Navigation? Experience on the Erie Canal demonstrates that, with single locks, and boats of 60 tons burden, 1,500,000 tons may be passed very well in 250 days in one direction, and of course an equal amount of return freight. Now, with the low toll of 1 cent per ton per mile, the income from coal alone would be \$750,000, and if other business pay the ordinary expenses, this would yield a dividend of 15 per cent. On the English system of small, cheap canals, the capital would be about \$1,500,000, and the income from 1,500,000 tons, at the moderate toll of 1 cent per ton per mile—as on the Erie canal—would be \$1,500,000, so that the profits would actually exceed those of the Loughborough Canal, which divides 70 per cent. But even at the low toll of 1 cent per ton per mile, the present Schuylkill Canal might pay a fair dividend, if the trade were vigorously carried on. The use of iron vessels will increase the capacity to nearly 80 tons per boat, and the great saving in wear will reduce the cost of transportation still further. At present we cannot pursue the subject, and must conclude with remarking, that the Schuylkill Navigation is equal to three times the present trade at least; that the demand for coal already exceeds the supply; consequently, that the coal trade, via the Schuylkill Canal, has all the advantages which can ever be expected; for an increase in dimensions brings with it a larger divisor, and of course a smaller quotient, in the shape of profits. But the great objection to the Report is, that there is—professionally speaking—not even an attempt to make out the grand point: "Will the work, when done, repay its cost?"

For the American Railroad Journal.

### RAILWAY MANAGEMENT.

Permit a shareholder in Railways to congratulate the public on the improved appearance and independent stand your valuable journal has taken in its editorial columns, in exposing the management of railways, as well as their extravagant cost. Heretofore the Railroad Journal has been devoted too much to algebraical calculations for the engineers, and to reports, without any remarks to benefit the stockholders. You have at last got on the right track, in following the course pursued by the London Railway Times—Herpath, and other European journals, in exposing the errors in management that tend to discredit the Railway system, in and around New York. I am led to make this observation by the quiet, yet significant remarks made in your last (No. 5), relative to the comparative management of the Baltimore and Ohio Railroad, and the New York and Erie Railroad.

It appears, the former, a pioneer road, "after

contending with engineering, financial, and Legislative difficulties, without a parallel in the history of American Railways, has put into efficient operation nearly 200 miles of road, by an expenditure of \$7,600,000, which yielded a gross income of \$653,620, or \$363,786 net, for the year ending Oct. 1st, 1844." While the management of the Erie road has produced, after an expenditure of \$5,000,000, only 53 miles of road, that has yielded, to include receipts from a Ferry of 24 miles! the gross sum of \$158,285, and \$55,790 net, during the last year, for the railway.

After reading your just criticism on these roads, and stumbling over the iron and bales of hay that fill up the foot of Centre street, opposite the Hall of Record, the terminus of the Harlaem Railroad on this street, I asked myself, is it possible the managers of the Harlaem Railroad design to do a freighting business, or to accommodate the travelling public, by turning them out into the open street in all weathers on such a limited space of ground,—and can the management of this road give confidence to capitalists, and advance the railway cause? An intelligent friend, well versed in railways, remarked, "that the Harlaem Railroad had done more to injure and retard the Railroad cause in the United States than any work within his knowledge! For, (said he,) on offering stock or the bonds of a good railway, I am always met with the remark, look at the Harlaem Railroad, its stock has varied from 7 cents to 65 cents on the dollar, except when there is 'a corner,' and its bonds have been hawked at 33 cents; and, although, more than one million of persons have been transported over it per annum, yet it has never given a dividend, but has got deeper and deeper in debt."

The pretensions of this road, and its present stockholders, (for they change annually in Wall street,) to make a good railway to connect us with Albany, has led me to inquire into the situation and the capacity of this company, to perform a freighting as well as passage business. I would design to draw the attention of your independent journal, to make the inquiry of the President or Engineer, where the fault lies, and who is to blame, in so locating and constructing this road from Harlaem river to White Plains, as to give it grades of 60 feet on curves that require the use of motive power, and of course expense proportioned to the load drawn at a given velocity, as it does equal to that to ascend the Berkshire mountains, where there are 80 feet grades to the mile.

I cannot believe the practical Engineer, Mr. Showell, who has had charge of the location and construction of this road, can have had his own way, with two lines staked out for his guide from Harlaem River to White Plains, by Engineers of the experience of Messrs. Joseph D. Allen, J. T. Shipman and Edwin F. Johnson, on either which, I learn, there need be no grade to exceed 30 feet to the mile, and with moderate cutting and embankments, compared with the object to be accomplished. If this is true, and

I have the best data for my information, there is an error in location, palmed off on the unsuspecting public, that requires examination. I would, therefore, call on the engineer, or the Company, to give us the true facts in the case, to save his credit as an engineer. That there is truth in this statement, there can be no doubt, when it is recollected, that it took the best locomotive on the road upwards of 2½ hours to draw 3 cars 25 miles, the day of the opening of the road to White Plains; and if we are accurately informed, the average up-trip, with a single car, exceeds 2 hours from the City Hall to White Plains.

When the directors explain the bad location of this road, I may ask, what talents advised the dangerous curve to cross a Bridge built, not for a Railway, but for the Free use of the people of Morrisania, over which the Harlaem Company have already tumbled one car nearly into the river. This bridge, in its location for an entrance to this great city, is a disgrace to the railway cause, and is totally unfit to pass heavy engines and trains with freight.

I may pursue this subject, and point out errors in management of this and other railways around this city, that have so disgusted our capitalists, that even the New York & Erie, and other important railways, are left without subscribers to their stock, from the fact, that directors of railways have committed such gross blunders, that capitalists are fearful of trusting them with their money.

VERITAS.

#### EXPLOSION OF THE LOCOMOTIVE RICHMOND.

The Committee of the Franklin Institute have made an elaborate report on this unfortunate occurrence. Having given the views of Dr. Lardner, we now give those of the Committee, that is, such portion as may be necessary to give our readers both sides of the question.

The committee believe, from the fact, that not a single portion of the joints had given way, except where the rivets had been torn off by the lateral expansion, and from the general appearance of the remains of the engine, when examined, that it will, on all hands, be admitted, that the workmanship of the boiler was such as to sustain the reputation which the Messrs. Norris have acquired in their business; and it is evident that the experiments, cited above, refute any supposition of insufficient strength in the crown plate—the laminated structure of which is one of those contingencies, against which the most careful precautions are not always sufficient to guard.

It is not then to weakness of materials, or defects in the manufacture of the boiler, that we are to look for the cause of this explosion: the committee believe that the strength of the engine would have proved adequate to any working pressure which could have been placed upon it.

On the other hand, the engineer, Mr. Joseph Ward, was reputed one of the most capable and trustworthy upon the road, and his character for carefulness and sobriety was such as to forbid the suspicion of any improper tampering with the valves: we have besides evidence that the valves were free.

The whole results of the explosion moreover

seem to indicate, not the slow and gradual rise of the pressure of the steam to a force which the engine was unable to bear—a force, be it remarked, not easily obtained upon a well built engine while in motion—but rather the action of a force of great intensity, and generated with such explosive suddenness as to render the safety valves and cylinders of the engine useless as means for giving it vent.

In the first accounts of this explosion much stress was laid upon the fact of its having occurred during a thunder-storm, and the agency in the accident has been attributed to electricity; but in what manner it may be conceived to have acted, whether by heating the boiler, or the steam within it, or in what other way it increased the tension of the steam, or diminished the strength of the material, the committee cannot conjecture. If there are any experiments, or observations, on record, tending to show the power of electricity to produce such effects in a good continuous conductor, as a locomotive engine, running too, be it observed, upon a wet rail, the committee are in ignorance of them; and, independently of this, the evidence to the contrary is as plain as could be desired.

In the testimony before the coroner, two of the brakemen, Powell and Cowden, declare that they saw lightning previous to the explosion: Powell says,—“I saw a flash of lightning previous to the explosion, but I could very easily see between the flash and the explosion.” Cowden says,—“I saw several flashes of lightning previous to the explosion.” Neither say any thing of the nature, or the nearness, of the flash, nor do they seem to have attributed to it any agency in the explosion. On the other hand, two other brakemen, McGuire and Smith, declare that they saw no lightning, and heard no thunder, which is scarcely reconcilable with the supposition of lightning striking the boiler. Messrs. Weber and Shipp, persons residing near the place of accident, both of whom saw the explosion, agree likewise in the statement that there was no lightning at the time.

In the testimony collected by the committee, it will be found that the storm, which (as is most commonly the case with our thunder storms,) had come from the north-west, had passed off to the south-east, and was almost entirely over before the Richmond had left Reading, so that Mr. Ward had laid aside his outer coat. Mr. Spayd also asserts with confidence, that for some hours previous to, and after the explosion, there was no lightning to the north of Reading; he heard the explosion, and is sure there was no flash at the same moment. Messrs. Hiester, Herbst, Richardson, and Gruber, all testify to the same absence of lightning. The evidence, therefore, alone is perfectly conclusive that the explosion was not due to the fact of the engine being struck with lightning.

But there is another cause, which, if we can suppose it to have been in action, is quite sufficient to account for all the effects observed. We allude to the rapid generation of steam of enormous tension, when water is suddenly brought into contact with a part of the boiler unduly heated. The agency of this cause is now so well understood, and its circumstances have already been so carefully investigated by a committee of the Franklin Institute, that we need say no more upon the subject, but proceed to inquire whether such a cause can be supposed to have acted in the present case.

It may be admitted that when the Richmond reached Reading at 7h. 18m. P. M., the boiler was filled with water as far as the upper cock, which would give about thirty cubic feet of water above a plane one inch below the crown of the fire-box: (the length of the cylindrical part

of the boiler is nine feet six inches, and the crown of the fire-box is eleven inches below this line.) And the evaporation of the Richmond, as calculated by the Messrs. Norris, from the dimensions of its cylinders, is 525 gallons, = 84 24 cubical feet per hour, when running ten miles per hour, with steam of one hundred pounds. To this may be added, according to the opinion of Mr. Kirk, who has great practical experience in these matters, at least fifteen per cent. additional, owing to the condition of the rails, and some additional quantity for the blowing off from the safety valves.

In fact, a carefully conducted series of experiments, upon a very similar engine, tried and recorded long before this accident happened, gave eighty-seven cubic feet as a minimum, and one hundred and thirty-three cubic feet as a maximum, evaporation per hour. While the average of a very extensive series of experiments, made by Mr. Nicolls, the superintendent of the road, with a number of different engines, while they vary very much from engine to engine, give about one hundred and fifteen cubical feet per hour for engines running at ten miles per hour.

As the Richmond seems to have been engaged in shifting cars for about fifteen minutes before its start, and as the explosion took place about fifteen minutes after it left the depot, the very lowest of these estimates show that its evaporative power was amply sufficient to have reduced the water below the crown of the fire-box, provided the pumps did not work.

What then was the condition of the pumps? It will be recollected that the pumps are beneath the cylinder, and that the pipe leading from the supply valves to the boiler passes between the cylinder and the boiler. All these arrangements are avowedly made for the purpose of keeping the pumps warm when in danger of freezing in cold weather.

That the pumps actually did not work perfectly, there is abundant proof. Thus Mr. Kirk, foreman of the Reading workshops, and Mr. Loe-er, a clerk at the depot, both testify that Mr. Ward had several times told them that the pumps did not work well, and that they had given him much trouble.

Mr. Yeager, the engineer of the freight train, which was immediately behind the Richmond when she exploded, testifies to Mr. McCabe's (the conductor's) statement, as to the cause of delay on the Saturday preceding, at the Manayunk tunnel, to which Patrick Nugent, a brakeman upon the train, also testifies; this is, moreover, confirmed by the statement of Mr. Simpson, at the time foreman of the workshops at Richmond, to one of the committee, that he did not see Mr. Ward upon Saturday evening, but that upon inquiring of another engineer, whose train had been behind, as to the cause of the detention, was told that the pumps of the Richmond had given out, and that Ward had to take them to pieces.

Mr. Day, also an engineer upon the road, testifies that Mr. Ward told him, some day of the week preceding the accident, "that his pumps worked badly, and that he never could start them without first unscrewing them, and lifting the caps." He also testifies that he passed the Richmond at Pottsville, upon the day of the accident, that Ward was then just starting, and was engaged in unscrewing the cap of his pump in order to make it work.

Now all those who saw the explosion testify that the engine was running under a heavy head of steam.

Cowden, a brakeman, testifies that "she had a great head of steam, and was blowing it off at the time." Weber, who was standing in his porch says, that "although not very familiar

with engines, he could easily perceive that she was working differently from what engines generally work; that she had a very heavy head of steam, and was going fast, and that she appeared to him like an engine trying to go faster than she was able." Mr. Herbst declares that there was a heavy head of steam; and Mr. Gruber, who was standing with him, says that "it had high steam, was making a great noise, and was running faster than he ever saw a coal train go before." Now all this is easily accounted for, if we suppose that, the night being exceedingly dark, when starting from Reading, Mr. Ward could not tell whether, or not, his pump was in action, the try-cock being nearly the length of the engine from him, and the noise of the empty cars behind him preventing him from hearing the escape. The great increase of the head of steam would at length give him notice, although not until the water had sunk considerably in the boiler. If then he threw on the other pump, and this acted properly, he should have a sheet of water suddenly rising, upon the overheated surface of the crown-plate, and a condition of things existing exactly such as to give rise to a terrible and inevitable explosion.\*

This view of the case seems, in the opinion of your committee, to be pointed out by all the circumstances, and suffices to account for all the phenomena which accompanied the explosion.†

The committee, therefore, report that, in their opinion, the explosion of the locomotive Richmond was probably caused by the sudden rise of water over the crown-plate of its fire-box, which had been laid bare by the defective action of the pumps, and had become unduly heated.

**NEW HAVEN AND NORTHAMPTON CANAL.**—From the annual Report of this Company, just published, it appears that the receipts of the year have amounted to \$26,135 18, and the expenditures to \$30,738 82. Of the receipts, \$10,935 13 were from tolls and rents on the Canal, and \$9,043 83 from assessments on the stock and interest. The receipts are stated to have exceeded the expenses proper,—the difference arising wholly from the increased and extraordinary repairs in consequence of extensive breaches in October, 1843, caused by the great storm and floods on the 8th of that month."

The only debt of the Company, except a small balance due to the Treasurer, is \$60,000, which consists of 5 per cent. stock, payable in 1854. The \$3000 received annually from the city of New Haven, is pledged, and regularly applied, to the payment of the interest on this indebtedness. To repay the balance due the Treasurer, and to make certain improvements recommended by the Engineer, it is proposed to apportion the 471 unsubscribed or forfeited shares of stock among the principal stockholders, which would increase the capital to the limit fixed by the charter, viz. \$300,000.

The business of the Canal the past year shows an increase of 20 per cent. over the preceding one. Number of tons transported, 24,862, or 49,724,739 lbs. Of this amount, 30,996,028 went up the Canal, and 18,728,711 down. The amount cleared up and down at New Haven in 1844 was, - - - - - 33,618,463 Do. in 1843, - - - - - 24,567,500

Increase, - - - - - 9,050,963

\* The shortness of the bridge bars would evidently transfer this strain from the surface of the crown-plate to the points in which they rested upon it, and thus determine the line of the rupture.

† In this connexion it is not to be forgotten that when found, the water was turned on to both the pump pipes of the tender, whereas, it appears, from the testimony of Mr. Kirk, and is well known to all conversant with engines, that one pump, when in action, is more than sufficient to supply the water evaporated.

The Harrisburg (Pa.) Telegraph says, Mr Magehan threw a rocket into the House of Representatives on Tuesday, in the shape of a resolution calling upon the Canal Board for certain information, which, it is believed, when produced, will lead to the discovery of some enormous robberies practised upon the Commonwealth of Pennsylvania.

We select the following articles and notices from late numbers of Herapath's Magazine, and of the Railway Times:

**EXPENSE OF LOCOMOTIVE POWER.**—The Stockton and Darlington Railway have contracted to find locomotive power for the transport of coal and coke, on the Great North of England Railway, at the extremely low rate of one-eighth of a penny per ton per mile. I sometime ago mentioned that the Millland was carrying coals at three farthings, or six-eighths of a penny, and making a good profit. The present contract is a fine illustration of the fact.

**EXTRAORDINARY PASSAGE OF COAL.**—I understand that the Stockton and Darlington Company have very recently carried over the Great North of England Railway into York, 8,000 tons of coal in 26 hours. Reckoning 2½ tons to a wagon load, that would be 3,200 wagons, which, at 40 wagons to a train, would be 80 trains, or one train every 19½ minutes. One may ask, "how did they get rid of it?"

**RAILWAY THROUGH THE EASTERN TOWNSHIPS OF CANADA.**—We learn from the Canadian papers brought by the "Hibernia," that the inhabitants of the eastern townships of Canada have been memorialising the Governor General on the subject of a railway in that district. It is considered that this line of road would not only benefit the townships, but that running through that district of the Seigniories which used to be called "The Lower Garden of Canada," it would be of incalculable benefit to it, as well as to Montreal and the province at large. This line is to be called the St. Lawrence and Atlantic Grand Junction Railway. The townships have a territory exceeding five millions of acres of available fertile land, and a population of fifty thousand souls, at present completely debarred by long land carriage, over bad roads, from participating in that prosperity which the liberal policy of the British government is extending to other sections of Canada. This want of communication prevents the capabilities of the township lands as a grain growing country being developed, the cost of carriage of a bushel of wheat to Montreal being more than double that from the most western district of Canada. Such a line would tend greatly to remove the feeling which is arising among the Colonists—that they are alien as well to the French Canadians of Canada East as to the Anglo-Canadians of Canada West. A full survey of the line has been made, and its cost is estimated at about £500,000 currency. It is thought that immediate steps will be taken for carrying the object into effect.

**RAILWAYS IN RUSSIA.**—A letter from St. Petersburg of Dec. 4, states that the Emperor, having ordered the Minister of the Interior, to urge on the works of the railroad between that city and Moscow, already commenced on the St. Petersburg side, a considerable number of additional workmen have been put on, and measures taken for the commencement of the works at the Moscow end. It is even said that the works are to be pursued by torchlight. In all probability, the part of this line, between St. Petersburg and Novogorod (180 versts), will be completed about the beginning of next autumn.



**INCREASE OF RAILWAY TRAFFIC.**—It appears from Mr. Wills' share circular that the increase of traffic receipts on 24 railways, during the 22 weeks ending 30th ultimo, as compared with the corresponding period of last year, amounted to £352,090.

**RAILROAD TRAFFIC.**—The last weekly returns of 48 Railways 1,781 miles in length.—The number of passengers on 34 railways, 267,375. The receipts for passengers on 48 railways, £65,669; ditto for goods on 47 railways, £29,527; total £95,196. This is an average of £53½ per mile per hour.

**TRAFFIC BETWEEN FRANCE AND ENGLAND.** for the week ending 5th December, 1844.

Boulogne and Folkestone, arrived 190, departed 151			
"    Dover, "    74 "    98			
"    Ramsgate, "    0 "    0			
"    London, "    86 "    95			

Total by Boulogne, pass. 694, horses' 4, cars. 11	Total, 350	344
Total by Calais, 165, " 0 " 0		
Corresponding week of 1843: by Boulogne, 673 passengers; by Calais, 165.		

**GREAT NORTHERN RAILWAY OF FRANCE.**—We observe from an advertisement, that in addition to the parties now before the public as candidates for leasing this line, the South-Eastern and Dover Company, united with individuals of the highest standing in France, will tender for the management of the French line.

**GERMAN RAILWAY.**—A line of railway has been commenced for connecting the Adriatic and Baltic Seas. It will extend from Kiel (Holstein) to Trieste. A distance of 58 miles, from Bresham to Leignitz, has already been opened.

**PENNY-A-MILE SYSTEM.**—Great success of the Penny-a-mile System on the Eastern Counties Railway.—The alteration made in the fares and accommodation of the Eastern Counties Railway has been attended with the greatest success. Already two large omnibuses and a coach have started in conjunction with the Company running from Ipswich to Colchester, and scarcely a day passes without every one of them being filled with passengers. In addition to these, a number of fast coaches run from Norwich and various other towns in the district, and it is anticipated a few weeks more will see others on the road. The inhabitants of Ipswich look upon this as a surprising change, and no wonder, when it is considered that only two coaches passed through the town some few years back. As the spring approaches, three or four more conveyances will be started; and seeing that the experience of the last six weeks justifies the belief that the passenger traffic will, before that time, have been nearly doubled, there can be little doubt they will turn out profitable speculations.

**A LARGE ORDER.**—We learn that the Birkenhead Warehousing Company have engaged by contract the partners of a celebrated brick-making firm of the south of England (who, we believe, made the bricks for the Eastern Counties Railway) for the supply, against the next summer, of 50,000,000 bricks, for the building of their warehouses on the southern margin of Wallasey Pool; and that within the last week 300 operative brickmakers have been sent from Kent to Birkenhead, and have already commenced operations.—*Liverpool paper.*

**THE ELECTRICAL TELEGRAPH.**—Some of the journals state that the Paris and Versailles Company (right bank) have agreed with Professor Wheatstone for the establishment of his system of electrical telegraph on the whole of their line.

**STRASBOURG AND BASLE RAILWAY.**—In consequence of our remarks of last week relative to the above railway, we have received a number of inquiries, to which, as well as to those previously sent us, the following information will, we trust, be a satisfactory reply. We shall, however, have pleasure in elucidating any other points on which our readers may desire further information.

Up to a recent period, this railway labored under the great disadvantage of both its termini being situated outside of the cities of Basle and Strasbourg, which rendered the use of conveyances indispensable, both for passengers and goods, from the towns to the stations, and thereby deprived the railway of much of the neighboring traffic. Now, however, the Basle terminus has been removed into the city itself; and the question as to crossing the fortifications at Strasbourg having been satisfactorily settled, the other terminus is likewise about to be placed within the town itself. A large increase of traffic has already been the consequence at the Basle end of the line, and it will be still more productive at Strasbourg, from the very important position which that place must occupy in the railway communication in consequence of the various lines projected from it, or with which it is to be immediately connected. The whole of the railway direct from Paris to Strasbourg, is now definitively settled by the French legislature, and several parts of it are already commenced. Another line from Strasbourg to Mayence, parallel with the Rhine, is now intended by the government, in order to form a continuous railway communication with the Belgian lines, and thus to convey passengers and goods from Belgium and the north to Lyons, Marseilles, and the Mediterranean, on the French side of the Rhine; (to prevent that traffic from going by the German railways on the other side of the Rhine,) by means of the Strasbourg and Basle, Mulhouse and Dijon, Paris and Lyons, Lyons and Avignon, and Avignon and Marseilles railways, which will thus form the great unbroken chain from the north-east frontier of France to the Mediterranean. We stated last week, that the Dijon and Mulhouse Railway is to be passed in the approaching session of the French Chamber; and that line will join that of Strasbourg and Basle at Mulhouse. We need hardly say, that the Paris and Lyons Railway is in course of construction by the government, and that the Lyons and Avignon is to be soon commenced, and that the Avignon and Marseilles is leased to a powerful company, and more than half made. The two former lines will certainly be also leased to companies next year.

The extent of traffic along this line, with so important a centre of trade and manufactures as Lyons, and with such a port as Marseilles for its terminus, is too well known to need comment; but as many of our readers may not be aware of the extraordinary and continuing increase of commerce at Marseilles of late years, in consequence of the great impulse which trade and general intercourse have received in the Mediterranean, from the improvement in Egypt, and the overland communication with India, from the French colonization of Algiers, and from the changes in Turkey and Greece, and other causes, we may add that the total tonnage of Marseilles now amounts to nearly a million and half of tons per annum, which places it very far in advance of all the other French ports. The numerous passengers and the large amount of goods (whether for home consumption or sent in transit for other countries), that will use this great line of railway communication, in going to or from the South to the North-east, will thus pass over the Strasbourg and Basle railroad; and as Stras-

bourg will, from the various lines projected, become, in a railway sense, what it has always been with other modes of access and conveyance—"the key of Germany"—there is no doubt that a large proportion of the transit trade with Germany, Belgium, and Holland, will be conveyed over the Strasbourg and Basle Railway.

It will also have the large goods traffic which is carried on between Havre and the manufacturing districts of Mulhouse, Colmar, &c., (the Lancashire of France,) and Switzerland.

The progressive increase in the traffic and receipts which we noticed last week, has, fortunately for the shareholders, been accompanied by a similar reduction in the working expenses of the company. The very gratifying result has been, that the six months which terminated in September last of the present year showed an increase of more than 80 per cent, in the net profits, as compared with the corresponding period of 1843. The shares have again risen this week. We are also informed that at the pressing request of many English holders of this stock, the dividends will henceforth be made payable in London as well as in Paris. We omitted to state that the Company has the line for a lease of 99 years, and that the whole of it is now brought into excellent working order.

**MONMOUTHSHIRE CANAL COMPANY.**—At the half-yearly meeting of this Company last week, a dividend of £4 10s. per share, payable on the 31st December next, clear of the Income Tax. By the published statement it appears that the net proceeds for tonnage for the half-year ending September 30th, 1844, amount to £20,297 17s. 8d., and the various disbursements for the same period (including payment of a dividend on the 30th of June last of £4 10s. per share on 2,409 shares) to £25,059 5s. 1d.

**WOODEN RAILWAYS.**—We learn from the "Waterford Mail," that on Thursday week Mr. Bridges, the Secretary to the Waterford and Kilkenny Railway Company, delivered an interesting address on this subject to a numerous and respectable audience at Waterford. Mr. Bridges urged the great importance of railway communication in Ireland, and especially insisted on the necessity of economy in the construction of Irish Railways. He announced that public confidence was now so far with those he represented that more than double the capital requisite for the Waterford and Kilkenny line had been subscribed.

**FATAL EXPLOSION ON THE SOUTH-EASTERN RAILWAY.**—On Wednesday morning an accident occurred on the line, near the Bricklayers' Arms station, by which Robert Buckley, an engine-driver, was killed on the spot, Aaron Wilkinson, the stoker, received such extensive injuries that his recovery is considered impossible, and several other persons were severely injured. It appears that about twenty minutes after midnight the goods' train destined for Dover left the station at the Bricklayers' Arms. Unfortunately, however, before the train had reached more than half way to the junction of the wooden with the earth-raised line, and just as it had passed the timber-mill viaduct near the Blue Anchor-road, the engine exploded with a report which was heard for some miles distant. The engine leaped completely over the side of the railway, and the tender broke through the latticed work forming the left side of the line, on the ground, a depth of nearly 18 feet. The intended journey of the engine (the "Forester") was only the fourth it would have made. It was considered a very good one up to the time of the disaster. What caused the explosion has not been yet ascertained. It is, we hear, attributed to a flaw in the copper, or a defect in riveting the

casting of the fire box. The matter is undergoing a searching investigation by the Company's officers, and we understand General Pasley has reported to the Board of Trade.

**TRAVELLING FOR LESS THAN A FARTHING PER MILE.**—The competition between the Forth and Clyde Canal Company and the Edinburgh Railway is so strong that the Canal Company are carrying passengers from Glasgow to Edinburgh, with profit, at less than a farthing a mile! Since the reduction of fares by the Canal Company, about a year ago, the increase of passengers nearly exceeds 235 per cent. upon the day through passenger trade, and 209 per cent. by the night boats. The last half-yearly report further states that all this has been accomplished "at an extra expense not exceeding £30"—*Glasgow Post.*

**STUPENDOUS BRIDGE.**—Messrs. Bury & Co., of Liverpool, engineers, have been commissioned by the Emperor of Russia to supply the iron-work of an iron bridge, to cross the Neva at St. Petersburg, as a substitute for the present bridge of boats. It will be 1078 feet long; there will be seven arches, and the centre one will be 156 feet span; there will be a swivel-bridge, 70 feet wide, to allow the passage of ships, the bridge itself being of small altitude; the carriage and pathways will be, together, 70 feet.

**THE IRON TRADE.**—We are glad to perceive a marked and steady improvement in this branch of trade. We learn that the Great North of England Railway Company's contract for 6000 tons of rails was taken by the Bishopwearmouth Iron Company, at Sunderland, and Messrs. Bolckow and Vaughan, of Middlesbro' Iron Works, at £7 15s. per ton, which is a considerable advance on the last quotations.

**THE "PHENIX" WAR STEAMER.**—This frigate was towed down to the East India Docks on Wednesday last, for the purpose of having her machinery completed. Her burden is 820 tons—her power 260 horses—and her armament two pivot guns and ten coronades. She has been fitted with a new pair of vibrating engines, similar in every respect to those last year applied to the Admiralty yacht, Black Eagle, tubular boilers, and Mr. Steinman's patent submarine propeller, which may be briefly described as two radiating helical blades set each upon an arm, and advancing from an angle of 30° to an angle of 45°. Its number of revolutions per minute will be 55 only, which is 57 less than that last tried in her majesty's steamer Rattler, and its diameter is 12 feet. The engineers employed in fitting her are Messrs. Penn & Son, and Messrs. F. C. Cristy & Co.

**TESTING OF THE LATTICE BRIDGE (SPAN 144ft. 6in.) OVER THE ROYAL CANAL, ON THE DUBLIN AND DROGHEDA RAILWAY.**—On Friday an interesting experiment was made of the capabilities of this bridge, which, our readers will recollect, was constructed at the Drogheda Iron-Works. After taking out all the wedges under the two west beams, by running one engine and three carriages across three times, the greatest deflection was two-tenths of an inch, and each time the bridge resumed its original position. At 1 o'clock, P. M., the bridge was again tested by running a coupled engine across, the weight of the tender, eight carriages, and three trucks, averaging from eighty to ninety tons. This train of carriages and engine was allowed to stand upon the bridge until Mr. Hamilton, Sir J. Macneill, and Mr. McCormick, measured the deflection, which was two-tenths of an inch, and when the train moved off the bridge it resumed its original position.—*Drogheda Conservative.*

**NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.**

Length of Road, 33 96-100 miles. Capital, \$2,000,000.  
 JOHN S. DARCY, Esq., President. ROBERT SCHUYLER, Esq., Vice President.  
 J. P. JACKSON, Esq., Secretary. J. WORTHINGTON, Esq., Treasurer.

Leave New York, foot of Cortlandt street.	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
For Newark.....	9, 11, 12.....	2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4 3-4, 6.....				
" New Brunswick.....	9.....	3, 4 3-4.....				
Leave New Brunswick...	6, 7 1-2, 11 1-2.....	8 3-4.....	11 1-2	8 1-2		
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	11-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4		

For New York. 9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

**TABLE OF DISTANCES AND FARES.**

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick.	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

**RAILWAY IRON, LOCOMOTIVES.**

Etc. The subscribers offer the following articles for sale:  
 Railway Iron, flat bars, with countersunk holes and mitred joints. lbs. per ft.  
 350 tons 2 by 15 ft. in length weighing 4 68  
 280 " 2 " 1/2 " " " 3 50  
 70 " 1 1/2 " 1/2 " " " 2 1/2  
 80 " 1 1/4 " 1/4 " " " 1 26  
 90 " 1 " 1/4 " " " 7/8

with spikes and splicing plates adapted thereto. To be sold free of duty to State governments, or incorporated companies.

Orders for Pennsylvania Boiler Iron executed.

Railroad Car and Locomotive Engine tires, wrought and turned or unturned, ready to be fitted on the wheels, viz: 30, 33, 36, 42, 44, 54 and 60 inches diameter.

E. V. Patent chain cable bolts for railway car axles, in lengths of 12 feet 6 inches, to 13 feet 2 1/2, 2 3/4, 3, 3 1/4, 3 1/2, and 3 3/4 inches diameter.

Chains for inclined planes, short and stay links, manufactured from the E. V. cable bolts, and proved at the greatest strain.

India rubber rope for inclined planes, made from New Zealand wax.

Also—Patent hemp cordage for inclined planes and canal towing lines

Patent felt for placing between the iron chair and stone block of edge railways.

Every description of railway iron, as well as locomotive engines, imported at the shortest notice, by the agency of one of our partners, who resides in England for this purpose.

A highly respectable American Engineer resides in England for the purpose of inspecting all Locomotives, Machinery, Railway Iron, etc., ordered through us.

A. & G. RALSTON & CO.  
 No. 4 South Front st. Philadelphia, Pa.

**RAILROAD IRON & FIXTURES.**

The subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.  
 DAVIS, BROOKS, & CO.,  
 21 Broad st., N. Y.

**R. F. LIVINGSTON**, Civil Engineer  
 Hudson, New York. Refer to W. R. Casey, 23 Chambers st., N. Y.

**SAMUEL NOTT**, Civil Engineer, Surveyor and General Agent, Bangor, Me.  
 Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

—REFERENCES.—  
 Col. James F. Baldwin and Col. J. M. Fesenden, Civil Engineers, Boston; Wm. Parker Esq. Engineer and Superintendent Boston and Worcester railroad.

**CUSHMAN'S COMPOUND IRON RAILS**, etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, Civil Engineer,  
 Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

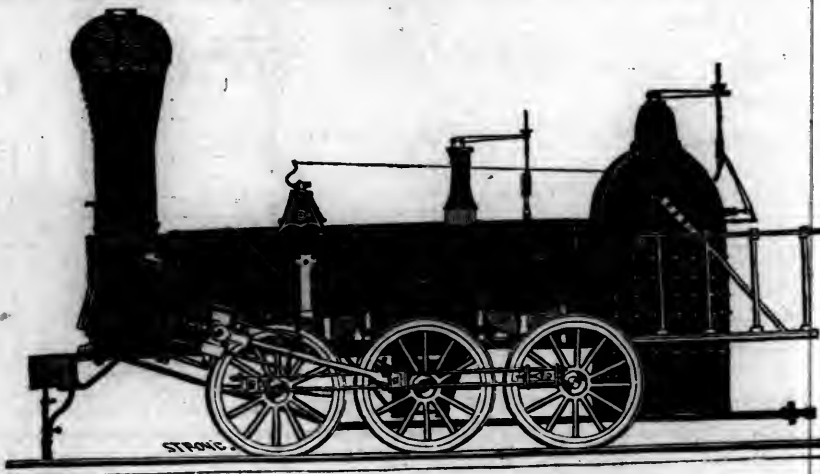
**WELDED WROUGHT IRON TUBES**

From 4 inches to 4 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T. L., and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
 Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS,**  
BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches Diameter of Cylinder,	× 20 inches Stroke.
" 2,	14 " " " "	× 24 " "
" 3,	14½ " " " "	× 20 " "
" 4,	12½ " " " "	× 20 " "
" 5,	11½ " " " "	× 20 " "
" 6,	10½ " " " "	× 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD—MORNING LINE.**

The Train carrying the United States Mail leaves Pratt street Depot daily (except Sundays,) at 9 o'clock, A. M. Passengers arrive in Philadelphia at about 3¼ o'clock, and in full time for the evening line for New York.

The Evening Mail Train for Philadelphia, leaves the Pratt street Depot, daily at 8 o'clock P. M. through in seven hours. The return Trains leave Philadelphia respectively at 8 A. M. and 4 o'clock P. M., and reach Baltimore at 2½ and 11 o'clock, P. M.

Freight to or from Philadelphia, taken daily (except Sundays) from President street Depot, at 50 cents per 100 lbs. A. CRAWFORD, Agent.

**WASHINGTON BRANCH RAILROAD.**

In consequence of the adoption of a new schedule by the Post Office Department, the following change in the departure of the Trains on this road will go into effect this day, viz:

The Train that has hitherto left Baltimore at 2 o'clock, A. M. will now leave on the arrival of the Cars from the East, at or about 1½ P. M. and the departure of the evening train from Washington for this city, will be at 5¼ instead of 4 o'clock, as at present. By order, D. J. FOLEY, Agent.

**BALTIMORE AND OHIO RAILROAD**  
Hours of departure of the Passenger Trains on the "Main Stem" and "Washington Branch" of the Baltimore and Ohio Railroad, 30 March, 1844:

"Main Stem," Westwardly.  
For Cumberland, Hancock, Martinsburg, Harper's Ferry, Winchester, Frederick, Ellicott's Mills, and intermediate depots by the regular train, daily, at 7½ o'clock, a. m.

For Frederick and intermediate stations, by extra train, daily, except Sunday, at 4 p. m.

Eastwardly.  
From Cumberland, daily, regular train, at 8 a. m.  
" Hancock, do. do. 10½ a. m.  
" Martinsburg, do. do. 11½ a. m.  
" Harper's Ferry, do. do. 12½ p. m.  
" Frederick, daily, except Sunday extra train, 8 a. m.  
" do. by regular train, 2 p. m.  
" Ellicott's Mills, daily, by several trains, at 7½ a. m. 12 m. and 4½ p. m.

Fare in either direction between Baltimore and Cumberland \$7, and for intermediate distances at the uniform rate of 4 cents per mile.

Through tickets are issued between Baltimore and Wheeling, respectively, \$11; between Baltimore and Pittsburg, \$10; between Philadelphia and Wheeling, \$13. By order, D. J. FOLEY, Agent.

**FITCHBURG RAILROAD, OPEN TO ACTON.**

Passenger Trains will run as follows: Leave Charlestown at 8 A. M. and 1 and 4 P. M. Leave West Acton at 7:36 and 10:51 A. M., and 5:56 P. M.

Stages, on the arrival of the first Train of Cars at Acton, leave daily (Sundays excepted) for Littleton, Grotton, Townsend, Lunenburg, Fitchburg, Ashburnham, Winchendon, Westminster, South Gardner, Templeton, Phillipston, Athol, Mass.; Fitzwilliam, Troy, Swasey, Keene, Walpole, Charlestown, N. H.; Chester, Windsor, Woodstock, Rutland, Middlebury, Royalton, Montpelier, and Burlington, Vt. For further information, apply to THOMAS A. STAPLES, No. 26 Hanover st., or L. BIGELOW, No. 11 Elm st., Boston. Passengers leaving their names at the above offices, will be supplied with Railroad and Stage tickets, and conveyed to the Fitchburg Railroad Depot, free of charge.

Coaches will be at the Depot in Charlestown, on the arrival of the Cars, to convey passengers to any part of the city. S. M. PELTON, Engineer.

**BOSTON AND PROVIDENCE RAILROAD.**

PASSENGER NOTICE.—Winter Arrangement.—To commence Monday, November 4.

On and after Monday, Nov. 4, the Passenger Trains will run as follows:  
For New York—Night Line, via Sound Steamers—Leave Boston at 4 P. M. on Tuesday, Thursday and Saturday.

For New York—Morning Line, via Long Island Railroad—Leave Boston at 8 A. M. on Monday, Wednesday and Friday. Boston, Providence, Taunton, New Bedford and Wey Trains. Leave Boston at 8 A. M., and 3¼ P. M.; and Providence at 8 A. M. and 3¼ P. M.

Taunton at 6¼ A. M. and 3¼ P. M.  
New Bedford, at 7¼ A. M. and 2¼ P. M.

Dedham Trains.  
Leave Boston at 9 A. M.—3 P. M., 5¼ P. M.  
Dedham at 7:50 A. M., 10¼ A. M., 4¼ P. M.

All baggage is at the risk of the owners thereof. WM. RAYMOND LEE, Sup't.

**LONG ISLAND RAILROAD COMPANY.**

Trains run as follows, commencing November 1st, 1844:

Leave Brooklyn at 8 a. m. (7¼ New York side)—Boston Train—for Greenport, daily, Sundays excepted, stopping at Farmingdale and St. George's Manor.

Leave Brooklyn at 2¼ a. m. for Hicksville and intermediate places, daily; and on Tuesdays, Thursdays and Saturdays, through to Greenport and intermediate places.

Leave Brooklyn at 4 p. m. for Hicksville and intermediate places, daily, Sundays excepted; and on Saturdays to Suffolk Station.

Leave Greenport for Brooklyn, Boston Train, at 1 p. m. or on the arrival of the steamers, daily, Sundays excepted, stopping at St. George's Manor and Farmingdale.

Leave Greenport at 9¼ a. m. Accommodation Train, for Brooklyn and intermediate places, on Mondays, Wednesdays, and Fridays.

Leave Hicksville for Brooklyn and intermediate places, daily, Sundays excepted, at 7 a. m. and 1½ p. m.

ON SUNDAYS.  
Leave Brooklyn for Hicksville and intermediate places, at 9½ a. m.

Leave Brooklyn at 4½ p. m. for Jamaica.  
Leave Hicksville at 2¼ p. m. for Brooklyn.  
Leave Jamaica at 8 a. m. for Brooklyn.  
Leave Jamaica at 3¼ p. m. for Brooklyn.

**FOR ALBANY AND BOSTON.**

Via New Haven, Hartford, Springfield, and Western Railroads.

Composed of the following steamers:  
NEW CHAMPION, Capt. Istook; GLOBE, Capt. R. Peck; NEW YORK, Caps. One of which will leave New York, from Peck Slip, daily, (Sundays excepted,) at 6 o'clock.

Fare to Boston, \$5.

Railroad Cars leave immediately on the arrival of the above steamers at New Haven, and taking passengers through to Albany and Boston the same afternoon.

The steamboat BELLE, Capt. Roach, will leave New York every Monday, Wednesday, and Saturday afternoon at 4 o'clock.

N. B.—Freight for Albany, Springfield, and intermediate places taken by this line at low rates.

For further information inquire of D. B. Allen, 34 Broadway, up stairs; or G. W. Corlies, 253 Pearl street.

**NEW YORK AND ERIE RAILROAD.**

On and after Monday, December 2d, until further notice, the steamboat will leave the foot of Duane street every morning, Sundays excepted, at 8 o'clock, for passengers, and every afternoon at 3 o'clock, for freight and passengers.

Returning, the cars will leave Middletown at 6½ a. m. and 3½ p. m.

Stages for the West, leave Middletown upon the arrival of the morning cars, from the city.

Freight received from 9 o'clock, a. m. to 2½ o'clock, p. m. For further particulars inquire of the Captain, on board, or of J. Van Rensselaer, Agent, cor. Duane and West streets.

H. C. SETMOUR, Superintendent.

**PHILADELPHIA AND HADING RAILROAD.**

WINTER ARRANGEMENTS on and after December 1, 1844.—No Passenger Trains will run on Sundays.

Hours of Starting.  
From Philadelphia at 9 A. M. daily.  
From Pottsville at 9 A. M. daily, except Sundays.

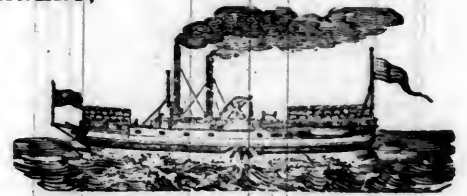
Fares.  
1st Class Cars. 2d Class Cars.  
Between Philad. and Pottsville, \$3 50 \$3 00  
" " Reading, 2 25 1 90

All passengers are requested to procure their tickets before the train starts.

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS	A. M.	P. M.	MILES	FARE
Boston	Portland	Boston and Maine,	Daily,	7 1/2	2 1/2	109	\$3 01	
Boston	Somersworth	"	"	7 1/2	2 1/2, 3 1/2	69	2 12 1/2	
Portland	Boston	"	"	7 1/2	3	109	3 00	
Boston	Somersworth	"	"	4 1/2, 9 1/2	4 1/2	40		
Boston	Lowell	Boston and Lowell,	"	7, 11	2, 5	26	75	
Lowell	Boston	"	"	7 1/2, 11	2, 4 1/2, 5 1/2	26	75	
Boston	Concord	Concord,	"		3 1/2	76	2 00	
Concord	Boston	"	"		3 1/2	76	2 00	
Boston	Nashua	Nashua and Lowell,	"	7, 11	5	41		
Nashua	Boston	"	"	6 1/2	1 1/2, 5	41		
Boston	Worcester	Boston and Worcester,	"	7, 9	2 1/2	48	1 25	
Worcester	Boston	"	"	7, 10	6	48	1 25	
Boston	Worcester	"	Sundays,	7				
Boston	Newton	"	Daily,	9 1/2	3, 5			
Newton	Boston	"	"	8, 10	4			
Boston	New York	via Norwich	Mon., Wed. & Fri.,		4			
"	"	L. Island railroad	Tues., Thur. & Sat.,	7				
"	"	New Haven	Daily,	9	2 1/2			
Albany	Boston	Western,	"	9	2 1/2	156	6 00	
Springfield	Boston and Albany	"	"	8 1/2	1 1/2	156	6 00	
Boston	New York	via New Haven	"	7	2			
Charlestown	West Acton	Fitchburg,	"	8	1, 4 1/2			
West Acton	Charlestown	"	"	7 1/2, 10 1/2	5			
Boston	New York	Boston and Providence,	Tues., Thur. & Sat.,		4			
"	"	via Sound steamboat	Mon., Wed. & Fri.,	8				
"	"	L. Island railroad	Daily,	8	3 1/2	41	1 50	
Providence	Boston	"	"	8	3 1/2	41	1 50	
Taunton	"	"	"	8 1/2	3 1/2			
New Bedford	Boston	"	"	7 1/2	2 1/2			
Boston	Dedham	"	"	9	3, 5 1/2			
Dedham	Boston	"	"	7 1/2, 10 1/2	4 1/2			
New York	Greenport	Long Island,	"	7 1/2		95	2 25	
Brooklyn	Hicksville & intermediate places	"	"	9 1/2		26	56 1/2	
"	Greenport	"	Tues., Thur. & Sat.,	9 1/2		95	2 25	
"	Hicksville, (Satur'dy to Suffolk)	"	Daily,		4	26	56 1/2	
Greenport	Brooklyn, (Boston train)	"	"		1	95	2 25	
"	" (accommodation do.)	"	Mon., Wed. & Fri.,			95	2 25	
"	" & intermediate places	"	Daily,	7	1 1/2	26	56 1/2	
Hicksville	"	Steamer,	"	6 1/2			5 00	
New York	Albany & Boston via N. Haven	New York and Erie,	"	8, 3		53		
"	Middletown	"	"	6 1/2	3 1/2	53		
Middletown	New York	Reading,	"	9		94	3 50	
Philadelphia	Pottsville	"	"	9		94	3 50	
Pottsville	Philadelphia	"	"	9, 11, 12	2, 3, 4 1/2, 6, 7 1/2	9 1/2	25	
New York	Newark	N. J. railroad and trans. co.,	"	7 1/2, 8 1/2, 9, 11	1 1/2, 4, 5 1/2, 7, 9 1/2	9 1/2	25	
Newark	New York	[9 A. M. and 3 P. M., con-	"			9 1/2	25	
"	"	nect with Morris Railroad.]	Sundays,	11 1/2	4 1/2	9 1/2	25	
New York	Newark	[9 A. M. and 4 1/2 P. M., trains,	Daily,	9, 11	2, 3 1/2, 4 1/2, 6	14 1/2	31 1/2	
"	Elizabethtown	connect with Somerville Rail-	"	7, 7 1/2, 8 1/2, 10 1/2, 12	3 1/2, 5	14 1/2	31 1/2	
Elizabethtown	New York	road.]	"	9, 11	3, 4 1/2, 6	19 1/2	31 1/2	
New York	Rahway	N. J. railroad and trans. co.,	"	6 1/2, 7, 8 1/2, 12	4 1/2, 9 1/2	19 1/2	31 1/2	
Rahway	New York	"	"	9	3, 4 1/2	31 1/2	50	
New York	New Brunswick	"	"	6, 7 1/2, 11 1/2	8 1/2	31 1/2	50	
New Brunswick	New York	"	Sundays,	11 1/2		31 1/2	50	
"	"	"	"	9	4 1/2	31 1/2	50	
New York	New Brunswick	"	"			91	3 00	
Philadelphia	New York	Camden and Amboy,	Daily,	7		91	3 00	
New York	Philadelphia	"	"	5 1/2		30	75	
Philadelphia	Bristol	Philadelphia and Trenton,	"	9		30	75	
Bristol	Philadelphia	"	"	8	4	93		
Philadelphia	Baltimore	Philad. Wil. and Baltimore,	"	9	8	93		
Baltimore	Philadelphia	"	"	9	5, 11 1/2	41	2 50	
"	Washington	Baltimore and Washington,	"	6		41	2 50	
Washington	Baltimore	"	"	7 1/2				
Baltimore	Cumberland and inter. places	Baltimore and Ohio,	"		4			
"	Frederick	"	"	8				
Cumberland	Baltimore	"	"	10 1/2				
Hancock	"	"	"	11 1/2				
Martinsburg	"	"	"		12 1/2			
Harper's Ferry	"	"	"		2			
Frederick	"	"	Sundays,	8				
"	"	"	Daily,	7 1/2, 12	4 1/2			
Ellicott's Mills	Petersburg	Richmond and Petersburg,	"	10 1/2	1 1/2			
Richmond	Richmond	"	"	5 1/2				
Petersburg	Schenectady	Mohawk and Hudson,	"	8	5 1/2			
Albany	Albany	"	"	9	3 1/2			
Schenectady	Saratoga	"	"	7 1/2	2			
Albany	Albany	"	"	7	12 1/2, 5			
Saratoga	Saratoga	Troy and Saratoga,	"		3 1/2			
Troy	Troy	"	"	7 1/2				
Saratoga	Rochester	Auburn and Rochester,	"	8 1/2				
Auburn	Auburn	"	"	8	3			
Rochester	Buffalo	Rochester and Buffalo,	"		3			
"	Rochester	"	"					
Buffalo	Falls	Buffalo and Falls,	"	9				
"	Buffalo	"	"		1 1/2			
Falls	Albany	Albany and Buffalo	"	8 1/2				

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



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THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
NORRIS, BROTHERS, Philadelphia, Pa.  
KITE'S Patent Safety Beam. (See Adv.)  
FRENCH & BAIRD, Philadelphia, Pa. [See Adv.]  
BALDWIN & WHITNEY, Philadelphia, Pa.  
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HINCKLEY & DRURY, South Boston.  
C. C. ALGER, [Stockbridge Iron Works,] Stockbridge, Mass.

## IRON MERCHANTS and IMPORTERS.

DAVIS, BROOKS, & Co. N. Y. [See Adv.]  
A. & G. RALSTON & Co. Philad. Pa. [See Adv.]  
THOMAS & EDMUND GEORGE, Philadelphia. [See Adv.]

## NICOLL'S PATENT SAFETY SWITCH FOR RAILROAD TURNOUTS.

This invention, for sometime in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLL,

Reading, Pa.

Jan. 1, 1845.

## TO IRON MANUFACTURERS.

The subscribers Agents of Mr. Geo. Crane of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licences for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & Co.

No. 4 South Front street, Philadelphia, Pa.

S. VAIL, Proprietor of the Speedwell Iron Works, near Morristown, N. J. can supply at short notice railroad companies and others, with the following:

Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyre made, and they may rely upon being served according to order, and also punctually, as a large quantity in the strait bar is kept constantly on hand. Crank axles for locomotive engines, made from the best Pennsylvania iron.—Straight axles for locomotives for outside connection engines. Frames for engines.—Wrought iron work for steamboats, and shafting of any size. Cotton screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen:

Baldwin, Vail and Huffy, Philadelphia; Wm. Norris, Philadelphia; N. Campfield, Savannah, Ga.; J. and S. Bonea, Augusta, Ga.; D. F. Guez, New Orleans, La.; Adam Hall, New York; J. P. Allaire, New York; William Parker, Boston, Mass.; George W. Schuyler, New York.

VALUABLE PROPERTY ON THE MILL DAM FOR SALE.—A Lot of Land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and East of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main Brick Building, 120 feet long, by 46 feet wide, two stories high. A Machine Shop, 47x43, with large Engine, Face, Screw, and other Lathes, suitable to do any kind of work.

Pattern Shop, 35x32 feet, with Lathes, Work Benches, &c. Work Shop, 66x35 feet, on the same floor with the pattern shop.

Forge Shop, 118 feet long by 44 feet wide on the ground floor, with two large Water Wheels, each 16 feet long, 9 feet diameter, with all the Gearing, Shafts, Drums, Pulleys, &c., large and small Trip Hammers, Furnaces, Forges, Rolling Mill, with large Balance Wheel and a large Blowing Apparatus for the Foundry.

Foundry, at end of Main Brick Building, 60x45 feet, two stories high, with a shed part 45x20 feet, containing a large Air Furnace, Cupola, Crane and Corn Oven.

Store House—a range of Buildings for Storage, etc., 200 feet long by 20 wide.

Locomotive Shop, adjoining Main Building, fronting on Parker street, 51x25 feet.

Also—A Lot of Land on the Canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing.

Boiler House 50 feet long by 30 feet wide, two stories.

Blacksmith Shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State street, or to CURTIS, LEAVENS & CO., 106 State street, Boston, or to A. & G. RALSTON & CO., Philadelphia.

## MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Paterson, N. J.

The Undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

### Railroad Work.

Locomotive Steam Engines and Tenders; Driving and other Locomotive Wheels, Axles, Springs and Flange Tyres; Car Wheels of cast iron, from a variety of patterns, and Chills; Car Wheels of cast iron with wrought Tyres; Axles of best American refined iron; Springs; Boxes and Bolts for Cars.

### Cotton, Wool and Flax Machinery

of all descriptions and of the most improved Patterns, style and workmanship.

Mill Gearing and Millwright work generally; Hydraulic and other Presses; Press Screws; Callenders; Lathes and Tools of all kinds; Iron and Brass Castings of all descriptions.

## ROGERS, KETCHUM & GROSVENOR,

Paterson, N. J. or 60 Wall street, N. Y.

MESSRS EDITORS:—As your paper is devoted to the benefit of the public in general, I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore Railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large eight wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstance attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan, the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Delaware, Sept. 28, 1840.

The undersigned take pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,

GEORGE CRAIG, Superintendent.

JAMES ELLIOTT, Sup't Motive Power,

W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the N. Jersey Railroad and Transportation Office, No. 1 Hanover st., New York. jal

TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY.—The subscribers have for sale American and English Bar Iron, of all sizes; English Blister, Cast, Shear and Spring Steel; Juniata Rails; Car Axles, made of double refined iron; Sheet and Boiler Iron, cut to pattern; Tiers for Locomotive Engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article.

The Tyres are made by Messrs Baldwin & Whitney, Locomotive Engine Manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them outside.

THOMAS & EDMUND GEORGE,

N. E. corner 12th and Market streets, Philadelphia, Pa. jal

**T**O THOSE INTERESTED in Railroads. Railroad Directors and Managers are respectfully invited to examine an improved Spark Arrester, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used, is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks, passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust, they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity, to the bottom of this chamber; the smoke and steam passing off at the top of the chimney through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits.

E. A. Stevens, pres't Camden and Amboy railroad company; Richard Peters, superintendant Georgia railroad, Augusta, Ga.; G. A. Nicolls, sup't Philadelphia, Reading and Pottsville railroad, Reading, Pa.; W. E. Morris, pres't Philadelphia, Germantown and Norristown railroad company, Philadelphia; E. B. Dudley, pres't W. and R. railroad co., Wilmington, N. C.; Col. James Gadsden, pres't S. C. and C. railroad comp'y, Charleston, S. C.; W. C. Walker, agent Vicksburg and Jackson railroad, Vicksburg, Miss.; R. S. Van Rensselaer, engineer and sup't Hartford and N. Haven railroad; W. R. McKee, sup't Lexington and Ohio railroad, Lexington, Ky.; T. L. Smith, sup't N. Jersey railroad trans. co.; J. Elliott, sup't motive power Philadelphia and Wilmington railroad, Wilmington, Del.; J. O. Sterns, sup't Elizabethtown and Somerville railroad; R. R. Cuyler, pres't Central railroad co., Savannah, Ga.; J. D. Gray, sup't Macon railroad, Macon, Ga.; J. H. Cleveland, sup't Southern r. road Monroe, Mich.; M. F. Chittenden, sup't M. P. Central railroad, Detroit, Mich.; G. B. Fisk, president Long Island railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs Baldwin and Whitney, of this city, will be promptly executed.

FRENCH & BAIRD.

N. B. The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia Pa., April 6, 1844.

**W. R. CASEY, CIVIL ENGINEER,** No. 23 Chambers street, New York, will make Surveys, Estimates of Cost and Reports for Railways, Canals, Roads, Docks, Wharves, Dams and Bridges of every description, with Plans and Specifications, and when required, superintend their execution.

He will also make Surveys of Estates, with correct maps and descriptions of the same; and examine and report on the best mode of rendering them productive by draining, mines, quarries, water power, roads, bridges, wharves, etc.

**T**O IRON MASTERS—FOR SALE.

Mill Sites in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lycoming Co. Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railroads. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer,*  
No. 23 Chambers st. N. Y.

**P**ATENT RAILROAD, SHIP AND Boat Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of wrought Spikes and Nails from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent,) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with spikes made at the above named Factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. Y., will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory prices by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water street, New York; A. M. Jones, Philadelphia; T. Janvier, Baltimore; Degrand & Smith, Boston.

\* \* \* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand for his spikes.

**P**ATENT Hammered Railroad, Ship and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of railroad, ship and boat spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscribers at the works, will be promptly executed.

Jno. F. Winslow,

Agent Albany Iron and Nail Works.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; Jas. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

**A**NDREW MENEELY'S Manufacturing Establishment, West Troy, Albany County, New York. The subscriber manufactures and keeps constantly on hand Theodolites, Transit instruments, Levels, etc., of the most approved construction. He would invite the attention of surveyors to his Improved Compass, which is almost equal to a Theodolite, inasmuch as angles can be taken without the needle. Angles of elevation can be taken with precisely the same accuracy as horizontal angles. Town clocks, with dead beat escapements, warranted to perform in the best manner, and keep correct time. He still continues to cast Church Bells, warranted not only to stand, but tone such as to give satisfaction and please, and fastens to them cast iron yokes, ready to hang. Also steamboat and factory bells, of all sizes, constantly on hand: and copper and brass castings of every description made to order.

**T**HE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires; Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives. The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,

President of the Newcastle Manuf. Co.

**S**PRING STEEL for Locomotives, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required; large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOHN F. WINSLOW, Agent,  
Albany Iron and Nail Works, Troy, N. Y.

PROPOSED RAILROAD BETWEEN CAIRO AND SUEZ.

A canal across the Isthmus of Suez is now in project. Some good communication is required there, and the following extract from the Report of M. Galloway, C. E., will show the difficulties in the way of a canal:

"I started from Suez on the 10th of March, 1844, and six miles from that place fell in with the remains of what is called the ancient canal, which extends about nine miles, but beyond that nothing whatever is visible. I directed my course to Sheik Anedik, occasionally diverging from right to left, and so on to the Bir El Arrass and the Bir El Dowedar, all of which appear on the map; and when within sight of the bay of Tineh I could not approach it, owing to the land being very swampy. Having achieved all I sought for—viz., an examination of the different lines projected, I retraced my steps into the El Arish road, and skirted the Desert up to Salich, and near to Belbeis, where I turned off across the country, and joined Moses' Canal at Zag-Zig, thence proceeded into the Damietta branch of the Nile round the head of the Delta, and down the Rosetta branch to Atfé. The direct line proposed by Captain Veitch is impracticable, inasmuch as it presents overwhelming difficulties of sand mountains, besides very high and low levels. The second line proposed would also be attended with similar obstructions; and the third, that of uniting the Lake of Menzalah with the Bitter Lakes and the Mediterranean, is equally impracticable, inasmuch as they are mere marshes. Indeed, after paying due attention to the possibility of finding a suitable line for a canal, I confess I gave up the project as a hopeless one. Starting from Suez, where there would be considerable work to form into deep water an approach from the shore, and viewing the immense work to form an artificial port and channel into deep water seaward at Tineh, or any part of its neighbourhood, as well as the variable levels and marshy land for several miles before reaching it, I have come to the conclusion of its being an impracticable affair; one in which millions may be spent in the attempt to effect it, while in the end it must be abandoned. What may have existed in the time of the ancients I know not, but my own eyes convince me if any canal of importance was ever used, the land must have undergone a material change, and what was available then is by this change rendered impracticable now. I am therefore disposed to look upon the Report of the French Commission with vast suspicion, and more particularly when I see their fellow-countrymen resident in Egypt following up the same ideas on most erroneous data.

"Last year Solimon Pacha and Galice Bey, (both French military officers in the service of the Pacha,) visited the remains of the ancient canal near Suez, and pronounced the feasibility of establishing the whole line, without going over the ground, and forgetting that it only formed one-twentieth part of the line, and that the least difficult. It is really amusing to read some of the remarks contained in the recently published pamphlets, and it is fortunate for the authors that the scene of their exploits is so far off to save them the pain of being severely animalverted upon. I have been over the Caledonian Canal, and I am well acquainted with its construction, and the difficulties Mr. Telford had with it, which, if I recollect right, cost the country above a million sterling. Judging from that parallel case, this work would cost treble as much—a sum which would be independent of the additional cost of the artificial harbour in the Mediterranean, which ought to hold many sail, and of the chan-

nel, which must be run from the canal at least six miles out. The work has also to be formed in a desert, and therefore, all the supplies must be sent from Cairo. If any parties are really serious about this project, their best plan would be, as a preliminary, to form the Suez railroad, so that they could convey the supplies and materiel, of which there is none along the whole coast, or in the district of the proposed canal; and I am not aware that any stone fit for such a work can be obtained, except from Upper Egypt, which of course must be conveyed down the Nile, and then across the Desert. In a word, the difficulties are so great, that I could fill a volume in narrating them."

MANUFACTURE OF SALT IN NEW YORK.

Our readers at a distance will suppose that we are "running off the track,"—some may even go so far as to allude to a certain river too well known by many, but the fact is, that the sovereign State of New York, besides her immense forwarding business, and her extensive manufactures carried on by convicts, has also embarked in the manufacture of salt, and by way of increasing the production of this necessary of life, has allowed a bounty in the shape of a drawback in the canal tolls for salt delivered at certain places named in the act of 13th April, 1843.

A duty of about 6 cents per bushel is or was imposed by the State, and to counteract the injurious effects of such excise, no toll was charged on fire-wood transported on the canals to the salt works. A large portion of this fuel was carried on the Oswego Canal, the tolls of which were thus kept down—a policy in high favor with the State authorities generally. What with the duty, the bounty, the remission of tolls on fire-wood, and the general supervision of an agent of unexceptionable politics, the actual state of the manufacture of salt in New-York is a riddle which we have not time to solve.

The average quantity imported into the United States is about six millions of bushels. The superintendent says in his Report:

There have been manufactured and inspected, in the town of Salina, during the year 1844, of  
 Common or fine salt, 3,358,240 bushels.  
 Coarse or solar salt, - 332,418 do  
 Ground or dairy salt, - 312,896 do  
 Total, - - - 4,003,554 do

Being an increase over 1843, of 876,054; over 1842, of 1,711,651 bushels; and over any previous year of 662,785 bushels. It will be perceived, by examining the table hereunto annexed marked A., that the increase has been principally at distant points, where a bounty is paid under the act passed April the 18th, 1843. The above increase may be attributed principally to the operations of the above law. Should it expire by its own limitation, and the same rate of duty and tolls be imposed that was levied previous to its passage, no doubt is entertained that the amount which will be manufactured in 1845, will fall short of 3,000,000 bushels, but if re-enacted we think the amount will exceed 4,500,000 bushels.

The operations of the act of the 18th April, 1843, entitled "an act to increase the revenues of the State by extending the market for salt, coal and lead," have realized the most sanguine

expectations of those who solicited its passage; not only in opening new markets for our salt, but also in securing for the State an increased amount of revenues. Its passage was urged upon the Legislature on the ground that it was the only method that could be adopted to give to the manufacturers important markets, from which they were excluded in consequence of the heavy duty imposed by the State, without diminishing its revenues. One of the principal objections urged against its passage was that it would materially lessen the revenues of the State derived from salt. But we think the result has most conclusively shown that these apprehensions were unfounded. The revenues to the State the past year in salt duties, and tolls for transporting it upon the canals, is greater in amount than has been realized in any one year since the duties were reduced to six cents per bushel, with the exception of 1841, in which year there was a large surplus manufactured which entered into the consumption of 1842. Whatever the State may have lost in salt duties, it has more than realized in canal tolls. Previous to the passage of the law under consideration, the manufacturers were almost entirely excluded from the eastern markets.

WHITE WATER VALLEY CANAL COMPANY.

We have before us the semi-annual Report made to the White Water Valley Canal Company on the 1st of Jan. 1845, from which it appears:

That of the \$432,000 stock subscribed, \$261,076 have been paid up, leaving unpaid only \$170,923. A majority of the stockholders, in order to complete the work, have pledged themselves to pay two instalments annually, on the 1st of March and Sept., thus completing their payments in 5 instead of 10 years allowed by the terms of subscription. This effort and the arrangements made with Mr. Vallett, it is supposed, will secure the completion of the canal the coming year.

The revenues of the company consist of  
 Tolls collected at Harrison, - - \$1493:75  
 " " at Lawrenceburgh, 135:90  
 " " at Brookville, - - 2759:10  
 Water tolls collected, - - - 1354:57  
 \$5743:32

Deduct expenses collecting, 396:09  
 do repairs, - 4773:51  
 5169:60

The repairs last year were thorough, and made expensive by wet weather and freshets. Notwithstanding the delay of this the tolls show an increased sum received from that source for the last over that of any previous six months of \$529.

Up to the present time the cost of construction amounts to 250,258 : 77 dollars, of which 61,475:01 has been worked out in payment of Stock.

The means of the company consisting, besides the canal, of real state, debts due, is estimated at 512,758 dollars, and their liabilities of all kinds exclusive of the Stock to \$80,758 : 48.

During the last year, the entire work between Connersville and Cambridge city has been let to Henry Vallette of Cincinnati, who is to receive pay in the bonds of their face, payable in 10 years with interest at the rate of 7 per cent. per annum, payable half yearly. This contract dispels all doubt of the early completion of the whole work to Cambridge.

The claims for damages for land, &c., on the line above Brookville, remain unpaid, but the whole liability on such accounts are not expected to exceed 30,000 dollars.—*Cin. Gaz.*

ILLINOIS CANAL.

The Report of the Illinois Canal Commissioners states the actual cost of the Illinois Canal thus far to be as follows:

Sum actually disbursed, - - -	\$5,039,248
Liabilities of the Canal, - - -	1,063,945
<hr/>	
Cost of the Canal at this time, - - -	\$6,103,293
Sum required to complete it, - - -	1,600,000
<hr/>	
Cost when complete under the new law, - - - - -	\$7,703,293

The present canal debt of the State is given as follows:

Scrip and interest to Dec. 1st., 1844, - - - - -	\$411,046 57
Debt not bearing interest, - - -	301,678 70
Ninety day checks, - - -	316 00
Due contractors, - - -	86,692 37
Damages on private property, - - -	23,587 96
Scrip issued to Gov. Ford in payment of damages to contractors, - - - - -	226,353 72
Interest due upon the same to Nov. 1st, 1844, - - - - -	14,000 00
<hr/>	
Total, - - - - -	\$1,063,045 00

NATIONAL RAILROAD, CONNECTING THE ATLANTIC AND PACIFIC.

We give a few extracts from the Memorial—

“Mr. Pratt, of New-York, presented the memorial of Asa Whitney, a merchant of that state who has recently returned from China, praying for the appropriation of a certain portion of the public lands for constructing a Railroad from Lake Michigan through the Rocky Mountains to the Oregon Territory, on the shores of the Pacific Ocean.”

“Your Memorialist begs respectfully to represent to your honorable body, that, by rivers, railroads, and canals, all the states east and north of the Potomac, connect directly with the waters of the great lakes. That there is a chain of railroads in projection and being built, from New-York to the southern shores of Lake Michigan, crossing all the veins of communication to the ocean, through all the states south and east of the Ohio River, producing commercial, political, and national results and benefits, which must be seen and felt through all our vast confederacy.

“Your Memorialist would further represent to your honorable body, that he has devoted much time and attention to the subject of a railroad from Lake Michigan through the Rocky Mountains to the Pacific Ocean, and that he finds such a route practicable, the results from which would be incalculable—far beyond the imagination of man to estimate. To the interior of our wide-spread country, it would be as the heart is to the human body. It would, when all completed, cross all the mighty rivers and streams which wend their way to the ocean, through our vast and rich valleys, from Oregon to Maine—a distance of more than three thousand miles.”

“Your Memorialist begs respectfully to represent further to your honorable body, that he can see no ways or means by which this great and important object can be accomplished for ages to come, except by a grant of a sufficient quantity of the public domain; and your Memorialist believes that from the proceeds of such a grant, he will be enabled to complete said road in a reasonable time, and at the same time settle this vast region of country, so far as the lands may be found suited to cultivation, with an industrious and frugal people; thus, in a comparatively short space of time, accomplishing what would

otherwise require ages, and thus at once giving us the power of dictation to those who will not long remain satisfied without an attempt to dictate to us.”

“Your Memorialist would further respectfully represent to your honorable body, that, from an estimate as near accurate as can be made short of an actual survey, the cost of said road, to be built in a safe, good, and substantial manner, will be about \$50,000,000; and as the road cannot, from the situation of the uninhabited country through which it will pass, earn any thing, or but little, before its completion, then a further sum will be required to keep it in operation, repairs, &c., of \$15,000,000—making the total estimated cost of said road, when complete, the sum of \$65,000,000.”

“Your Memorialist prays further that your honorable body will order a survey of said route, to commence at some point to be fixed upon, as most desirable, on the shores of Lake Michigan, between the 42d and 45th degrees of North latitude; thence west to the gap or pass in the mountains; and thence by the most practicable route to the Pacific Ocean.”

The following letter from Col. Gadsden to the editors of the Washington Constitution, ought, we should suppose, to have some weight with Congress, if they are not utterly bereft of all sense of justice:—

CHARLESTON, S. C., JAN. 50, 1845.

Gentlemen—On a recent occasion, the Georgia and South Carolina Railroad Companies memorialized Congress for a remission of duty on railroad iron. The ground of their memorial was on the reasonable and just consideration, that their works were important links in the great chain of railroad and mail communication between Portsmouth and New Orleans, and had been commenced under the faith of the law admitting railroad iron free of duty. The exorbitant exaction of \$25 per ton imposed, and which is from 75 to 80 per cent. on the invoice price in England, did not enter into the original estimate of cost, and the necessity of providing in cash for this unexpected tax, has retarded the completion of roads in which the public cannot but feel a deep interest. The prayer of the memorialists seems to have been responded to in a bill introduced by Mr. Phoenix, and which would no doubt have been favorably entertained by Congress, but for a violent opposition from some of the members from Pennsylvania. These gentlemen, regardless of the fact that their state had imported 80,000 tons of rail iron, which, at \$25 per ton, was equivalent to two millions of dollars saved in the construction of their public works, and by which alone they had been enabled to penetrate to their coal and iron regions, attempted a justification of this sectional and selfish opposition by the assertion, that rail iron could be supplied as cheap in the country as it could be imported. Several of the gentlemen who made this declaration have been addressed by the undersigned, to name the manufacturer who could, in a reasonable time, supply iron on the conditions stated. But one, has had candor enough to reply, and to admit that he has no personal knowledge of the fact, but has been informed that the Western Works, in Armstrong county, will furnish rail iron at \$55 per ton, and it has likewise been said that the Savage Works, near Cumberland, will contract at the same rate, after they have finished a road, by which alone the iron can be transported from the furnace, and have fulfilled an obligation to the Baltimore and Ohio Railroad for a supply they need.

Before a late importation of iron was ordered by the Georgia Railroad Company, an agent

was despatched to Pennsylvania, to receive proposals for the amount of iron required; \$70 per ton was the lowest offer made; and this with the condition annexed, that time should be allowed to prepare the machinery necessary for manufacturing the rails. It would seem, therefore, that the railroads now under construction must be suspended until the American manufacturer can receive a tempting offer, sufficient to justify the preparing of the machinery necessary to make rail iron; and then to receive for it some 30 or 40 per cent. above the price at which it can be imported. But admitting that the iron may now be obtained at \$55 per ton, this sum is still far beyond the price at which foreign iron could be imported, even with a reasonable revenue duty paid. The Georgia Railroad Company paid £5 9s. 6d. per ton for iron purchased by them of the Bridge pattern; and the South Carolina very recently imported 200 tons at £6 per ton.

We will assume, however, £7 as the cost per ton in England—at \$4 80 - - - \$30 60  
 Freight to Charleston - - - - - 5 00  
 Revenue duty at 25 per cent. - - - 7 65  
 Add for insurance and incidental charges - - - 1 75

	\$45 00
Cost of same iron at Pennsylvania or Maryland furnaces per ton - - - - -	\$55 00
Freight as per agreement, on railroad to Baltimore - - - - -	2 75
Freight to Charleston - - - - -	2 50
Insurance and incidental charges - - - - -	1 25
<hr/>	
	61 50

Excess paid for domestic iron per ton - - - - -	16 50
Add duty to Government - - - - -	7 65
<hr/>	
Protection tax per ton - - - - -	\$24 15

Every railroad, therefore, now constructing, has to pay to the Pennsylvania manufacturer a protective duty of \$24 15 per ton on rail iron, which, with the bridge or edge pattern, is equivalent to \$2,030 additional cost per mile, for the road; while that state has saved this amount in the cost of roads, which have imparted to her the power of taxing sister communities.—*Charleston Mercury.*

THE BOSTON, CONCORD AND MONTREAL RAILROAD Corporation was organized at Plymouth on Wednesday last, by the choice of Hon. Josiah Quincy, of Rumney, as President, Charles Lane, Esq. of Gilford, Clerk, and William C. Thompson, Esq. of Plymouth, Treasurer. The corporation adopted the general railroad law of New Hampshire as a part of its charter, admitted a large number of associates, and chose Woodbury Melcher, Gilford, Zevas Clement, Sandbornton, R. G. Lewis, New Hampton, Wm. W. Russell, Plymouth, Wm. D. McQuestion, Wentworth, John Page, Haverhill, and Abel Underwood, Wells River, who, with the President and Clerk, are to constitute a Board of Management for the Corporation.

The Board will take efficient measures to forward this great enterprise. They have engaged the services of Mr. Crocker, of Mass. the Engineer who has just completed the survey of that part of this route which lies in Canada, to commence a survey in New Hampshire forthwith. Books are to be immediately opened for subscriptions for stock, in the country, and will ultimately be carried to the cities with full surveys, estimates and statistics, there to be offered as the most inviting opportunity for investment that has been presented since Railroads were first invented.

Mr. Boardman, from the committee appoint-



ed for that purpose, reported the following resolutions:

*Resolved*, That information which we have already obtained, satisfies us of the practicability of the route for a railroad from Concord, via Meredith, Plymouth, Haverhill and Stanstead to Montreal.

*Resolved*, That the interests of the terminating points of the Boston, Concord and Montreal Railroad, and the interests of the whole population between those points, imperiously demand the construction of said road.

*Resolved*, That in our judgment the amount of business to be done on said road when constructed, will be so large, that money invested in it cannot fail to afford a profitable return.

*Resolved*, That the enterprise ought to be commenced with the least possible delay, prosecuted with unremitting assiduity and perseverance, and completed with the utmost despatch.

*Resolved*, That we hereby tender to the Boston, Concord and Montreal Railroad Corporation, in the prosecution of this enterprise, all the aid which it is in our power to give them, and we strongly urge it upon the officers of that corporation, to procure a survey of the route at the earliest practicable moment; that they immediately cause books for the subscription of stock to be opened; and that they leave unattempted no effort which will hasten the completion of the enterprise.

*Resolved*, That we have strong confidence in the belief, that the route above described is the one marked out by nature, being free from ice and every other obstruction, and very decidedly the best for a great thoroughfare between the commercial emporiums of New England and Canada.

From the Binghamton Courier.

*Railroad from Binghamton to Albany, and to connect with the Boston Road.*

My Dear Sir:—I have been waiting anxiously for the citizens of New York city to subscribe the requisite sum to warrant the Directors of the New York and Erie Railroad Co. (since the State have virtually given the Co. \$3,000,000,) to proceed, and complete said Road. But I have now become satisfied that the city of New York had rather lose the trade of the "Southern tier of Counties" and all of the trade of "the far West," that would naturally flow through said channel of communication, than to subscribe the requisite sum for its completion, (yet I have no doubt, if built, that the city of New York would save enough every ten years to pay the whole cost of building said Road), and thousands of individuals have come to the same conclusion that I have. And my object now is, through your paper, to call the attention of the people to another project, which is a Road from Binghamton to Albany, via Harpersville, Bainbridge, Unadilla, Otsego, Colliersville, Cobleskill, Smithsbridge, &c., or such other route as may be deemed most feasible. By this project, I am satisfied the stock will all be taken by the people on the line of said Road, and the Bostonians. I am aware that this project will divert a large portion of trade from the city of New York, and give it to Boston, which I regret as much as any citizen of the Empire State does, for I have a little state pride, but if we cannot have things as we *want* them, we must take them as we can get them.

I wish you would publish this in your paper, for the purpose of calling the attention of the people along the line of this contemplated route to the subject, preparatory to a meeting to be called, to take the matter into consideration.

A. KEYES.

Bainbridge, Dec. 31, 1844.

#### NEW YORK AND ERIE RAILROAD.

We are indebted to Mr. J. E. Bloomfield for the "Report of the Committee on Railroads, on the petition praying for a surrender of the lien of the State upon the New-York and Erie Railroad." The report concludes with this favorable recommendation—

"The reasons that would influence the committee to recommend that the lien of the state be released on the condition of three millions being subscribed, and one fourth paid in, instead of making the completion of the road a condition of the release, are, that the company relies upon borrowing one half the amount necessary to complete the work, by pledging the road for security—and such a loan could not be obtained while the state lien existed.

"They would, therefore, as soon as enough was obtained by private subscription for one half the work, recommend the removal of all embarrassment to the borrowing the remainder created by the lien of the state. Should the company fail to procure the subscription, the lien will remain as it is. Should they succeed, the completion of the work may be looked upon as certain, in the opinion of the committee."

We perceive by the papers, that petitions are presented against the location of part of this work in Pennsylvania. We cannot permit ourselves to believe that there is any serious hostility to this measure; for, to refuse this, is to destroy the New-York and Erie Railroad. The restriction of the road to this state was a most unfortunate one; for, at that very time, it was *known* that the line *must* be carried into Pennsylvania. The southern counties of New-York look to this work as their only means of obtaining a good communication with this city, and are utterly indifferent as to whether the road is located entirely within this state or not; they want the cheapest, quickest, and easiest route, and, if Pennsylvania or New-Jersey offer such, they are not too exclusive to avail themselves of it. The good sense of the Legislature must see this matter in its true light when they examine the question; we then confidently anticipate a release from the state lien, and full permission to locate the road wherever the interests of the work may point out the most advantageous line, with reference to the great subjects of traffic and engineering.

#### ENLARGEMENT OF SCHUYLKILL CANAL.

Every canal, however small, is better adapted to a certain amount and description of business than a canal of different dimensions. We are under the impression that a canal, of the size of the Schuylkill, will be more efficient for a coal trade not exceeding one and a half millions of tons per annum, than a larger and more costly work. But, assuming the enlargement to be judicious, we object to the dimensions of the new locks, which are to be 110x18, as on the enlarged Erie Canal.

Perhaps our Pennsylvania neighbors are not aware that the "State Engineers" of New York strongly insisted on locks 16x110, and a channel 7x70, in place of the old locks 90x15, and the old channel 4x40. That a width of 40 feet, for boats 15 feet wide to pass easily, is rather too little, was very well known, but an addition of 10 feet

would have been quite enough. All professional men were astonished at the views of the "State Engineers;" the common sense of the public became alarmed, and, by some means or other, the Commissioners contrived to increase the width to 18 feet. This dread of a greater width of lock, on the part of the state officers, has been generally ascribed to the influence of the canal fowarders and others, who suspected that, with locks 120x24x7, transhipments at Buffalo and Albany would be in great measure avoided—at the former port partially, at the latter totally. The friends of the Schuylkill Navigation cannot select more unfortunate advisers or examples than the "State Commissioners and Engineers" of New-York. There is not the slightest reason to suppose, that the honor and interests of the state, or any of the higher considerations which influence the members of an honorable profession, were allowed any weight in their counsels. Hence we are sorry to see that gentlemen every way superior to these "State officers" should imagine that, *because* the enlargement of the Erie Canal demanded a thorough and impartial examination of the whole question, it therefore received it. We will soon give some *proofs* of the capacity and integrity of these "Commissioners and Engineers," as exemplified in the cases of the Chenango and Genesee Valley Canal, &c.

The great object with the friends of the Schuylkill Navigation should be the trade of the North, of which Mr. Roberts is well aware:

"Only a small part of this vast supply of fuel is consumed at Philadelphia, the great bulk of it being sent to New-York, and to other centres of population and industry farther to the north and east, whose inhabitants are deeply interested in obtaining these essential supplies by the cheapest means of conveyance. Water communications exist with them all adapted to vessels of a larger size than the boats that now traverse the Schuylkill Navigation, and although the boats now in use carry coal without transhipment from Pottsville to New-York, an increase of their dimensions and capacity is exceedingly desirable."

In order to tow safely through the bay of New-York, and, as far as practicable, in the Sound, a width of 18 feet is too little—the boats are not sufficiently stiff. Now the difference in the cost of lockage, on Mr. Roberts' plan of construction, of 120x22 or 24, and of 110x18, will not exceed \$80,000; the ordinary balance gates may be used, and no increased width of channel will be required. Of the great superiority of vessels of 22 or 24 feet beam over those of 18 feet, on broad rivers and bays, no one can entertain a doubt; and as increased capacity is not so much the aim at present, as the introduction of a class of boats better fitted to the trade of the North, we cannot help thinking that, even admitting the enlargement to be judicious, the adoption of the dimensions introduced by mere politicians on the Erie Canal must necessarily lead to failure.

The enlargement of the Schuylkill Navigation is determined on; hence we take the liberty of drawing the attention of those interested to a measure which we think of the utmost importance, whether the enlargement be judicious or unfortunate—a greater width of lock.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.			Total sums, in pounds, authorized to be raised by loan or mortgage.			Total sums, in pounds, expended at dates of latest balance sheets.			Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.	
		£	s.	d.	£	s.	d.	£	s.	d.			£	s.					d.
Arboath and Forfar.....	15	102,000			35,000			138,870					0	12	6	2	10	0	1,600,000
Birmingham and Gloucester.....	55	1,187,500			407,336			1,500,806			39,261	53,203	1	5	0	2	10	100	200,000
Brandling Junction.....	23	161,700			365,470			481,452								10	0	50	385,000
Bristol and Gloucester.....	37½	400,000			211,000													30	400,000
Chester and Birkenhead.....	14	750,000			143,170			518,989			5,856	13,148	0	8	6	1	14	0	400,000
Dublin and Drogheda.....	31	450,000			150,000			500,969										55	1,000,000
Dublin and Kingston.....	6	200,000			152,200			359,000										100	800,000
Dundee and Arbroath.....	16½	100,000			49,445			153,116			2,989	6,993	1	5	0	5	0	25	1,800,000
Durham and Sunderland.....	18	169,350			124,055			270,392			9,889	17,702						34	1,250,000
East County and North and East.....	86½	4,443,200			1,341,153			3,931,905			47,385	118,726	1	6				45	5,000,000
Edinburg and Glasgow.....	46	1,125,000			375,000			1,649,523			29,429	55,866	1	2	4	10	0	50	120,000
Glasgow, Paisley and Ayr.....	51	937,500			1,066,951			12,416			36,736	1	2	6	4	10	0	50	1,800,000
Glasgow, Paisley and Greenock.....	22½	650,000			216,666			787,884			11,572	23,177	0	5	0	2	0	25	4,000,000
Grand Junction.....	104	2,478,712			2,453,169			81,309			195,080	5	0	10	0	0	0	100	1,000,000
Great North of England.....	45	969,000			581,017			1,262,518			12,201	36,189	1	12	6	3	5	100	600,000
Great Western.....	221½	4,650,000			3,679,343			7,272,539			132,235	369,904	3	10	0	7	0	75	125,000
Hartlepool.....	15½	438,000			155,540			719,205										8	400,000
Leicester and Swannington.....	16½	140,000						140,000			2,207	6,317	1	5	0	5	0	50	800,000
Liverpool and Manchester.....	32	1,209,000			497,750			1,739,835			57,239	117,559	5	0	10	0	0	100	600,000
Llanely.....	27	200,000			44,000			221,624										87	1,750,000
London and Birmingham.....	12½	6,874,976			1,928,845			6,393,168			92,823	405,768						100	5,000,000
London and Blackwall.....	3	804,000			266,000			1,315,640			15,978	23,870						16	500,000
London and Brighton.....	56	1,793,800			998,350			2,630,451			29,372	84,880	0	12	0	2	8	50	200,000
London and Croyden.....	8½	550,000			229,000			761,885			7,583	10,545	0	5	0	2	10	14	300,000
London and Greenwich.....	3½	759,383			233,300			1,040,930			15,193	28,933						13	250,000
London and South Western.....	92½	2,222,100			630,100			2,596,291			68,457	150,469	1	12	6	6	10	0	700,000
Manchester and Birmingham.....	31	2,100,000			690,586			1,923,699			15,397	58,162	1	0	6	5	0	40	1,000,000
Manchester and Bolton.....	10	778,100			197,730			773,743			8,585	21,140	2	2	0	4	10	0	700,000
Manchester and Leeds and Hull.....	81	2,937,500			1,943,932			3,921,593			46,653	156,761		7	1	10	10	60	650,000
Midland railway.....	173½	5,158,900			1,719,630			6,279,056			76,983	281,898						100	400,000
Newcastle and Carlisle.....	61	878,240			188,563			1,135,069			26,499	73,917	4	0	0	4	0	100	900,000
Newcastle and Darlington.....	23	500,000						405,728										21	900,000
Newcastle and North Shields.....	7	150,000			153,876			309,639			8,943	18,466						37	64,000
North Union.....	39	739,201			308,306			1,015,447			9,071	37,794	2	10	0	6	16	8	1,000,000
Paris and Orleans.....	82	1,600,000			400,000			1,978,415										20	100,000
Paris and Rouen.....	84	1,440,000									31,247	91,171						38	
Preston and Wyre.....	19	830,000			179,852			355,161			4,191	7,066						50	1,500,000
Sheffield and Manchester.....	19	1,150,000			311,759			951,455			11,895	14,876						82	2,400,000
South Eastern.....	88	2,996,000			1,530,277			3,464,172			40,993	81,482	0	10	6	2	2	50	2,000,000
Taff Vale.....	30	465,000			154,785			590,006			8,509	18,414	1	0	0	6	5	100	2,500,000
Ulster.....	25	519,150			200,000			348,636			5,401	13,856	0	15	0	5	1	29	1,600,000
Yarmouth and Norwich.....	20½	187,500			62,500			230,250										16	1,440,000
York and N. Mid. and Leeds and Selby	28	1,062,500			167,500			676,644			27,132	55,752	2	10	0	10	0	50	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15½	15½	Loughborough.....	70	142½	142½	70	1140	
Anti Dry Rot.....	10,000	10	18½		2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35		34½		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27½	27	Mersey and Irwell.....	500	100	100	10		
Gt Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2½	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6½		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1½		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental.....	11,493	50	50	7	64½	65	Regents or Loncon.....	21,418	33½	33½	2½	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....				6			Somerset coal.....	800	150	150	7½	123	123
Reversionary Int. Soc.....	5,323	100	100	4½	104	104	Stafford and Worcester.....	700	140	140	25	180	180
R. Mail Steam Packet.....	15,000	100	60		36½	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7½	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Sewern & Why & Rail Av.....	3,762	26½	26½	5½	30	30
							Trent and Mersey.....	2,600	50	50	65	495	

Canals.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Asby de la Zouch.....	1,432	113	av.	4	70	70
Barnsley.....	720	100	100	14	180	180
Birmingham, 1-16 share ..	3,000	118½	79	10	150	160
Do. and Liverpool Junction	4,000	160	100		13½	13½
Coventry.....	500	100	100	20	365	365
Cromford.....	460	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forth and Clyde.....	1,297	400½	40½	4	440	440
Grand Junction.....	11,600	100	100	7	162	161½
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Berkeley.....	5,000	do.	do.		8	8
Grantham.....	749	150	150	8	185	185
Lancaster.....	11,699	47½	47½	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	640
Leicester.....	545	140	140	9	139	139

Water Works.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Birmingham.....	4,800	25	25	3½	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41	2-3	7½	88
New River L. B. Ann.....	1,500			2½		
Manchester and Salford.....	6,486	av.	30	8½	57	57
Vauxhall, lt. S. London.....	1,200	100	100	5	55	55
West Middlesex.....	8,294	av.	63½	6½	126	127

Docks.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Commercial Dock.....	1,065	100	100	3	10	
East and West India.....		sto.		5½	137	
London.....	3,238	310	sto.	4½	114½	



		AMERICAN RAILROADS.										SALES OF SHARES.	
RAILROADS.		Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	WEEK ENDING February 8, 1844.		
				Gross.	Nett.		Gross.	Nett.			Shares.	Last Price.	
Me.	1 Portland, Saco and Portsmouth.....	50	1,200,000			7			6	100		Competes with steamboats.	
N. H.	2 Concord.....	35	750,000						12	130			
Mass.	3 Boston and Maine.....	56	1,381,050	178,745	68,499	6			109½	29	109½		
"	4 Boston and Lowell.....	26	1,863,746	277,315	144,000	8	316,909	147,615		121	7	121	
"	5 Boston and Providence.....	41	1,900,000	233,388	110,823	6				107	9	107	
"	6 Boston and Worcester.....	48	2,885,200	104,141	162,000	6				118½	55	118½	
"	7 Berkshire.....	21	250,000		17,500	7							
"	8 Charlestown branch.....		250,000			13							
"	9 Eastern.....	54	2,388,631	279,563	140,595	6			8	107	250	107	
"	10 Fitchburg.....	50	322,538							111	7	111	
"	11 Hartford and Springfield.....	25 1-2											
"	12 Nashua and Lowell.....	14 1-2	380,000	81,079		8				120			
"	13 New Bedford and Taunton.....	20	428,543	50,671	24,000	6							
"	14 Norwich and Worcester.....	59	2,166,566	162,336	24,871		230,674		3	70½	5,998	70½	
"	15 Taunton branch.....	11	250,000		20,000	8				118			
"	16 West Stockbridge.....	3											
"	17 Western, (117 miles in Mass.).....	156	8,319,520	573,882	284,432					99½	310	99½	
"	18 Worcester branch to Milbury.....		5,500										
Con.	19 Hartford and New Haven.....	38								92			
"	20 Housatonic, (10 months).....	74	1,244,123				150,000			30	17	30	
"	21 Stonington, (year ending 1st Sept.).....	48	2,600,000	113,889			154,724	79,845		41	1,645	41	
N. Y.	22 Attica and Buffalo.....	31 1-2	268,275	45,896	7,522								
"	23 Auburn and Rochester.....	78	1,727,361	189,693	112,000					107	30	107	
"	24 Auburn and Syracuse.....	26	743,931	86,291	27,334								
"	25 Buffalo and Niagara.....	22	200,000							100			
"	26 Erie, (416 miles).....		5,000,000							29½	885	29½	
"	27 Erie, opened.....	53			48,000								
"	28 Harlem.....	26	2,200,000							70	1,525	70	
"	29 Hudson and Berkshire.....												
"	30 Long Island.....	95	1,500,000							76	5,245	76	
"	31 Mohawk.....	16 3-4	1,030,949	69,948	58,780		84,306	40,000		63	460	63	
"	32 Tonawanda.....	43	600,000	76,227									
"	33 Troy and Greenbush.....	6	180,000										
"	34 Troy and Saratoga.....	25	475,865	44,325	21,000								
"	35 Troy and Schenectady.....	20 1-2	633,520	28,043									
"	36 Schenectady and Saratoga.....	22	300,000	42,242	3,000	1							
"	37 Utica and Schenectady.....	78	2,124,013	277,164	180,000	9				131			
"	38 Utica and Syracuse.....	53	1,080,219	163,701	72,000					119			
N. J.	39 Camden and Amboy.....	61	3,200,000	682,832	383,880					105½	5	105½	
"	40 Elizabethtown and Somerville.....	26	500,000										
"	41 Morris and Essex.....												
"	42 New Jersey.....	31	2,000,000							98	150	98	
"	43 Paterson.....	16	300,000							80			
Pa.	44 Beaver Meadow.....	26	1,000,000										
"	45 Cumberland Valley.....	46	1,250,000										
"	46 Franklin.....	10 1-2											
"	47 Harrisburg and Lancaster.....	36	860,000							30			
"	48 Hazleton branch.....	10	120,000										
"	49 Little Schuylkill.....	29	900,000										
"	50 Lykens Valley.....	16 1-2											
"	51 Mauch Chunk.....	9	100,000										
"	52 Minehill and Schuylkill Haven.....	18	315,000			12				144			
"	53 Norristown.....	20	800,000							10			
"	54 Philadelphia and Trenton.....	30	400,000							105			
"	55 Pottsville and Danville.....	29 1-2	1,500,000										
"	56 Reading.....	94	9,000,000							45	3,455	45	
"	57 Schuylkill valley.....	10	1,000,000										
"	58 Williamsport and Elmira.....	25	400,000	20,000									
"	59 Philadelphia and Baltimore.....	93	1,400,000	43,043	200,000			210,000		41	2,339	41	
Del.	60 Frenchtown.....	16	600,000										
Md.	61 Baltimore and Ohio, (1st Oct.).....	188	7,623,600	575,235	279,402		658,620	346,946		48½	20	48½	
"	62 Baltimore and Susquehanna.....	58	3,000,000							5			
"	63 Baltimore and Washington.....	38	1,800,000	177,227	71,691		212,129	104,529		84			
Va.	64 Greensville and Roanoke.....	17 1-2	260,000										
"	65 Petersburg and Roanoke.....	60	766,000						3				
"	66 Portsmouth and Roanoke.....	78 1-2	850,000										
"	67 Richmond and Fredericksburg.....	61 1-2	1,200,000										
"	68 Richmond and Petersburg.....	22 1-2	700,000										
"	69 Winchester and Potomac.....	32	500,000										
N. C.	70 Raleigh and Gaston.....	84 1-2	1,360,000										
"	71 Wilmington and Raleigh.....	161	1,800,000										
S. C.	72 Charleston and Hamburg.....	136	2,400,000						8				
"	73 Louisville and Cincinnati.....	66	800,000	201,464	77,456		328,425	180,704		55			
Ga.	74 Central.....	190	2,581,723	227,532	93,190								
"	75 Georgia.....	147 1-2	2,650,000	248,026	158,207		248,096	147,523					
Ala.	76 Tusculumbia.....	46											
Ky.	77 Lexington and Ohio.....	40	500,000										
Ohio	78 Little Miami.....	40	450,000										
"	79 Mad river.....	40	400,000										
"	80 Monroeville and Sandusky.....												
Mich.	81 Detroit and Pontiac.....	25											
"	82 Erie and Kalamazoo.....	33											
Ind.	83 Madison and Indianapolis.....	56	152,000										
Can.	84 Champlain and St. Lawrence.....	15	212,000		12,000		58,000	24,000		110			

Ithaca and Oswego and Catskill and Canajoharie roads were sold by the State. The former does little, the latter nothing.

Part of the New York and Albany.

The costs of those roads marked \* were taken from de Gerstner's report, published in the Journal in 1840.

Purchased from the State.

We particularly request statements of the traffic of each week and of the corresponding week of last year to be regularly sent to us. Correspondents will oblige us by sending in their communications by Monday morning at latest.

We are endeavoring to devise a mode of advertising the rates of fare and distances of the principal railroads in the country, and have opened a correspondence on the subject with gentlemen connected with some of the most important works.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Thursday, February 13, 1845.

It will be seen that we have changed the arrangement of the sales of shares, in order to give a better general view of their operations, and to save valuable space. During the past week 15,070 shares were sold in New York; of these, only 35 brought above par, 150 sold for 98, and the remainder went from 76 to 30. In Boston there were sold during the same period of Massachusetts r.road stocks only 432 shares varying from 99½ to 121. The very high price of these stocks is not owing to their reasonable dividends but to their security as investments.

WESTERN RAILROAD.—Receipts for the week ending February 1:

1845.	1844.	
Passengers, - - -	\$5348	\$3455
Freight, etc., - - -	7401	5496
Total, - - -	\$12,749	\$8951

MOHAWK AND HUDSON RAILROAD for the week ending 31st of January, 1845:

For passengers and local freight,	\$694.51
Western freight, -	498.18
	\$1,192.69
Receipts for same time last year,	615.00
Increase equal to 94 per cent., -	\$577.69

PHILADELPHIA AND READING RAILROAD.—Gross receipts for the month of January, 1845, \$40,675.43

Receipts for the same time last year,	21,468.16
Increase, equal to 90 per cent,	\$19,207.27
Tonnage of coal in January 1845,	29,838
do do do 1844, -	11,739
Increase equal to 154 per cent,	18,199

The receipts for January, 1843, were \$13,937.69; the above statement thereby showing the remarkable increase of \$26,737.73, or 192 per cent. over the same period two years ago.

THE COAL TRADE.—Sent by railroad up to Thursday evening last.—*Miners' Journal.*

Schuylkill Haven,	2,096.18
Pottsville, - - -	1,360.04
	3,457.02
Per last report, - - -	28,205.04
	31,662.06

MINEHILL AND SCHUYLKILL HAVEN RAILROAD.—The following is the amount of coal transported over this road, for the week ending on Wednesday evening last:

Per last report, - - -	2,904.14
Per last report, - - -	19,309.17
Total, - - -	22,214.11

We have great pleasure in placing before the railroad community, the following extract from a letter addressed to us by Mr. C. L. Lynds, formerly superintendent of the Troy and Schenectady railroad, and now in charge of the passenger, baggage and mail cars on the line between Albany and Rochester.

"The cars for the passenger business belonging to the roads, viz. Mohawk and Hudson, Utica and Schenectady, Syracuse and Utica, Auburn and Syracuse, Auburn and Rochester, were put into general stock, each owning according to its length, and put in charge of a general superintendent, under whose directions they are repaired, and placed for service. The repairing is done by contract, the contractor keeping the cars in order and clean, furnishing stoves, oil and men, at certain points on the line, to examine the trains and renew oil, etc. He makes, and is liable for all repairs and accidents, except such as occur from negligence or the engine leaving the track, loose bars, etc., which is a local charge upon the road on which it happens. The price paid him is one mill per mile for each wheel run. This is a saving to the roads, and a profitable job to the contractor."

We said, a few weeks since, that competition would make the roads from Albany to Buffalo work as one line, little imagining at the time, that it was already more than half accomplished.

EASTERN RAILROAD.

The Portland, Saco and Portsmouth railroad company was incorporated March 14, 1837; organized Dec. 25, 1840; renewed Nov. 25, 1845. It is 51 miles long, connects with the Eastern by a bridge over the Piscataqua river at Portsmouth, and with Boston and Maine at South Berwick, 13 miles east of Portsmouth. For the year ending Nov. 30, 1843, it divided 3½ per cent., and for the past year 6 per cent. Its cost is not definitely settled, but will amount to about \$1,200,000, a little over \$23,000 per mile. It is laid with a T rail, 56 lbs. to the yard; highest grades 35 feet per mile, passes through the towns of Keeting, Elliot, South Berwick, North Berwick, Wells, Kennebunk, Saco, Scarborough to Portland.

	Gross income.	Net income.
1843 - - -	\$89,997.08	\$47,165.98
1844 - - -	124,497.39	74,841.25

The number of miles run being severally 102,036 and 117,008, and the expenditures 47 cents and 42½ cents per mile run.

The Eastern railroad, extending from Boston to Portsmouth, N. H., 54 miles, was partially opened Aug. 28, 1838, and for the whole distance Nov. 9, 1840, and has also a branch of 3 miles to Marblehead.

Gross income for 1844,	\$337,238.46
Current exp. 53,244.00 pr m. run,	109,318.86
From the road, net income,	\$227,919.60
From rents, etc., do	6,661.14
	\$234,580.74

Int. to State on 500,000 loan,	\$25,000.00
Dividend in July,	79,887.50
Dividend in Jan'y,	91,300.00
	\$196,187.50

	\$38,393.24
Sales of property over costs,	9,344.57
Surplus of 1844,	\$47,737.81
Surplus previously,	39,310.30
Total surplus,	\$87,048.11

Number miles run 204,962, number passengers 544,994; average cost of carrying a passenger 1 mile 1.166 cents; receipt from each company per mile 3.351 cents.

The preceding may be more particular than you want, but may be useful among your notes for reference. It is to be regretted that some uniform mode of making up all railroad accounts could not be adopted through the country. This, and a great many other advantages might accrue from the appointment by the several railroad companies, of one general agent to collect all the statistics, collate the regulations, and describe and compare all the different modes of doing the same thing on all the roads—ascertain the prices and qualities of the work and materials used at various places, and bring together the vast amount of useful information and detail that is now lost to a great portion of this great interest. When it is recollected that each railroad has a direct interest in having all others conducted on the safest and most economical plan, because the safer and the cheaper, the larger is the amount of travel, and the more it is diffused, there would seem to be no objection to such a plan. This, and what must be done to bring it about, an annual meeting of one representative from each road at some central point in the country, it would, I think, be worth while to suggest in your Journal, and if it should be generally approved, some means might be adopted to bring it about. I make these remarks as you seem desirous of making your Journal of service to the railroad interest, leaving it entirely to your judgment to give any heed to them or not.

The gentleman to whom we are indebted for the above very interesting and friendly communication, will see that we have availed ourselves of his kind permission to the fullest extent. The idea of a general agent to collect and collate all the information which experience is daily furnishing, strikes us as most excellent, as well as practicable, at a very trifling cost to the companies. This is precisely the kind of information we should like to give in the Journal, and this again, besides making these important results more generally known, would still further decrease the expense to the companies. We shall recur to the subject, and in the mean time, beg leave to draw to it the attention of some of those gentlemen who, to our knowledge, have long had in view a general means of communication between the different railroad companies, so as to give each company the full benefit of the experience of all the other companies in the Union.

## THE RAILWAY SYSTEM.

A few remarks taken from an article in "The London Times" on "The Railway System and the Board of Trade," will be perused with interest. We had flattered ourselves that some similar, liberal and enlarged views on "The Railway System" to be pursued in this State, would have appeared in the late message of the Governor. But the subject of railroads—by far the most important topic which can come up before the Legislature for some years—is not even alluded to: the Railways of New York and the Canals of Canada have been overlooked or considered unworthy of notice by their respective Governors. We regret this the more, as that part of the State where the Governor resides, Northern New York, is peculiarly interested in the success and extension of the railroad system. Several very important surveys have been made at the expense of the State, some very incorrect information has been disseminated, and much still more important information has been, as far as possible, withheld from the public. Now we have the best authority for stating, that the Governor is intimately acquainted with the resources of the north, as well as with the proper means of developing them—a subject, by-the-by, little understood. It is not unreasonable to suppose that he has a good general acquaintance with the southern counties; and he *must* be aware of the extraordinary position in which the western farmer is placed, who, because he has aided in constructing a canal to the lakes, is now taxed to keep down the tolls on produce brought to his own market from the cheap lands in the western States. It is to the "Railway System" alone that the northern, southern, river, and even some of the central or canal counties, can look for any substantial general improvement. We repeat that we are disappointed, mortified to find, that the ablest public man in the State, in the longest message ever seen, even in this country, should have utterly neglected the subject of railroads, and passed by without remark, the wretched imposition to which the farmer must submit, in order to perpetuate the disabilities which reduce his income one half, by excluding him from the use of a communication leading to a market almost boundless in its demands.

"The course which Parliament intends to pursue with respect to railways in the ensuing session is now become a subject of great interest. To develop a sound and permanent system of intercommunication suitable to the commercial and political situation of the country, both in its national and continental relations, is a matter of no inconsiderable difficulty; and this difficulty becomes still more perplexing by the necessity which exists for repairing the errors that have already been committed, while preserving a due regard to existing interests of so large a character as those already involved in these undertakings.

The full effects of the railway system are but very imperfectly comprehended by the great majority of persons. It is looked upon generally as merely a more easy mode of transporting persons, for pleasure or for business, from one place to another. But those who look deeper into the matter discover in it a principle which

is fast producing a change on the whole commerce of the country—which is daily absorbing the merchandise traffic to such an extent as must affect, to an unknown degree, the value of property, by altering the relative cost of transit for our mineral productions and our manufactures, which form so important an item in the value of the staple commodities and general merchandise of the country. The laying out of railways, therefore, on a comprehensive plan is a subject requiring the most serious consideration; and the most extensive experience which can be brought to bear upon the question will be required to obtain even an approach to a sound and judicious decision on this difficult subject.

The Railway Board undoubtedly contains some clever men, and the character of the President is above reproach. But cleverness is as far removed from that grasp of mind which this subject requires as it is from that practical experience without which far greater talents than even the collective Board can boast would be of but little avail. To judge of such questions as these, military engineers are almost totally incompetent, unless they possess talents quite distinct from those of their own profession.

Not one in twenty of the owners of the high-sounding names attached to various of the new schemes knows personally the truth of any one single fact which has been stated respecting the schemes with which they are connected; and they have only at any moment to sell their shares, pocket the premium, and declare they have been deceived by the false representations of others, in order to exonerate themselves from the consequences here stated. The proceedings of the Board of Trade peculiarly favor such operations; while the old-established companies, who bring forward schemes guaranteed on a tangible capital of their own, and supported on the statements of those who must be responsible for them, are left without the possibility of being able to refute the statements of their opponents, however erroneous they may be. Such appear to be some of the probable evils that will attend the decisions of the Board of Trade, made, as these decisions will be, on most inconclusive evidence, and by persons inexperienced in the matter."

## READING RAILROAD.

*To the Stockholders of the Philadelphia and Reading Railroad Company.*

It is with pleasure the Managers communicate to you the present situation of the Company, and the progress of the work under their charge during the past year.

By reference to the annexed report of the engineer, it will be seen that the double track has been completed from the terminus of the road, in Schuylkill county, to the coal depot at Richmond, on the river Delaware.

The original design of connecting the coal region by a double track railway with the river Delaware has thus been carried into effect, and an increase, not only in the trade itself, but in convenience, regularity, and economy, cannot fail to be attained.

To this great result of the past year, the Managers have to add, that the extensive improvements for the shippers of coal on the Delaware are on the eve of completion, and will be entirely prepared for use before the opening of the trade of next season. It will be observed, by the report of the engineer, that they afford conveniences of the highest order, and with the ease and economy of transhipment will secure the great shipping trade in coal, which has thus far exhibited a progressive increase in each year.

It will also be seen by the report of the same officer, that other essential improvements have been constructed to facilitate the immense traffic

of the road, and to give to each portion greater regularity and economy.

The workshops have been enlarged with advantage, and the company is now able to make all the repairs essential to their machinery. The delay and expense that necessarily follow the employment of those not under the charge of its officers have rendered this arrangement highly beneficial.

The report of the Superintendent of Transportation exhibits the increase of the machinery for the past year.

The engines are of the first class, and combine all the new and important improvements. An equal distribution of weight, with an increase of power, is attained, and experience has shown them to be peculiarly adapted to the heavy tonnage of the road.

Great advantages, it is believed, will result from the use of the iron coal cars. They possess greater durability, and have less useless weight, than any heretofore in use.

The arrangements made for the ensuing season with those engaged in the coal trade, have rendered it necessary that the managers should increase the machinery. They have, therefore, contracted for six hundred additional iron coal cars, and four new engines, to be delivered early in the spring. This increase, they believe, will enable them to supply the wants of the colliers, and transport as much coal as even the increased trade will require.

The Managers hope that they will not be deemed to depart from the appropriate sphere of their report, by reminding you that this work was commenced in 1835, a year of comparative prosperity. At that period it was the intention to make a railway to Reading only, other companies having the right to construct roads from that place to the coal region. The financial disasters of the ensuing years frustrated their designs, and this company was compelled to extend its work. In its progress, heavy floating liabilities to contractors and others were incurred. The creditors, irritated at delay and procrastination, by legal proceedings, carried to extremity, threatened to render fruitless all further attempts to prosecute the undertaking, and the prostration of the company was confidently predicted as inevitable.

Notwithstanding these embarrassments, the work gradually progressed, until the original design may now be deemed fully accomplished.

The heavy outlays for construction account, cars, and engines, combined with the settlement of old claims, arrears of interest, land damages, law expenses, &c., have added greatly to the cost of the work, as will be seen by the accompanying statement of the treasurer.

It will be further increased by the payment for the cars and engines contracted for, the completion of the wharves at Richmond, and the settlement of some claims still unadjusted.

The rapid accumulation of debt during several years past, while such heavy outlays for the purposes named were going on, must have been expected, but the stockholders will naturally be desirous of knowing when this increase of debt is to terminate. In answer to this inquiry, it may be stated that the cost of the entire work and machinery will not, in any event, exceed \$10,000,000, and when it shall become advisable to increase the expenditure to this amount, its capacity for business will be almost unlimited.

The immediate object of the managers, however, will be to keep in perfect repair the road and machinery, and to render productive, at the least practicable further outlay, the large investment already made.

The business of the past year, and the revenue resulting from it, will appear by the accompany-

ing statements. The gross receipts for that period exceed those of the preceding year 46 per cent., although the work was, in many essential respects, unfinished. Without double track and sufficient machinery, and with limited shipping facilities, the Company, during the greater portion of the past year, was compelled to relinquish many valuable opportunities for increasing its business, and the ensuing season will be the first in which its merits, as an investment, can be fairly demonstrated.

The cost of transporting coal during the past year under the disadvantages already mentioned, has been reduced to 41 <sup>8</sup>/<sub>10</sub> cents per ton, a saving of 4 <sup>3</sup>/<sub>10</sub> cents per ton on the expense of the previous season.

New sources of revenue have also been secured by connections with important portions of the mining districts, and the company will be enabled, for the future, to send their cars to every mine in Schuylkill county.

The advantage of having the coal transported direct from the colliery to the vessel, without transshipment, is apparent, and seems universally appreciated, as all engaged in the trade have been found desirous to contract with the company for the ensuing year.

In conclusion, the Managers feel that they may justly congratulate the stockholders upon the present situation of the company. The works are on the eve of completion. They afford every facility for trade and profit, and in construction and revenue may rank as the first of the local improvements of Pennsylvania.

They do not believe that an institution can fail to be successful, when its prosperity is based upon a well-ascertained ability to furnish with speed, economy, and convenience, an article demanded by the interests and necessities of each citizen.

*Statement of the Affairs of the Philadelphia and Reading Railroad Company, made up from the Balance Sheet of the Ledger, to Dec. 31st, 1844—*

	Dr.	
To Railroad Locomotive Engines and Cars, and Real Estate, - - -	\$9,398,354 96	
" Sundry Accounts, - - -	43,862 44	
" Cash, Balance on hand, - - -	15,352 24	
Total,	\$9,457,569 64	
	Cr.	
By Stock Shares, 40,200 at \$50,	\$2,010,000 00	
By Loans,		
6 per cent. Loan of 1841, inconvertible, payable 1843, - - -	250 00	
6 per cent. Loan of 1841, do. payable 1845, - - -	44,250 00	
" do do 1842, do do 1847, - - -	383,700 00	
" do do 1839-40, conv. do. 1850, - - -	1,956,500 00	
" do do 1839, £117,500, conv. payable 1850, - - -	564,000 00	
" do do 1843, £208,000, mort. & do 998,400, pay'l 1860, - - -	1,352,900 00	
" do do of 1843, mort. & do 354,500 - - -	- - -	
" do do 1844, mort. & do pay'l 1860, - - -	1,398,500 00	
5 do do 1836, £196,000, mort. & do pay'l 1860, - - -	940,800 00	
Total of Loans,	\$6,640,900 00	
By Sundry Accounts—		
Due sundry persons, - - -	54,139 56	
Obligations issued for settlement of arrears of interest due in England July 1st, 1846, - - -	113,957 55	
Due for Loc. Engines and Cars to the Proprietors of Locks and Canal Co. at Lowell, 238,944 75	238,944 75	

Due for Coal Cars to sundry persons, - - -	77,546 25	
By Notes payable, - - -	316,491 00	
" Coal Certificates, - - -	139,576 94	
" Bonds and Mortgages on Real Estate, - - -	18,200 00	
" Superintendent of transportation, - - -	126,650 00	
" Engineer, - - -	30,852 15	
	6,802 44	
Total,	\$9,457,569 64	

SUPERINTENDENT'S REPORT.

The following report, for the twelve months ending 30th ult., is respectfully submitted.

Compared with the year ending Nov. 30th, 1843, the coal tonnage has increased 91 per cent.; the revenue from merchandize 12 per cent.; and from passengers 19 per cent. The business of the road in each item is shown in detail in Statement A.

Statement B. exhibits the expenses of the department, and statement C. the apportionment of them to the several items of business, by which it will be seen that there has been a reduction in the cost of transportation.

Statement D. shows the machinery now on the road. During the past year, it has been increased by nine six-wheeled locomotive engines; (six from the manufactory of Messrs. Baldwin & Whitney, two from that of Messrs. Norris & Brothers, and one from the Newcastle Manufacturing Co.) Their average load has been 100 coal cars, laden with 380 tons coal. During the same period, 856 iron coal cars have been procured, weighing 2 tons 8 cwt. each, and carrying 5 tons of coal; also, 8 wooden coal cars, and 57 cars for the transportation of merchandize.

Statement E. exhibits the working and cost of repairs of the locomotive engines.

Statement F. shows the cost of repairs of the freight, passenger, and coal cars, including the renewal of those injured and destroyed by accidents.

The cost of transporting coal, including repairs of engines and cars, has been 41 <sup>8</sup>/<sub>10</sub> cents per ton, exceeding by 1 <sup>8</sup>/<sub>10</sub> the estimate in my last annual report.

The greatly increased power of the new engines. (their load exceeding the average of 1843, 218 tons,) combined with the expected economy in the use of iron cars, (both of which were placed on the road late in the season,) will reduce the cost of transporting coal during the coming year to between 35 and 38 cents per ton.

It will be still further reduced, annually, as important improvements in the machinery of the road must follow the application of mechanical science to railway transportation.

STATEMENT A.

*Amount of Business on the Philadelphia, Reading and Pottsville Railroad, for 12 months ending November 30th, 1844.*

TONNAGE.	
Total amount of coal transported in tons of 2240 lbs. - - -	421,958
Do do mdze. do 2000 lbs. - - -	20,472
Do do of all materials for use of Road, and laying 2d track and turnouts, including 77,065 cubic yds. earth for wharves, 128,946 sills, 9,377 tons iron, 6,363 stone for bridges, water pipe, and sundry other materials, in tons of 2000 lbs. - - -	160,138
Total tonnage for year, including weight of passengers, in tons of 2000 lbs. - - -	659,299
Total amount of coal transported, to date, in tons of 2240 lbs. - - -	691,421

Total tonnage of Road, from May, 1838, to present date, in tons of 2000 lbs. 1,141,236

PASSENGER TRAVEL.

Total No. of passengers transported during the year, - - -	66,503
Do do miles travelled, by same, - - -	3,159,909
Equal to, in through passengers, - - -	33,979

GROSS RECEIPTS OF ROAD.

From freight on coal, - - -	\$448,508 91
" passenger travel, - - -	92,362 15
" freight on merchandize, - - -	49,292 76
" transportation of U. S. mail, - - -	7,416 66
" miscellaneous, - - -	32 57
Total,	\$597,613 05

STATEMENT B.

*Gross Expenses of the Transportation Department of the Philadelphia and Reading Railroad for the 12 months ending November 30th, 1844.*

RUNNING ACCOUNT.

Wages of Engineers, Conductors, Firemen, Brakemen, and Train-time Keepers, - - -	\$53,922 40
Fuel, 24,147 <sup>1</sup> / <sub>2</sub> cords wood, - - -	53,396 88
Do Anthracite Coal, - - -	3,606 20
Oil for all purposes, 12,149 gallons, Tallow and Grease, for Cars, &c., 27,021 lbs. - - -	1,779 13
Columbia R. R. expenses, amount tolls paid State, - - -	17,243 21
Do do do hauling across Schuylkill Bridge, - - -	1,098 00
Hauling Cars in Broad street, Philadelphia, - - -	1,430 57
Renewals, articles on Coal Trains, Ropes, Lamps, - - -	681 06
Coal left on Road short of consignment, from broken axles and other causes, used by Co. in Water Stations, Stationary Engines, &c., - - -	1,718 50
Loading and unloading wood and freight, wharfage on wood, - - -	2,732 07
Cotton waste for engines and shops, - - -	628 69
Goods lost, stolen, or damaged, - - -	627 54
Sundry petty expenses during the year, - - -	382 01
Total,	\$150,274 76

WORKSHOP ACCOUNT.

Wages of all mechanics at repairs, engines, cars, &c., - - -	\$37,482 11
Bills of bar iron, steel, and hardware, - - -	13,176 48
Iron castings, (previous to erection of foundry,) - - -	1,057 46
Timber and lumber, - - -	3,088 17
Tires, and sundry materials for engines and cars, - - -	3,318 18
Bills of work and repairs done elsewhere, - - -	736 93
Coal for smith shops, chiefly bituminous, - - -	1,595 34
Sundry petty expenses, - - -	128 49
Total,	\$60,584 16

DEPOT ACCOUNT.

Wages, depot hands, cutting wood, pumping water, and tending trains, - - -	\$19,429 88
Wages of watchmen, - - -	2,294 06
Bills of cutting wood, - - -	5,977 68
Coal for water stations, - - -	404 79
Pumping water by horse power, and water rents, - - -	517 72
Materials and work for Depots, - - -	901 63
Sundry petty expenses, - - -	60 93
Total,	\$29,586 69

OFFICE AND SUPERINTENDENCE ACCOUNT.	
Stationery, - - - - -	\$652 46
Printing, - - - - -	191 24
Subscription to, and advertising in papers, - - - - -	107 80
Furniture, materials, rent, and sundries for offices, - - - - -	392 17
Salaries of all officers, agents, and clerks in department, - - - - -	12,313 81
	<u>\$13,657 48</u>
Total,	\$254,102 09

STATEMENT C.

Actual Expenses of the Transportation Department of the Philadelphia and Reading Railroad, for 12 months, ending Nov. 30, 1844.

Transportation of 421,958 tons of coal, from coal region to Richmond, junction with state road, and other points, at 41 <sup>1</sup> / <sub>10</sub> cts.,	\$176,378 44
Expenses of transportation between junction with state road and company's depot in Philadelphia, including tolls paid state, hauling across bridge, hauling in Broad street, and tolls paid city, in all,	22,086 70
Transportation of 33,979 through passengers between Pottsville and junction with state road, at 37 <sup>3</sup> / <sub>10</sub> c.	12,674 17
Transportation of 20,472 tons merchandise between Pottsville, Reading, and other points, and state road, at 64 <sup>7</sup> / <sub>10</sub> cents,	13,245 38
Superintendence, including salaries of all officers, clerks, and coal agents at depots,	12,918 91
Pay of watchmen at depots, engine houses, and switches,	2,294 06
Office expenses, including coal for fires, materials, &c.,	2,230 73
Work and materials for repairs of depots, pumps, &c.,	
Sundry petty expenses, running extra engines, &c.,	720 57
	1,600 09

Actual net expenses for year,	\$244,149 05
Add for materials on hand, November 30th, 1844, as follows -	
Wood,	6,500 25
Bar iron and steel,	2,516 85
Engine gearing, tubes, &c.,	2,262 83
Car gearing, wheels, springs, &c.,	1,200 94
Brass and iron castings, copper, lead, &c.,	1,085 00
Timber and lumber,	930 40
Bituminous coal,	371 70
Anthracite coal,	315 50
Tires, axles, &c.,	1,824 00
	<u>\$17,037 47</u>
Deduct amount of same on hand, Nov. 30th, 1843,	7,084 43
	<u>\$9,953 04</u>
Gross expenses for year,	\$254,102 09

STATEMENT D.

Amount of Running Machinery on the Philadelphia and Reading Railroad, Nov. 30, 1844.

LOCOMOTIVE ENGINES.	
8 4 & 6-wheeled light engines for passenger trains and light duty	
29 6 & 8 do engines for hauling coal and freight.	
1 4 do do made in 1837, and used for kyanizing timber.	
9 6 do do of the heaviest class, used for Falls' grade, and hauling coal.	
47* in all.	

\* One engine has been sold to the State of Michigan.

COAL CARS.	
856 4-wheeled iron coal cars.	
1,600 do wooden do.	
2,456 in all.	

FREIGHT CARS.	
52 4-wheeled covered house cars.	
189 4 do open truck do.	
2 8 do covered house do.	
22 8 do open truck do.	
265 in all.	

PASSENGER CARS.	
12 8-wheeled passenger cars.	
2 4 do do do.	
5 4 do baggage do.	
19 in all.	

STATEMENT E.

Working and Repairs of Locomotive Engines during the 12 months ending November 30th, 1844.

REPAIRS OF ENGINES.	
Cost of all materials used, iron, brass, steel, timber, &c., - - - - -	\$12,576 22
Wages of mechanics at repairs, - - - - -	12,993 94
Proportion of superintendence, oil, tools, paint, &c., &c., - - - - -	2,163 26

Equal to 4<sup>2</sup>/<sub>10</sub> cents per ton. Total cost for year, - - - - - \$27,733 42

WORKING OF ABOVE ENGINES.	
Total No. tons, not including engine	504,219
Do do by light 4-wheel engines,	108,822

Total number miles ran, Total No. tons, not including engine or tender, hauled one mile,	613,041
Average weight of down loaded coal trains, not including engine or tender, in tons,	108,080,152
Do do up empty do do.	348 <sup>6</sup> / <sub>10</sub>
Do do passenger train do.	137
Quantity of oil used by engine and tender, with above average coal trains, per trip of 90 miles, in quarts,	28 <sup>1</sup> / <sub>10</sub>
Quantity of oil used by light engines running passenger and sill trains, &c., per 90 miles, in quarts,	4 <sup>41</sup> / <sub>100</sub>
Total No. trips of passenger trains,	2 <sup>64</sup> / <sub>100</sub>
Total No. of miles ran by engines from May, 1838, to November 30, 1844,	736
Total No. of tons hauled one mile, not including engine or tender, between above dates,	1,460,680
	195,524,253

STATEMENT F.

Repairs of Coal, Freight, and Passenger Cars, during 12 months, ending November 30th, 1844.

REPAIRS AND RENEWALS OF COAL AND FREIGHT CARS.	
Cost of materials, iron, brass, steel, &c., - - - - -	\$16,353 18
Do timber and lumber, - - - - -	2,587 87
Wages of mechanics, - - - - -	16,405 74
Superintendence, oil, tools, paints, &c., - - - - -	3,315 72
	<u>\$38,662 51</u>
Making an average cost, per ton hauled, of 5 <sup>3</sup> / <sub>10</sub> cents.	
No. gallons oil used by coal and freight cars during year, - - - - -	4,579
No. pounds tallow and lard, - - - - -	25,310

REPAIRS AND RENEWALS OF PASSENGER CARS.	
Cost of all materials, new axles, iron, steel, timber, &c., - - - - -	\$1,558 85
Wages of mechanics, - - - - -	1,204 16
Sundries, paints, varnish, &c., - - - - -	345 36

Total per year, \$3,108 37  
 No. gallons oil used by passenger cars, 26  
 No. pounds tallow used by do do, 1,206

RAILWAYS AND THEIR MANAGEMENT.

As I observe you request your correspondents to make their remarks by Monday, I continue the subject of railways and their management. It is a subject in which our citizens are interested, inasmuch as we have applications before our councils to lay down rails in Broadway, and also to appropriate an avenue on the west side of the city, as the main entrance for northern freight, and that destined to reach the city via. Piermont, from the southern tier of counties. Both these measures are proper, but I trust they will not follow the plan adopted by the Harlem company in laying down their rails. There is some excuse for the first board of directors of the Harlem company, as all their design was to take up and set down passengers in the street between the Bowery and Harlem; but it is folly for a set of *sane* men to extend a road to White Plains, and to apply to the legislature to give them a charter to Albany, when they have not room to do a freighting business for half the county of Westchester on the limited space of ground in the open street, which they often fully occupy with their hay and iron, contrary to an ordinance of this city. Such management argues the truth of the remark I have heard made "that they are above law, and look to the rise of their stock more than to the accommodation of the public, or profit to their stockholders." This would really appear to be the case, or our citizens would not have submitted to the miserable manner in which their rails are laid through our streets, particularly at the crossings. It is very customary to see the young and the old prostrated by the needless elevation of the rails above ground. These falls you must often have observed from your windows. If my memory serves me, a respectable citizen lost his life in driving over the raised iron rails, the severity of the jolt discharging his gun.

The depot of the Western railroad at Albany contains some twenty acres, and a like quantity at Boston. The freight warehouses cover a space three times as large as our city hall, besides a large house for passengers. In Baltimore they have also twenty acres for their depot. There are five depots in Boston of ample dimensions, and in Philadelphia forty acres, at Richmond, to do a coal business. This being the case their is little fore-



cast, if not great ignorance, in a direction that attempts to palm off this road upon the public as the stem or terminus of railways from New Haven, from Albany, and the southern tier of counties. The termination of the Harlem road has not accommodation even for our city travel. It is now six days since the snow storm, and yet, strange to relate, such is the parsimony or want of means of this company, that they have not cleared off their track, although there is any number of laborers, at half price, to do this needful work, in default of snow ploughs and motive power. For the credit of the railway cause, in a city like this, it should have been accomplished promptly. The New Jersey railroad and Transportation company cleared out the long pass on Bergen hill the day after the storm, although ten or twelve feet of snow was drifted into the extended cut. The great western railroad, with its deep cuts through the Berkshire mountains, was cleared out the day after the storm. The Springfield and New Haven, and the Housatonic railroads, were also cleared I believe in one day; yet we find the Harlem railroad company obliged to abandon their cars for sleighs! thus placing themselves on a par with the omnibus line on the 3d avenue, who at the same prices have successfully competed with the railroad!

The inhabitants of Harlem complain, and with reason, that they are not accommodated, and that an unwise policy prompts the railway company to refuse to commute by the year, except at double the rates charged by Murphy's stages. The farming interest in Westchester also object that the rates charged them for the freight on milk, etc., is double, proportioned to the distance, to the prices charged on the Erie railroad; and that there is not the requisite accommodation afforded to them to transfer their agricultural produce.

I have called this road one of *promise*. This name is derived from a report of one of its presidents, who stated that the income "estimated for 1838 would be \$211,816  
 " " 1839 " 296,544  
 " " 1840 " 415,162."

The president alluded to made the following remark, (1st Jan., 1837, p. 15,) "Enormous as this income seems to be, it nevertheless, to a certain extent, is sustained by arithmetical deductions, hard to be disputed, however difficult to be believed." Other presidents have also promised great results. Let us see the performance.

An official report to the legislature of 1840, shows that the receipts for 1839, instead of \$296,544, were \$99,784: and the expenses \$104,068. Since 1840, I have in vain looked for the annual reports, *required by law*, of

their proceedings. It is true, it is said they "are above law;" this may account for their infringement on the statute, year after year. The management which produced the present financial situation of this company, (to be found in the printed statement, made by a committee of the stockholders, 15th Oct., 1841,) may be a useful beacon to other companies. Its details up to the present time, may claim my attention, to show the error in selling their own unissued stock, greatly under par, and contrary to law, to raise money to pay debts; thus placing the stockholders who have paid 100 cents for stock, on a par with those who purchased from the company "2,980 shares at 29¢, and 8,150 shares at rates from 39¢ to 58 cents on a dollar." A course that the committee say in the report alluded to (page 9,) "that if a necessity existed for a resort to the unissued stock, and for making sales of it, below par, it would have been more judicious and proper, if not required by fairness and good faith, to have first made the facts, (the indebtedness of the company) known to the stockholders." VERITAS.

CHESAPEAKE AND OHIO CANAL.—The Williamsport Banner says that the Committee recently appointed by the House of Delegates of the State of Maryland personally to inspect the Chesapeake and Ohio Canal from Dam No. 6, are, upon the evidence thus obtained, almost unanimously in favor of completing the work to Cumberland.—*Nat. Intl.*

From a friend at Harrisburg we have received a copy of the memorial which has just been presented to the legislature of Pennsylvania by the Pittsburg Board of Trade, on the subject of granting an untrammelled right of way to the Baltimore and Ohio Railroad Company through that state to the western waters.—It is a well written, forcible paper, and presents the question in new points of view, which cannot but obtain for it an attentive, and, we hope, favorable consideration. Pittsburg and Western Pennsylvania have a deep interest in this matter, and the legislature owes it to that section of the state to place it on a proper footing as a competitor for the site of the western terminus of our great railroad.—*Balt. Am.*

The Belfast Journal speaks favorably of a project of establishing a railroad from Belfast to Quebec. The route is already surveyed, and the people of Quebec are ready at any suitable moment to commence the road at the line. The projected railroad, while it would enrich a large section of country, increase the value of farms and other property, and open new and extensive markets, cannot fail to be a profitable investment to the stockholders. By a careful and liberal estimate, made some years ago, the entire cost of the road was put down at \$2,500,000.

CONNECTICUT RIVER RAILROAD.—The Greenfield and Northampton (Mass.) Railroad Company has been incorporated. The surveys have been completed, most of the stock is taken, and the Directors express their belief that, "if no untoward circumstances shall occur, the shrill whistle of the engine and the rattling of cars will be heard along the line of the road, before the next Thanksgiving shall be kept by the people." When this road is finished, there will be a continuous line of railroad from New Haven to Greenfield—distance 100 miles. The next

hitch will be from Greenfield to Brattleborough, 25 miles, where it will strike the extension of the Boston and Fitchburgh Railroad, and thus give to the Vermonters, as well as to the people of Central Massachusetts, a choice of markets between Boston and New York, on nearly equal terms.—*Jour. of Com.*

Among the notices of applications to the Legislature, published in the New Jersey papers, is one to incorporate a company, with a capital of \$50,000, to construct a magnetic telegraph across the state, between New York and Philadelphia.

At the Duncannon Iron Works, Perry county, there were made and packed during the last two weeks, about two thousand casks of nails. It is supposed to be more than were ever made in the same period, at any one establishment in the United States, from the iron ore.—*U. S. Gaz.*

GREAT INDIAN RAILWAY.—Our attention has been drawn to a series of statistics, on which it is proposed to found an undertaking, to be called the "Great Indian Railway," from Bombay to Coringa, (on the Bay of Bengal.) The district thus intended to be traversed by the trunk line is known by name of the "Deccan," and comprises, within the reach of branch communication, some of the most important towns and native capitals of India. The area of country from which the project is to be supported is stated to contain a population of more than ten millions, while the known traffic, in its present irregular and half-developed state, presents a very imposing aggregate of tonnage.

In forming their estimates, the promoters of the undertaking have taken the Reports of the Bombay Chamber of Commerce as their basis—and from these it appears that there is a present traffic, to and from Bombay, of no less than 187,343 tons, the articles chiefly cotton and salt. This result is drawn from little more than half the entire Peninsula—for the distance between the eastern side and Bombay renders the former unapproachable by the present modes of conveyance, and it is only through the facilities of railway communication that the numerous products of that fertile, but now neglected region, can be made available. By the present modes of conveyance cotton has to be transported 500 miles to the coast to be carried by sea to Bombay—or to Mirzapore, on the Ganges, whence it has to descend that river 700 miles to Calcutta.

The destruction and delay arising from journeys of this duration, the cotton being conveyed by droves of small oxen, at the rate of 10 miles a day, form a serious item in the accumulation of the expense at which the raw material is shipped. To obviate this is one great feature of the undertaking. Some idea may be formed of the importance of this object from the fact, that while the present cost of conveying cotton from Nagpore to the port of shipment is from £14 to £20 a ton—the charge by railway of 2d. per ton per mile would be about £4 3s. 4d.

Besides the actual traffic now in existence, there are several sources of revenue which may be ultimately, if not for the present, relied on. The peculiar habits of the people will require time, in order to become familiarised with so complete a change in their established habits of locomotion. But prejudice, however deeply rooted, must ultimately yield to the enormous difference both in time and expense, that a contrast of the railway will present to their present system. There will also be the mails, which might be conveyed entire, through the aid of steamers in the Bay of Bengal, from Bombay to Calcutta in four days.

The great desideratum of all, however, to be considered is the ultimate development of internal resources now neglected—the promotion of intercourse with the inhabitants of other countries, and the consequent removal of baneful prejudices, which are the real barrier against the course of civilization.—*Railway Times.*

**ATHLONE NEW BRIDGE**—On Saturday, the 9th November, a new bridge crossing the Shannon in the town of Athlone, erected under the Shannon Commission, was opened to the public at one o'clock, p. m. and the old bridge, erected in the days of good Queen Bess, closed for ever at three o'clock. The ancient structure, which was placed at the lowest point of the town, and shallowest portion of the river, was a long range of small semi-circular unequal arches, carrying a stripe of roadway so narrow as scarcely to allow a single carriage to pass, with recessed parapets, and of that inconveniently picturesque character which marked the work of early bridge builders. It was directly under the guns of the citadel or ancient fort, and was the scene, or connected with the events of some of the most stirring passages of Irish history. An ancient inscription stone, now presented to the Royal Irish Academy collection of antiquities, recorded some of those, and alluded to others in a style which the present town council of Athlone did not consider sufficiently complimentary for its re-erection on the new bridge. The site of the new bridge is higher up the river, to the northward of the old; it is wholly from the designs of Thomas Rhodes, Esq., civil engineer to the commissioners, who has judiciously placed the roadway at such a level as will avoid hereafter that tremendous descent into the bowels of the lower town as all who have passed the old bridge will recollect. The new bridge consists of 3 noble elliptic arches, each of 63 feet span, together with a cast iron swivel bridge, resting on heavy abutments, of 45 feet span, and 24 feet width of roadway; the general width of roadway is about 30 feet, with flagged footways of six feet at each side. The material is limestone of the finest colour, scantling, and texture, and the style of execution of every part, and the skill with which difficulties of no ordinary character in constructing the underwater work were met and overcome by the contractor, Mr. John McMahon, are in the highest degree admirable. The average depth of water under the bridge is about 18 feet, and when it is stated that the large coffer dams were driven and stanchioned upon a bottom of coarse open gravel, admitting water like a sieve, these difficulties will be appreciated by those acquainted with practical engineering. The swivel bridge was constructed and erected by Messrs. John and Robert Mallet, iron founders and engineers, of Dublin, and its execution has met the highest approbation from the engineer and commissioners. Although the width of roadway is so great, and the weight of the mass of framing, upwards of 300 tons, either leaf of the bridge can be opened or closed by a single man in about a minute. The largest castings probably ever made in this country occur in this structure; each of the traverse rings, which measure 24 feet across, weighs about 16 tons. Four of these rings, each of this large diameter, were turned in a lathe constructed for the purpose in the foundry, in order to render the bearing surfaces for the rollers true and polished. The style of the bridge is of the massive Roman order, and viewed from the ancient one bears much of that aspect of repose and grandeur which pre-eminently characterise London Bridge, that noblest building of its class which the hand of man has yet constructed.—*Civil Engineer.*

**NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.**

Length of Road, 33 96-100 miles.  
 JOHN S. DARCY, Esq., President.  
 J. P. JACKSON, Esq., Secretary.

Capital, \$2,000,000.  
 ROBERT SCHUYLER, Esq., Vice President.  
 J. WORTHINGTON, Esq., Treasurer.

Leave New York, foot of Cortland street.	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
For Newark.....	9, 11, 12.....	2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4 3-4, 6.....				
" New Brunswick.....	9.....	3, 4 3-4.....				
Leave New Brunswick.....	6, 7 1-2, 11 1-2.....	8 3-4.....	11 1-2	8 1-2		
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	11 1-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4		

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

**TABLE OF DISTANCES AND FARES.**

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick.	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

**RAILWAY IRON, LOCOMOTIVES.**

Etc. The subscribers offer the following articles for sale:

- Railway Iron, flat bars, with countersunk holes and mitred joints. lbs. per ft.
- 350 tons 2 by 15 ft. in length weighing 4 68
- 280 " 2 " 1/2 " " " 3 50
- 70 " 1 1/2 " 1/2 " " " 2 1/2
- 80 " 1 1/4 " 1/4 " " " 1 26
- 90 " 1 " 1/4 " " " 7/8

with spikes and splicing plates adapted thereto. To be sold free of duty to State governments, or incorporated companies.

Orders for Pennsylvania Boiler Iron executed.

Railroad Car and Locomotive Engine tires, wrought and turned or unturned, ready to be fitted on the wheels, viz: 30, 33, 36, 42, 44, 54 and 60 inches diameter.

E. V. Patent chain cable bolts for railway car axles, in lengths of 12 feet 6 inches, to 13 feet 2 1/2, 2 3/4, 3, 3 1/4, 3 1/2, and 3 3/4 inches diameter.

Chains for inclined planes, short and stay links, manufactured from the E. V. cable bolts, and proved at the greatest strain.

India rubber rope for inclined planes, made from New Zealand wax.

Also—Patent hemp cordage for inclined planes and canal towing lines

Patent felt for placing between the iron chair and stone block of edge railways.

Every description of railway iron, as well as locomotive engines, imported at the shortest notice, by the agency of one of our partners, who resides in England for this purpose.

A highly respectable American Engineer resides in England for the purpose of inspecting all Locomotives, Machinery, Railway Iron, etc., ordered through us.

A. & G. RALSTON & CO.  
 No. 4 South Front st. Philadelphia, Pa.

**RAILROAD IRON & FIXTURES.**

The subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS, & CO,  
 21 Broad st., N. Y.

**R. F. LIVINGSTON, Civil Engineer**

Hudson, New York. Refer to W. R. Casey, 23 Chambers st., N. Y.

**SAMUEL NOTT, Civil Engineer, Surveyor and General Agent, Bangor, Me.** Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

**— REFERENCES. —**

Col. James F. Baldwin and Col. J. M. Fessenden, Civil Engineers, Boston; Wm. Parker Esq. Engineer and Superintendent Boston and Worcester railroad.

**CUSHMAN'S COMPOUND IRON RAILS,**

etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, Civil Engineer, Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TWO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T. L., and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



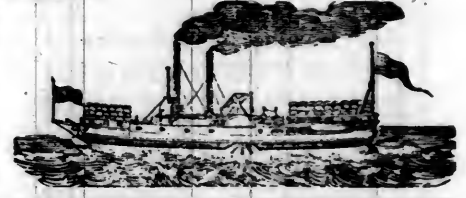
Manufactured and for sale by MORRIS, TASKER & MORRIS. Warehouse S. E. Corner of Third & Walnut Streets, PHILADELPHIA.



TRAINS LEAVE	FOR	BY	RAILROAD	DAYS.	A. M.	P. M.	MILES.	FARE.
Boston	Portland	Boston and Maine,		Daily,	7½	2½	109	\$3 00
"	Somersworth	" "		"	7½	2½, 3½	69	2 12½
Portland	Boston	" "		"	7½	3	109	3 00
"	Somersworth	" "		"	4½, 9½	4½	40	.....
Boston	Lowell	Boston and Lowell,		"	7, 11	2, 5	26	75
Lowell	Boston	" "		"	7½, 11	2, 4½, 5½	26	75
Boston	Concord	Concord,		"		3½	76	2 00
Concord	Boston	" "		"		3½	76	2 00
Boston	Nashua	Nashua and Lowell,		"	7, 11	5	41	.....
Nashua	Boston	" "		"	6½	1½, 5	41	.....
Boston	Worcester	Boston and Worcester,		"	7, 9	2½	48	1 25
Worcester	Boston	" "		"	7, 10	6	48	1 25
"	"	" "		Sundays,	7			
Boston	Worcester	" "		"		2		
"	Newton	" "		Daily,	9½	3, 5		
Newton	Boston	" "		"	8, 10	4		
Boston	New York via Norwich	" "		Mon., Wed. & Fri.,		4		
"	" L. Island railroad	" "		Tues., Thur. & Sat.,				
"	" New Haven	" "		Daily,	9	2½		
"	Albany	Western,		"	9	2½	156	6 00
Albany	Boston	" "		"	8½	1½	156	6 00
Springfield	Boston and Albany	" "		"	7	3		
Boston	New York via New Haven	" "		"		2½		
Charlestown	West Acton	Fitchburg,		"	8	1, 4½		
West Acton	Charlestown	" "		"	7½, 10½	5		
Boston	New York, via Sound steamboat	Boston and Providence,		Tues., Thur. & Sat.,		4		
"	" L. Island railroad	" "		Mon., Wed. & Fri.,	8			
"	Providence	" "		Daily,	8	3½	41	1 50
Providence	Boston	" "		"	8	3½	41	1 50
Taunton	"	" "		"	8½	3½		
New Bedford	Boston	" "		"	7½	2½		
Boston	Dedham	" "		"	9	3, 5½		
Dedham	Boston	" "		"	7½, 10½	4½		
New York	Greenport	Long Island,		"	7½		95	2 25
Brooklyn	Hicksville & intermediate places	" "		"	9½		26	56½
"	Greenport	" "		Tues., Thur. & Sat.,	9½		95	2 25
"	Hicksville, (Saturd'y to Suffolk)	" "		Daily,		4	26	56½
Greenport	Brooklyn, (Boston train)	" "		"		1	95	2 25
"	" (accommodation do.)	" "		Mon., Wed. & Fri.,			95	2 25
"	" & intermediate places.	" "		Daily,	7	1½	26	56½
Hicksville	Albany & Boston via N. Haven	Steamer,		"	6½			5 00
New York	Middletown	New York and Erie,		"	8, 3		53	.....
"	New York	" "		"	6½	3½	53	.....
Middletown	New York	" "		"	9		94	3 50
Philadelphia	Pottsville	Reading,		"	9		94	3 50
Pottsville	Philadelphia	" "		"	9, 11, 12	2, 3, 4½, 6, 7½	9½	25
New York	Newark	N. J. railroad and trans. co.,		"	7½, 8½, 9, 11	1½, 4, 5½, 7, 9½	9½	25
Newark	New York	[9 A. M. and 3 P. M., connect with Morris Railroad.]		Sundays,	9	4½	9½	25
"	"	"		"	11½	9½	9½	25
New York	Newark	[9 A. M. and 4½ P. M., trains connect with Somerville Railroad.]		Daily,	9, 11	2, 3½, 4½, 6	14½	31½
"	Elizabethtown	"		"	7, 7½, 8½, 10½, 12	3½, 5	14½	31½
Elizabethtown	New York	N. J. railroad and trans. co.,		"	9, 11	3, 4½, 6	19½	31½
New York	Rahway	" "		"	6½, 7, 8½, 12	4½, 9½	19½	31½
Rahway	New York	" "		"	9	3, 4½	31½	50
New York	New Brunswick	" "		"	6, 7½, 11½	8½	31½	50
New Brunswick	New York	" "		Sundays,	11½	8½	31½	50
"	"	" "		"	9	4½	31½	50
New York	New Brunswick	" "		"	7		91	3 00
Philadelphia	New York	Camden and Amboy,		Daily,	5½		91	3 00
New York	Philadelphia	" "		"	9		30	75
Philadelphia	Bristol	Philadelphia and Trenton,		"		4	30	75
Bristol	Philadelphia	" "		"	8		93	.....
Philadelphia	Baltimore	Philad. Wil. and Baltimore,		"	9		93	.....
Baltimore	Philadelphia	" "		"	9	5, 11½	41	2 50
"	Washington	Baltimore and Washington,		"	6	5½	41	2 50
Washington	Baltimore	" "		"	7½			
Baltimore	Cumberland and inter. places	Baltimore and Ohio,		"		4		
"	Frederick	" "		"	8			
Cumberland	Baltimore	" "		"	10½			
Hancock	"	" "		"	11½			
Martinsburg	"	" "		"		12½		
Harper's Ferry	"	" "		"		2		
Frederick	"	" "		Sundays,	8			
"	"	" "		Daily,	7½, 12	4½		
Ellicott's Mills	"	" "		"	10½	1½		
Richmond	Petersburg	Richmond and Petersburg,		"	5½			
Petersburg	Richmond	" "		"	8	5½		
Albany	Schenectady	Mohawk and Hudson,		"	9	3½		
Schenectady	Albany	" "		"	7½	2		
Albany	Saratoga	" "		"	7	12½, 5		
Saratoga	Albany	" "		"	7½	3½		
Troy	Saratoga	Troy and Saratoga,		"	7½			
Saratoga	Troy	" "		"	8½			
Auburn	Rochester	Auburn and Rochester,		"	8	3		
Rochester	Auburn	" "		"		3		
"	Buffalo	Rochester and Buffalo,		"		3		
Buffalo	Rochester	" "		"	9			
"	Falls	Buffalo and Falls,		"		1½		
Falls	Buffalo	" "		"				
Buffalo	Albany	Albany and Buffalo		"	8½			

# American Railroad Journal, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

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THURSDAY, FEBRUARY 20, 1845.

[WHOLE No. 451. VOL. XVIII.

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\* \* \* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co., Boston.

**TO RAILROAD COMPANIES AND MANUFACTURERS of railroad Machinery.** The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**RAILWAY IRON, LOCOMOTIVES, ETC.** The subscribers offer the following articles for sale:

Railway Iron, flat bars, with countersunk holes and mitred joints.	lbs. per ft.
350 tons 2 by 15 feet in length weighing	4.68
280 " 2 " 1 1/2 " " "	3.50
70 " 1 1/2 " 1/2 " " "	2 1/2
80 " 1 1/2 " 1/2 " " "	1.96
90 " 1 " 1/2 " " "	1 1/2

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Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

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of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

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ja45

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A. & G. RALSTON & CO.,  
145 No. 4 South Front st., Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILD-**ERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

From 4 inches to 1 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



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**PHILADELPHIA.**

**TO IRON MASTERS.—FOR SALE.—MILL**SITES in the immediate neighborhood of *Birmingham Coal and Iron Ore*, of the first quality, at Ralston, Lycoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer,*

**VALUABLE PROPERTY ON THE MILL**Dam For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet, two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia.

ja45

**FRENCH AND BAIRDS PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\*. The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45

**S. VAIL, PROPRIETOR OF THE SPEED-**well Iron Works, near Morristown, N. J., can supply at short notice railroad companies and others with the following:

Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyres made, and they may rely upon being served according to order, and also punctually, a large quantity in the straight bar is kept constantly on hand. Crank axles for locomotive engines, made from the best Pennsylvania iron. Straight axles for locomotives for outside connection engines. Frames for engines. Wrought iron work for steamboats, and shafting of any size. Cotton Screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen:

Baldwin, Vail & Huffy, Philadelphia; Wm. Norris, Philadelphia; N. Campfield, Savannah, Ga.; J. & S. Bones, Augusta, Ga.; D. F. Guz, N. Orleans, La.; Adam Hall, N. York; J. P. Allaire, N. York; William Parker, Boston, Mass.; George W. Schuyler, N. York. ja46

**THE NEWCASTLE MANUFACTURING** Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tyres, Springs, Boxes and bolts for Cars, Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,  
ja45 President of the Newcastle Manuf. Co.



**CUSHMAN'S COMPOUND IRON RAILS,** etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, *Civil Engineer,*  
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,  
ja45 Reading, Pa.

## PILBROW'S ATMOSPHERIC RAILWAY.

We take the following from the London *Mechanics' Magazine*. The figure referred to is not necessary to obtain a correct idea of the principle of propulsion, so highly spoken of by the editor of the Magazine. We confess that we more than doubt its chances of ultimate success, especially with cog-wheels.

"Neither the extensive discussion which the atmospheric railway system has undergone, nor the brief experience which has been had of it on the Kingston and Dalkey line, can be said to have as yet established more, than that it is a practicable system for short lengths of railway, and as economical for such lengths as (but not more so than) any other. The objections advanced some six months ago by Mr. Robert Stevenson, to its applicability to long lines of large traffic, having many stages and crossings, remain in every material point, unanswered and unrefuted; for we cannot dignify with the name of answer or refutation, the mere verbal criticism, or worse vituperation, to which the assailants of the elaborate and masterly investigation by that gentleman have hitherto found it convenient to confine themselves.

"While such is still the state of things in regard to this question, Mr. Pilbrow has come to the rescue with a plan which promises so to improve the atmospheric system as to obviate all Mr. Stephenson's objections; and doubtless this is the best and most effectual way of meeting them. The 'continuous valve' of Messrs. Clegg and Samuda, which is the great source of waste of power, attending the system as now reduced to practice, Mr. Pilbrow dispenses with altogether. The 'discontinuance' of the main tube at every three mile station, which is another great defect, and the chief cause of the unfitness of the present system for long, main trunk lines, he renders also unnecessary; with him the continuity of the main, whatever may be its length, is unbroken, and other tubes may not only communicate with, but cross it at any place without the least interruption or inconvenience. He requires no section valves, bridges, etc., for crossings; no cranes, or other contrivances for lifting carriages on and off; and instead of a stationary engine every three miles, he requires but one every ten—probably fewer. All who are acquainted with the subject will at once admit that, if Mr. Pilbrow has in truth accomplished these things, he has done that for the atmospheric plan, which must advance it immeasurably beyond the point where it has been for some time stationary, and most probably make it no longer a matter of question that it is, for all situations, and under all circumstances, superior to the ordinary system.—

We entertain ourselves a most favorable opinion of Mr. Pilbrow's invention. We have carefully investigated it in all its details, and can see no reason why it should not perform everything that is predicted of it. We have witnessed also an experimental trial of it, which, if there had been any doubts of its perfect practicability remaining in our minds, must have removed them completely.

The scale of the trial, it is true, was a small one; but the practical facts demonstrated by it, were not of such a nature that any difference in magnitude could materially affect them."

"The manner of working the apparatus is as follows:—A pipe or tube, as before described, of sufficient diameter, being laid along in a hollow between the rails of a railway, and being exhausted of air by suitable means, and having the pinions arranged as described, at intervals throughout its length; the piston, with its rack attached, is placed in this tube at the further end from where the air has been or is being exhausted or withdrawn; the piston rack is put in gear with the pinions *inside the tube*; a railway carriage, having a carriage rack attached to it, as described, is placed upon the rails, as shown in fig. 10; this carriage rack being also in gear correspondingly with the upper part of the same pinions (that is to say, the relative position of each rack being the same, the piston rack being precisely under, and matching end to end with the carriage rack); the one rack cannot then move backwards or forwards without turning the pinions; and these being also in gear with the other rack, that must move also, and in the same direction. Therefore, if the vacuum has such an effect upon the piston that it advances, then will the rack upon the carriage be affected in the same way, by and through the medium of the pinions, and will advance also, and keep its relative situation exactly with the other. The racks being long enough to reach, as described, at least two pair of pinions at one time, the next in advance is acted upon before the one acting has ceased, and, therefore, as long as the power applied continues, and the piston advances, the carriage will do the same to the end of the tube; neither arriving before or after the other, but together, as they cannot separate, nor can one move or stop without the other.

"As it is necessary and important that the atmosphere should be admitted as nearly behind the piston as possible, the pinions are lifted up by the advance of the piston rack, and the air will enter through the space allowed by the lifting of the conical or flat portion of the arbor or axis of the pinion, as described; so that there would always be at least two or more such passages open, as the rack acts upon the one before it leaves the other. After the rack has passed by, the pinions by their own weight fall into their places, and thus make an air-tight tube ready for the next exhaustion, when, if an air pump be set to work at the other end, and the *direction* of the piston and rack changed, and placed again as before into proper gear, the carriage would *return* in like manner.

Fig. 10 represents a longitudinal elevation of a portion of an atmospheric railway of this description, crossed, *on a level*, by a roadway, and another line of atmospheric railway; from which it will be seen that there is plenty of space between the pairs of pinions for the crossing, and that the mains being sunk beneath the surface of the ground, or under the sleepers of the rails, they will be entirely out of the way, the carriage rack passing on

from one pinion to another over such roads, without interfering. It will be obvious also, that where it may happen that two tubes are required to cross each other, one will pass beneath the other, the upper one keeping its level course, the lower one taking a gradual descent or dip under it, and the pinions keeping their necessary level at the upper part by being lengthened, at such a locality, in the axes and supports, as shown at *a*. The first, or rack carriage, of a train, is shown advancing upon this cross line as it would appear just previously to its taking the pinions at *a*.

As there will not be on this plan, even in a single line of rails, any discontinuance of the main tube but at a place arranged for trains to meet and cross, which will always be at a *station*, (and for general purposes probably not less than twenty miles apart,) it will be only at such places that the main would require any kind of valve to close its open end. The end of the main would simply require a disc of iron or wood placed against the open end, with a little composition to make an air-tight joint. When the vacuum is to be made up by the air pump, the disc or valve will fall or be pushed aside when the piston arrives at the end, and will require no more attention, excepting being replaced, or closing by the time this engine is again required to work.

"The piston would, when it arrives here either partially or wholly leave the tube, after displacing the disc or door by its remaining momentum, and the train with the carriage rack would pass on, and take one of the sidings, and be stopped by the attendants by brakes as usual; but the operation of the stopping would have been begun before arriving here, the train now only moving slowly, and with sufficient momentum to carry it to the place required, or middle of the siding. When the piston and rack reach the end of the main, and are out or withdrawn, it is proposed that there shall be placed, at each of the two ends of the mains, a receptacle or trough, mounted upon four wheels or rollers, so that the piston coming on to it, could be immediately removed for inspection, etc., and another piston, newly greased, etc., brought and placed (by the same means) with its head in the tube ready for the next returning train. The trains having both arrived, each train would be (by any suitable means) urged on to the commencement of the opposite main, where the fresh pistons having been already inserted (and held by any convenient contrivance) and the vacuum formed, the carriage rack coming into gear with the first pair of pinions, and the piston released, the train would start on its journey. Thus the pistons would never leave the main, or enter another, but at a very slow pace, and at a place for stopping. The same piston would not be required to go on the whole journey, but a fresh one every 20 miles, leaving the other to be examined, &c.

"Mr. Pilbrow observes that ropes or bands of leather may be substituted for the racks—'varying the surface accordingly.' For our own parts we are inclined to think that it will ultimately be found that neither cogged-

wheels nor racks are requisite for the proper working of this system; and that the propulsion of the carriages may be effected by the simple adhesion of plain surfaces; that is to say, that the tube piston, the pinions, and carriage piston, may all be plain, and that by the friction of each against the other, the desired progression will be produced. Should this prove to be the case, we shall then but have a repetition as regards the atmospheric system, of the same thing which took place on the first introduction of railways. Nobody at one time, supposed that a plain wheel would move forward on a plain rail; or that it could be made to advance otherwise than by the help of cogs or grippers of some sort or other. A single trial of the force of simple adhesion dispelled the illusion, and cogs and grippers were no more heard of.

"Mr. Pilbrow calculates that the total saving (from his system) for 100 miles per annum in working, as compared with the estimated cost by the present atmospheric system, would amount to not less than £53,303. The correctness of this estimate may possibly admit of question; but that there must be a very considerable saving resulting from the supercession of so many of the expensive and wasteful adjuncts of the present system, cannot reasonably be doubted. The following observations by Mr. Pilbrow, touching one point of this question of economy, are too important to be omitted.

"The reason why a less number of carriages will be required on this plan is, that there being no long valve here, the leakage will be so diminished that it will amount to less in ten miles than in one; it is estimated that now the leakage equals 5-horse power per mile,\* and therefore, should there be but one engine to ten miles of main, 50-horse power out of the 100 would be lost for leakage alone; so it is found absolutely necessary to have one engine every 3 miles, thus reducing the loss to 15-horse power out of the 100. Why the pinion valves as proposed will not leak so much as the long valve is, first, because the surfaces are ground truly, and are pressed together by the weight and fall of the pinion (and the more used, the better they will stop); and secondly, on account of the small quantity of surface or space that can leak, the proportion being as 1 to 20 between the two systems, for the pinion valve or seat being but about 9 inches in circumference at the aperture where the air is admitted, and there being only two of them to every thirty feet of main=1.5 feet, whereas, the present long valve would be the whole thirty feet exposed, and liable to leakage; hence, even were the pinion valves to leak as much as the long valve, surface for surface, this plan would only leak 2½-horse power instead of 50-horse power, in 10 miles.

"Mr. Pilbrow's patent and pamphlet include also a scheme of a pneumatic telegraph (to be combined with atmospheric railway;) dependent on the rise and fall of columns of mercury, when acted on by air exhausters; but in this we do not see anything new. Such a mode of telegraphic communication has been often before proposed."

## RAILROAD MEETING.

At a meeting of the citizens of the county of Broome, friendly to the construction of the New York and Erie railroad within the southern tier of counties, and opposed to the building of said road, or any part of it, in the State of Pennsylvania, held at the house of Edwin Northrup, in Harpersville, on the 30th day of January, 1845, Robert Harper was chosen president, and Luther Badger, Lewis Northrup, Elias Patrick and Jas. B. Frazier, vice presidents, and Timothy Ruggles and Hial Edgerton, secretaries.

The meeting was then eloquently addressed by several gentlemen, upon the subject of all terations in the charter of said company, permitting it to make parts of said road in the State of Pennsylvania, and showing the injustice that would result to a large portion of the inhabitants of several counties of the southern tier, should our legislature grant by enactment such alterations in the charter of said company. After which the committee on resolutions reported the following resolutions, which were unanimously adopted.

*Resolved*, That our confidence in the value and utility of the New York and Erie railroad remains undiminished.

*Resolved*, That where our interests, and the interests of so large a number of citizens of this State, amounting to one-sixth of the large number to be benefited by the construction of this road, and that to make an alteration in the route of the road which would not reduce the distance or expense in building said road more than the one-hundredth part, are involved, we will not stand by and see this great injustice take place, but we repose with undiminished confidence in the integrity and wisdom of our legislature to protect our rights, and the rights of the State, from this attempt of interested men to wrest the same from us, to promote their own private ends.

*Resolved*, That our confidence in the ability and disinterestedness of purpose which influence the decisions of the company, and prompt her to ask for this alteration, is very much impaired.

*Resolved*, That if it should prove true (which we do not believe) that the company cannot go on with the construction of the road without the proposed alterations being made, and if it should prove true that the recent subscriptions to the capital stock of the company were based upon the condition, that the company obtain leave to build parts of their road in Pennsylvania, then we, uninfluenced by personal considerations would respectfully ask the State to absolve themselves from all connection with the said company, trusting rather to await the time when the State may be in a condition to revive this much needed work, than longer to depend upon the frail promises, so often made, and as often broken by the company.

*Resolved*, That the proceedings of this meeting be published in the papers of Broome,

Chenango, Otsego, Delaware and Sullivan counties.—*Binghampton Courier*.

## MADISON AND INDIANAPOLIS RAILROAD.—

From what we learn from various quarters, we are inclined to think that the railroad will speedily be completed. We speak advisedly, when we say, that we do not believe that a more profitable investment for capital can be found in the State. Of its benefit to the State at large, and to southern and central Indiana in particular, none who have examined the subject can for a moment doubt. Severe lessons have been taught our people; and they seem not to have lost their effect on the managers of public works. Hence we now see them advancing with prudence and caution, yet steadily. In this way, they are gaining the confidence of the people; and instead of the wild recklessness of former days, the interest of all is carefully studied. We have several letters on the subject, which want of space prevents our noticing at this time, except to give the following extract from one of them.—*Indiana Sentinel*.

"I feel a deep interest as a large stockholder in the completion of this road to your place, and shall contribute the little aid in my power to produce so desirable a result.

"I can speak for the directors and other stockholders, that the entire energies of the company will now be directed to the immediate completion of the road. We are greatly encouraged to do so in the late act of the legislature, which, while it gives great advantages to the stockholders, in the end will enure to the advantage of the State.

"We can now offer the best of security to the lenders of money, viz: the entire road, with the cars, locomotives, depots, etc., which cost the State some sixteen hundred thousand dollars, and the company about two hundred thousand—in all, one million, eight hundred thousand dollars.

"We have just received one of Baldwin & Whitney's best locomotives, warranted to draw 250 tons on level, and 30 tons up the plane at this place. This additional power so much needed, will add greatly to the receipts of the company, and the usefulness of the road.

"In this matter, Indianapolis and Madison have a common interest, and we ought to work together."

The total quantity of iron of every description shipped on the State works of Pennsylvania in 1844 was 70,000 tons, but there was probably a considerable amount made in the State which never touched the public works. Hence we are unable to state the actual quantity of iron manufactured: still it would appear certain that the above amount of 70,000 tons must include the bulk of the trade. Of this a large portion was pig iron, and as no less than 13,500 tons were imported in 1844, it would appear that even Penn-



sylvania, with duties from 60 per cent. upwards, is still unable to supply the demand at home, no less than 1000 tons of pig having been imported. The increase in rolled bars of common dimensions and of railroad iron is very great, though the duty on the latter article amounted to nearly a quarter of a million of dollars.

*Statement of Foreign Iron imported at Philadelphia during the last five years.*

Names of Articles.	1840. Tons	1841. Tons	1842. Tons	1843. Tons	1844. Tons
Iron, Railroad.....	1433	4117	1101	989	8863
" Rolled bar.....	492	1428	1287	1280	2733
" Hammered, Rod, Sheet, and Hoop }	459	197	631	95	590
" Pig.....	76	68	294	15	999
" Old and Scrap.....	29	42	15	11	11
" Castings.....	91	223	152	69	147
" Chain cables & an.	50	15	4	21	143
Steel.....	88	226	195	120	143

LONG ISLAND RAILROAD.

In December, 1843, the board announced to the stockholders, that vigorous measures were in progress for the completion of the eastern part of the railroad, extending from Suffolk station to Greenport, a distance of 52 miles. They have now the pleasure to apprise them that the entire line is opened, and has been in successful operation through its whole extent since the 29th day of July last.

*Cost of the Railroad.*—The entire cost of the road, tunnel, equipments, surplus iron, steamers, and other appurtenances to this date is \$1,884,640.12. A small balance only will be required for the completion of the tunnel and the payment for some additional cars and motive power.

The eastern half of the Long Island railroad has been constructed at an extremely low cost. The contracts were made when wages and materials were at the lowest point, and the easy character of the country presenting no natural difficulties, has favored a very moderate outlay. The entire cost of this portion of the line, exclusive of cars and engines, but inclusive of depots, land and track, will not materially vary from \$10,000 a mile.

In no part of the work has the cost materially exceeded the estimate, but the construction of the tunnel, the purchase of steamers, and extra cars, and engines, have swelled the expenses of the company beyond the original computation of the board, but bring with them benefits greatly exceeding the outlay.

*Capital.*—The capital consists of 29,846 shares of \$50 each, or \$1,492,300.

The whole debt of the company is \$392,340.22. Deducting from this the debt due the State of New York, in the year 1861, of \$100,000, with a sinking fund of \$1,000 per annum, leaves the remaining debt of the company \$292,340.22, payable in the following years—1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852.

The entire aggregate of debt and capital stock, is \$1,884,640.22.

It is, also, proper to remark in this connection, that a most equitable claim for more than \$112,000 exists against the government of the United States for the remission of the duty on the iron imported for the track, and your directors do not despair of obtaining a recognition of this claim.

This work, in a national point of view, is important to the post office department, the defence of the coast, and the connection of the north and south; the fact that such remission will not now operate to exclude foreign iron and thus stimulate the home manufacture, and that nearly every railroad in the country has imported its iron *duty free*, show the injustice and impropriety of subjecting this iron to a duty exceeding 100 per cent. upon the prime cost of the article. Planned and chartered as this enterprize was, and partly finished while there was no duty on railroad iron, and suspended in consequence of the reverses of the country, it may be well urged, that there is an implied obligation on the part of congress to impose no new or unexpected burthen on a great public undertaking.

*Construction.*—The railroad has been finished with a heavy and permanent H rail, laid principally on Chestnut ties, at the rate of 2,000 to the mile, with sub-sills, and a deep gravel foundation, and is now in excellent condition. The company have a surplus of two hundred and fifty tons of iron that may be sold at a profit. They have constructed extensive piers at Brooklyn and Greenport, running to deep water, and under the authority of the city government of Brooklyn, have constructed a tunnel under Atlantic street, through the heights of Brooklyn.

*The Tunnel.*—The whole length of this structure is little more than half a mile. The walls are of massive stone, of the thickness of six feet, and ten feet high. The arch is of brick, twenty-two inches thick, the whole laid in hydraulic cement. The width of the tunnel is 21 feet, and height 18 feet. The estimated cost of this work, before its commencement, was \$75,000. The cost of the work thus far has been \$51,352.10; and although in daily use for trains, it is not entirely finished; but it is now ascertained that \$15,000 more will be ample for its completion—making the actual cost \$66,352.10. This great work, which has materially contributed to swell the cost of the line, and was not contemplated at the date of the last report, will greatly facilitate the operations of the company, obviate many dangers, and as a work of art will embellish the city of Brooklyn. It will greatly reduce the expense of the company, and enable it to conduct its freight traffic on a scale of expenditure much below what would have otherwise been incurred.

*Engines and Cars.*—The equipment of the line with respect to engines and cars appears to give general satisfaction. The engines are of the most approved pattern and of the greatest efficiency, while the cars are as perfect as the advanced state of the arts and the competition of the most eminent builders can render them. In the freight department

a considerable accession of cars is expected in a few days, and business daily offers for their employment.

*Running of the Road.*—In the report of December, 1843, while the line was still incomplete, a confident opinion was expressed that the line—95 miles—would be run over within four hours, and the entire distance between New York and Boston, including the Greenport ferry, accomplished within ten hours. With respect to the Long Island railroad, more than this has been accomplished. The run has been made within three hours, and the average time of the through train, stopping twice to wood and water, has not materially varied from three hours and forty minutes. This is accomplishing more in speed than had previously been effected on the continent of America. The crossing of the ferry from Greenport to Norwich and Stonington has been made in all weathers, with the utmost certainty—240 passages having been made without a failure. The time occupied has been about 2½ hours, and occasionally less than two hours. The trains on the East-rn roads, connecting with this line, have not run with a speed equal to the expectations of the company—having averaged usually not far from five hours in one direction and four and a half in the other, making the average time nearly ten and three quarter hours. It is, however, confidently believed that more perfect arrangements will be made the present year, which will bring the entire journey between Boston and New York within ten hours. The average time, by the fastest competing line is about fourteen hours. It is also hoped that under new arrangements, hours may be selected more adapted to the convenience of the travelling public than those which have thus far been preferred by the eastern railroads in connection with this company, and your directors confidently rely on the co-operation of the able and experienced managers of those lines in measures which must alike benefit the associated companies and the public.

The late period last summer at which this road was opened left it out of the power of the board to develop its capabilities to their full extent, as a part of the line of railways upon our sea board, for the transmission of passengers and freight.

The lines of steamers through the sound, claimed, and perhaps justly, the continuance of their lines through the season, sharing, however, with the Long Island railroad company, in fair proportion, their income. During the approaching season it is contemplated to run, in connection with the eastern roads, both a day and night line, the former leaving Portland at 6 o'clock in the morning, Boston at 12, (after much of the business of that place is over,) and to reach New York at 10 o'clock in the evening. Returning eastward, it is intended to leave N. York at 12 o'clock in the day and at 7 in the evening, affording in the one case a day line for the pleasure travel and in the other to the man of business an opportunity to pass between New York and Boston without interfering with the usual business hours.





AMERICAN RAILROADS.																
Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843. Income.		Div. per cent.	1844. Income.		Div. per cent.	Previous prices.	Share.	Price.	
							Gross.	Nett.		Gross.	Nett.					
N. H.	1 Portland, Saco and Portsmouth.	50	1,200,000				89,997	47,166	7	124,497	74,841	6	100	35	96½	
"	2 Concord.	35	750,000									12	130	50	130	
Mass.	3 Boston and Maine.	55	1,384,050				178,745	68,499	6				109½	2	109½	
"	4 Boston and Lowell.	26	1,863,746				277,315	144,000	8	316,969	147,615		121	7	121½	
"	5 Boston and Providence.	41	1,900,000				233,388	110,823	6				107	42	106½	
"	6 Boston and Worcester.	48	2,914,078				404,141	162,000	6	428,437	195,163		118½	70	117½	
"	7 Berkshire.	21	250,000					17,500	7							
"	8 Charlestown branch.		250,000						13						12	80
"	9 Eastern.	54	2,388,631				279,563	140,595	6	337,238	227,920	8	107	122	107½	
"	10 Fitchburg.	50	322,538										111	10	112½	
"	11 Hartford and Springfield.	25 1-2														
"	12 Nashua and Lowell.	14 1-2	380,000				81,079		8				120			
"	13 New Bedford and Taunton.	20	428,543				50,671	24,000	6							
"	14 Norwich and Worcester.	59	2,166,566				162,336	21,871		230,674		3	70½	5,632	72	
"	15 Taunton branch.	11	250,000					20,000	8				118			
"	16 West Stockbridge.	3														
"	17 Western, (117 miles in Mass.)	153	7,686,202	4,686,202	30,000	100	573,882	284,432		753,753	439,679		99½	239	99	
"	18 Worcester branch to Milbury.		5,500													
Con.	19 Hartford and New Haven.	33											92	63	100	
"	20 Housatonic, (10 months.)	74	1,244,123							150,000			30			
"	21 Stonington, (year ending 1st Sept.)	48	2,600,000				113,889			154,794	79,845		41	3,875	41½	
N. Y.	22 Attica and Buffalo.	31 1-2	268,275				45,896	7,522								
"	23 Auburn and Rochester.	78	1,727,361				189,693	112,000					107	50	107	
"	24 Auburn and Syracuse.	26	743,931				86,291	27,334								
"	25 Buffalo and Niagara.	22	200,000		1,500	133½							100			
"	26 Erie, (443 miles.)		5,000,000										29½	1,180	29½	
"	27 Erie, opened.	53						48,000								
"	28 Harlem.	26	2,200,000										70	850	71	
"	29 Hudson and Berkshire.													25	14½	
"	30 Long Island.	95	1,884,640	392,340	29,816	50				153,456	70,043		76	6,545	77½	
"	31 Mohawk.	16 3-4	1,030,949				69,948	58,780		84,306	40,000		63	450	65½	
"	32 Tonawanda.	43	600,000				76,227									
"	33 Troy and Greenbush.	6	180,000													
"	34 Troy and Saratoga.	25	475,865				44,325	21,000								
"	35 Troy and Schenectady.	20 1-2	633,520				28,043									
"	36 Schenectady and Saratoga.	22	300,000				42,242	3,000	1							
"	37 Utica and Schenectady.	78	2,124,013				277,164	180,000	9				131			
"	38 Utica and Syracuse.	53	1,080,219				163,701	72,000					119			
N. J.	39 Camden and Amboy.	61	3,200,000				682,832	383,880					105½	9	107½	
"	40 Elizabethtown and Somerville.	25	500,000													
"	41 Morris and Essex.															
"	42 New Jersey.	34	2,000,000										98	65	94	
"	43 Paterson.	16	300,000										80			
Pa.	44 Beaver Meadow.	26	1,000,000													
"	45 Cumberland Valley.	46	1,250,000													
"	46 Franklin.	10 1-2														
"	47 Harrisburg and Lancaster.	36	860,000										30			
"	48 Hazleton branch.	10	120,000													
"	49 Little Schuylkill.	29	900,000													
"	50 Lykens Valley.	16 1-2														
"	51 Mauch Chunk.	9	100,000													
"	52 Minchill and Schuylkill Haven.	18	315,000						12				144			
"	53 Norristown.	20	800,000										10			
"	54 Philadelphia and Trenton.	30	400,000										105			
"	55 Pottsville and Danville.	29 1-2	1,500,000													
"	56 Reading.	94	9,457,570	7,147,570	40,200	50				597,613	343,511		45	3,560	50	
"	57 Schuylkill valley.	10	1,000,000													
"	58 Williamsport and Elmira.	25	400,000				20,000									
"	59 Philadelphia and Baltimore.	93	1,400,000				43,043	200,000			210,000		41	6,805	43	
Del.	60 Frenchtown.	16	600,000													
Md.	61 Baltimore and Ohio, (1st Oct.)	188	7,623,600				575,235	279,402		358,620	346,946		48½	12	49½	
"	62 Baltimore and Susquehanna.	58	3,000,000										5			
"	63 Baltimore and Washington.	38	1,800,000				177,227	71,691		212,126	104,529		84			
Va.	64 Greensville and Roanoke.	17 1-2	260,000													
"	65 Petersburg and Roanoke.	60	765,000										3			
"	66 Portsmouth and Roanoke.	78 1-2	850,000													
"	67 Richmond and Fredericksburg.	61 1-2	1,200,000													
"	68 Richmond and Petersburg.	22 1-2	700,000													
"	69 Winchester and Potomac.	32	500,000													
N. C.	70 Raleigh and Gaston.	84 1-2	1,360,000													
"	71 Wilmington and Raleigh.	161	1,800,000													
S. C.	72 South Carolina.	136			34,410	75							8			
"	73 Columbia.	66	5,293,224				201,464	77,456		328,425	180,704		55			
Ga.	74 Central.	190	2,581,722				227,532	93,190								
"	75 Georgia.	147 1-2	2,650,000				248,026	158,207		248,096	147,523					
Ala.	76 Fuscumbia.	46														
Ky.	77 Lexington and Ohio.	40	500,000													
Ohio	78 Little Miami.	40	450,000													
"	79 Mad river.	10	400,000													
"	80 Monroeville and Sandusky.															
Mich.	81 Detroit and Pontiac.	25														
"	82 Erie and Kalamazoo.	33														
Ind.	83 Madison and Indianapolis.	56	152,000													
Can.	84 Champlain and St. Lawrence.	15	212,000					12,000		58,000	24,000		110			



## BEAUTIES OF GOVERNMENT ENGINEERING.

Under this head we will occasionally give our readers such information as may be necessary to a pretty thorough understanding of the extraordinary system of political jobbing, which, acting under the specious title of "internal improvements," has loaded many of the States with debt and disgrace, and has put back for many years the construction of works of real utility. To judge from the remarks in the public prints, one would suppose that the State works of Ohio were equal or superior to the private works of Massachusetts. In our first number of this year we gave our views pretty plainly on the miserable results of the Ohio canals. The report of the commissioners, for 1844, we have just received from Leander Ransom, Esq., also from J. W. Erwin, Esq., and there is nothing in them to change our opinions—for the better. The cost of the canals is \$15,677,435, the gross income for 1844 was \$527,515, the expenses were \$197,442, and the net income, \$330,073. The annual deficiency is about \$600,000, which is, as our readers well know, paid by a property tax of 5½ mills on the dollar, nearly twice as much as would have saved the honor of Pennsylvania, and five times as much as has been paid for a few years for a similar purpose in New York, and which comparatively trifling imposition has created vast dissatisfaction—more especially in the agricultural districts.

But passing by all objections as to knowledge of the resources of the country, and engineering skill, in the higher departments of the profession, more particularly, it appears that that most necessary of all ingredients—common honesty—has been in many instances entirely omitted. We give extracts from two highly respectable Ohio papers published at the flourishing cities of Sandusky and Columbus, the latter the seat of government of the State.

"The Board of Public Works.—Among the letters of inquiry which we receive, as to what the legislature is doing, no subject is of tiner mentioned than the board of public works. An indefinite impression of great abuse in that department of the public service prevails; and this is not confined to party lines, nor has it arisen from party prejudice entirely. Men of all parties speak plainly in relation to the management of, and expenditures on our public works. Take the expenditures on the Ohio canal, from Portsmouth to Cleveland, for the past season. We find this put down in the report of the board, in exact numbers, at one hundred and ten thousand six hundred and seventy-nine dollars and six cents! for superintendence and making ordinary and extraordinary repairs—with the addition of 2,530 dollars 66 cents to engineers and for incidental expenses—making a total of \$113,

309 72, or near three hundred and forty dollars per mile for repairs, etc.!!

"Now, this may be all right, but the people want some evidence of it. Nothing but a thorough examination and sifting of the accounts and doings of this board, will quiet the public mind. If the session of the legislature does not furnish the time, or if the means cannot be come at in Columbus for such an examination, let a committee be appointed to sit during the recess. Something must be done or blame will be attributed to the majority of the people's representatives."—*Ohio State Journal*.

"Ohio Legislature.—On the 22nd ult., Mr. Archbold submitted to the house of representatives a preamble, reciting that suspicions existed that abuses had been practiced in the management of the public works, by which the State has sustained great loss and injury, and closing with the following resolution:

"Resolved, That the committee on finance be instructed to inquire into the expediency of passing a statute, to secure a thorough investigation of the abuses aforesaid, and of the whole system of our public works, either by a committee of the general assembly, to sit during the recess, or by a commission of other citizens, or in any other manner they may deem best, with leave to report by bill or otherwise; and that it be recommended to said committee, in case they should deem it expedient to report by bill, to give to the investigators all the aid which statute law can give, consistently with the principles of equity, of justice and of the constitution.

"The resolution was adopted—yeas 65, nays none. What else could be expected from a system commenced in injustice, for selfish and local objects, than it should be conducted in a fraudulent manner, and end in the robbery and distress of the people?"—*Sandusky Clarion*.

A late Montreal paper furnishes the following "gem" in its account of parliamentary proceedings:—

"Hon. receiver general submitted a message from the governor general, with a large mass of documents, connected with outrages committed in the neighborhood of certain public works now in progress, and recommending some more effectual means of affording protection to her majesty's subjects in their lives and property than was now possessed by the government or magistrates. He moved also that some of them be read, which was done. The honorable gentleman then stated that those read were only a sample of what the bundle contained. They were a mere specimen of outrages unparalleled in any civilized country, and a disgrace to humanity. From the papers submitted some idea might be formed of the trouble the government have had for the last two months and a half. And those disgraceful outrages were still going on. The contractors had been brought to a stand still, and were afraid of their lives, the people in the vicinity had been robbed, their houses plundered, and travellers stopped on the highway. But it was impossible to identify the guilty, and the outrages could not be put a

stop to in the present state of the law, without a large military force. It was therefore for parliament to say what was to be done. His own opinion was that the works should be stopped, and ample power given to magistrates and the government to put an end to the horrible state of affairs."

The passage we have italicised contains the gist of the matter, and unquestionably gives the wishes of the governor as well as of the receiver general. If once stopped we in New York know that the resumption will not take place in a hurry. We are only astonished that it was not recommended by the governor long since. While getting rid of the "canallers" the government will be enabled to cast off that incubus the board of works, and apply the little means left to some honest and respectable purpose. We suspect that personal motives are not without influence in the Receiver General. The organ of self esteem must rise in rebellion when "the honorable gentleman" reflects for a moment on his own position at a Board, presided over by an engineer whose "professional career" is so long that its commencement is lost in obscurity.

The brilliant success which has attended the affair of the Beauharnois canal has led others to try their hands, and one of the most prominent appears to be an "honorable gentleman" who acted a part—subordinate it is true—but still very important in the above procurement.

"Mr. Gowan brought in his motion calling for an inquiry into the conduct of the board of works, with relation to the improper rejection of tenders, and also with regard to the charge of accepting bribes from contractors and others. There was an immense deal of angry discussion about this business. Mr. Gowan asserted that in one instance £300 was given to a person connected with the board; and that a situation of £500 per annum was offered to Mr. Merritt, M. P. for Lincoln, for his co-operation with the board, both in and out of parliament. This charge Mr. H. Merritt most vehemently denied, but admitted that a proposition of some kind had been made to him, but not from the board of works."—*St. Catharine's Journal*.

The Montreal Gazette of the 23d says:—

"We understand that the committee on the North Lincoln petition, have virtually sustained the sitting member, Mr. Merritt, by deciding in his favor the most important question; namely, whether he was or was not in the service of, or in connection with the Board of Works, at the time of the election. They say that he was not, and their decision has occasioned universal surprise to all who believed themselves acquainted with the particulars of the case."

It is important to keep these things before the eyes of the people, in order to prevent the re-introduction of the system in this State,

and to show how little probability there is that any injury could be inflicted on our trade by works under such management, even with natural advantages as great as those of New York.

BOSTON AND WORCESTER RAILROAD.

The directors of the Boston and Worcester railroad respectfully report, that the

Amount of their capital stock is . . . . .	\$2,900,000 00
The amount expended to the 30th of December last, for construction was . . .	2,914,078 08
The receipts of income during the year ending Nov. 30th, 1844, were,	
From fare of passengers	\$234,634 21
From freight	175,995 87
Transportation of the mail	8,738 77
Rents	7,044 75
Interest	2,023 74—
Balance of income undivided the preceding year	428,437 34
	35,500 00
	\$463,937 34

The expenditures during the same period were for repairs of road, bridges and buildings . . . . .	49,157 93
Of engines and cars . . . . .	57,337 52
For all other expenses . . . . .	126,778 47—
	233,273 92
Two dividends have been made, viz:—	
July 1, 1844, 3 $\frac{1}{2}$ per cent. . . . .	101,500 00
Jan. 1, 1845, 4 per cent. . . . .	116,000 00—
	217,500 00
Leaving a balance of income of . . . . .	13,163 42
Miles run by locomotive engines	
With passenger trains . . . . .	140,899 $\frac{1}{2}$
With freight trains . . . . .	71,451 $\frac{1}{2}$
With gravel trains . . . . .	8,273 $\frac{1}{2}$
Total miles . . . . .	220,623 $\frac{1}{2}$

From the prosperous state of the business of the country, and the satisfactory accommodations which have been provided for the transportation of both passengers and freight over this road, there has been a considerable increase in the business of the last year over that of any preceding year. This increase has arisen in part, from the extension of the business of the Western road, for the accommodation of which this corporation has made a very large expenditure of capital, but in a greater degree, from an increased activity of business, in those parts of the State which are specially accommodated by this road alone.

The number of passengers transported on the road during the year, including way and through passengers, was equal to 199,220 over the whole road. Of this number, 57,631 were passengers conveyed to and from the Western road; 41,101 to and from the Norwich and Worcester road, including those by the New York steamboat line; and 100,488 were passengers travelling exclusively on this road. These numbers show an increase in the aggregate of passengers compared with those of the preceding year, of 26,006. The whole of this increase was in the local travel of this road, and that connected with the Norwich and Worcester road. In the travel to and from the Western road, there was a diminution of about 2,000 in the number of passengers; and as the rates of fare received by this road, from that class of passengers had been reduced, there has been a considerable diminution in that branch of income.

The whole amount of freight transported on the road was 126,853 tons. Taking into

computation the distance of transportation, it was equal to 114,175 tons conveyed over the whole road. This quantity compared with the amount transported on the preceding year, shows an increase of 25,851 tons; of which increase, 13,741 tons was in the business of the Western road; 419 tons in that of the Norwich road; and 11,691 tons in the local business of our own road.

The earnings in the freight department during the past year, including the amount uncollected on the day of closing the yearly accounts, but subsequently collected, amount to \$198,820. This is an increase over the earnings of the preceding year of \$34,793. There was something more than this amount of increase in the earnings of the local freight business terminating at Worcester, and an increase of about \$3,000 in that which is connected with the Norwich and Worcester road. But in consequence of the reduced rates of compensation for freight transported to and from the Western road, although there has been an increase, as above stated, of 13,741 tons, in the quantity of that class of merchandise transported over the whole of this road, there has been a diminution of about \$4,000 in the compensation obtained for it. In consequence of the increase in the amount of freight transportation, there was an increase of \$20,033 in the expenses of this department. In consequence of the increased number of passenger trains, and some considerable charges for damages, occasioned by accidents, there has also been an increase of expenses of the passenger department.

	Whole amt.	Passengers.	Freight.
Repairs of Road . . . . .	\$49,157.93	24,579	24,579
Fuel . . . . .	31,640.65	15,442	16,199
Repairs of engines . . . . .	29,339.73	14,958	14,382
Other expenses of motive power . . . . .	10,721.58	7,114	3,608
Repairs of cars . . . . .	30,001.88	10,480	19,420
Wages, cars, oil, etc. . . . .	46,362.16	17,917	28,445
General expenses . . . . .	21,320.48	11,749	9,571
Damage and loss . . . . .	13,193.43	1,722	1,471
Road clearing . . . . .	1,450.26	799	651
Special mail expenses . . . . .	915.71	916	0
	\$231,003.81	115,676	118,326

This statement, as well as all the statements of the business of the road, for some years past, shows an unusually large proportion of annual expenses, to the gross receipts. Such a result, occurring from year to year, notwithstanding the very large amount of business done on the road in both the passenger and freight departments, and the strict economy with which the business is conducted, serves to show the low rates of compensation charged on the business done. This is shown also by a comparison of the rates of fare and freight charged per mile, with the ordinary rates on other railroads in the country and in other countries, in corresponding circumstances.

This large proportion of expenses, to the receipts of income, has arisen to a certain extent, from the voluntary adoption by the directors, of what they deemed a liberal and wise policy, of encouraging the expansion and enlargement of the business on the route, by frequent trains and low rates of fare and freight. But it has been increased to a burdensome extent by the recent excessively low rates for passengers and freight from the

Western road. The directors were of opinion, from the first opening of the road, that a policy which would afford the means of larger accommodation and benefit to the public, would be productive of ultimate benefit to the stockholders of the road. They have been always desirous of going to the extreme limit of reduction, which was consistent with the rights of the stockholders, and the duty of the directors, of obtaining a just and reasonable income on the great capital invested. But they believed that they had no right to sacrifice these interests in hazardous experiments, or in donations to the public.

For the purpose of showing more fully than has been stated in the beginning of this report, the amount of business done during the year, ending on the 30th of November last, in the several departments, together with the earnings, expenses, and net income, the following table is presented. The statement shows not only the aggregate of business and profits in the several departments, but distinguishes under separate heads the joint business with the Western road, and that with the Norwich and Worcester road, from the local business of the Boston and Worcester road, so as to show the extent of the business and amount of income of each branch.

STATEMENT OF INCOME AND EXPENSES, FOR YEAR ENDING NOV. 30, '44.	To & from Western road alone		To & from Norwich & Worcester road		Total
	B. & W.	N. & W.	B. & W.	N. & W.	
<b>FREIGHT.</b>					
Tons carried one mile . . . . .	1,381,198	3,231,444	441,298	5,023,870	
Earnings . . . . .	\$93,833	\$83,802	\$21,135	\$198,820	
Expenses . . . . .	32,525	75,408	10,393	118,326	
Net income earned . . . . .	58,358	8,394	13,742	80,494	
<b>PASSENGERS.</b>					
Passengers carried one mile . . . . .	421,497	2,535,719	187,911	6,905,187	
Equal to through . . . . .	100,488	57,631	41,101	199,220	
Receipts . . . . .	\$34,839	\$59,220	\$10,545	\$231,634	
Expenses . . . . .	58,347	33,463	23,866	115,676	
Net passenger income . . . . .	76,492	25,757	16,679	118,928	
Mail, rent, etc. . . . .	235,722	143,752	61,680	442,153	
Gross income and earnings . . . . .	90,872	108,871	31,259	234,002	
Total expenses . . . . .	134,850	34,181	30,421	208,191	
Total net income . . . . .				295,811	

This statement shows that the net income of the business of this corporation during the year, amounted to \$208,191, which is equal to 7 $\frac{1}{2}$  per cent. on the capital stock of the corporation. It shows that the rate of profit on that portion of the business, which is done in connection with the Norwich and Worcester road, including the steamboat line, under the arrangement which has been alluded to, with the directors of that road, is less than on the local business of the road, the line being such that on account of the competition of other lines, and other modes of transportation, it must be done at low rates, or it would be transferred to other routes. It shows also that the rate of profit arising from the portion of the business which consists of the conveyance of passengers and freight, to and from

The earnings on freight are given above, and not the receipts on freight; which will account for the variation from the statement of receipts at the beginning of the report.

the Western road, is still much less; affording a very inadequate compensation, in proportion to the amount of the business, for the capital required for transacting it, and even for that proportion of the capital which was expended for the special accommodation of this part of the business.

*Proposition submitted to the Directors of the Western Railroad, for the mutual regulation of the joint Fares and Freights.*

1. Each corporation shall be entitled to the whole income earned upon its own road.

2. The rates of fare and freight, for the joint business of the two roads, shall be determined by mutual agreement between the two boards of directors.

3. In determining the rates of fare and freight for the joint business of the two roads, it shall be first ascertained what difference between their respective rates will afford to each corporation an equal net profit per mile, on each passenger, and each ton of freight transported (over the whole or any part of both roads,) taking into consideration the annual charges and the annual interest on the cost of each, with its appurtenances, and averaging these on the whole business of the respective roads. The rates established shall be such, as with a just allowance for this difference of annual expenses and interest, will give to each road an equal net profit per mile on each passenger of the same class, and each ton of freight of the same class.

4. For the purpose of ascertaining the said charges of the two roads for current expenses and annual interest, averaged on each passenger and each ton of freight carried one mile, for regulating the comparative rate of fare and freight on them for the year 1845, an accurate statement shall be made of the business of each road in the year 1844, which statement shall exhibit

1. The amount of freight transportation, estimated by the number of tons conveyed one mile, and the amount of passenger transportation by the number of first class passengers conveyed one mile, including also an allowance for second class passengers, equal to two thirds of the number so carried.

2. A statement of the current expenses of the year, including the cost of repairs of road, bridges, buildings, engines, and cars, and all charges for loss, damage, and general expenses. The charges for the passenger and freight departments of business, to be stated separately, and those which cannot be divided by a more equitable rule, to be divided between the two departments, in proportion to the gross receipts from passengers and freight.

3. A statement of the cost of each road, with the annual interest thereon. The interest to be reckoned at six per cent., except such part of the cost of the Western road as is defrayed by loans on State stocks, and Albany bonds, which shall be stated at the amount actually paid. The interest so ascertained on the cost of each road, to be divided between the passenger and freight departments, in proportion to the amount of receipts of income from passengers and freight.

4. These amounts being ascertained, the aggregate of the expenses of the passenger

department on each road, including its proportion of general expenses, and also its proportion of interest, to be divided by the number of passengers conveyed one mile on the same road, ascertained as above prescribed; and the difference between the results, so obtained, shall be the difference in the rate per mile of first class fare to be established on the two roads, for the joint business during the current year. The difference between the second class rate to be in the same proportion. The aggregate expenses of the freight department on each road, with the interest apportioned thereto as above described, to be divided by the number of tons conveyed one mile, and the result so obtained to govern the difference per mile, in the rates of freight to be charged on the two roads.

5. At the commencement of each succeeding year, similar statements to be made, of the business and expenses of the preceding year, with the interest, and divided between the two departments as above prescribed, and new results obtained, for regulating the difference in the rates of fare and freight, which each road shall receive for the joint business on their respective roads for the current year.

WESTERN RAILROAD REPORT.

The directors of the Western railroad corporation present to the stockholders their tenth annual report of the business of the corporation for the year 1844, and of the condition of the road and its finances at the close of that year.

Inquiries have so frequently been made in reference to the capital, debts, and available means provided for the construction of the road, that it is feared some misapprehension may have existed among the stockholders on these subjects, arising from the brief and general manner of stating them in former reports. To obviate this inconvenience, it is now proposed to present more particular statements on these points accompanied with explanations by which they may all be clearly understood. This will be done under the heads of

- I. Chartered capital,
- II. Nominal means provided for construction,
- III. Assets actually received out of nominal means, and available for construction,
- IV. Debts contracted for construction,
- V. Amount expended for construction,
- VI. Sinking funds for payment of debts.

1. Of the Capital.

The capital authorized by the original charter was \$2,000,000, and it was increased by 1,000,000, by a subsequent act,—the State subscribing for that amount—making the chartered capital \$3,000,000, one third owned by the State, and two thirds by 1121 private stockholders.

This amount has been all paid in or realized as follows, viz:

Amount paid in full, by stockholders on 26,731 shares ..... \$2,673,400  
 The balance of the shares 3,266, were either abandoned to, or bought in by, the corporation, after there had been paid thereon ..... \$40,193.21  
 Amount paid on the same by the corporation, to fill up the stock, and temporarily charged to "deferred account,"

being the actual cost to the corporation, \$87.69 per shr., (now worth par), ..... 283,406.80— 326,600  
 \$3,000,000

This is considering the shares on hand as cash, at \$87.69 The excess of that sum produced on sale, is available for construction; the construction account having been charged with more than that amount in interest, on account of these shares, on Dec. 31, 1842, as per report of Jan. 7, 1843.

II. Of the NOMINAL means provided for the construction and equipment of the road.

- 1. The chartered capital as above ..... \$3,000,000
- 2. The State scrip or sterling bonds of the commonwealth, authorized by three acts of the legislature, and payable as follows, viz:

April 1, 1868 .....	£135,000	
October 1, 1868 .....	337,500	
October 1, 1869 .....	90,000	
April 1, 1870 .....	190,000	
April 1, 1871 .....	157,400	
	£899,900	\$3,999,555.56

Of the amount authorized, £100 have not been issued.

3. Bonds or scrip of the city of Albany payable as follows, viz:

July 1, 1866 .....	\$250,000
" 1, 1870 .....	300,000
" 1, 1871 .....	200,000
" 1, 1876 .....	250,000—1,000,000.00

Total nominal means provided ..... \$7,999,555.56  
 The whole of the scrip and bonds have been sold.

III. Statement of the ASSETS actually received out of the NOMINAL means provided, and available for construction.

- 1. Chartered capital paid in ..... \$3,000,000
- 2. Proceeds of £380,800 State scrip, sold in England, from 1838 to 1841, at a premium—amount realized here—including premium and exchange ..... \$1,838,911.96
- Less prem..... 21,935.06
- Less exch..... 124,532.46
- Paid to the sinking fund per acts of the legislature ..... 146,467.52
- Available net, ..... 1,692,444.44
- 3. Amount of balance of State scrip, £519,100, sold in this country at a loss, and subsequently to the above payments, to the sinking fund ... \$2,307,217.82
- Less net discount on sale. 138,574.35
- Available net, ..... 2,168,731.07
- 4. Am't of Albany bonds \$1,000,000
- Less net dis. on sale of same, 9,574.35
- And am't paid Albany sinking fund, per contract .... 193,000.00— 109,574.35
- Available net, ..... 890,425.65

Total assets available for construction, \$7,751,601.16

Viz: Chartered capital... 3,000,000.00  
 State scrip..... 1,861,175.51  
 Albany bonds..... 890,425.65— 7,751,601.16  
 To which will be added the amount to be realized on the sale of 3266 shares of stock, above its nominal cost of \$87.69 per share, (without interest).

IV. Of the DEBTS of the corporation contracted for CONSTRUCTION, and payable from 1868 to 1876.

Of the total amount of State scrip issued—£899,900—the part sold in England, is at all events payable there at sterling, say £380,800 at \$4.44 is \$1,690,752.

To which must be added the exchange for remitting the funds, at the rate it shall rule, at the maturity of this part of the scrip.



The balance £519,100 was sold in this country, reckoned and to be redeemed, if here, at \$4.80, though sold at a discount;—with the right to the holder to receive payment here at that rate, on giving 60 days prior notice— or in England at sterling (\$4.44) at his option,—this corporation giving him a separate agreement to that effect.

Of course, the actual amounts to be paid on both parcels, will depend upon the rate of exchange at the maturity of the several issues.

Estimating the whole at \$4.80 for the pound, the amount to be paid on £899,900, will be, as stated in the last report—

Loan.....\$3,999,555.56  
Exchange or its equivalent.....319,964.44

\$4,319,520.00

Add Albany bonds.....1,000,000.00

Total construction debt payable from

1863 to 1876.....\$5,319,520.00

For which there is provided in the two

sinking funds, as of Jan. 1, 1845... 389,210.17

Balance of debt to be provided for....\$1,930,309.83

**V. Statement of the entire amount expended for the construction and equipment of the road.**

The expenditures for construction and equipment, in the year 1844, have been as follows:

OBJECTS.	Western rd. in Mass.		Albany rd. in N. York.		Totals.
	Dollars.	Dollars.	Dollars.	Dollars.	
For masonry and graduation.....	44,364 31	6,542 01	50,906 32		
Superstructure.....	7,433 14		7,433 14		
Bridging.....	1,644 07		1,644 07		
Depot Buildings, Fixtures, Aqueducts, etc. ....	30,537 23	3,019 21	33,556 44		
Depot lands.....	5,842 00	4,550 75	10,392 75		
Land damages.....	500 00	7,000 00	7,500 00		
Engineering.....		24 94	24 94		
Engines.....	24,405 70		24,405 70		
Passenger cars.....					
Merchandise.....	37,306 83		37,306 83		
Fences.....	4,470 24	6 22	4,476 46		
Ferry boat.....		28 66	28 66		
	156,503 52	21,171 79	177,675 31		
Less iron rails transferred from Albany to Western rd.	8,715 00	8,715 00			
	165,218 52	12,456 79	177,675 31		

The total expenditures to January 1, 1845, are as follows:

Western R. Road	Construction.	Eng. & cars.	Total.
Prior to January 1, 1844.....	Dollars. 5,181,505 95	Dollars. 576,023 79	Dollars. 5,757,529 38
In 1844.....	100,019 04	61,712 53	161,731 57
	5,281,524 63	637,736 32	5,919,260 95

Albany and West Stockbridge Railroad.	Construction.	Total of both roads to January 1, 1845.
Prior to January 1, 1844..	Dollars. 1,753,530 28	Dollars. 7,511,059 66
In 1844.....	13,411 24	175,142 81
	1,766,941 52	7,686,202 47

The items prior to January 1, 1844, as given in the report of 1844, have been corrected from the books.

**TRANSPORTATION DEPARTMENT.**

The receipts from the business of the road in 1844, were as follows:

For passengers.....\$358,694 00  
" merchandise.....371,131 84  
From other sources, mail, package expr's, rents, etc 23,926 88  
Total receipts.....\$753,752 72

The annexed table gives these items monthly.

The expenses on the same account for 1844, were as follows:  
Repairs of roads & bridges 61,390 49  
" engines.....29,782 44  
" cars.....21,510 08

" buildings, tools, ferry boat, etc..... 11,538 33  
Fuel in engine and buildings and ferry boat.... 63,984 88  
Other transportation expenses..... 98,028 95  
General expenses..... 27,839 03  
Total expenses..... 314,074 20

The annexed tables show these items monthly.  
The balance gives the net receipts.... 439,678 52

Of this amount, the whole interest of the permanent and temporary loans requires, as by the treasurer's books..... 257,977 49  
Paid to Mass. sink'g fund 49,000 00  
" Albany " " 10,000 00  
337,977 49  
101,701 03

Balance is the net surplus Jan. 1, '45. Since Jan. 1st a dividend of 3 per cent. has been declared, which on 26,734 shares, being all not owned by the corporation, is..... 80,212 00

Leaving a surplus carried forward the present year of..... 21,489 03

The annexed account of the treasurer presents his statement of the entire receipts and payments for the year, as of January 1, 1845.

The whole number of miles run by all the trains in 1844, was as follows:

For passenger trains.....212,892 1/2  
For merchandise trains.....255,376 1/2  
For other trains, road repairs, wood, etc... 31,699 1/2

Total miles run.....499,968 1/2

A table annexed gives the same monthly. The expenses averaged upon the miles run give per mile.....63 4-100

The whole number of passengers carried over the road during the year was:

Through passengers, 1st class.. 17,016 1/2  
" " 2d " .. 7,314 - 24,330 1/2  
Way " 1st " .. 140,863 1/2  
" " 2d " .. 55,058 1/2 - 195,921 1/2

Total passengers.....220,257 1/2  
Do. in 1843.....200,965 1/2

Excess.....19,292 1/2

A table annexed shows the number of passengers monthly.

By reference to the tables of each year, it will be seen that the number of through passengers is stated in 1844 less than in 1843.

This is mainly owing to the fact, that in the greater part of 1843, the difference between the through and way fare was so great, that way passengers, to a considerable extent, took through tickets, and were thus registered as through passengers. There was no inducement for such a practice in 1844.

The whole number of tons nett, carried one mile by the merchandise trains, was:

In 1844.....11,166,704  
In 1843.....9,414,621  
Increase.....1,752,083

The whole tonnage is equal to 71,581 tons carried over the whole length of the road, 156 miles.

The number of miles run by merchandise trains in 1844 being 255,376, is equal to 1,637 trips through, averaging 43 1/2 tons each train.

The through freight from Boston to Albany in 1843, was 5,268 tons; in 1844, 6,764; increase, 1,496.

The amount of freight received at, and sent from Boston, in connection with the Western road, was:  
In 1844.....69,842 tons  
In 1843.....56,376 "  
Increase.....13,474 "

The number of barrels of flour from Greenbush and vicinity to Boston, was

In 1844.....154,413  
In 1843.....123,366 - 31,074

The whole number of barrels of flour sent from Greenbush to all stations, was

In 1844.....297,403

The amount, charged on all merchandise forwarded eastward from the Greenbush station, was

In 1844.....\$923,572  
In 1843.....167,087

\$56,485

The amount charged on merchandize forwarded from Greenbush eastward, in the month of January, for three years, was

In 1843.....\$6,622  
In 1844.....13,677  
In 1845.....20,216

To be continued.

**MISCELLANEOUS ITEMS.**

A mention was made in this paper, some weeks since, of a new invention which promised to overcome the obstacles hitherto presented in the travel of Inclined Planes on Railroads. We had the pleasure of viewing the model in operation yesterday, in the great room of the Exchange, and what was done seemed to warrant the belief, that the inventor, Mr. Coleman, has accomplished an object much desiderated. A small locomotive, with but 1 1/2 inch bore of piston, and 1 1/2 inch stroke, drew after it a car loaded with fifty-six pounds of iron, up a plane placed at an elevation of six degrees, with perfect ease, and stopped at any point desired—moving backward and forward entirely at the will of the engineer.

Along the centre of the track of the plane, a beam was laid, on which were placed, at a distance of about an 1/4 of an inch apart, circles of iron, each one moving horizontally around a centre pin fixed to the beam. On the bottom of the locomotive an endless screw was fixed, the thread of which fell exactly into the vacant space between the circles, catching on at least three of them at once when the locomotive was fairly in motion. The screw was connected by a cog-wheel to the driving wheels of the engine, and derived its motion from them. It is easy to see that when in motion the engine will pass along regularly and steadily, by the motion of the screw, and that when it is stopped, each thread of the screw will rest against a fixed body—and the flanges of the engine wheels not permitting any motion to either side, the pressure is kept fixed and firm against the circles, which become then a sustaining power.—U. S. Gaz.

**REDUCTION OF RATES.**—Col. Elmore, in a letter to a Committee in Kershaw District, S. C. thus speak of the income of the South Carolina Railroads, and gives a striking illustration of the effect which a reduction of the rates of freight and passage has had in increasing the business and profits of the Company. He says: "Let facts speak—I give the profits of our Railroad for five years:

1840. Receipts were - \$322,740:95  
1841. " " - 349,834:44  
1842. " " - 348,355:95

We then reduced freights nearly 50 per cent., and passengers' fares nearly 40 " "

And yet our receipts were

1843. " " - \$348,355:51  
1844. " " - 533,657:00

The first year of reduction, viz: 1843, we gained immensely in freights, but not enough to make up fully—but in 1844, our rates had become known, and our business has been immense.—Ga. Mess.

**SHAMOKIN AND POTTSVILLE RAILROAD.**—Mr. Kimber Cleaver, Engineer, who surveyed the route of the above mentioned Railroad, exhibited to us a beautiful draft of the route from

which we glean the following particulars: The Road will be 39 miles in length, and can be completed at a cost of \$690,000, laid with an Iron Rail weighing 60 lbs. to the yard. The greatest rise is 73 feet to the mile. We shall refer to this road again. Want of room cuts our notice short this week.

The most powerful establishment I ever visited, is the Copper Rolling Mill of Messrs. Phelps, Dodge & Co. It will well pay a visit of the curious. The machinery is driven by three water wheels, two of them of enormous size. The balance wheel is some eighteen feet in diameter. This, you will readily see, would take a pretty high building to revolve in. The rollers are said to be the largest in the country; they would be apt to hurt a person's feelings to get between them when under full headway. Some fifteen hundred dollars worth of copper is turned out per day in sheets, besides a large lot in copper bars of various sizes. A piece of copper some twenty-four inches long, twenty wide, and three inches thick, is put between the rollers and comes out a large sheet, any thickness desirable, from one inch down to the thickness of a wafer. This mill has not been in operation for a day or two past, owing to the freshet in the Naugatuck. There are employed some thirty-five men.—*N. H. Courier.*

**IRON COLLIERIES.**—We learn that a number of capitalists in Philadelphia and New York, propose constructing a number of Iron Steam Colliers, similar to those plying between New Castle and London, of about 700 tons burthen, to carry Coal by Sea from Richmond to New York and other Eastern ports. The trial made by the Errickson Propeller during the last season has demonstrated that Coal can be carried very cheap from Philadelphia by this mode of conveyance.—*Minor's Journal.*

**GEOLOGY OF NEW HAMPSHIRE.**—The Geological survey of Dr. Jackson has disclosed an unexpected amount of mineral wealth in the "Granite State." In the town of Bartlett, an iron mine has been discovered, possessing ore of excellent quality and of inexhaustible amount. The locality was formerly worthless; it has recently been sold for \$10,000. In Eaton a vein of zinc ore was discovered, more abundant than that of Bristol, England. The mine will furnish zinc sufficient to supply all New England. At Warren, copper ore was found, of such character and in such quantity as to warrant mining. In Jackson a vein of tin was discovered. Other valuable metals and ores were found, showing that New Hampshire is rich in mineral treasures.

Such facts establish the value of geological surveys. Massachusetts was one of the first to authorize such a survey; and the proposition for the survey encountered no little opposition from the "penny wise and pound foolish"—from those dear lovers of "the people," who are unwilling to take a shilling out of their pockets, that a dollar may be put in.—*Hampshire Gazette.*

**LOCOMOTIVES AND STEAMBOATS IN FRANCE.**—It is officially stated that in 1842, there were in France 204 locomotives belonging to the different railroads, and 229 steamboats, representing a force of 35,000 horses, which conveyed in that year 996,826 tons of goods, and 2,515,991 passengers.—*Phil. Inq.*

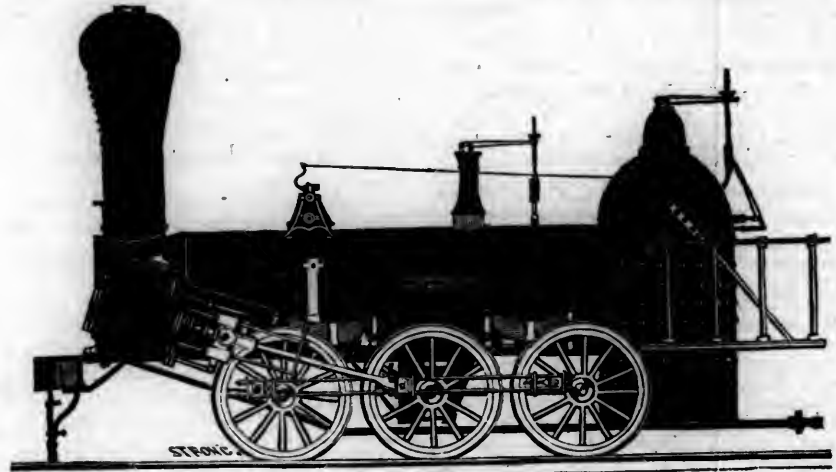
**FRENCH RAILWAYS.**—We have received several communications advocating the respective merits of Dover and Calais, and Folkestone and Boulogne, as routes from London to Paris, and building thereon arguments for or against the North (Calais) and the Boulogne Railways. As we make it a rule never to enter into these

petty local controversies, but to treat all railway questions on the broad principle of public and general advantage, we should not notice these effusions had we not the hope of somewhat allaying the lamentable ill-feeling which has so long and violently existed between Calais and Boulogne. Whatever may have been the case formerly, what has taken place since the opening of the Dover Railway and the establishment of steamers between Folkestone and Boulogne, shows that Calais must submit to lose the greater part of its former London and Paris passengers, which the much shorter distance by Boulogne will certainly induce to prefer the latter route. This preference will also certainly be rather increased than otherwise when the projected lines of railway from both places will be opened. Calais will, however, be compensated, as we

stated last week, by obtaining a large proportion of the traffic to Belgium, Germany, the Rhine, &c., which now goes by Ostend and Antwerp. Thus both places will have their share of traffic—that share which their natural position has given to each—and Calais will still continue to be one of the chief entrances to the continent, although Boulogne will gain a large accession of the direct Paris and London traffic.

As to the two companies, of the north line, and of that of Boulogne and Amiens, we cannot conceive how any rivalry, or other than the best feeling, can ever exist between them, for the whole of the London and Paris passengers and goods must go over 90 miles of the north railway—from Amiens to Paris—so that in fact they will have a reciprocal interest in each others welfare.—*Railway Times.*

## NORRIS' LOCOMOTIVE WORKS, BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	15 inches Diameter of Cylinder,	× 20 inches Stroke.
Class 1,	15 inches	× 20 inches
" 2,	14 " "	× 21 " "
" 3,	14½ " "	× 20 " "
" 4,	12½ " "	× 20 " "
" 5,	11½ " "	× 20 " "
" 6,	10½ " "	× 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

NORRIS, BROTHERS.

KITE'S PATENT SAFETY BEAM.

Messrs. Editors.—As your Journal is devoted to the benefit of the public in general I feel desirous to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstance attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

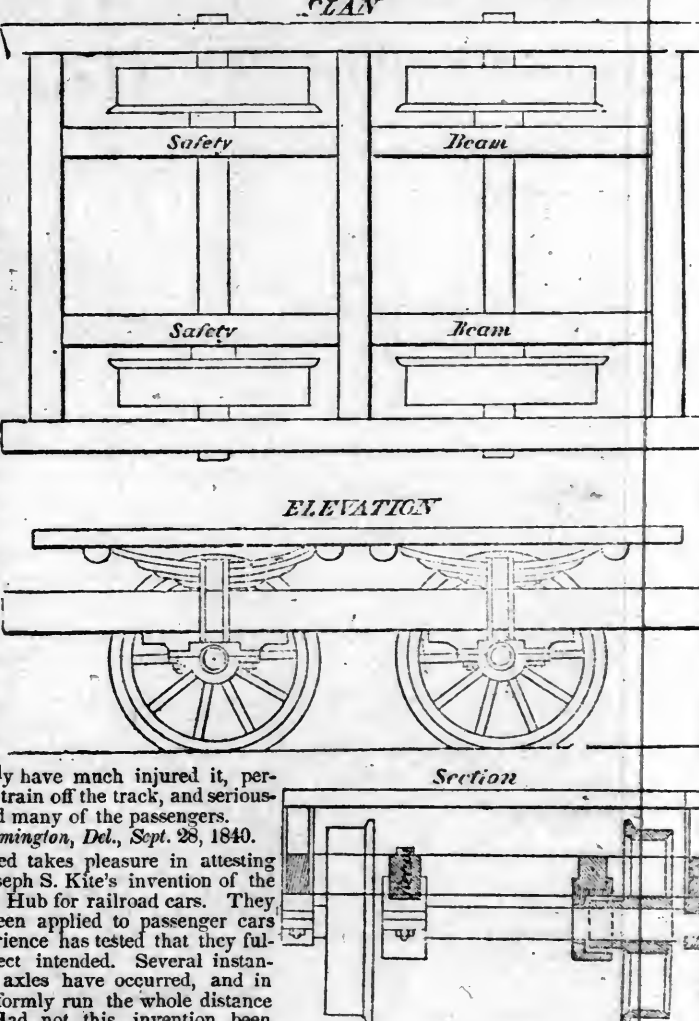
The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

REFERENCES.— Boston, Col. James F. Baldwin, Civil Engineer. Col. J. M. Fessenden, " Wm. Parker, Esq., Engineer and Superintendent Boston and Worcester railroad. ja45

RAILROAD IRON AND FIXTURES: THE Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO., 21, Broad st., N. York. ja45

SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent, ja35 Albany Iron and Nail Works, Troy, N. Y.

LONG ISLAND RAILROAD COMPANY. Trains run as follows, commencing November 1st, 1844:

Leave Brooklyn at 8 a. m. (7 1/2 New York side)—Boston Train—for Greenport, daily, Sundays excepted, stopping at Farmingdale and St. George's Manor. Leave Brooklyn at 9 1/2 a. m. for Hicksville and intermediate places, daily; and on Tuesdays, Thursdays and Saturdays, through to Greenport and intermediate places. Leave Brooklyn at 4 p. m. for Hicksville and intermediate places, daily, Sundays excepted; and on Saturdays to Suffolk Station. Leave Greenport for Brooklyn, Boston Train, at 1 p. m. or on the arrival of the steamers, (daily, Sundays excepted, stopping at St. George's Manor and Farmingdale. Leave Greenport at 9 a. m. Accommodation Train, for Brooklyn and intermediate places, on Mondays, Wednesdays, and Fridays. Leave Hicksville for Brooklyn and intermediate places, daily, Sundays excepted, at 7 a. m. and 1 1/2 p. m.

ON SUNDAYS. Leave Brooklyn for Hicksville and intermediate places, at 9 1/2 a. m. Leave Brooklyn at 4 1/2 p. m. for Jamaica. Leave Hicksville at 2 1/2 p. m. for Brooklyn. Leave Jamaica at 8 a. m. for Brooklyn. Leave Jamaica at 3 1/2 p. m. for Brooklyn. ja1

BOSTON AND PROVIDENCE RAILROAD. PASSENGER NOTICE.—Winter Arrangement.—To commence Monday, November 4.

On and after Monday, Nov. 4, the Passenger Trains will run as follows: For New York—Night Line, via Sound Steamers—Leave Boston at 4 P. M. on Tuesday, Thursday and Saturday. For New York—Morning Line, via Long Island Railroad—Leave Boston at 8 A. M. on Monday, Wednesday and Friday; Boston, Providence, Taunton, New Bedford and Weymouth. Leave Boston at 8 A. M. and 3 P. M.; and Providence at 6 A. M. and 3 P. M. Taunton at 6 A. M. and 3 P. M. New Bedford, at 7 A. M. and 2 1/2 P. M. Dedham Trains. Leave Boston at 9 A. M.—3 P. M., 5 1/2 P. M. Dedham at 7 50 A. M., 10 A. M., 4 1/2 P. M. All baggage is at the risk of the owners thereof. WM. RAYMOND LEE, Sup't.

FITCHBURG RAILROAD. OPEN TO ACTON. Passenger Trains will run as follows: Leave Charlestown at 8 A. M. and 1 and 4 P. M. Leave West Acton at 7 30 and 10 51 A. M., and 5 6 P. M.

Stages on the arrival of the first Train of Cars at Acton, leave daily (Sundays excepted) for Littleton, Groton, Townsend, Lunenburg, Fitchburg, Ashburnham, Winchendon, Westminster, South Gardner, Templeton, Phillipston, Athol, Mass.; Fitzwilliam, Troy, Swansey, Keene, Walpole, Charlestown, N. H.; Chester, Windsor, Woodstock, Rutland, Middlebury, Royalton, Montpelier, and Burlington, Vt. For further information, apply to THOMAS A. STAPLES, No. 36 Hanover st., or L. BIGELOW, No. 11 Elm st., Boston. Passengers leaving their names at the above offices, will be supplied with Railroad and Stage tickets, and conveyed to the Fitchburg Rail at Depot, free of charge. Coaches will be at the Depot in Charlestown, on the arrival of the Cars, to convey passengers to any part of the city. ja1 S. M. FELTON, Engineer.

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.  
J. P. JACKSON, Esq., Secretary.

ROBERT SCHUYLER, Esq., Vice President.  
J. WORTHINGTON, Esq., Treasurer.

	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
Leave New York, foot of Cortland street.						
For Newark.....	9, 11, 12.....		2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4	
" Elizabethtown.....	9, 11.....		2, 3, 4 3-4, 6.....			
" Rahway.....	9, 11.....		3, 4 3-4, 6.....			
" New Brunswick.....	9.....		3, 4 3-4.....			
Leave						
New Brunswick.....	6, 7 1-2, 11 1-2.....		8 3-4.....	11 1-2	8 1-2	
Rahway.....	6 3-4, 7, 8 1-4, 12.....		4 3-4, 9 1-4.....			
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12		3 1-2, 5.....			
Newark.....	7 1-2, 8 1-4, 9, 11.....		1 1-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4	

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

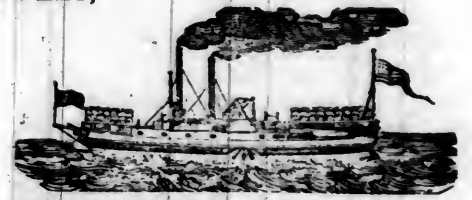
TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick.	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....										
Newark.....	9 1-4	25	9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2	5 1-2	12 1-2	10 1-2	25	22 1-2	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2	5	12 1-2	16 3-4	50
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2	11 3-4	37 1-2

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS	A. M.	P. M.	MILES.	FARE.
Boston	Portland	Boston and Maine,		Daily,	7½	2½	109	\$3 00
"	Somersworth	"	"	"	7½	2½, 3½	69	2 12½
Portland	Boston	"	"	"	7½	3	109	3 00
"	Somersworth	"	"	"	4½, 9½	4½	40	.....
Boston	Lowell	Boston and Lowell,		"	7, 11	2, 5	26	75
Lowell	Boston	"	"	"	7½, 11	2, 4½, 5½	25	75
Boston	Concord	Concord,		"		3½	76	2 00
Concord	Boston	"	"	"		3½	76	2 00
Boston	Nashua	Nashua and Lowell,		"	7, 11	5	41	.....
Nashua	Boston	"	"	"	6½	1½, 5	41	.....
Boston	Worcester	Boston and Worcester,		"	7, 9	2½	48	1 25
Worcester	Boston	"	"	"	7, 10	6	48	1 25
"	"	"	"	Sundays,	7			
Boston	Worcester	"	"	Daily,	9½	3, 5		
"	Newton	"	"	"	8, 10	4		
Newton	Boston	"	"	Mon., Wed. & Fri.,		4		
Boston	New York via Norwich	"	"	Tues., Thur. & Sat.,	7			
"	" " L. Island railroad	"	"	Daily,	9	2½		
"	" " New Haven	"	"	"	9	2½	156	6 00
Albany	Boston	Western,		"	8½	1½	156	6 00
Springfield	Boston and Albany	"	"	"	7	3		
Boston	New York via New Haven	"	"	"		2½		
Charlestown	West Acton	Fitchburg,		"	8	1, 4½		
West Acton	Charlestown	"	"	"	7½, 10½	5		
Boston	New York, via Sound steambot	Boston and Providence,		Tues., Thur. & Sat.,		4		
"	" " L. Island railroad	"	"	Mon., Wed. & Fri.,	8			
Providence	Boston	"	"	Daily,	8	3½	41	1 50
Taunton	"	"	"	"	8	3½	41	1 50
New Bedford	Boston	"	"	"	8½	3½		
Boston	Dedham	"	"	"	7½	2½		
Dedham	Boston	"	"	"	9	3, 5½		
New York	Greenport	Long Island,		"	7½, 10½	4½		
Brooklyn	Hicksville & intermediate places	"	"	"	7½		95	2 25
"	Greenport	"	"	"	9½		26	56½
"	Hicksville, (Satur'dy to Suffolk)	"	"	Tues., Thur. & Sat.,	9½		95	2 25
Greenport	Brooklyn, (Boston train)	"	"	Daily,		4	26	56½
"	" (accommodation do.)	"	"	"		1	95	2 25
Hicksville	" & intermediate places	"	"	Mon., Wed. & Fri.,	7		95	2 25
New York	Albany & Boston via N. Haven	Steamer,		Daily,		1½	26	56½
"	Middletown	New York and Erie,		"	6½			5 00
Middletown	New York	"	"	"	8, 3		53	.....
Philadelphia	Pottsville	Reading,		"	6½	3½	53	.....
Pottsville	Philadelphia	"	"	"	9		94	3 50
New York	Newark	"	"	"	9		94	3 50
Newark	New York	N. J. railroad and trans. co.,		"	9, 11, 12	2, 3, 4½, 6, 7½	9½	25
"	"	[9 A. M. and 3 P. M., con-		"	7½, 8½, 9, 11	1½, 4, 5½, 7, 9½	9½	25
"	"	nect with Morris Railroad.]		Sundays,	9	4½	9½	25
New York	Newark	[9 A. M. and 4½ P. M., trains,		Daily,	11½	9½	9½	25
"	Elizabethtown	connect with Somerville Rail-		"	9, 11	2, 3½, 4½, 6	14½	31½
Elizabethtown	New York	road.]		"	7, 7½, 8½, 10½, 12	3½, 5	14½	31½
New York	Rahway	N. J. railroad and trans. co.,		"	9, 11	3, 4½, 6	19½	31½
Rahway	New York	"	"	"	6½, 7, 8½, 12	4½, 9½	19½	31½
New York	New Brunswick	"	"	"	9	3, 4½	31½	50
New Brunswick	New York	"	"	"	6, 7½, 11½	8½	31½	50
"	"	"	"	Sundays,	11½	8½	31½	50
New York	New Brunswick	"	"	"	9	4½	31½	50
Philadelphia	New York	Camden and Amboy,		Daily,	7		91	3 00
Philadelphia	Philadelphia	"	"	"	5½		91	3 00
Philadelphia	Bristol	Philadelphia and Trenton,		"	9		39	75
Bristol	Philadelphia	"	"	"		4	30	75
Philadelphia	Baltimore	Philad. Wil. and Baltimore,		"	8		93	.....
Baltimore	Philadelphia	"	"	"	9		93	.....
"	Washington	Baltimore and Washington,		"	9	5, 11½	41	2 50
Washington	Baltimore	"	"	"	6	5½	41	2 50
Baltimore	Cumberland and inter. places	Baltimore and Ohio,		"	7½			
"	Frederick	"	"	"		4		
Cumberland	Baltimore	"	"	"	8			
Hancock	"	"	"	"	10½			
Martinsburg	"	"	"	"	11½			
Harper's Ferry	"	"	"	"		12½		
Frederick	"	"	"	"		2		
"	"	"	"	Sundays,	8			
Ellicott's Mills	"	"	"	Daily,	7½, 12	4½		
Richmond	Petersburg	Richmond and Petersburg,		"	10½	1½		
Petersburg	Richmond	"	"	"	5½			
Albany	Schenectady	Mohawk and Hudson,		"	8			
Schenectady	Albany	"	"	"	9	3½		
Albany	Saratoga	"	"	"	7½	2		
Saratoga	Albany	"	"	"	7	12½, 5		
Troy	Saratoga	Troy and Saratoga,		"		3½		
Saratoga	Troy	"	"	"	7½			
Auburn	Rochester	Auburn and Rochester,		"	8½			
Rochester	Auburn	"	"	"	8	3		
"	Buffalo	Rochester and Buffalo,		"		3		
Buffalo	Rochester	"	"	"				
"	Falls	Buffalo and Falls,		"	9			
Falls	Buffalo	"	"	"		1½		
Buffalo	Albany	Albany and Buffalo		"	8½			

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



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[WHOLE No. 452, VOL. XVIII.

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market. Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer. All orders directed to the Agent, Troy, N. York, will be punctually attended to.

### HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janvier, Baltimore; Degrand & Smith, Boston. Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

**TO RAILROAD COMPANIES AND MANUFACTURERS OF railroad Machinery.** The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**RAILWAY IRON, LOCOMOTIVES, ETC.** The subscribers offer the following articles for sale:

Railway Iron, flat bars, with countersunk holes and mitred joints.	lbs. per ft.
350 tons 2 by 15 feet in length weighing	4.68
289 " 2 " " " "	3.50
70 " 1 1/2 " " " "	2 1/2
80 " 1 1/4 " " " "	1.26
90 " 1 " " " "	1

with spikes and splicing plates adapted thereto. To be sold free of duty to State governments, or incorporated companies.

Orders for Pennsylvania Boiler Iron executed. Railroad Car and Locomotive Engine tires, wrought and turned or unturned, ready to be fitted on the wheels, viz: 30, 33, 36, 42, 44, 54 and 60 inches diameter.

E. V. Patent chain cable bolts for railway car axles, in lengths of 12 feet 6 inches, to 13 feet 2 1/2, 2 3/4, 3, 3 1/2, 3 3/4, and 3 1/2 inches diameter.

Chains for inclined planes, short and stay links, manufactured from the E. V. cable bolts, and proved at the greatest strain.

India rubber rope for Inclined planes, made from New Zealand wax.

Also, Patent hemp cordage for inclined planes and canal towing lines.

Patent felt for placing between the iron chair and stone block of edge railways.

Every description of railway iron, as well as locomotive engines, imported at the shortest notice, by the agency of one of our partners, who resides in England for this purpose.

A highly respectable American Engineer resides in England for the purpose of inspecting all Locomotives, Machinery, Railway Iron, etc., ordered through us.

A. & G. RALSTON & CO., No. 4 South Front st., Philad., Pa. ja45

**MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Paterson, N. J.** The undersigned receive orders for the following articles; manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

**Railroad Work.** Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

**Cotton, Wool and Flax Machinery** of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, Paterson, N. J., or 60 Wall street, N. York. ja45

**TO IRON MANUFACTURERS.** THE SUBSCRIBERS, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO.,  
ja45 No. 4 South Front st., Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

From 4 inches to  $\frac{1}{2}$  in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**TO IRON MASTERS.—FOR SALE.—MILLSITES** in the immediate neighborhood of *Baltimore* Coal and Iron Ore, of the first quality, at Ralston, Lycoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer,*

**VALUABLE PROPERTY ON THE MILL Dam** for Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 130 feet long, by 46 ft wide, two stories high. A machine shop, 47x13 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 feet, two stories high, with a shed part 45x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia. ja45

**FRENCH AND BAIRDS PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arrester have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. McKee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia, Pa., April 6, 1844.

\*\*\* The letters in the figures refer to the article given in the *Journal* of June, 1844.

ja45

**S. VAIL, PROPRIETOR OF THE SPEED.** Well Iron Works, near Morristown, N. J., can supply at short notice railroad companies and others with the following:

Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyres made, and they may rely upon being served according to order, and also punctually, a large quantity in the straight bar is kept constantly on hand. Crank axles for locomotive engines, made from the best Pennsylvania iron. Straight axles for locomotives for outside connection engines. Frames for engines. Wrought iron work for steamboats, and shafting of any size. Cotton Screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen:

Baldwin, Vail & Hufty, Philadelphia; Wm. Norris, Philadelphia; N. Campfield, Savannah, Ga.; J. & S. Bones, Augusta, Ga.; D. F. Guez, N. Orleans, La.; Adam Hall, N. York; J. P. Allaire, N. York; William Parker, Boston, Mass.; George W. Schuyler, N. York. ja4g

**THE NEWCASTLE MANUFACTURING** Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars, Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS,** etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, *Civil Engineer,*  
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

ja45

G. A. NICOLLS,  
Reading, Pa.

WESTERN RAILROAD REPORT.

(Continued from page 125.)

Upon the organization of the present Board of Directors, on the 1st of March last, the subject of the passenger fares engaged their early attention. For the greater part of the preceding year, the fares for 1st class through passengers had been at the low rate of two cents per mile, and those for way passengers three cents. During the winter, the former had been raised to 2½ cents. The Board, after mature deliberation, raised the fare of first class through passengers to three cents per mile, and of 1st class way passengers to 3¼ cents—putting the 2d class at two-thirds of those rates, and these rates have continued to the present time. They are believed to be as low as the average charges upon most of the roads in the northern states, during the last year.

The Stockholders, generally, are doubtless aware, that for some time past a controversy has existed between the Directors of this Corporation and those of the Worcester Company, on the subject of the charges by the latter company for doing the business on their road, which comes from, or goes to the Western road. As it has been deemed necessary for the protection of the interests of this Corporation to apply to the Legislature for relief, by a petition, which is now pending before a Special Joint Committee of that body, the undersigned deem it to be their duty to submit to the stockholders, as a part of the history of their proceedings, a statement of the points at issue, and of the facts connected with this controversy, with their views of the principles by which it ought to be decided.

As a general principle, the Directors of the Worcester Company have claimed that the receipts from the joint business—that is, from passengers and merchandise passing over the whole or parts of both roads—should be divided between the two companies, *pro rata per mile*, or according to the distance the passengers and merchandise were carried on each road,—deducting, before division of such receipts from merchandise, for the use of each company, a specific sum for the expenses of loading and unloading, and other local depot charges. In regard to such *passenger* receipts, some slight exceptions have, from time to time, been assented to, in favor of the Western Company, in addition to an allowance to that company for the use of their passenger and baggage cars over the Worcester road.

On the other hand, the Directors of this company claim, for a variety of reasons, that a discrimination should be made upon all such business in favor of this company; that the Worcester Company should do, upon their road, for and in behalf of the Western Company, all the business which comes from, or goes to, the Western road, at rates reduced below the local rates charged for business passing on the Worcester road only, and below those charged by the Western Company for the same business.

The proposition made to the Directors of the Worcester Company, in December, 1843, having been declined by them in writing, January 9th, 1844, for reasons which led the Directors of this Company to think that no satisfactory change could thus be procured, and as the session of the Legislature was advancing, they felt bound to apply to that body for relief. On commencing the hearing before a joint committee, by suggestion of the chairman, the whole matter was, by agreement, referred to the arbitration of three gentlemen, "with power to hear and determine all matters which might be brought before them by the parties, as fully as the Legislature could do under the said petition," the award to take effect from January 1, 1844, and to be binding

for one year from that date, and thereafter for three months from date of notice by either party of dissatisfaction therewith.

The hearing was had in May last, when the parties presented their various claims, and renewed propositions were made and rejected. After a full hearing, the arbitrators made their award, a copy of which is annexed hereto.

In this award, the arbitrators say, that in establishing a principle upon which a fair and reasonable profit to the Worcester Company is to be determined, they have had regard—

1. To what they deem to be the policy of the commonwealth as established by its legislation, that the construction of new railroads, to be connected with roads already in use, is to be encouraged; and that the business brought to the old road, by such new road, is to be regarded as standing on a different footing from that brought from other sources.

2. To the fact, independently of such considerations of public policy, that the new road deals with the old road, as a large customer, bringing business in large masses.

3. To the fact, that to a certain extent the Western Railroad brings a new business to the Boston and Worcester Railroad.

Under these principles, they award, that the Worcester Company shall receive, on merchandise received from or carried to the Western road, 2½ cents per ton for each mile the same passes on the Worcester road,—each corporation to provide both for merchandise and passengers, motive power, and its proportion of cars, and pay its own depot expenses, and assume all risks on its own road. This is based on the then existing merchandise tariff. If the Western Company should increase the rates of such merchandise, they are to pay a corresponding per centum of increase to the Worcester Company. As to flour, they provide that the Western shall pay the Worcester 9 cents per barrel, over the whole of the Worcester road, and *pro rata* for a part of it,—but if the Western raise the rate from Greenbush to Boston, above 36 cents, the Worcester Company to receive one-fourth of the sum so fixed.

As to passengers, the award provides that the Western pay to the Worcester Company 2½ cents per mile for each 1st class passenger carried to, or brought from, the Western, and ¾ the same for those of the 2d class, *provided*, that if the Worcester Company should reduce the fare of passengers on their road below the above prices, the same deduction shall be made from the sums to be paid by the Western Company. The business between the two companies has been governed by the terms of this award since January 1, 1844. Under it the Western Company have paid the Worcester \$1 10 per passenger, and \$1 26 per ton of merchandise, for the whole length of the Worcester road.

At the time of the award, the local passenger fare on the Worcester road was \$1 50, but towards the close of the year, the Directors of that Company suddenly, and without notice, reduced their local fare to \$1 25,—making it for the interest of joint passengers to buy separate tickets on each road; and thus destroy the only evidence of their coming from, or going to, the Western road, by which the Western could have the benefit given by the award. To avoid the entire loss of the 40 cents per passenger thus given them by the award, the Western Directors were compelled to reduce on all that class of passengers, 25 cents each—the number of which, in 1844, was about 57,000. The allowance of 40 cents was thus reduced to 15.

The Directors of the Western Company then applied, through a committee, to the Worcester

Directors, for a proportional reduction of the 2½ cents per mile, to be paid by the Western under the award, and instructed the committee, in case it was denied, to give the notice to terminate the award, and to apply to the Legislature for relief. The Worcester Directors declined to make the change; and some time afterwards, on Jan. 15, 1845, gave to the Western Company notice of their intention to put an end to the award, and to make a new proposition to the Western Company.

Such a proposition was made on the 23d of January. But although the Board held an adjourned meeting on that day, for the purpose of receiving and considering it, it did not come to hand until after the meeting was dissolved, and the subject was thus left in the hands of a Committee of the Board. The proposition was deliberately considered by them, and declined, Jan. 25th. At a subsequent meeting of the Board, the subject was brought to their attention, and they concurred in the opinion of the committee.

This, like all the other proposals of that company, with some unimportant exceptions, was based upon the principle of a division *pro rata per mile*, varying, however, from former ones, in professing to give to each company an equal profit on joint business, by a provision to ascertain the expenses, of all kinds, of each company, in doing its whole business, and the interest on the capital of each, and dividing the passenger expenses and half the interest of each, by the number of passengers carried one mile,—and the merchandise expenses and half the interest, by the number of tons carried by each one mile, and that "the difference between the results thus obtained should be the difference in the rate per mile," to be established on the two roads for the joint business. The Directors of the Western Company believe that very serious disputes would arise, in carrying out the details of this plan; and, in proof of this, it is only necessary to state, that the mode of making up the expenses of 1844, by the two companies, varies so much, that those of the Worcester Company average, on the miles run by the trains, \$1 05 cents per mile; and those of the Western about 63 cents per mile. To bring the latter to the ratio of the former, more than \$200,000 must be added to the expenses of the Western road in 1844. But, independent of that difficulty, the Directors of the Western Company think this proposition is objectionable *in principle*, in common with all the others, in disregarding the provisions of the Legislature for favoring business brought by new roads, and all the claims before set forth, why, in this case, such favor should be accorded. It is also objectionable, in reserving to the Worcester Company the right to decide upon the tariff of prices to be established, from time to time, on this class of business, giving to that company the power, with a fair income without this business, to require on this a rate of charges which may, in fact, be nearly prohibitory.

In view of all these considerations, no alternative seems to remain, but to pursue the inquiry before the Committee of the Legislature, and obtain, if practicable, a final decision of these vexed questions.

A Schedule of Engines and Cars belonging to the Western Railroad Corporation, December 31, 1844.

PASSENGER ENGINES.	
12 10-ton, built by Locks & Canals Co., Lowell.	
2 15 do., do. Hinckley & Drury, Boston.	
1 15 do., do. W. Norris & Co., Philad.	

FREIGHT ENGINES.

- 3 20 ton, built by Locks & Canals Co., Lowell.
- 7 22 do., do. Ross Winans, Baltimore.
- 1 16 do., do. Hineckley & Drury, Boston.
- 1 20 do., do. W. Norris & Co., Philad.
- 3 20 do., do. Baldwin & Whitney, Philad.
- 2 10 ton engines, used in gravel trains, built by R. Winans, Baltimore.

16 8-wheeled 1st Class Passenger Cars.

- 7 4 do. do. do.
- 6 8 do. 2d Class and Baggage Cars.
- 2 4 do. Post Office & do. do.
- 3 8 do. Baggage Platform Cars.
- 2 4 do. do. do. do.

13 Baggage Crates.

Providing, in the aggregate, 1022 1st Class seats, and 240 2d Class seats.

272 8-wheeled covered Freight Cars.

- 45 8 do. Platform do.
- 100 4 do. Freight do.
- 70 Gravel and Dirt Cars.
- 26 Hand Cars.

Comparative Yearly Statement of sundry Statistics of Transportation Business.

Time.	RECEIPTS.			Total.	Increase per cent.	EXPENSES.	Increase per cent.	Balance of Receipts.	Miles run.	Expense per mile.	Total No. Passengers.
	Passengers.	Merchandise.	Mails, &c.								
3 mos. in 1839	\$13,472 94	\$4,136 21	...	\$17,609 15	..	\$14,380 64	..	\$3,228 51	.....	cts. ....	....
1840	70,820 79	38,359 76	\$3,166 82	112,347 39	..	62,071 72	..	50,275 67	94,404	71 1/10	....
1841	113,841 85	64,467 14	4,000 00	182,308 99	..	132,501 45	..	49,807 54	160,106	65 1/10	....
*1842	206,446 83	226,674 61	19,566 84	512,688 28	..	266,619 30	..	246,068 98	397,295	67	190,430 1/2
1843	275,139 64	275,696 19	23,046 68	573,882 51	12	303,973 06	14	269,909 45	441,608 1/2	64 1/2	200,966 1/2
1844	358,694 00	371,131 84	23,926 88	753,752 72	31 1/2	314,074 20	3 1/2	439,678 52	499,968	63 1/10	220,257 1/2

\* First year of opening through to Albany. † As corrected in Report of January, 1843, to include damages for collision of 1841.

From 1842 to 1843, the increase of receipts from Passengers was 3 1/2 per cent.—do. from Merchandise, 21 1/2 per cent. " 1843 to 1844, " " 30 3/4 " " 34 1/2 "

THE GREAT BRITAIN STEAMER. VOYAGE FROM BRISTOL TO BLACKWALL.

The capabilities of this colossal vessel have been very fully tested within these few days. We have deemed it necessary, notwithstanding the crowded state of our columns, to devote some space to furnish particulars of this interesting event, which we trust will be acceptable not only to the scientific, but to the general reader of this Journal. We give a drawing of the vessel, and we feel assured that all who have seen the original, will admit that our artist has been happy in his portraiture. For the account of the voyage subjoined, we are in a great measure indebted to our respectable contemporary, the "Bristol Gazette:"—

The Great Britain left Kingroad on Thursday evening, the 23d Jan. At 7 o'clock the anchor was lifted, but it was 9 before it was fairly got up, having become entangled with the mast and rigging of a schooner which was run down at Kingroad some six or seven weeks ago.

Among the gentlemen on board were Capt. Lushington, R.N.; Capt. Crispin, R.N., commander of her Majesty's yacht the Victoria and Albert; Mr. Lloyd, principal engineer at the Woolwich Dock-yard; Mr. Joseph Reynolds, of the Royal Yacht Club; Capt. Claxton, R.N.; Capt. Brown, of the merchant service; Mr. I. K. Brunel; Mr. T. R. Guppy; Mr. F. P. Smith, the patentee of the screw; Mr. Edward Jas. Maude, civil engineer; Mr. Christopher Hill, E.C.S.; and Mr. P. P. Bailey, C.E. The vessel was under the command of Lieut. Hosken, R.N., the late gallant commander of the Great Western. During the time occupied by dinner, the ship was got under weigh. At 9 35 P.M., she was abreast the Holms, the wind being fresh from W.S.W.; cloudy, with frequent showers of rain. At 15 minutes after 10 the engines were slowed, and continued so for about an hour and a half, in order to let the bearings, which had become heated (a thing which always occurs at first with new machinery) to cool; the consequence of this was that not much progress had been made up to this time, and it was past midnight before the ship was off the Naas lights. By this time the mirth down-stairs had waxed fainter and fainter, and most of the passengers had turned in, which brings us to the conclusion of the first day's narrative.

The wind had been blowing fresh for the last two hours, but as the morn of Friday approached the breeze increased to a gale, the wind veered round to the S.S.W., and a very heavy, rolling cross sea set in. At 6 30, the Hangman's hill was bearing S.S.W., 4 miles. In this manner we continued to work on, the gale freshening every minute, and the sea increasing; the light clouds which flitted past the moon occasionally giving forth slight showers of rain. About this time a heavy surf stove in one of the lights forward. At from 6 to 7 we came off Ilfracombe; the wind had now veered round to the North-west, and the gale continued to increase with a cross heavy sea. At 10 o'clock we were off Lundy; the gale continuing with the addition of the spring ebb, the wind still N.N.W., the ship steering W. by N., and making 5 1/2 knots against the sea, with 13 revolutions of the engines. We do not know that it is necessary for us to repeat the particulars of the wind and weather. When we say that for hours it blew a stiff gale from the North-west, on a spring ebb in the Bristol Channel, our nautical readers will be able to fully comprehend what it was the Great Britain had to encounter, and what it was she triumphantly and easily surmounted. About 15 miles south of Lundy, and a little after 12 o'clock, a tremendous sea struck her on her starboard bow. The effect was to completely stop the huge ship whilst

the pulse might beat 20, and then she rose again to the billows and bounded over all. On examining the mischief done, it was found that three of her starboard bow's bull eyes had been stove in with their frames; the diagonal bands of the fore-castle deck buckled, the wood work started two inches upwards, a portion of the carved figure-head carried away, and the iron sheathing on both the larboard and starboard bows rent in two places, and the massive wood of the bulwarks split. In the opinion of Capt. Hosken, the sea that struck her could not have been less than 60 feet high; the vessel lies 20 feet above the water, and the wave struck 40 feet over her bows. The water which rushed in swept the carpenter and his wife out of their berths, and did a good of mischief besides to the wood work of their cabin. The Britain, no ways baffled by the shock, continued to hold her course; at 1 20 P.M. she was off Pentire Point; 1 45, her engines were making 13 1/2 revolutions, and her speed was 8 1/2 knots with three spencers and stay-sail set. At 4 P.M. the revolutions were 12 1/2, and her speed still 8 1/2 knots; St. Agnes head bearing to the S.E. five or six leagues. At 5 30, the engines gave 15 revolutions, and the speed was increased to 9 1/2 knots; the weather had also moderated, and the four spencers, jib, and square mainsail, were set. At 8 45 P.M., the Great Britain passed the Light and rounded the Land's End. At 10 40 P.M., the ship was off the Lizard, going still at the rate of 10 1/2 knots; and at 11 30 the St. Anne's lights were in sight. Nothing could excel the working of the ship during the day; she not only never lost way at all, but when the opposition of wind and waves was at its utmost, made progress at the rate of from 4 to 5 knots an hour, which continued to increase up to 7, 8, 9, and 10, and 10 1/2. Now it is perfectly obvious that no paddle steamer in the world could have done it. In the rolling and pitching sea which the Great Britain experienced, one of the paddles would almost have been constantly out of water, and the other, by being engulfed too deep, would have been impeded and throttled in its motion, whilst on the other hand, the screw, when the vessel was pitching the most, never, except once or twice, was in sight, and then only for a moment; the effect of this was to keep a constant propelling power on the ship. This is not merely matter of speculation, it is matter of history. The Great Western, on one of her trips, experienced just such another gale, and she never lost sight of Lundy the whole 24 hours; whilst the Great Britain succeeded in getting round the Land's End at 45 minutes past 8 o'clock the same evening.

On Saturday morning, at 2 45, they passed the Eddystone, but at such a distance that the light could hardly be perceived; at 5 15 A.M., were off the Start, and the progress now made was very rapid, the wind being favorable and the weather moderate. At 9 45 they were off the Bill of Portland; at 10, off Weymouth, the beautiful white cliffs of the coast looking in the lovely sunshine of the morning, which was like one in May, still more beautiful than usual. At 10 15, set the main top-sail, in addition to the others, and in a few minutes came in sight of the Needles. At 10 30, off St. Alban's Head. At 11, threw the log and found they were going 11 knots an hour by the common log, and 11 1/2 by the electromagnetic log. This log consists of lead and brass, is attached to electric wires, which being brought into connection with the works of a dial-plate on board by the action of electricity, cause the hands of the dial to revolve, and thus mark the speed at which the vessel goes. It is certainly an ingenious invention, but it may be doubtful whether the having a man constantly to watch it, will not be an insuperable objection to



its constantly coming into general use. Mr. P. P. Bailey is the inventor.

At 12 45, they passed the Needles, those singular masses of rock at the end of the Isle of Wight. At 1 20 P.M., they passed Lymington, and at 2 15 were off Cowes, when the vessel stopped three minutes to send off despatches. At 2 25 they had gone by Cowes, and at 3 10 passed the Apollo troop-ship at Spithead, and were loudly cheered by the officers and men who crowded the decks. At a quarter to 2 on Sunday-morning, the Great Britain anchored in the Downs, just off Deal, having passed Beachy Head at 9 17 P.M., Saturday, and the Dungeness point at 11 25. She had thus run 320 nautical miles from the Longships to her anchorage in the Downs, in 29 hours, being on the average 10 1/2 knots an hour.

The slumbers of the passengers were broken about half past 7 o'clock Sunday morning by the noise of weighing anchor, and at a few minutes before 8 the ship was again under way. The wind had shifted during the night, and now blew strong from the W.N.W. The scene was a lively and exciting one; more than one hundred sail were at anchorage in the Downs, and as the Great Britain passed by them, many an admiring and wondering glance was directed towards her by the crews of the numerous craft. At 8 A.M. she went by Deal; at 8 25 passed in view of Ramsgate; at 8 55 the Britain rounded the North Foreland and came in sight of Margate. About this time soundings were taken, and the report was "by the deep, three." At 30 minutes past 12 she came up with the Water Witch, Hull steamer, one of the fastest sea-boats out of London, which had been in sight about an hour and a half. The Great Britain went by her hand-over-hand, having gained five miles on her from the time she was first in sight. The Great Britain then proceeded on her course up the river in the same gallant style, without any slackening of her speed, although the gale continued to blow right in her teeth with still increasing force. Owing to the severity of the weather, the river was crowded with more than the usual number of vessels of all sorts and sizes, through which the Britain threaded her course with as much facility as a wherry. When opposite Gravesend, a large cluster of vessels stretched from very nearly bank to bank, and in passing through them the bowsprit of a collier brig came in contact with the Britain about midships, and was broke off like a carrot. Capt. Hosken afterwards said that he had no alternative but to run the Britain on shore, to run down a sloop which was just ahead of him, or to carry away the bowsprit of the brig, and even that might have been avoided had not the brig sheered her anchor just as the Britain passed, or as some said was drifting at the time. She reached Woolwich at half-past 3, and immediately blew off her steam and slackened her speed. The Great Britain, in a short time after leaving Woolwich, reached her destination at Black wall, where immense crowds had assembled to witness her arrival. In taking up her moorings at Black wall, as the tide was flowing, she had to swing round, and in so doing she presented a singular appearance, for when lying athwart the river, she actually occupied nearly the whole breadth from bank to bank.

On her arrival, a testimonial was presented to Capt. Hosken, highly eulogistic of the sailing qualities of the vessel.

Though many descriptions have been given of the Great Britain, we are induced to insert the following, as being the most clear and succinct that we have seen, and which we copy from an interesting pamphlet just published by Captain Claxton, entitled "A Description of the Great Britain steam-ship," &c.

The length of the keel is 289 feet; total length 322 feet. Beam 51 feet. Depth, 32 feet 6 inches. Feet of water when loaded, 16 feet. Displacement, 2,984 tons. Tonnage by old measurement, 3,443 tons. Plates of keel nearly 1 inch thick. Plates of bottom varying to 1/4 of an inch at extremes, and to 1/8ths generally. Top-sides 1/2 an inch, and at the extreme aft 1/8th.

The ribs are framed of angle iron, 6 inches by 3 1/2 inches, 1/2 inch thick, and 1/8th. Distance of ribs from centre to centre, amidships, 14 inches, increasing to 21 inches at the ends.

Ten iron sleepers run from the engine-room, gradually diminishing in number to the fore end of the ship and under the boilers, the platform of which they support—in midships they are 3 feet 3 inches in depth, supported by angle irons in the form of inverted arches, and at a short distance from each other.

She has five water-tight partitions; stows 1200 tons of coal; 1000 tons of measurement. The engines weigh 340 tons; the boilers 200 do., and hold 200 tons of water.

The main shaft is 28 inches in diameter in the centre, and 24 inches in the bearings; in the rough, before turned, it weighed 16 tons. It has been lightened by a hole of 10 inches diameter, bored through. A stream of cold water passes through the cranks and this hole when the engines are at work.

The screw shaft is in one long and two short or coupling parts. The part next the engine, solid, 28 feet by 16 inches diameter. The hollow intermediate shaft 65 feet, by 2 feet 8 inches diameter. The screw part is 25 feet 6 inches, and also 16 inches diameter. The total length is 130 feet, and it weighs altogether 38 tons.

The screw is of six arms, 15 feet 6 inches diameter, 25 feet pitch, and weighs 4 tons.

The main drum is 18 feet diameter, and drives 4 chains, weighing 7 tons.

The screw shaft drum is 6 feet diameter, and the weight with the pull when working is equal to 85 tons on the bearings of the main shaft.

The cylinders are 4 in number, 88 inches each; stroke 6 feet; power, 1000 feet. The condensers are of wrought iron, 12 feet by 8, and 5 deep.

Under the whole space of the engines up to the top, the angle irons are doubled.

The upper main and saloon decks are of wood, the two cargo decks are of iron. The officers and seamen are all accommodated on two decks under the fore-castle.

From the ship's bottom to the upper deck, runs on either side, for the whole length of the engines and boiler space, a strong iron partition, forming below the coal bunkers; and above the servants' accommodations on one side, engineers' cabins and stokers' accommodations on the other, besides 26 water closets.

She has six masts, fitted with iron rigging, adopted in consequence of its offering two-thirds less resistance than hemp, a great point going head to wind.

\* \* \* The plain sails of a 52 gun frigate, i. e. without counting royals, stay-sails, and steering sails, number something short of 5,000 yards of canvas, and the plain sails of the Great Britain amount to 4,943 yards.

She carries four large life-boats of iron; and two boats of wood in the davits, and one large life-boat on deck; they are built according to a patent taken out by Mr. Guppy, and are capable of carrying 400 people.

The pamphlet describes the different steps taken by the Directors, and their ultimate resolution, after mature consideration, and the witnessing of many experiments; to adopt Mr. Smith's Patent Screw Propeller for the Great Britain. Capt. Claxton points out the more prominent points of superiority of the screw over the paddle as being,

1st. The facility afforded in carrying canvas, inclination or heeling over not affecting the motive power of the propeller; while, in a paddle-wheel craft, if sail be carried to any extent with the wind, anywhere not right aft or on the quarter, the power of one wheel is exerted on air only, while the other is to a great extent rendered nugatory by too great immersion, in spite of the dangerous transverse chain lockers, to say nothing of the unequal strain upon the engines. 2d. It can only be in the highest seas that the screw even partially quits the water, and then only for a few seconds, at rare intervals, while with paddles the hollow of the seas constantly leave both wheels exposed, and if the throttling were not attended to, the most serious consequences would result. 3d. The breadth of beam in going into docks and basins. As a paddle-wheel steam-ship, the Great Britain's extreme beam, i. e. from outside to outside the paddle-boxes, would have been about 80 feet, instead of 51. 4th. The diminished chances from collisions at sea, where the paddle-wheels and houses constantly suffer. 5th. The difference of resistance to the wind, the paddle-boxes and their appendages creating nearly one-half of the whole resistance of the body, to say nothing of the paddle-box, boats, and the attendant tons of iron-work in such ships as have them. 6th. The ease with which sail may be carried, and the difference in effect between the two systems, if, from damaged machinery, it becomes necessary to disconnect, and let the propellers revolve; and by no means the least advantage is the getting rid of the top weight of frames, shafts, wheels, &c., &c., which are all represented by shafting below the centre of gravity, acting really as so much ballast in all screw ships; and lastly, the comparative security from the shot of an enemy. The pamphlet contains many other remarks worthy of quotation, but the subject has already occupied so much space that we must now tear ourselves from it.—Herapath.

ERIE EXTENSION CANAL.—Since this canal has been completed, the forwarders of Cleveland, and those engaged in business on the northern part of the Ohio canal, are beginning to inquire what effect it will have on their business. The distance from Beaver, the southern termination of the Cross-cut, to Cleveland, is 143 miles—and from Beaver to Erie, 136 miles—difference in favor of Erie, 7 miles. The charter provides that the tolls on the Extension shall not exceed the rates charged on the State canals of Pennsylvania. To illustrate the difference of tolls charged on these routes, a correspondent of the Cleveland Herald gives the following comparative table of the rates on each canal, on several leading articles, passing from the river to the lake:—

	To Cleveland.	To Erie.
Iron and Nails..... per 100 lbs.....	19 1/2	10
Glass and Glass-ware.. do.....	20 1/2	4
Crockery..... do.....	25	5 1/2
Dry Goods..... do.....	26 1/2	13 1/2
Hardware..... do.....	26 1/2	6 1/2
Drugs and Groceries.. do.....	26	10 1/2
Coffee..... do.....	25	4
Tobacco, manufact... do.....	21	7
Ashes, Pork, Fish, &c. do.....	11 1/2	4
Plaster..... do.....	6	4

The difference is, of course, alarming to those interested in the forwarding business, on the northern portion of the Ohio and Cross-cut canals; and it is suggested that the Canal Board, in concert with the Directors of the Cross-cut canal, adopt a special tariff of tolls on all property passing through the line, which shall be uniform with the rates charged on the canal to Erie.—Roch. Dem.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
							Per share.	Per cent. per annum.				
Arboath and Forfar.....	15	102,000	35,000	138,870			0 12 6	2 10 0	25 27	Aberdeen.....	1,600,000	
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1 5 0	2 10 0	100 100	Barnsley Junction.....	200,000	
Brandling Junction.....	23	161,700	365,470	481,452				4 10 0	50 54	Belfast and Ballymena....	385,000	
Bristol and Gloucester.....	37½	400,000	211,000					nihil.	30 36	Blackburn and Accrington.	400,000	
Chester and Birkenhead.....	14½	750,000	143,170	518,989	5,856	13,148	0 8 6	1 14 0	50 32	Birk. and Ches. Junction..	1,000,000	
Dublin and Drogheda.....	31	450,000	150,000	500,869				nihil.	55 72	Bolt, Wigan and Liverpool	800,000	
Dublin and Kingston.....	6	200,000	152,200	359,000			6 0 0	6 0 0	100 166	Caledonian.....	1,800,000	
Dundee and Arbroath.....	16½	100,000	49,445	153,416	2,989	6,993	1 5 0	5 0 0	25 29	Cambridge and Lincoln....	1,250,000	
Durham and Sunderland.....	18½	169,350	124,055	270,392	9,889	17,702		nihil.	34 29	Chatham and Portsmouth...	5,000,000	
East County and North and East.....	86½	4,443,200	1,341,155	3,931,905	47,385	118,726	1 6 6		45 57	Chester and Wrexham....	120,000	
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1 2 6	4 10 0	50 57	Churnet valley.....	1,800,000	
Glasgow, Paisley and Ayr.....	51	937,500	1,066,951	12,446	36,376	1 2 6	4 10 0	50 60	60 62	Direct Northern to York...	4,000,000	
Glasgow, Paisley and Greenock.....	22½	650,000	216,666	787,884	11,572	23,177	0 5 0	2 0 0	25 12	Dublin and Belfast.....	950,000	
Grand Junction.....	104	2,478,712	2,453,169	84,309	195,080	5 0 0	10 0 0	100 210	100 119	Dundee and Perth.....	250,000	
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1 12 6	3 5 0	100 119	Edinburg and Northern....	800,000	
Great Western.....	221½	4,650,000	3,679,343	7,272,539	132,235	369,904	3 10 0	7 0 0	75 138	Ely and Bedford.....	270,000	
Hartlepool.....	15½	438,000	155,540	719,205				8 0 0	100 100	Glosow, Dum. & Carlisle.	1,300,000	
Leicester and Swannington.....	16½	140,000		140,000	2,207	6,317	1 5 0	5 0 0	50 50	Gt. South and West Ext. .	1,200,000	
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5 0 0	10 0 0	100 203	Gt. Grimby and Sheffield.	600,000	
Llanely.....	27	200,000	44,000	221,624			1 0 0	2 0 0	87 87	Harwich and E. coun. Jun.	160,000	
London and Birmingham.....	12½	6,874,976	1,928,845	6,393,468	92,823	405,768		10 0 0	100 218	Huddersfield & M. r. & cl.	600,000	
London and Blackwall.....	3½	804,000	266,000	1,315,640	15,978	23,870			16 6	Kendal and Windermere...	125,000	
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0 12 0	2 8 0	50 47	Leeds and Dewsbury.....	400,000	
London and Croyden.....	8½	550,000	229,000	761,885	7,583	10,545	0 5 0	2 10 0	14 17	Leeds and Thirsk.....	800,000	
London and Greenwich.....	3½	759,383	233,300	1,040,930	15,193	28,933		nihil.	13 10	Liv. Ormskirk and Preston	600,000	
London and South Western.....	92½	2,222,100	630,100	2,596,291	68,457	150,469	1 12 6	6 10 0	41 73	London and Portsmouth...	1,750,000	
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1 0 6	5 0 0	40 48	London and York.....	5,000,000	
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2 2 0	4 10 0	93 110	Londonderry & Enniskillen	500,000	
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761		7 10 10	60 88	Lynn and Ely.....	200,000	
Midland railway.....	178½	5,158,900	1,719,630	6,279,056	76,993	281,898			100 96	Manchester, Bury and Ross	300,000	
Newcastle and Carlisle.....	61	878,240	183,563	1,135,069	26,499	73,947	4 0 0	4 0 0	100 105	Manchester and Buxton...	250,000	
Newcastle and Darlington.....	23	500,000		405,728				nihil.	21 49	Mullingar and Athlone....		
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466		2 0 0	50 37	Newcastle and Berwick...	700,000	
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2 10 0	6 16 8	100 104	Richmond & W. End Junc.		
Paris and Orleans.....	82	1,600,000	400,000	1,978,415			0 16 0	8 0 0	20 39	Scottish Central.....	700,000	
Paris and Rouen.....	84	1,440,000			31,247	91,171		8 0 0	20 38	Sheffield and Lincolnshire.	650,000	
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066		nihil.	50 18	Shrewsbury and Gd. Junc.	400,000	
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876		nihil.	82 93	Shrew. Wolv. Dudley & B..	900,000	
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0 10 6	2 2 0	50 39	Trent Valley.....	900,000	
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1 0 0	6 5 0	100 55	West London Extension...	64,000	
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0 15 0	5 1 8	29 37	West Yorkshire.....	1,000,000	
Yarmouth and Norwich.....	20½	187,500	62,500	230,250				nihil.	16 25	Whitehaven and Maryport	100,000	
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2 10 0	10 0 0	50 100			

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. e. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. e. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15½	15½	Loughborough.....	70	142½	142½	70	1140	
Anti Dry Rot.....	10,000		18½		2		Monmouthseire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35		34½		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27½	27	Mersey and Irwell.....	500	100	100	10		
Gt Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2½	15	15
Metropolitan Wood Pav..	15,000	10	6	5	6½		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	11		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental..	11,493	50	50	7	64½	65	Regents or Loncon.....	21,418	33½	33½	2½	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution				6			Somerset coal.....	800	150	150	7½	123	123
Reversionary Int. Soc.....	5,323	100	100	4½	104	104	Stafford and Worcester...	700	140	140	25	180	180
R. Mail Steam Packet.....	15,000	100	60		36½	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7½	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Severn & Why & Rail Av.	3,762	26½	26½	5½	30	30
							Trent and Mersey.....	2,600	50	50	65	495	
							Thames and Medway.....	8,149	19½	19½		10	10
							Warwick and Birmingham.	1,000	100	100	10½	167	
							Warwick and Napton.....	980	100	100	8½	122	

Canals.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. e. per ann.	Last price.	Present price.
Ashby de la Zouch.....	1,432	113	164,316	4	70	70
Barnsley.....	720	100	72,000	14	180	180
Birmingham, 1-16 share	3,000	118½	355,500	10	150	160
Do. and Liverpool Junction	4,000	160	640,000		13½	13½
C Coventry.....	500	100	50,000	20	365	365
Cromford.....	460	do.	46,000	24	250	250
Derby.....	600	do.	60,000	9	105	105
Erewash.....	231	do.	23,100	32	440	440
Forth and Clyde.....	1,297	400½	519,716	4	440	440
Grand Junction.....	11,600	100	1,160,000	7	162	161½
Grand Surrey.....	1,500	do.	150,000		20	
Gloucester and Berkeley...	5,000	do.	500,000		8	8
Grantham.....	749	150	112,350	8	185	185
Lancaster.....	11,699	47½	553,716	3	40	40
Leeds and Liverpool.....	2,897	100	289,700	34	640	640
Liechester.....	545	140	76,300	9	139	139

Water Works.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. e. per ann.	Last price.	Present price.
Birmingham.....	4,800	25	120,000	3½	28	28
East London.....	4,433	100	443,300	8	223	225
Grand Junction.....	5,500	av.	412,500	7½	88	90
New River L. B. Ann.....	1,500			2½		
Manchester and Salford...	6,486	av.	30	8½	57	57
Vauxhall, lt. S. London...	1,000			5	55	55
West Middlesex.....	8,294	av.	63½	6½	126	127

Docks.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. e. per ann.	Last price.	Present price.
Commercial Dock.....	1,065	100	106,500	3	10	
East and West India.....		sto.		5½	137	
London.....	3,238,310	sto.		4½	114½	115
St. Katharine.....	1,352,752	sto.		5	116	171
Southampton.....	7,000	50	350,000			

AMERICAN STATE WORKS AND CANALS, ETC.

STATE WORKS.		Length in miles.	Cost.	1843.		1844.		The State Canals are all 4 feet deep, and the locks are 13 to 17 feet wide, and 80 to 90 feet in length.
				Income.	Expend.	Income.	Expend.	
N. Y.	1 Black river canal—(including 4 yrs' def.)	35	2,066,285	.....	.....	.....	.....	In the estimate of cost no interest is allowed on the yearly deficiencies, nor are the six millions paid from auction and salt duties included, principal or interest. The Genessee valley and Black river canals require large sums for their completion, the interest of which <i>additional</i> sum is much greater than the estimated gross income of these canals when finished. The sums required to complete these two canals are \$2,000,000 and \$600,000, making their total cost when finished \$5,553,000 and \$2,499,000; an expenditure incurred on estimated incomes (admitted to be liberal,) of \$39,009 and \$14,000 respectively. The total receipts from the works of Pennsylvania for 1843 were \$1,019,401; for 1844 \$1,164,326, and the cost about 30 millions. The receipts for 1844 were as follows: Canal tolls, 578,404 Railroad tolls, 252,855 Motive power, 319,590 Trucks, 13,477 of which \$585,922 is from 118 miles of railroad, and \$578,404 from 559 miles of canal. The canals of Ohio are supported by a property tax of 5½ mills on the dollar. There are 853 miles of canal in the State, which yielded in 1843 \$471,623, and in 1844 \$515,393, the cost, 1st Jan. '43 being \$15,577,233. The increase of '44 over '43 is only \$43,770, though the year '44 has exhibited a greater increase throughout the country than ever before known. These 21 millions on sundry works yield no income whatever. The central railroad yields above 6 per cent, and is the only State work—the Erie canal excepted—which is able to stand alone.
"	2 Cayuga and Seneca—(do. 14 years' def.)	21	419,830	16,557	10,953	.....	.....	
"	3 Champlain canal.....	64	1,257,664	102,308	.....	.....	.....	
"	4 Chemung—(do. 11 years' deficiencies)...	23	1,012,085	8,140	14,486	.....	.....	
"	5 Chenango—(do. 7 years' def.).....	97	3,267,590	16,195	15,967	.....	.....	
"	6 Crooked lake—(do. 10 years' def.).....	8	263,950	461	3,674	.....	.....	
"	7 Erie—enlargement of.....	363	20,435,406	1,880,316	.....	.....	.....	
"	8 Genessee valley—(do. 5 years' def.).....	120	4,167,846	.....	.....	.....	.....	
"	9 52 miles opened, cost \$1,500,000.....	.....	.....	12,292	13,819	.....	.....	
"	10 Oneida lake—(do. 4 years' def.).....	6	85,062	225	2,239	.....	.....	
"	11 Oswego—(do. 14 years' def.).....	39	882,399	29,147	22,742	.....	.....	
Pa.	12 Beaver division canal.....	25	.....	.....	.....	7,381	5,386	
"	13 Delaware canal.....	60	.....	.....	.....	109,278	22,870	
"	14 French creek.....	45	.....	.....	.....	.....	.....	
"	15 Columbia railroad.....	82	.....	.....	.....	443,336	205,067	
"	16 Eastern division.....	36	.....	.....	.....	179,781	138,915	
"	17 Juniata canal.....	39	.....	.....	.....	.....	.....	
"	18 Portage railroad.....	130	.....	.....	.....	351,102	248,943	
"	19 Western division canal.....	105	.....	.....	.....	.....	.....	
"	20 North branch Susquehannah canal.....	73	.....	.....	.....	.....	.....	
"	21 West ".....	72	.....	.....	.....	101,919	57,633	
Ohio	22 Hocking canal.....	.....	947,670	4,757	.....	4,926	.....	
"	23 Miami canal.....	.....	1,660,742	68,640	38,626	74,904	.....	
"	24 Miami extension.....	.....	2,949,250	8,291	.....	12,053	.....	
"	25 Muskingum.....	.....	1,602,018	23,167	.....	28,341	.....	
"	26 Ohio.....	310	4,600,000	322,754	123,398	338,267	.....	
"	27 Wabash.....	.....	2,955,270	35,922	6,400	49,267	.....	
"	28 Walhonding.....	.....	607,269	838	39,005	1,918	.....	
"	29 Western road.....	.....	255,014	7,254	1,782	5,817	.....	
Ind.	30 Sundry works.....	.....	11,000,000	.....	.....	.....	.....	
"	31 Maume canal.....	.....	.....	.....	.....	.....	.....	
Ill.	32 Sundry works.....	.....	10,000,000	.....	.....	.....	.....	
Mich.	33 Central railroad.....	110	1,842,308	149,987	75,960	211,170	69,420	
"	34 Southern railroad.....	68	936,295	24,064	7,907	60,341	70,000	

CANALS.		Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
				Gross.	Nett.		Gross.	Nett.			
	Blackstone.....	.....	.....	.....	.....	.....	.....	.....	.....	We may, perhaps, at some future time be enabled to give the particulars of all these canals. The Chesapeake and Ohio canal is not yet completed to the coal mines, hence its trifling income. The enlargement of the Schuylkill canal has been commenced. The Morris canal was lately sold for one million, about one-fourth of its cost. It is said in the papers that it is to be enlarged. We have seen no report, nor heard of the appointment of any engineer.	
	Bald Eagle Navigation.....	25	400,000	.....	.....	.....	.....	.....	.....		
	Beaver and Sandy, (part).....	.....	1,000,000	.....	.....	.....	.....	.....	.....		
	Charleston, (S. C.).....	.....	.....	.....	.....	.....	.....	.....	.....		
	Chesapeake and Ohio.....	184	12,370,470	47,637	.....	.....	.....	.....	.....		
	Conestota.....	12	300,000	.....	.....	.....	.....	.....	.....		
	Delaware and Chesapeake.....	13	.....	.....	.....	.....	.....	.....	.....		
	Schuylkill.....	108	3,500,000	379,795	102,221	190,693	120,624	.....	.....		
	Farmington.....	.....	.....	.....	.....	.....	.....	.....	.....		
	James river and Kenhawa.....	.....	.....	.....	.....	.....	.....	.....	.....		
	Middlesex.....	.....	.....	.....	.....	.....	.....	.....	.....		
	Port Deposit.....	10	200,000	.....	.....	.....	.....	.....	.....		
	Delaware and Raritan.....	43	2,900,000	99,623	53,327	.....	.....	.....	.....		
	Southwark.....	.....	300,000	.....	.....	.....	.....	.....	.....		
	Tide Water.....	45	2,900,000	.....	.....	.....	.....	.....	.....		
	Union.....	80	2,000,000	.....	.....	.....	.....	.....	.....		
	Morris.....	101	1,000,000	.....	.....	.....	.....	.....	.....		
	Dismal Swamp.....	.....	.....	.....	.....	.....	.....	.....	.....		

CANADIAN CANALS.		Length in miles.	No. of locks.	Lockage in feet.	Size of locks.			Width of canal.		Estimate.	Expended to Sept. 1843.	1843.	
					Length of chamber.	Width.	Depth on mitre sill.	Bottom.	Surface.			Income.	Expense.
The Welland canal.....		.....	.....	.....	feet.	feet.	feet.	feet.	feet.	3,948,572	2,485,572	64,658	1,169
{	Main trunk from Port Colborne to Port Dalhousie	28	31	328	150	26 1-2	8 1-2	45	81	.....	.....	.....	.....
	Junction branch to Dunville	21	1	6	150	26 1-2	8 1-2	35	71	.....	.....	.....	.....
	Broad creek branch to Port Maitland } below.	1-1-2	1	6	200	45	9	45	85	.....	.....	.....	.....
The St. Lawrence canal.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
{	Galops and Port Cardinal.....	2	2	7	200	45	9	50	90	.....	.....	.....	.....
	Rapid Plat.....	4	2	11 1-2	200	45	9	50	90	672,498	973	.....	.....
{	Farren's point.....	3-4	1	3 1-2	200	45	9	50	90	.....	.....	.....	.....
Cornwall, passing the Long Sault rapids.....		11 1-2	7	48	200	55	9	100	150	865,372	1,665,663	.....	.....
Beauharnois, do. Coteau, Cedars and Cascades road		11 1-4	9	82 1-2	200	45	9	80	120	1,190,087	275,426	.....	.....
Lachine, do. Lachine rapids.....		8 1-2	5	44 1-2	200	45	9	80	120	old canal. 400,000	.....	29,288	9,011
Elargement of do.....		.....	.....	.....	.....	.....	.....	.....	.....	1,001,333	64,439	.....	.....
Total from lake Erie to the sea.....		12	57	525	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chambly.....		66	9	74	120	24	6	36	60	200,000	440,000	1,409	1,096

COAL COMPANIES.		Length in miles.	R. rd. Canals.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
					Gross.	Nett.		Gross.	Nett.			
	Delaware and Hudson.....	16	108	2,800,000	930,203	196,702	10	.....	.....	.....	117	.....
	Lehigh.....	20	72	6,000,000	.....	.....	.....	.....	.....	.....	31	.....

RAILROADS		Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices	SALES.	
							Gross.	Nett.		Gross.	Nett.			Week ending 22d February.	Share. Price
Me.	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	124,497	74,841	6	98½		
N. H.	2 Concord.....	35	750,000									12	130		
Mass.	3 Boston and Maine.....	56	1,384,050				178,745	68,499	6				109½	18	110
"	4 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615		121½	10	120
"	5 Boston and Providence.....	41	1,900,000				233,388	110,823	6				106½	7	107
"	6 Boston and Worcester.....	48	2,914,078				404,141	162,000	6	428,437	195,163		117½	20	107
"	7 Berkshire.....	21	250,000					17,500	7						
"	8 Charlestown branch.....		250,000						13				80	123	81
"	9 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	107½	86	108½
"	10 Fitchburg.....	50	322,538										112½	4	115½
"	11 Hartford and Springfield.....	25 1-2													
"	12 Nashua and Lowell.....	14 1-2	380,000				84,079		8						
"	13 New Bedford and Taunton.....	20	428,543				50,671	24,000	6						
"	14 Norwich and Worcester.....	59	2,166,566				162,336	24,871		230,674		3	72	6,005	72½
"	15 Taunton branch.....	11	250,000					20,000	8						
"	16 West Stockbridge.....	3													
"	17 Western, (117 miles in Mass.,).....	156	7,686,202	4,686,202	30,000	100	573,882	284,432		753,753	439,679		99	523	99
"	18 Worcester branch to Milbury.....		5,500												
Con.	19 Hartford and New Haven.....	38											100		
"	20 Housatonic, (10 months,).....	74	1,244,123							150,000				490	37½
"	21 Stonington, (year ending 1st Sept.,).....	48	2,600,000				113,889			154,724	79,845		41½	4,855	43½
N. Y.	22 Attica and Buffalo.....	31 1-2	268,275				45,896	7,522							
"	23 Auburn and Rochester.....	78	1,727,361				189,693	112,000					107		
"	24 Auburn and Syracuse.....	26	743,931				86,291	27,334							
"	25 Buffalo and Niagara.....	22	200,000		1,500	133½									
"	26 Erie, (446 miles,).....		5,000,000										29½	935	30½
"	27 Erie, opened.....	53						48,000							
"	28 Harlem.....	26	2,200,000										71	1,375	73
"	29 Hudson and Berkshire.....														
"	30 Long Island.....	95	1,884,640	392,340	29,846	50				153,456	70,043		77½	7,275	79½
"	31 Mohawk.....	16 3-4	1,030,949				69,948	58,780		84,306	40,000		65½	305	66
"	32 Tonawanda.....	43	600,000				76,227								
"	33 Troy and Greenbush.....	6	180,000												
"	34 Troy and Saratoga.....	25	475,865				44,325	21,000							
"	35 Troy and Schenectady.....	20 1-2	633,520				28,043								
"	36 Schenectady and Saratoga.....	22	300,000				42,242	3,000	1						
"	37 Utica and Schenectady.....	78	2,124,013				277,164	180,000	9						
"	38 Utica and Syracuse.....	53	1,080,219				163,701	72,000							
N. J.	39 Camden and Amboy.....	61	3,200,000				682,832	383,880					107½	116	110
"	40 Elizabethtown and Somerville.....	26	500,000												
"	41 Morris and Essex.....														
"	42 New Jersey.....	34	2,000,000										94		
Pa.	43 Paterson.....	16	300,000											350	85
"	44 Beaver Meadow.....	26	1,000,000												
"	45 Cumberland Valley.....	46	1,250,000												
"	46 Franklin.....	10 1-2													
"	47 Harrisburg and Lancaster.....	36	860,000												
"	48 Hazleton branch.....	10	120,000												
"	49 Little Schuylkil.....	29	900,000												
"	50 Lykens Valley 1.....	16 1-2													
"	51 Mauch Chunk.....	9	100,000												
"	52 Minehill and Schuylkill Haven.....	18	315,000												
"	53 Norristown.....	20	800,000												
"	54 Philadelphia and Trenton.....	30	400,000												
"	55 Pottsville and Danville.....	29 1-2	1,500,000												
"	56 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		50		
"	57 Schuylkill valley.....	10	1,000,000												
"	58 Williamsport and Elmira.....	25	400,000				20,000								
"	59 Philadelphia and Baltimore.....	93	1,400,000				43,043	200,000			210,000		43		
Del.	60 Frenchtown.....	16	600,000												
Md.	61 Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		558,620	346,946		49½	10	48½
"	62 Baltimore and Susquehanna.....	58	3,000,000												
"	63 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529				
Va.	64 Greensville and Roanoke.....	17 1-2	260,000												
"	65 Petersburg and Roanoke.....	60	766,000										3		
"	66 Portsmouth and Roanoke.....	78 1-2	850,000												
"	67 Richmond and Fredericksburg.....	61 1-2	1,200,000												
"	68 Richmond and Petersburg.....	22 1-2	700,000												
"	69 Winchester and Potomac.....	32	500,000												
N. C.	70 Raleigh and Gaston.....	84 1-2	1,360,000												
"	71 Wilmington and Raleigh.....	161	1,800,000											10,114	43½
S. C.	72 South Carolina.....	136											8		
"	73 Columbia.....	66	5,299,224		34,410	75	201,464	77,456		328,425	180,704				
Ga.	74 Central.....	190	2,581,723				227,532	93,190							
"	75 Georgia.....	117 1-2	2,650,000				248,026	158,207		248,096	147,523				
Ala.	76 Tusculumbia.....	46													
Ky.	77 Lexington and Ohio.....	40	500,000												
Ohio	78 Little Miami.....	40	450,000												
"	79 Mad river.....	40	400,000												
"	80 Monroeville and Sandusky.....														
Mich.	81 Detroit and Pontiac.....	25													
"	82 Erie and Kalamazoo.....	33													
Ind.	83 Madison and Indianapolis.....	56	152,000												
Can.	84 Champlain and St. Lawrence.....	15	212,000					12,000		58,000	24,000				



## THE FARMERS AND THE RAILROADS.

We have already given our own views on the advantages the farmers and inhabitants of western New York generally would derive from the permission to send the products of their industry and skill to market by that mode of transportation, which their own ideas of their own interests would lead them to prefer; we have given extracts from the many spirited and sound remarks on the anticipated benefits to the agricultural interest from the contemplated Montreal railroad, but we now, for the first time, find the subject fearlessly approached by a paper of western New York, the *Niagara Democrat*, published at Lockport, on the line of the Erie canal. It will be seen that the view here taken is substantially the same as that taken by us, when pointing out the vast additional income the farming interest might secure from the use of railways throughout the year, by selling at a high price articles which cost little—in many instances, nothing—instead of being chained down to endless poverty by a hopeless competition with the cheap lands of the west, in the production of flour, pork, beef and wool.

*"The Agricultural Interest and prospects of Western New York.*—This is a subject perhaps more appropriate to the especial organs of the agricultural interest; but as yet we have not seen that their attention has been brought to a view of the very important crisis that is approaching, or in fact, may be said now to exist, in reference to the agricultural interests of our region. No one has failed to observe that our farmers are meeting with a powerful competition, that must increase as the cheap lands, the open prairies, and easily cleared regions of that vast agricultural district, are rapidly coming under the plough. Facility and cheapness of transportation have so nearly obviated distance, as to leave little ground for hope that our advantage in getting to market will much help us in the way of competition. Take, for example, the staple product of western N. York—wheat. That which is raised as far off as Wisconsin, on lands that have within five years been bought at ten shillings per acre—fenced, broken up and prepared for seed for less than five dollars per acre—has been passing our doors, its transportation to Buffalo costing less than ten cents per bushel. It will occur to any one, on reflection, that a western New York farmer must have more than ten cents the advantage in transportation, upon his from twenty-five to fifty dollars per acre soil, to place him on a par with the cheaply purchased, easily subdued and productive soil of the west. And so in reference to other staple products, beef and pork. Beef, the product of the prairie lands, the animal cheaply raised, and fattened as it were by the bounties of nature, comes in direct competition with ours, that has been carried through our hard winters, and even summered at a greater expense

than our competitors of the west have been subjected to in wintering. The farmer of the west tells us that he can make pork for from twelve to fourteen shillings per 100 pounds. The farmer of western New York will tell you that \$3 is not a remunerating price. Coarse wool may be produced upon the western prairies in abundance. A practical wool grower of one of the western counties of this State, who has now a large flock on the western prairies, told us recently that he had no doubt that coarse wool from the west would soon be sold in Buffalo for one shilling per pound. These are the articles coming most directly in competition. They comprise however the bulk of our staple products. We are but light producers of corn, and in that business cannot compete to any extent with the west. In cheese, our farmers cannot compete in price with the west; with butter, they do better, because of our proximity to market.

"As wheat, salted beef, pork, etc., become less and less desirable or profitable staples, other productions must be substituted. Fresh pork, beef and mutton will hereafter find a good eastern market, by means of the winter railroad conveyance. Poultry from the extreme western counties of this State, is finding a good market this winter in New York and Boston. Cities are rapidly increasing their population in our midst, and furnishing more and more a home market for a variety of productions.

"If space and time allowed, we could enlarge upon the substitutes which the western New York farmer is to depend upon, under a decline of his old staples, and may do so hereafter, if the task do not fall into abler hands."

We recommend the above remarks to the especial attention of the *Rochester Democrat*, and the members of the late "canal convention," as it was very properly called, for it overlooked everything else. By the bye, that well conducted paper, referring to our pretty plainly spoken objections to the State monopoly, says that we are hostile to "western New York." This is one among a thousand proofs of the truth of our remark, made a few weeks since, that many regard the people of New York and of the western States as existing for the Erie canal. The *Democrat* considers a few forwarders, contractors, speculators and politicians as "western New York;" we, on the other hand, think the interests of these few individuals, of a small class of our citizens, of very trifling importance, as compared with those of the vast agricultural and manufacturing community. By way of throwing a tub to the whale, the loss to the farmer on the sale of his wheat by western competition, was brought prominently forward at the convention; the State tax was also very properly alluded to as oppressive; but the real difficulty under which the farmer of western New York, and, consequently,

western New York generally, labored, was not hinted at, nor do we see it even mentioned in the Oswego papers, when opposing the "discriminating tolls," so highly lauded at Buffalo and Rochester. Indeed the "enlargement" of the Erie canal is recommended to aid the interests of western New York: this is taking off the mask; the enlargement is to cheapen transportation from the west, of course to reduce the value of wheat lands in western New York, to increase, if not to perpetuate the taxes to support the canals, and, worse than all, to put an end to all possibility of bettering the condition of the agricultural classes for many years to come. But, with such views as those we copy from the *Niagara Democrat*, generally prevailing among the farmers, we will not permit ourselves to doubt that "the emancipation of the New York farmer is at hand"—we refer especially to the farmer of "western New York."

We have just time to give the following from the last *Rochester Democrat*. We are most happy to find that, after all, we agree pretty well as to the greatest question now before "western New York;" the incalculable advantages which would be conferred on that magnificent district by giving fair play to the energies and enterprize of its citizens.

"The following table—for which we are indebted to Mr. Witt, agent of the Boston road—presents some interesting facts to the western miller and farmer. It will be seen that during the past year, nearly 150,000 barrels of flour have been carried from Albany, on the road, to points west of the city of Boston. There is no doubt that this great work, by cheapening the transportation, has greatly increased the consumption of flour. And this increase principally benefits the western trade. Formerly, all the towns east of Springfield, procured their flour from Boston; and much of that used to be southern flour. Now every barrel is from the west—the flour manufactured in Rochester, Oswego, Black Rock, etc.

"But this is but a single article. This important thoroughfare affects, advantageously, the demand for very many other western products. The farmer receives a penny a pound more for his pork, poultry, beef, etc., during the winter season, than he would if this road was not in operation. It enables the merchant to send fresh pork from Monroe county to Liverpool! And nothing is more common now than to find upon a table in Boston, poultry killed forth-eight hours previously in Wayne, Ontario and Onondaga counties, in this State!

"These facts reveal a mighty revolution in the locomotive powers of the land we live in; and he must take but a narrow view of what constitutes national greatness and happiness, who does not rejoice at all these evidences of the rapid approximation of the remote sections of our vast republic."

## NEW YORK AND ERIE RAILROAD.

"The New York and Erie railroad company are about petitioning our State legislature for the privilege of constructing their road through the eastern part of this State, and are at the same moment asking the New York legislature so to modify their charter, which circumscribes their route within the boundaries of the State of New York, as to enable them to alter their originally proposed direction and accommodate themselves to the provisions of nature by following the route which she has marked out for them through the eastern territory of Pennsylvania.

"This question commends itself to deliberate, careful and thoughtful consideration. Before there is any decisive legislative action, our legislators should assure themselves that the matter has been properly weighed, and is thoroughly understood in all its bearings, in its immediate effects and remote consequences, its advantages and disadvantages, both proximate and collateral.

"The policy which originated the New York and Erie railroad, was narrow, contracted and selfish. The State of New York was determined to command the trade of lake Erie and to force it into her "great commercial emporium." To effect this object, she aided the company with three millions of dollars from her treasury, and to provide against the peril of losing a portion of the coveted trade through other avenues, she imperatively prohibited the company from following the infinitely better and cheaper route through New Jersey and this State. In all matters of business, where State interests in any degree, or by any contingency, might conflict, New York has pursued the most selfish policy towards this State. This was particularly marked in her rejection of the application made through a committee of our legislature, sent to negotiate terms on which the north branch canal and New York canals might be connected. We apprehend that from these circumstances, the legislature of Pennsylvania will be fully acquitted upon the score of courtesy, if it refuses to entertain the petition of the New York and Erie company.

"We are hardly called upon to exhibit more liberality towards New York than she has exhibited towards us. If, therefore, it is not manifestly and beyond all doubt our interest to grant New York a way to the lakes through our territory, we may reject her application, and in doing so, will only be meeting out again the measure wherewith it was meted to us.

"The 'questions to be asked,' then, are, is it the interest of Pennsylvania to grant the New York and Erie company the privilege they ask? what will she gain? what will she lose? These are questions of grave and momentous importance. It seems to us that it would be inexpedient at any time, and peculiarly unwise at a junction like the present, to furnish a neighboring State, by our own legislation, with the facilities for commanding perhaps half the trade, to secure and accommodate which, Pennsylvania has incurred the heavy debt of \$40,000,000. By her internal improvements, she has linked the lake

country with her own 'commercial emporium,' and mainly depends upon the productiveness of these works, to meet the interest arising upon the debt contracted in constructing them. We might, if we had time, elaborate the argument arising upon these facts, but we mean rather to suggest than to extend an argument."

We find the above in the *Miners' Journal*, an able and influential paper, one always alive to the interests of Pennsylvania, and liberal to all. We are sorry to say, that the charge of want of courtesy on the part of our legislature is not to be denied. But, "is it the interest of Pennsylvania to grant the New York and Erie company the privilege they ask?" On this point there can be no room for doubt. The railroad must be carried for some distance on the west bank of the Delaware, the east, or New York, side being occupied by the Delaware and Hudson canal. We are not aware that this location is of any importance to either State, the mountainous nature of the country on both sides preventing any important lateral junctions: the same may be said of the location in Pennsylvania between the Delaware and Susquehanna rivers. But further to the westward the Erie railroad becomes quite as important to Pennsylvania as to New York. The north branch of the Susquehanna affords the first opportunity of a good connection with the Wyoming valley, the greatest basin of anthracite coal in America. An immense trade would follow the opening of the railroad to Elmira; coal would be carried east and west along the road, and to the north by canals, lakes and railways; plaster, salt, etc., would be sent into Pennsylvania, and a communication between Philadelphia, the southern counties of New York and lake Erie at Buffalo and Dunkirk would be had via the Lehigh canal and railway to Wilkesbarre, and thence by the North Branch canal to the Erie railroad. Again, it only requires fifty miles of railroad—from Ralston, Pa., to Elmira, N. Y.—through a natural pass, with moderate gradients, to connect the West Branch canal with the Erie railroad, and all the works of western New York. A trade in bituminous coal, similar to that in anthracite on the N. Branch would be at once created; but the great feature in this connection, is the vast accession of income which would be secured to the State works of Pennsylvania and of trade to the city of Philadelphia. The entire communication between that city and the New York line is owned by the State, excepting only the Williamsport and Elmira railroad, 75 miles long, of which 25 miles have been in operation for some years. Now the canals of Pennsylvania are open a month earlier than those of New York, and, generally

speaking, as early as the commencement of navigation at Dunkirk and Buffalo; hence, with the line via Williamsport to Elmira and the New York and Erie railroad, a complete new field of action is open to the trade in coal, iron, plaster and salt of both States and the city of Philadelphia may enter the lists for the supply of an extensive market to which she has no access at present.

The "main line" gives her a large share of the trade of the Ohio, that is, of the country south of the lakes; the line to Elmira will put her on a footing of equality with this city for a considerable portion of the business of the southern counties of New York; the Erie is not a competing line with her great thoroughfare to the west; on the contrary, it may be made the avenue to a new and populous region, in want of coal and iron. Lastly, we may safely assert, that the opening of the Erie railroad to Elmira will insure the immediate completion of the North Branch canal, and of the Williamsport and Elmira railroad. Were the Erie railroad now in operation as far as Elmira, it might lessen the revenue of this State from the canals, but could not possibly affect the trade of Pennsylvania injuriously.

## WESTERN AND WORCESTER RAILROAD.

The reports of these two companies are unusually long, being in great part occupied with their respective views on the controversy which has existed between them for some time. A perusal of those portions published in the past and present numbers of the *Journal*, will be sufficient to give our readers a correct idea of the question at issue. We do not intend to offer any remarks of our own at this time, on that question, but will refer to that vital subject—the rates of freight. We understand that flour is carried from Albany to Boston for 25 cents per barrel, or 1½ cent per ton per mile, allowing ten barrels to the ton. Now the lowest price at which the Baltimore and Ohio railroad company proposed to carry coal was 1½ cent per ton per mile—provided not less than 105,000 tons annually, for a period of twelve years, to be shipped in equal daily quantities for 250 days in each year, were warranted. To carry coal as it might suit the pleasure of the colliers to furnish it, the Baltimore and Ohio company demanded two cents per ton per mile. Now we take it, that this is about equal to the flour trade on the western road, as regards uncertainty of supply, and we have always thought that 35 to 40 cents per barrel of flour from Albany to Boston was as low a rate as would yield a reasonable return. The Reading road, with its admirable gradients, with full trains, at a moderate velocity, and a trade

as regular as clockwork, still charges 1 1/4 cent per ton per mile down for coal, which may be said to unload itself. The cost of transportation from Buffalo to Albany is two cents per ton per mile on an average; late in the fall it is sometimes much higher, but will average 72 1/2 cents per barrel throughout the ordinary period of navigation. But even this low rate does not appear to have attracted any considerable quantity of flour to Boston via the Western railroad. The whole quantity for 1844 was only 154,413 barrels, yielding an income of \$38,603, at 25 cents per barrel, and, allowing 20 per cent. to be profit, producing only a nett income of \$7,720. The smallness of the flour trade via the railroad is certainly remarkable.

Three cents per passenger per mile is spoken of as a low fare. We confess that we think this almost as much too high, as the freight on flour is too low. When a traveller arriving at Albany, finds he can reach New York for \$2 50, and that \$6 is the fare to Boston, his choice is soon made, omitting entirely the attractions of the unrivalled position and general advantages of New York. It would be folly to attempt to rival the Hudson, but at the same time, we have great faith in low rates of fare for passengers, and believe that a moderate reduction would aid the interests of the Western railroad. Lastly, we consider the principle of charging steady customers more than mere transient ones, to be radically defective. We are aware that this may be necessary where the principal reliance is on a through business, but generally speaking, the opposite policy should prevail. For example, we know that it has been found judicious on a road charging one dollar through, to charge those going and returning the same day no more, and this policy has been found to be attended with complete success, the local travel having been increased to an almost incredible extent. On long roads some modifications would be required, but it is the great secret of success—not for a few years, but of permanent success—as a business on the line can never be diverted from it by a rival; indeed, rivalry will seldom be thought of where this principle is carried out.

LONG ISLAND RAILROAD REPORT. (Continued.)

**Ferry Boats.**—In the estimate of last year these important auxiliaries, authorized by the charter, were omitted, the hope having been long cherished that they would be furnished by other parties. Upon the opening of the line, however, it became necessary to provide them, and a reluctance was evinced by the directors of the eastern railroads to form a line with this company, without the concurrence of the steamboat proprietors, connected

with such railroads. Under these circumstances, and to avoid, as far as might be, a costly opposition, until the line had been fairly tested, and its facilities and advantages become known and appreciated, the company purchased from Mr. C. Vanderbilt the three steamers, Worcester, Cleopatra and New Haven, boats of established reputation, and since then, the former successful and experienced proprietor of these boats has taken a large interest in the company and participated in its management.

*Statement of the receipts and expenditures of the Long Island railroad company, on account of passengers and freight, conveyed on this road from January 1st to December 31st, 1844.*

RECEIPTS.	
From local travel from January 1st to August 9th...	\$32,591 27
From local freight from January 1st to August 9th...	5,778 75—\$38,370 02
From local travel from August 9th to December 31st.	32,417 73
From local freight from August 9th to December 31st.	4,376 09— 36,793 82
From sources incident to the connection formed by the completion of the road to Greenport, viz: fares and freight to and from New York and Providence, Stonington, Newport, New London, Norwich, Worcester, etc., from August 9th to Dec. 31st, 1844...	78,291 99
Total.....	\$153,455 83

EXPENDITURES.	
<i>Wages and Salaries.</i> —In this account is included the salary of the president, vice president, and treasurer, secretary, superintendent, engineer, clerks, conductors, mechanics, laborers, and all other persons in the service of the transportation department of the company.....	\$26,919 39
<i>General Expenses.</i> —In this account appears all items for repairs of road, station houses, shops, locomotives, cars, rent, stationery, waste, oil, etc.....	38,841 87
<i>Fuel</i> .....	7,613 69
<i>Feed.</i> —Provender for horses in use by the company....	1,100 03
<i>Ferry Expenses.</i> —Steamboat, insurance, etc.....	8,937 91— 83,412 89
Excess of receipts over exp. E. E. New York, December 31st, 1844.	\$70,042 94

**NOTE.**—During five months of the year succeeding March, the transportation of iron, lumber, materials and men for the construction of the road was performed to the amount of \$15,500; employing the whole force of the road and thereby cutting them off from an income from the usual sources of a like amount.

Capital stock.....	30,000 shares,
Owned by the company	154
	29,846, at \$50, \$1,492,300 00
Debt.....	392,340 22
	1,884,640 22
Cost of road.....	1,500,000 00
Assets, consisting of 3 steamers, wharves, motive power, lots, depots, etc., etc., valued at.....	400,000 00
	1,900,000 00

After carefully perusing the report of the Long Island railroad company, we are quite unable to offer any opinion as to the actual state of the affairs of that corporation. We have however given such copious extracts

that our readers may judge for themselves, and some will perhaps supply us with the information we require, to obtain anything like a clear view of the case. For example, we understood some years since, that a certain rate of interest on the cost of that portion of the road between Brooklyn and Jamaica was to be paid out of the earnings of the entire road, before any dividend could be paid to the stockholders, and that the interest on the debt to the State was regularly paid; yet we do not see either of these items in the statement; the company are told that they possess a road nearly 100 miles long, and, in the "statement," we find "cost of road, \$1,500,000," obviously conveying the idea, that this is the cost of the road from Brooklyn to Greenport, which we understand is not the case; it should also be stated whether the receipts include the fare on the steamers from Greenport to Stonington and Norwich; the "assets," as the engines, lots, steamers, etc., are very singularly called, might have been given somewhat in detail. These are some of our objections to the report, which is also drawn up in a very rambling manner, so that in endeavoring to lick it into shape we were obliged to skip over eight or ten pages after the introductory paragraph, to find the cost of the road and other important statements, which should precede general and speculative remarks.

One of the leading inducements with the legislature in granting corporate privileges, is that full and accurate statements of the condition of such corporations be periodically made for the information of the community. In the report of the Long Island railroad company, the interest of the State debt does not appear in the "statement," no allusion is made to the Brooklyn and Jamaica railroad with its prior claim on the receipts, nothing is said of the large amount of damages which must be paid for the injury inflicted on the citizens in the vicinity of the tunnel, nor do we see any estimate of the sum required to equip the road for a large business in freight and passengers. The "statement" may satisfy the legislature, but it does not satisfy us.

BRITISH NAVAL POWER ON THE LAKES.

In the last Southern Literary Messenger, in an elaborate article, Lieut. Maury considers the necessity of an increase of our naval force upon the lakes, and shows that by means of the Welland, St. Lawrence and Rideau canals, England could, in case of war, so take command of the lakes with her steamers—passing through the canal from the ocean—as to completely paralyze our commerce before our government could, by any possibility, according to the present position of things, apply any preventive.

To remedy this defect, he thinks it the part



of prudence and wisdom for the government to take control of the Illinois canal, designed to connect the Mississippi with lake Michigan, and complete it upon the scale of the Rideau and Welland ship canals, so as to readily admit steamers and large vessels to pass from the Mississippi to the lakes. The navy yard ordered to be established at Memphis, will afford the means of supplying vessels of the required size and armament, and the resources of the west could be thus brought with good effect for the increase and efficiency of the navy.

It is too true that by means of the ship canal Great Britain possesses an easy access to the lakes from the sea; and it is also true that our government possesses very few of the proper safeguards which the immense commerce of these seas, and the importance and wealth of the thriving cities on their shores imperatively demand. What is wanting should be supplied, and if, on examination, Lieut. Maury's plan is found to be feasible, it will be not only prudent, but the part of true economy to adopt it.—*U. S. Gazette.*

We find remarks similar to the above in many of the leading papers of the country, and, as they convey very erroneous views to the public, we will endeavor to give the facts with our opinions on the subject. For some of the former we refer to our table of Canadian canals, where it will be seen that the locks of the Welland canal are little more than half the width of those on the St. Lawrence canals, and less than half the width of the locks on one portion, the Cornwall canal, which are 55 feet wide by 200 feet long, with 9 feet water on the sill, the locks of the Welland being 26 by 150, with 8½ feet water on the sill. But the fact is that, in case of war, no vessel—American or British—can pass up or down the St. Lawrence. The river is commanded from *both sides*, for a distance of 30 or 40 miles, and the St. Lawrence canals have never been regarded as adding to the *defence* of the province. The location of the Rideau canal is a truly military one, forming an arc of which the St. Lawrence is the chord, and only coming within reach at the strong points of Montreal and Kingston. But some of the locks on this route are only 20 by 100 with 4 feet water, which of course limits the size of vessels passing. Excepting the increase in the dimensions of the locks of the Welland canal, there has been nothing done to increase the efficiency of British power in Canada, by means of public works; on the contrary, by extinguishing private enterprise, they have prevented the extension of railroads, though, singularly enough, the only railway they possess, scarcely 15 miles long, was the first railroad ever used in active military operations, as far as we can learn; this was in the years 1837 and 1838. Its importance was such, that the government took it

into its own hands till tranquility was restored.

Now, however, comes the grand feature of the St. Lawrence canal, the general name given to the six portions of canal by which the different rapids are surmounted. Only three of these are of any magnitude—the Lachine, Beauharnois and Cornwall canals—the river being navigable in both directions, by the others, in steamers of even moderate speed. The Cornwall canal has been open several years, the Beauharnois is to be completed this year, and the enlargement of the Lachine canal in a year or two. *But the Beauharnois canal is on the south, or American bank of the St. Lawrence*, within little more than a day's march from the American lines, and with lake Champlain as a communication. It connects two wide reaches of the river, known as lake St. Louis and lake St. Francis, the former coming within nine miles of Montreal, the latter reaching, at its south-western extremity, the State of New York. Suppose the canal in the possession of the troops of the United States; then may the British fleets be kept from lake St. Francis while American vessels are built, equipped and exercised on that broad sheet of water, until the decisive moment arrives; when in a single day they may pass the Beauharnois canal, and, if victorious the entire country from Lachine to Detroit is lost. If the fortune of war be adverse, they retreat through the canal to lake St. Francis and refit; if successful, Canada West falls, if defeated, a few ships are gone; it is the ordinary game of war to one side, to the other it is a question of existence; the stakes could scarcely be less equal. No matter what the predominance of the British on Ontario, or the strength of Kingston, the possession of the Beauharnois canal and lake St. Louis cuts off their communication with Montreal by the Rideau canal, and an inglorious surrender is all that remains to them.

It will be at once said, that this could not escape the observation of the numerous experienced and accomplished British officers in Canada. We have understood that very strong representations were made by the highest military authorities, and we know that the location of this canal is openly denounced by military men of the highest rank, as an infamous affair. But, with an imbecile governor and an administration purposely brought in to dispose of the honor of the province to a London company, and consequently prepared to go all lengths in their dispatches to the colonial office, the calm and temperate assertions of military gentlemen were overwhelmed by the atrocious misrepresentations of unscrupulous adventurers, until it was too late to re-

treat. The present governor general is universally esteemed, and the job was commenced under his predecessor, but we would venture to say, that his excellency would gladly give up his newly acquired "lordship," could he wipe out the disgrace inflicted on the country by a member of the cabinet, filling, only too efficiently, the manly and dignified post pander to the agent of the London company, the notorious *Wakefield*, to whom the "Beauharnois canal administration" owed its existence, and to whom the Beauharnois canal owes its location—the consideration being \$60,000, as officially announced in London. This is "the affair" to which we alluded in our last, when treating of the "beauties of government engineering."

We select the following from the *London Mining Journal*:

**SOUTH DEVON RAILWAY.**—The tenders for twenty-four engines—sixteen of 33-inch cylinder, or about 45-horse power, and eight of 12-horse power—were received in the early part of the week, at Exeter, by Mr. Brunel, and the authorities of the South Devon Railway, which is to be worked on the atmospheric principle. The contracts were taken by Boulton and Watt and Messrs. Rennie—the amount, from 40,000*l.* to 50,000*l.* The principal Cornish engineers and founders were in attendance.

**PATENT CONVEX PROPELLERS.**—So much interest having been excited by the success attending the application of Mr. Smart's new propellers to steam-ships, that the inventor has been induced to forward a model of the invention to London, which may be inspected at his agents, Messrs. Jules, Coulson & Co., Clement's lane.

**COMMUNICATION BETWEEN EGYPT AND INDIA.**—Mr. Galloway, the engineer, has just left Paris, *en route* to Egypt, to commence this great work, projected by his brother, the Bey, ten years ago. This work must be looked upon as the first link of the grand chain of railway communication from the Mediterranean, so generally advocated, and so obviously necessary between England and her Indian possessions, and her recently acquired colony in China.

**ELECTRIC TELEGRAPH.**—The construction of the electric telegraph between London and Gosport, at a cost of £24,000, is nearly completed.

**THE ATMOSPHERIC RAILWAY SYSTEM.**—The South Devon Railway Company, under the advice of Mr. Brunel, their engineer, have concluded a contract with Messrs. Hennett and Co., for the supply of 12,000 tons of cast-iron pipes for the atmospheric apparatus, being the quantity required for the entire distance from Exeter to Plymouth (fifty-two miles). The terms of the contract require that about twenty miles of the distance (from Exeter to Newton) shall be completed and opened for traffic in the ensuing summer.

**THE IRON TRADE.**—Our readers have been already prepared for a most favourable report of the quarterly meeting of ironmasters—the result of which has fully realized the best expectations—and from all districts our advices tend to the general conclusion, that the iron trade is in a more healthy condition than it has assumed for a long time past.

The meeting took place on Thursday, and at which, unlike former meetings, all was congrat-

ulation—despondency was banished from the countenances of the former woe-stricken iron-makers; and the entire assembly of the iron trade, Welsh, Scotch, and English, appeared to be full of confident hope for the future. It will be recollected, that at the Birmingham meeting in October last, the ironmasters generally manifested a determination to maintain the then existing prices, but that at the meeting at Dudley, the following Saturday, three large houses in the district declared a reduction of 1l. per ton. This step was said to have been taken by these influential firms in order to meet the prices of a number of smaller houses, who were notoriously underselling those who abided by the prices fixed at the former quarterly meeting. Notwithstanding, however, this reduced price—arguing, as it did, a bad prospect for the future—the iron trade, during the last quarter, gradually continued to improve, and at the end of six weeks an advance of 10s. per ton took place. Affairs progressed favourably, and at Dudley last week a further advance of 10s. was agreed upon. It was under these flattering circumstances that the meeting assembled on Thursday. The meeting confirmed the two advances of 10s. each—so that it may be estimated at an advance of 20s. per ton upon the prices declared at the Dudley meeting in October. Bar and hoop-iron fetches from 6l. to 6l. 10s. per ton; pig-iron from 3l. 10s. to 4l. At these prices parties gladly bought, for fear that, considering the buoyant state of the market, there may be a further advance. The furnaces in South Staffordshire are in full work, and there is generally throughout the iron districts a demand for labour. It is also satisfactory to state that the miners—the coal and ironstone getters—are in the receipt of at least 25 per cent. higher wages than they were two years ago.

We have endeavoured to obtain from the best authority the cause of this sudden, and, as it is likely to prove, permanent prosperity of the iron trade. All attribute it to the great demand for railways upon the continent, and in this kingdom. It is not only for the rails that iron is required, but for engines, carriages, &c. It is calculated that for every ton of iron required for the trains on a railway, a ton is used for engines, tenders, waggon, carriages, tools, &c. If the 240 railway speculations now before Parliament were carried, the property of the iron trade would exceed all calculation. The line of railway which creates most interest among the ironmasters, is the projected one between Oxford and Wolverhampton, brought forward under the auspices of the Great Western. Many of them are largely interested in this line. The opposing line is from Tring, through Worcester, to Wolverhampton, under the auspices of the London and Birmingham. The fight between the two great leviathan companies (the Great Western and the London and Birmingham) is expected to be very severe, and the ironmasters look upon the anticipated contest with very great anxiety. There is no fear that the price of iron will be altered at the meeting at Dudley to-day.

In Wales the news is of the most cheering description—all the works seem to be fully employed, and orders both large and valuable are pouring in. The Cwm Celyn and Blaiva Iron-Works, during the last three months, have made an extraordinary quantity of iron, and the difficulties which the proprietors of those works have had to meet, whatever change is made, will now, it is hoped, give place to better things, and will be for good. There is a rumor afloat that the Ebbw Vale and Sirhowy Iron Company affair is not yet settled, and that there will be another sale of them by public auction: if this do happen, we may expect, from the present prospects

of the iron trade, that they will realize a sum fully 25 per cent. more than they would have done this time last year. The new company at Cwm Celyn are pushing on the works with great vigor: it appears that during the month ending Dec. 29th, more iron was manufactured there than in any previous month since the establishment of the works. More than 1200 tons of rails, besides bars and roughed down, were made within the month, and a large amount of orders still remain on their order-book.

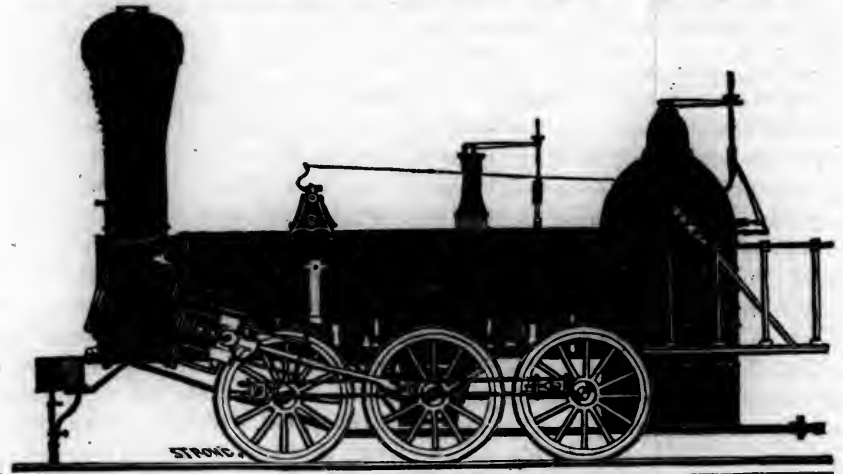
The Blair Iron Works are again in partial operation, one of the furnaces having been put in blast on Monday last.

WHEAT FROM THE LAKES.—Cleveland sends off about four million bushels, Detroit we suppose about a million and a half, Milan upwards

of seven hundred thousand, Sandusky city six hundred and sixty-eight thousand, Toledo six hundred thousand. Chicago, we have not the returns from, but we suppose it may equal Toledo. The flour is counted in bushels at 5 to the bbl. The official return for all the leading ports will be published as soon as they are received at our office.—*Toledo Blade.*

[Let those unaccustomed to contemplate the vastness and growing importance of the business resources of the West, examine this simple statement of facts. Rising of eight million bushels of wheat, more than equal to 1,600,000 barrels of flour, from six points on the Lake coast! This amount will feed a million of souls, to say nothing of other exports. Figures in a few years will hardly express the result.—*O. S. Journal.*]

NORRIS' LOCOMOTIVE WORKS,  
BUSH HILL, PHILADELPHIA, Pennsylvania.



MANUFACTURE their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
" 2,	14	"	"	×	24	"
" 3,	14½	"	"	×	20	"
" 4,	12½	"	"	×	20	"
" 5,	11½	"	"	×	20	"
" 6,	10½	"	"	×	18	"

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

NORRIS, BROTHERS.

KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

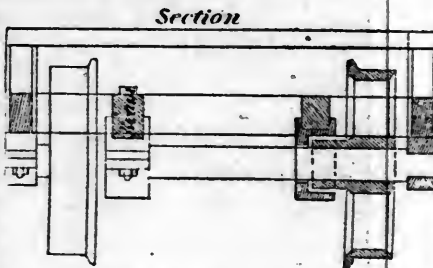
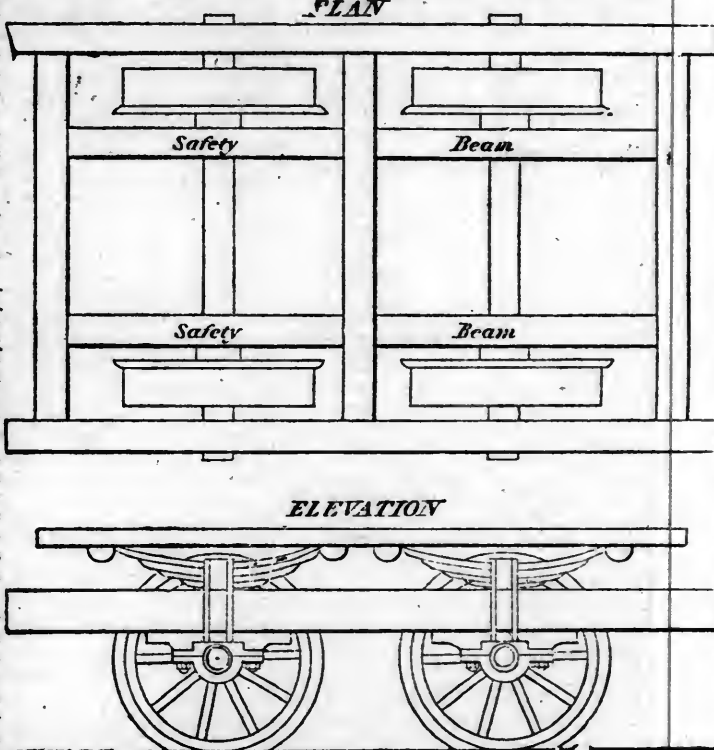
The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

REFERENCES.—Col. James F. Baldwin, Civil Engineer. Boston, Col. J. M. Fessenden, " Wm. Parker, Esq., Engineer and Superintendent Boston and Worcester railroad. ja45

RAILROAD IRON AND FIXTURES. THE Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO., 21 Broad st., N. York. ja45

SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address: JOAN F. WINSLOW, Agent, 533 Albany Iron and Nail Works, Troy, N. Y.

LONG ISLAND RAILROAD COMPANY. Trains run as follows, commencing November 1st, 1841:

Leave Brooklyn at 8, a. m. (7 1/2 New York side)—Boston Train—for Greenport, daily, Sundays excepted, stopping at Farmingdale and St. George's Manor. Leave Brooklyn at 9 1/2, a. m. for Hicksville and intermediate places, daily; and on Tuesdays, Thursdays and Saturdays, through to Greenport and intermediate places. Leave Brooklyn at 4, p. m. for Hicksville and intermediate places, daily, Sundays excepted; and on Saturdays to Suffolk Station. Leave Greenport for Brooklyn, Boston Train, at 1, p. m. or on the arrival of the steamers, daily, Sundays excepted, stopping at St. George's Manor and Farmingdale. Leave Greenport at 9 1/2, a. m. Accommodation Train, for Brooklyn and intermediate places, on Mondays, Wednesdays, and Fridays. Leave Hicksville for Brooklyn and intermediate places, daily, Sundays excepted, at 7, a. m. and 1 1/2, p. m. ON SUNDAYS. Leave Brooklyn for Hicksville and intermediate places, at 9 1/2, a. m. Leave Brooklyn at 4 1/2, p. m. for Jamaica. Leave Hicksville at 2 1/2, p. m. for Brooklyn. Leave Jamaica at 8, a. m. for Brooklyn. Leave Jamaica at 3 1/2, p. m. for Brooklyn. ja1

BOSTON AND PROVIDENCE RAILROAD. PASSENGER NOTICE.—Winter Arrangement.—To commence Monday, November 4.

On and after Monday, Nov. 4, the Passenger Trains will run as follows: For New York—Night Line, via Sound Steamers—Leave Boston at 4 P. M. on Tuesday, Thursday and Saturday. For New York—Morning Line, via Long Island Railroad—Leave Boston at 8 A. M. on Monday, Wednesday and Friday. Boston, Providence, Taunton, New Bedford and Way Trains. Leave Boston at 8 A. M., and 3 1/2 P. M.; and Providence at 9 A. M. and 3 1/2 P. M. Taunton at 8 1/2 A. M. and 3 1/2 P. M. New Bedford, at 7 1/2 A. M. and 2 1/2 P. M. Dedham Trains. Leave Boston at 9 A. M.—3 P. M., 5 1/2 P. M. Dedham at 7 50 A. M., 10 1/2 A. M., 4 1/2 P. M. All baggage is at the risk of the owners thereof. WM RAYMOND LEE, Sup't

FITCHBURG RAILROAD. OPEN TO ACTON. Passenger Trains will run as follows: Leave Charlestown at 8 A. M. and 1 and 4 1/2 P. M. Leave West Acton at 7 36 and 10 51 A. M., and 6 6 P. M.

Stages on the arrival of the first Train of Cars at Acton, leave daily (Sundays excepted) for Littleton, Groton, Townsend, Lunenburg, Fitchburg, Ashburnham, Winchendon, Westminster, South Gardner, Templeton, Phillipston, Athol, Mass.; Fitzwilliam, Troy, Swinsey, Keene, Walpole, Charlestown, N. H.; Chester, Windsor, Woodstock, Rutland, Middlebury, Royalton, Montpelier, and Burlington, Vt. For further information, apply to THOMAS A. STAPLES, No. 36 Hanover st., or L. BIGELOW, No. 11 Elm st., Boston. Passengers leaving their names at the above offices, will be supplied with Railroad and Stage tickets, and conveyed to the Fitchburg Railroad Depot, free of charge. Coaches will be at the Depot to Charlestown, on the arrival of the Cars, to convey passengers to any part of the city. ja1 S. M. FELTON, Engineer.

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.  
J. P. JACKSON, Esq., Secretary.

ROBERT SCHUYLER, Esq., Vice President.  
J. WORTHINGTON, Esq., Treasurer.

	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
Leave New York, foot of Courtland street.						
For Newark.....	9, 11, 12.....		2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4	
" Elizabethtown.....	9, 11.....		2, 3, 4 3-4, 6.....			
" Rahway.....	9, 11.....		3, 4 3-4, 6.....			
" New Brunswick.....	9.....		3, 4 3-4.....			
Leave						
New Brunswick....	6, 7 1-2, 11 1-2.....		8 3-4.....	11 1-2	8 1-2	
Rahway.....	6 3-4, 7, 8 1-4, 12.....		4 3-4, 9 1-4.....			
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12		3 1-2, 5.....			
Newark.....	7 1-2, 8 1-4, 9, 11.....		1 1-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4	
For New York.						

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

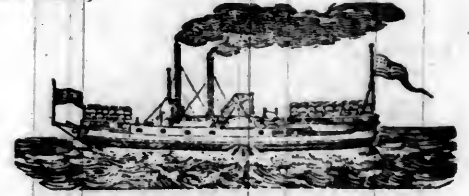
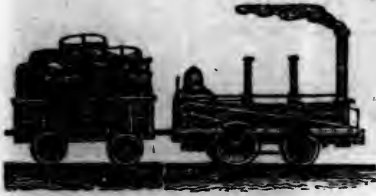
TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick.	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....										
Newark.....	9 1-4	25	9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2	.....	.....	10 1-2	25	22 1-2	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	.....	.....	5	12 1-2	16 3-4	50
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2	.....	.....

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS.	A. M.	P. M.	MILES.	FARE.
Boston	Portland	Boston and Maine,	Daily,	7½	2½	109	\$3 00	
"	Somersworth	"	"	7½	2½, 3½	69	2 12½	
Portland	Boston	"	"	7½	3	109	3 00	
"	Somersworth	"	"	4½, 9½	4½	49	.....	
Boston	Lowell	Boston and Lowell,	"	7, 11	2, 5	26	75	
Lowell	Boston	"	"	7½, 11	2, 4½, 5½	26	75	
Boston	Concord	Concord,	"	7	3½	76	2 00	
Concord	Boston	"	"	7	3½	76	2 00	
Boston	Nashua	Nashua and Lowell,	"	7, 11	5	41	.....	
Nashua	Boston	"	"	6½	1½, 5	41	.....	
Boston	Worcester	Boston and Worcester,	"	7, 9	2½	44	1 25	
Worcester	Boston	"	"	7, 10	6	44	1 25	
"	"	"	"	Sundays,	7	.....	.....	
Boston	Worcester	"	"	Daily,	9½	3, 5	.....	
"	Newton	"	"	8, 10	4	.....	.....	
Newton	Boston	"	"	Mon., Wed. & Fri.,	7	.....	.....	
Boston	New York via Norwich	"	"	Tues., Thur. & Sat.,	9	.....	.....	
"	" L. Island railroad	"	"	Daily,	9	.....	.....	
"	" New Haven	"	"	9	2½	.....	.....	
Albany	Boston	Western,	"	8½	1½	200	6 00	
Springfield	Boston and Albany	"	"	7	3	200	6 00	
Boston	New York via New Haven	"	"	7	2½	.....	.....	
Charlestown	West Acton	Fitchburg,	"	8	1, 4½	.....	.....	
West Acton	Charlestown	"	"	7½, 10½	5	.....	.....	
Boston	New York, via Sound steamboat	Boston and Providence,	Tues., Thur. & Sat.,	8	4	.....	.....	
"	" L. Island railroad	"	Mon., Wed. & Fri.,	8	.....	.....	.....	
Providence	Boston	"	Daily,	8	3½	41	1 50	
Taunton	"	"	"	8	3½	41	1 50	
New Bedford	Boston	"	"	8½	3½	.....	.....	
Boston	Dedham	"	"	7½	2½	.....	.....	
Dedham	Boston	"	"	9	3, 5½	.....	.....	
New York	Greenport	Long Island,	"	7½, 10½	4½	.....	.....	
Brooklyn	Hicksville & intermediate places	"	"	7½	.....	95	2 25	
Greenport	Greenport	"	"	9½	.....	26	56½	
"	Hicksville, (Satur'd'y to Suffolk)	"	Tues., Thur. & Sat.,	9½	.....	95	2 25	
"	Brooklyn, (Boston train)	"	Daily,	9	.....	26	56½	
"	" (accommodation do.)	"	"	1	.....	95	2 25	
Hicksville	" & intermediate places.	"	Mon., Wed. & Fri.,	7	.....	26	56½	
New York	Albany & Boston via N. Haven	Steamer,	Daily,	6	1½	.....	.....	
Middletown	Middletown	New York and Erie,	"	6½	.....	53	.....	
Philadelphia	New York	"	"	8, 3	.....	53	.....	
Pottsville	Pottsville	Reading,	"	6½	3½	94	3 50	
New York	Philadelphia	"	"	9	.....	94	3 50	
Newark	Newark	N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4½, 6, 7½	9½	25	
Newark	New York	[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7½, 8½, 9, 11	1½, 4, 5½, 7, 9½	9½	25	
"	"	[9 A. M. and 4½ P. M., trains, connect with Somerville Railroad.]	Sundays,	9	4½	9½	25	
New York	Newark	"	Daily,	11½	9½	9½	25	
Elizabethtown	Elizabethtown	"	"	9, 11	2, 3½, 4½, 6	14½	31½	
New York	New York	N. J. railroad and trans. co.,	"	7, 7½, 8½, 10½, 12	3½, 5	14½	31½	
Rahway	Rahway	"	"	9, 11	3, 4½, 6	19½	31½	
New York	New Brunswick	"	"	6½, 7, 8½, 12	4½, 9½	19½	31½	
New Brunswick	New York	"	"	9	3, 4½	31½	50	
"	"	"	"	6, 7½, 11½	8½	31½	50	
New York	New Brunswick	"	Sundays,	11½	8½	31½	50	
Philadelphia	New York	Camden and Amboy,	Daily,	9	4½	91	3 00	
New York	Philadelphia	"	"	7	.....	91	3 00	
Philadelphia	Bristol	Philadelphia and Trenton,	"	5½	.....	30	75	
Bristol	Philadelphia	"	"	9	.....	30	75	
Philadelphia	Baltimore	Philad. Wil. and Baltimore,	"	8	4	93	.....	
Baltimore	Philadelphia	"	"	9	8	93	.....	
"	Washington	Baltimore and Washington,	"	9	5, 11½	41	2 50	
Washington	Baltimore	"	"	6	5½	41	2 50	
Baltimore	Cumberland and inter. places.	Baltimore and Ohio,	"	7½	.....	.....	.....	
Cumberland	Frederick	"	"	7	4	.....	.....	
Hancock	Baltimore	"	"	8	.....	.....	.....	
Martinsburg	"	"	"	10½	.....	.....	.....	
Harper's Ferry	"	"	"	11½	.....	.....	.....	
Frederick	"	"	"	11½	12½	.....	.....	
"	"	"	"	8	2	.....	.....	
Ellicott's Mills	"	"	Sundays,	8	.....	.....	.....	
Richmond	Petersburg	Richmond and Petersburg,	Daily,	7½, 12	4½	.....	.....	
Petersburg	Richmond	"	"	10½	1½	.....	.....	
Albany	Schenectady	Mohawk and Hudson,	"	5½	.....	.....	.....	
Schenectady	Albany	"	"	8	5½	.....	.....	
Albany	Saratoga	"	"	9	3½	.....	.....	
Saratoga	Albany	"	"	7½	2	.....	.....	
Troy	Saratoga	Troy and Saratoga,	"	7	12½, 5	.....	.....	
Saratoga	Troy	"	"	7½	3½	.....	.....	
Auburn	Rochester	Auburn and Rochester,	"	8	.....	.....	.....	
Rochester	Auburn	"	"	8	3	.....	.....	
"	Buffalo	Rochester and Buffalo,	"	8	3	.....	.....	
Buffalo	Rochester	"	"	8	3	.....	.....	
"	Falls	Buffalo and Falls,	"	9	.....	.....	.....	
Falls	Buffalo	"	"	9	1½	.....	.....	
Buffalo	Albany	Albany and Buffalo	"	8	.....	.....	.....	

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

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THURSDAY, MARCH 6, 1845.

[WHOLE No. 453, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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ANDREW MENEELY, West Troy. (See Adv.)  
ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
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KITE'S Patent Safety Beam. (See Adv.)  
FRENCH & BAIRD, Philadelphia, Pa. [See Adv.]  
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JOHN F. STARR, Philadelphia, Pa.  
MERRICK & TOWNE, do.  
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**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing (so as to keep pace with the daily increasing demand. ja45

**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y.  
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

**TO RAILROAD COMPANIES AND MANUFACTURERS of railroad Machinery.** The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**RAILWAY IRON, LOCOMOTIVES, ETC.** The subscribers offer the following articles for sale:

Railway Iron, flat bars, with countersunk holes and mitred joints.	lbs. per ft.
350 tons 2 by 15 feet in length weighing	4.68
280 " 2 " 1 1/2 " " "	3.50
70 " 1 1/2 " 1/2 " " "	2 1/2
80 " 1 1/2 " 1/2 " " "	1.26
90 " 1 " 1/2 " " "	

with spikes and splicing plates adapted thereto. To be sold free of duty to State governments, or incorporated companies.

Orders for Pennsylvania Boiler Iron executed. Railroad Car and Locomotive Engine tires, wrought and turned or unturned, ready to be fitted on the wheels, viz: 30, 33, 36, 42, 44, 51 and 60 inches diameter.

E. V. Patent chain cable bolts for railway car axles, in lengths of 12 feet 6 inches, to 13 feet 2 1/2, 22-3, 3, 3 1/2, 3 1/2, and 3 1/2 inches diameter.

Chains for inclined planes, short and stay links, manufactured from the E. V. cable bolts, and proved at the greatest strain.

India rubber rope for Inclined planes, made from New Zealand wax.

Also, Patent hemp cordage for inclined planes and canal towing lines.

Patent felt for placing between the iron chair and stone block of edge railways.

Every description of railway iron, as well as locomotive engines, imported at the shortest notice, by the agency of one of our partners, who resides in England for this purpose.

A highly respectable American Engineer resides in England for the purpose of inspecting all Locomotives, Machinery, Railway Iron, etc., ordered through us.

A. & G. RALSTON & CO.,  
No. 4 South Front st., Philad., Pa.

**MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Paterson, N. J.** The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

### Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,  
a45 Paterson, N. J., or 60 Wall street, N. York.

**TO IRON MANUFACTURERS.** THE SUBSCRIBERS, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. R. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO.,  
ja45 No. 4 South Front st. Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

From 4 inches to 4 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T. L., and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bittuminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming, Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer.*

**VALUABLE PROPERTY ON THE MILL DAM** For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet, two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6900 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48 State st.,** or to **CURTIS, LEAVENS & CO., 106 State st., Boston,** or to **A. & G. RALSTON & Co., Philadelphia.**  
ja45

**FRENCH AND BAIRDS PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arrester have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\*\*\* The letters in the figures refer to the article given in the *Journal* of June, 1844.

**S. VAIL, PROPRIETOR OF THE SPEED.** Well Iron Works, near Morristown, N. J., can supply at short notice railroad companies and others with the following:

Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyres made, and they may rely upon being served according to order, and also punctually, a large quantity in the straight bar is kept constantly on hand. Crank axels for locomotive engines, made from the best Pennsylvania iron. Straight axles for locomotives for outside connection engines. Frames for engines. Wrought iron work for steamboats, and shafting of any size. Cotton Screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen:

Baldwin, Vail & Hufty, Philadelphia; Wm. Norris, Philadelphia; N. Campfield, Savannah, Ga.; J. & S. Bones, Augusta, Ga.; D. F. Guez, N. Orleans, La.; Adam Hall, N. York; J. P. Allaire, N. York; William Parker, Boston, Mass.; George W. Schuyler, N. York.  
ja46

**THE NEWCASTLE MANUFACTURING** Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

**ANDREW C. GRAY,**  
ja45 President of the Newcastle Manuf. Co.



**CUSHMAN'S COMPOUND IRON RAILS,** etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, *Civil Engineer,*  
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

**G. A. NICOLLS,**  
ja45 Reading, Pa.

## ATLANTIC AND PACIFIC RAILROAD.

We meet with this "magnificent project" in almost all our exchange papers, and now we find the subject brought before a meeting of the stockholders of the Western railroad, on the 12th inst., by P. P. F. Degrand, Esq. We are so much accustomed to examine projects in a somewhat close, or, as the mathematicians say, rigorous manner, that we are in a great measure incapable of appreciating the magnificence or the utility of a railroad hence to the Pacific. When we see this great city shut out during five months of the year, from all communication with the rich river counties and the cities from Albany and Troy to Buffalo, and the valleys of the Mohawk and the Genesee, and the equally fine country around the Seneca and Cayuga lakes, we feel little inclination to undertake a work fifty times more difficult, but with means and results by no means in proportion. But the transcendental is more highly esteemed in the meridian of Boston than here, and we frankly admit that it never was our "forte." We give a few of Mr. Degrand's remarks.

"A continuous railroad, from Boston to the mouth of Columbia river, is imperatively called for by national considerations, which can neither be overlooked or neglected with impunity.

"This railroad is the only scientific way of defending the Oregon territory. By means of it, you can, in case of war, transport from our Charlestown navy yard, in thirty days, all the parts, numbered and fitted, to build in three weeks, a fleet of war steamers, on the Pacific; and you can also transport the carpenters, riggers, caulkers, blacksmiths and sail makers, as well as the sailors, marines and officers, to man the fleet. You can transport the cables, anchors, sails, rigging, guns, muskets, gunpowder, balls, all the other materials and munitions of war. You can thus take at once, as if by enchantment, the command of the Pacific, and of the China, Japan and India seas, both with your private and public armed ships.

"The Oregon territory, now a distant land, will, by the existence of this road, be brought nearer to Washington city, than Charleston, S. C., was during the revolutionary war. It will be reached with less inconvenience and personal discomfort, than Philadelphia was, from Quincy, in 1776. This facility of railroad communication is indeed the truly scientific way of securing the bonds of union for our vast empire.

"The line of railroads from Boston to the mouth of the Columbia river, will be the highway of nations, between Europe and China. A communication sent from England, by the Cunard line, reaching Boston in 12 days, will, by Morse's telegraph, instantly reach the mouth of Columbia river, whence a swift steamer will carry it to China, in 12 days more!

"By means of this railroad, the Oregon territory will become a part and parcel of our own selves, instead of being an isolated people, and another nation, as suggested in Wm. Sturgis' truly talented lecture, on this important subject.

"In view then of all these advantages, let us now resolve that this great work shall be accomplished in a brief space of time, and thus add to our national renown, and add also to our road a branch somewhat longer than Worcester long wharf.

"If we but resolve to have this done, depend upon it, Mr. President, it will be done; for I see men about me able to mould public opinion to this great national purpose. Indeed, after what we have already accomplished we need never despair in a good cause."

## SHIP CANAL ACROSS THE AMERICAN ISTHMUS.

*Survey of the Isthmus of Tehuantepec, executed in the Years 1842 and 1843, with the intent of Establishing a Communication between the Atlantic and Pacific Oceans, and under the Superintendence of a Scientific Commission appointed by the Projector, Don JOSE DE GARAY. London: Ackermann and Co. 1844.*

The American isthmus reaches from Tehuantepec and the Coatzacoalcos on the north, to Darien on the south, a length of five hundred and seventy-five leagues, and is traversed through its whole extent by a range of mountains, continuous at either extremity with the great chains that form the spines of both continents. Nine different parts of this isthmus have been proposed, at various times, as offering special facilities for effecting the desired communication; but it was at length ascertained that only three of these localities were worthy of consideration; those, namely, which, from their principal towns, are respectfully designated Isthmus of Panama (properly so called), of Nicaragua, and of Tehuantepec.

The distance from ocean to ocean, across the Isthmus of Panama, is only forty miles. Were our judgment, therefore, to be formed from a mere inspection of the map, an inclination to consider this point the most eligible would be inevitable. The space that divides the two seas is greater at Nicaragua, namely, ninety-five miles, but being intersected by a lake of vast dimensions, this tract of country would also appear to offer considerable advantages. Lastly, the territory of Tehuantepec, forming a continued line of 130 miles, is that which, upon a superficial examination, appears to be the least suited for the accomplishment of the object contemplated.

"However, notwithstanding these appearances, as a greater or less distance is not the only circumstance to be considered, it precisely happens in the three above-mentioned instances that the practicability of the work is in an inverse ratio to the shortness of the distance; and thus, while in the present state of our knowledge, it is apparently impossible at Panama, and attended with immense difficulties at Nicaragua, we find it practicable and easy at Tehuantepec."—Moro.

The breadth of the isthmus in a straight line from the mouth of the Coatzacoalcos is 220 kilometres (130 miles,) but the greater part of this space is occupied on the south by lagoons and extensive plains, and on the Atlantic side by the course of the Coatzacoalcos, which can easily be rendered navigable up to its confluence with the Malatengo. The principal works, therefore, to be executed would be comprised between latitude 16° 36' and 17° 3' N., including a space

less than thirty-one miles in extent, wherein no excavation whatever exceeding the usual limits would be required. The highest point to be surmounted is at the Portello de Tarifa, a pass between the mountains only 200 mètres (656 feet) above the level of the Pacific, and 160 mètres above the mouth of the Malatengo. There is an abundance of water, which may be applied with great facility to the service of the canal, being derived from the Chicapa or Chimalapa and its confluent the Monetza, and from a more considerable river, the Ostuta, which, like the former, flows into the lagoons not far from the town of Tehuantepec. The grand condition of a good harbour at either extremity of the line seems capable of being amply fulfilled in this case. The mouth of the Coatzacoalcos, 700 mètres wide, and with never less than twenty-one feet of water on its bar, quite enough to float a frigate, is, according to Balbi, 'the finest port formed by any one of the rivers that discharge themselves into the Gulf of Mexico, not even excepting the Mississippi.' Hitherto it had been very generally supposed that no harbour could be established on the Pacific side; but Signor Moro has cleared up this difficulty. The lagoons near Tehuantepec have a depth seldom less than five or six mètres, and this could easily be increased by dredging, the bottom being nothing but mud and shingle. The Boca Barra, by which they empty themselves into the ocean, is not obstructed by a true bar, but a little way within it there is an accumulation of sand which might be destroyed with extreme facility, whilst the cause of its deposit might be effectually removed. The isthmus is but scantily peopled, but it was once possessed by a dense and thriving population until the devastations of the buccancers converted it into a wilderness. There is no reason why it might not again become as populous as ever. It possesses a fine climate, and in many places a most fruitful soil. Timbers for ship-building, dyewoods, superb mahogany, and other close-grained trees, are to be found in profusion in its vast and dense forests, and the abundance of cattle and resources of all descriptions would enable vessels passing through the canal to renew their provisions at easy prices, in the isthmus, so that they might devote a greater portion of their holds to the stowage of merchandise. Lastly, among the advantages offered by the Isthmus of Tehuantepec, not the least considerable is the mildness and salubrity of its climate, precisely in those localities where the assistance of European workmen would be required. This matter was sufficiently tested in 1830, when an abortive attempt was made to found a French colony in the isthmus. The unfortunate settlers, shamefully deluded by the projectors of the colony, found themselves from the moment of their arrival destitute of all resources, having neither food nor shelter provided for them; yet there occurred amongst them no case of yellow fever or other epidemic.

As to the probable cost of the undertaking, M. Moro speaks with becoming diffidence, not being in possession of all the data requisite to enable him to make an exact estimate. Many circumstances he thinks would combine to reduce the rate of cost below the European average; nevertheless, he takes for his standard of comparison the cost of an analogous work, the Caledonian Canal, generally admitted to have been exceedingly expensive, from a combination of adverse circumstances; and in applying that standard to his own project, he purposely disregards many favourable circumstances, and exaggerates others of a contrary nature. The result is, that the maximum cost of the canal of Tehuantepec would probably not exceed 85,000,000 francs

(say three millions and a half sterling); and M. Moro thinks the work might possibly be completed for less than £2,500,000 sterling.

Assuming that it should even cost four millions, there can be little doubt that an ample return might be realized by a moderate toll, even should we found our calculations on the existing state of commerce and navigation, and leave wholly out of consideration the vast increase they would infallibly receive so soon as the barrier of the isthmus was broken down. The new route would then be taken by all vessels from Europe destined for those points which are now reached by doubling Cape Horn; that is to say, the whole western coast of North and South America, and the islands of the South Sea. It would be taken by all vessels from the United States to China, and probably by a large proportion of those leaving Europe for that destination. The latter would not indeed gain anything as to mere length of way; they would even lose something in this respect; but this disadvantage would be more than compensated by the assistance of the trade winds and the gulf stream, and by the total absence of danger during the greater part of the year. The opportunity of making port half way in a country that seems likely, from its natural wealth, to arrive at a high degree of prosperity, would be a strong attraction; and steam vessels, proceeding by this course to China, would be able to estimate very closely beforehand the probable duration of the voyage.

Having laid before our readers this mere outline of a subject so vast and important, we must refer them for further details to M. de Garay's publication. There is a class of politicians in England, at this moment unhappily an influential one, to whom the idea of any canal through the American isthmus is distasteful. These men may prevent the execution of the work under English auspices, but their power can extend no further. Executed it certainly will be by others, if not by us. The French government has given unequivocal proofs of its desire to promote this great undertaking, and the shrewd people of the United States too well know their own interests to refuse their aid, should it be solicited. That nation will certainly be placed in a position of peculiar advantage, whose wealth shall realize the grandest of all engineering schemes, and whose children shall colonize the superb wilderness which will then pour its teeming riches into the lap of industry. We scorn to waste arguments on those who deem that the proud and fairly won supremacy of the English flag is to be maintained by imitating the petty fogging policy of France in the affair of the Cairo and Suez railway; men like these would put out the sun, if they could, in order to protect their own trade in coals and tallow candles. A most rare opportunity is offered us of achieving honour, profit, and influence, by means perfectly legitimate: if the prize be suffered to pass into other hands, England will have had one more cause to rue the effects of Tory ascendancy. The cold and narrow conservatism of our Henry VII. stood between his people and the gift of a new world, which Columbus would have conferred on them; we may owe a more grievous loss to the sinister influence of the Peel cabinet.

#### TRADE OF THE ERIE EXTENSION.

We find in the Erie Chronicle a capital article on the subject of the trade of the Erie Extension, from which we make a liberal extract. It will commend itself to the notice of a large class of city and country merchants, as well as forwarders.

This new connecting link between the Ohio river and the lakes, says the Chronicle, being now completed, we may anticipate the com-

mencement of a brisk business, upon the opening of navigation the ensuing spring. The whole length of the canal from Beaver to Erie, is 136 miles. The length of the navigable feeder, from a point two miles above Meadville, to the junction on the summit, is 25 miles; the distance from Beaver to the junction is 90½ miles, from Beaver to Meadville 113½ miles; from Erie to the junction 45½ miles; from Erie to Meadville 68½ miles; from Erie to Sharon 88½ miles; from Erie to Clarksville, 79½ miles; from Erie to Greenville 63½ miles; from Erie to Hartstown 52½ miles; from Erie to Powerstown 37½ miles; from Erie to Lockport 20½ miles; from Erie to Girard 16 miles; from Erie to Walnut Creek 9½ miles; the distance between Sharon and Greenville, by canal, is 25 miles. For the coal business of this canal, the field may be considered as bounded by Sharon on the south, and Greenville on the north. So that, for practical purposes, the nearest coal, of a good quality, will be 63½ miles from Erie, and the farthest 88½, or an average distance of 76 miles.

The toll on coal is 3 mills per ton (2000 lbs.) per mile, or 26½ cents per ton from Sharon to Erie, and 19 cents from Greenville to Erie. Coal will probably be delivered on the bank of the canal for \$1.25 per ton, during the present season, (when the business is fairly established it will not exceed \$1 per ton,) and, estimating the freight at 80 cents per ton from Sharon to Erie, the actual cost of a ton of coal delivered at Erie (in the commencement of the trade) will, upon the data assumed, be \$2.31½. It will probably be sold in Erie at not exceeding \$2.75 per ton through the ensuing season.

The coal business must eventually constitute the heaviest item of tonnage, but it is anticipated that the direct connection afforded by this canal between the river and the lake, and the moderate tolls the company are authorized to charge, will attract a portion of the trade from the Mississippi valley, and perhaps be the means of drawing a part of that which now passes by way of New Orleans, and the ocean, to New York.

The distance from Portsmouth on the Ohio river, by way of the canal, to Cleveland, is 311 miles. The distance from Portsmouth, by the river, to Beaver, is 322 miles. From Beaver, by canal, to Erie, 136 miles. Assuming that freight boats may travel, upon an average, 45 miles per day, and that steamers running up stream on the Ohio will average 9 miles per hour, the comparison would stand thus: on the Cleveland route, from Portsmouth to Cleveland, 311 miles—7 days, on the Erie route from Portsmouth by river to Beaver, 322 miles, at 9 miles per hour, 1½ days; from Beaver to Erie, 136 miles, by canal in 3 days,—total 4½ days. Difference 2½ days.

In carrying articles from the lake to the great valley, steamers would travel down stream in little more than half the time above assumed. So that the average difference of time would be from 3 to 3½ days in favor of the Erie route.

Now let us examine into the comparative cost. The tolls on the Ohio canal are considerably more than double of those on our Pennsylvania canals; on many articles they are three and even four times as high. But assuming them at double the rate of those on the Erie route, and taking such articles as merchandise and groceries, the toll on the Erie route would not exceed 13-6-10 cents per 100 lbs, or per ton \$3.72. On the Cleveland route 56 cents, or per ton \$11. Difference on canal in favor of Erie \$7.28. Estimating the cost of freighting at 1½ cents per ton per mile, it would be: freight on Erie route (canal) \$1.70. Freight on Cleveland canal route \$3.88. Difference in freighting (on canals) \$2.18. Total difference on canals per ton \$9.46. After steamers are loaded below

Portsmouth, the additional charge for running thence to Beaver would be but trifling. Allowing only 100 tons to a load, and \$30 per day for expense of running 1½ days, it would be 45 cents per ton. The difference in cost between the two routes may then be set down at \$9 per ton. On a boat load of 40 tons, \$36. On a steamer load of 200 tons, \$180.

Should the Ohio Canal Commissioners reduce their tolls to the same rates as the Pennsylvania tolls, there would still be a difference in favor of the Erie route of \$5.46 per ton. Business men will soon ascertain which is the quickest and cheapest route, and through that channel their commerce will finally flow.

#### NINTH ANNUAL REPORT OF THE NORWICH AND WORCESTER RAILROAD CORPORATION.

Cost of the road, engines, depots, wharves, etc.....	\$2,170,365 61
Receipts during the year ending Dec. 31st, 1844, are as follows:	
For transportation of passengers.....	\$135,651 87
Do. do. freight.....	78,788 05
Do. do. mails and government expresses....	6,102 19
Do. do. package express.....	2,920 54
For rents, wharfage, etc.,.....	2,052 35
For interest and settlement with Boston and Worcester railroad.....	5,156 05—230,674 05
Expenses during the year ending 31st December, 1844.	
Repairs of road.....	10,233 90
“ “ cars and engines.....	12,357 94
Fuel and oil.....	17,556 37
Miscellaneous expenses..	32,783 10
Contingent expenses.....	1,352 93
Salaries.....	770 80
Interest on all debts and loans.....	50,797 98
Miscellaneous expenses incurred previous to 1844.	3,978 11
Contingent do. do. ....	1,378 77—131,209 70
To credit of profit and loss.....	\$99,464 35

Whole number of miles run during the year 1844.  
By passenger trains.....113,319  
By freight trains.....38,191  
By trains, road clearing and repairing,.....6,758  
158,268

A dividend of \$3 per share was declared on the 23d day of December, 1844, and paid on the 2d day of January, 1845.

*Railroads in Vermont.*—We learn from the Vermont Patriot that Mr. T. J. Carter has surveyed a route for a railroad from the mouth of the White river to Burlington. It is a part of what is denominated the "Central railroad" from Boston to Canada, to be connected with the road now in operation between Boston and Concord, N. H. From Concord to the Connecticut, where the White river unites with it, the distance is about 50 miles, and the route favorable for the construction of a road.

Commencing at the mouth of the White river, (four miles below Dartmouth college,) the survey followed up the valley of that river, through the towns of Hartford, Sharon and Royalton to Bethel; thence up the west branch of the river through Randolph and Braintree to the summit in Roxbury; thence down Dog river, through Northfield and Berlin, to the Onion river; thence through the valley of that river to Burlington. The route traversed is about 100 miles in length, and the surveyor is of the opinion that the cost of the road will not exceed \$21,000 a mile. Of the character of the route he says:

"By referring to the above table, it will be seen that the route is very favorable, as the



inclinations will admit of a high rate of speed and heavy freights in operating it, there being more than 40 miles level, and nearly three-fourths of the entire distance less than 30 feet per mile."—*Wor. Pal.*

**Fitchburg Railroad.**—The freight cars ran over the road to Fitchburg last week, but some further work is to be done before it can be opened for travel.

We learn that considerable excitement has been produced in Fitchburg by the location of the depot—it being upon land owned by the president of the railroad company, at some distance from the village. It is thought that officer, in selecting the site, looked more to his own private interest, than to the public accommodation.—*Wor. Pal.*

**Albany and Buffalo Railroad.**—A public meeting has been held at Buffalo, to remonstrate against the high charges, and frequent changes of hours, on the line of railroad between that city and Albany. The following resolution embraces the substance of the whole, as far as they relate to this matter.

*Resolved,* That the variety of chartered companies, owning sections of the line of railroad from the Hudson river to lake Erie, and the several rival interests to exact the highest endurable fare, and to run at the most seasonable hours for their particular section, without regard to securing travel over the entire line of the road, induces frequent changes in the hours of arrival and departure on one section to compel companies owning contiguous sections to be more compliant in their arrangements—often breaks up for days the continuation of trains—interrupts prior arrangements of travellers—stops wholly for hours their progress—impels the travelling community to other channels, and calls loudly upon the legislature to exercise its powers of prescriptive regulation of the summer and winter trains, and the rates of fare thereon, and to appoint a commissioner with power to supervise the same.

At the same meeting a resolution was offered and adopted, in favor of the New York and Erie railroad, as follows:

*Resolved,* That the citizens of western N. York are intimately interested in the speedy completion of the New York and Erie railroad, and thereby, among other great benefits, to acquire an effectual tendency to correct the abuses growing out of the short monopoly roads now existing between this city and Albany, and to surely induce the travel from the lower Ohio and Mississippi to a more speedy and less expensive route to and from New York and Boston.

A committee was appointed to draft a memorial to the legislature, in conformity with the spirit of these resolutions.—*Jour of Com.*

**Madison and Indianapolis Railroad.**—Under the new arrangements entered into between the legislature and the company having control of this work, we infer from recent notices, that it will be conducted in future with renewed zeal. The board are generally enterprising and business men, and with the present organization, S. Merrill, Esq., president, we have every confidence that the work

will be prosecuted with all possible despatch. We wish it every success. Our citizens here are deeply interested in the early completion of this road, and it will bring them much nearer to markets for the abundance of surplus they have to spare every year. Their pork, wheat and other grains of various denominations, will then cease to be a drug upon their hands; but on the contrary, the cash for this surplus will freely circulate among them.

Our Merchants and others will not only find it to their advantage to patronize this company in the transportation of their merchandize, but contribute much to the early completion of the work. It is a cheap mode of transportation.—*Greencastle Visitor.*

**Michigan Central Railroad.**—This road will be in full blast to Kalamazoo the ensuing summer; and a bill is now pending in the Michigan legislature, appropriating 140,000 acres of State lands, to complete the road to St. Joseph, its western termination. There is no more important work in the Union, none which should be prosecuted with greater vigor. When this last link is completed, the journey can be made from Boston to Chicago in 84 hours, as follows:

From Boston to Albany,	-	12	hours.
" Albany to Buffalo,	-	24	"
" Buffalo to Detroit,	-	30	"
" Detroit to St. Joseph,	-	12	"
" St. Joseph to Chicago,	-	6	"

—*Rochester Democrat.*

**Tolls upon the Pennsylvania Public Works.**—We have received a copy of the rates of toll fixed by the board of canal commissioners to take effect from the 1st of March. We regret exceedingly to find that the board have made no material reduction in the tolls, compared with the present rates, and that it seems to be their fixed determination to drive the trade from our State works to more circuitous, but cheaper routes.—*Phil. North Amer.*

**The Illinois Canal Loan.**—On the 14 inst. Governor Ford transmitted a message to the Illinois legislature, stating the conditions upon which the foreign bondholders are willing to advance a sufficient amount of money to complete this work. The able Springfield correspondent of the St. Louis Republican thus speaks of it: "Its terms are of such a nature that they cannot and will not be complied with by this legislature, and, unless greatly altered, the canal loan may be considered at an end. I have not heard a single member—with the exception of a few mad brains, in the region of the canal—but what unhesitatingly say, that the idea of paying the full amount of interest upon our whole debt after the expiration of ten years, which would exceed \$700,000 annually, including the school debt, is too preposterous to be entertained for a moment. And, unless by conference with Gov. Davis and Mr. Leavitt, the terms are greatly reduced, nothing will be accomplished."—*Phil. Inquirer.*

The Delaware State Journal of Tuesday, says: "A new steamboat was launched from the ship yard of Messrs. Harris, on Thursday afternoon; she slid into her proper element

most beautifully, and as she went was christened by the name of "E. I. Dupont." This is the fourth vessel of this description which has been launched from our wharves within a year. She is 85 feet on deck, 21 feet beam, 6½ feet depth of hold, and measures 103 tons; she was built by Messrs. J. & J. A. Harris. She is to use Loper's propellers, which are to be moved by two 16-inch cylinders, with 2 feet stroke, making her power equal to about a 90-horse engine. The machine is of the best description, and made by Betts, Harlan & Hollingsworth of this city. The E. I. Dupont is calculated to make a daily trip each way between Wilmington and Philadelphia, for the carriage of freight and passengers.—*Philadelphia Post.*

**Railway Luggage Labels.**—An ingenious method for labelling boxes and packages to be conveyed by luggage trains on railways, or by steamboats, has just been invented and made public. The invention, which is entered at stationers' hall, is this: the passenger to whom the boxes, etc., belong obtains at the station or booking office, or of any of the shops where they are sold, a packet of labels printed with blank spaces for the names, etc., and number of packages to be filled up with pen and ink; the outward wrapper of each packet is absorbent, so that the ink is prevented from being blotted, and the paper on which the labels are printed is made adhesive in the same manner as the post office stamps. Thus in the space of two minutes half-a-dozen labels may be prepared and stuck upon the packages, and mistakes and confusion avoided. The invention is a prevention to losses, and deserves patronage.—*Lon. Times.*

**Railway Property.**—It now appears that the traffic of the last six months of 1844, on the thirty-eight principal railways in Great Britain, amounts to three millions and a quarter or more—exactly £3,264,450. This traffic has been carried on upon 1,522 miles of railway, and 234 miles of branch lines, making in all 1,756 miles. This revenue is £450,000 more than the corresponding half of last year. It is chiefly owing to the improvement in the trade of the country, and only slightly to the increase in the extent of lines opened to the public. It represents an improvement of nearly ten millions in the value of the railways of Great Britain since the commencement of 1844. This revenue amounts to about £4,000 per mile per annum, of which let us take £1,600 for working expenses, and we have £2,400 per mile per annum for dividend, indicating a market value of £48,000 per mile, at 20 years' purchase. The total sum available this half-year for interest and dividends will be about £2,000,000, giving for the value of all the important lines of the country at 20 years' purchase, a sum of £80,000,000. But, as many of the lines are worth more than 20 years' purchase, and as many small lines are not included in this estimate, while some are in course of construction and not open for traffic, it may be near the truth to say that at the commencement of 1845 we start with a national property in railways worth not less than £100,000,000.—*Railway Chronicle.*

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
							Per share.	Per cent. per annum.				
Arboath and Forfar.....	15	102,000	35,000	138,870			0 12 6	2 10 0	25	27	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1 5 0	2 10 0	100	100	Barnsley Junction.....	200,000
Brandling Junction.....	23	161,700	365,470	481,452				4 10 0	50	54	Belfast and Ballymena.....	35,000
Bristol and Gloucester.....	37	400,000	211,000					nihil.	30	36	Blackburn and Accrington.....	400,000
Chester and Birkenhead.....	14	750,000	143,170	518,980	5,856	13,148	0 8 6	1 14 0	50	32	Birk. and Ches. Junction.....	1,000,000
Dublin and Drogheda.....	31	450,000	150,000	500,869				nihil.	55	72	Bolt., Wigan and Liverpool	800,000
Dublin and Kingston.....	6	200,000	152,200	359,000			6 0 0	6 0 0	100	166	Caledonian.....	1,800,000
Dundee and Arbroath.....	16	100,000	49,445	153,416	2,989	6,993	1 5 0	5 0 0	25	29	Cambridge and Lincoln.....	1,250,000
Durham and Sunderland.....	18	169,350	124,055	270,392	9,889	17,702		nihil.	34	29	Chatham and Portsmouth.....	5,000,000
East County and North and East.....	86	4,443,200	1,341,153	3,931,905	47,385	118,726	1 6 6		45	57	Chester and Wrexham.....	120,000
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	2 6 4	10 0 0	50	57	Churnet valley.....	1,800,000
Glasgow, Paisley and Ayr.....	51	937,500		1,066,951	12,446	36,736	1 2 6	4 10 0	50	60	Direct Northern to York.....	4,000,000
Glasgow, Paisley, and Greenock.....	22	650,000	216,666	787,881	11,572	23,177	0 5 0	2 0 0	25	12	Dublin and Belfast.....	950,000
Grand Junction.....	104	2,478,712		2,453,169	81,309	195,080	5 0 0	10 0 0	100	210	Dundee and Perth.....	250,000
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1 12 6	3 5 0	100	119	Edinburg and Northern.....	800,000
Great Western.....	221	4,650,000	3,679,343	7,972,539	132,235	369,904	3 10 0	7 0 0	75	138	Ely and Bedford.....	270,000
Hartlepool.....	15	438,000	155,510	719,205				8 0 0	100		Glossog, Dum. & Carlisle.....	1,300,000
Leicester and Swannington.....	16	140,000		140,000	2,207	6,317	1 5 0	5 0 0	50		Gt. South and West Ext.....	1,200,000
Liverpool and Manchester.....	32	2,209,000	497,750	1,739,835	57,239	117,559	5 0 0	10 0 0	100	203	Gt. Grimsby and Sheffield.....	600,000
Llanelly.....	27	200,000	44,000	221,624			1 0 0	2 0 0	87		Huddersfield & M. r. l. & cl.	600,000
London and Birmingham.....	12	6,874,976	1,928,845	6,393,468	92,823	405,768		10 0 0	100	218	Kendal and Windermere.....	125,000
London and Blackwall.....	3	804,000	266,000	1,315,640	15,978	23,870			16	-6	Leeds and Dewsbury.....	400,000
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0 12 0	2 8 0	50	47	Leeds and Thirsk.....	800,000
London and Croyden.....	8	550,000	229,000	761,885	7,537	10,515	0 5 0	2 10 0	14	17	Liv. Ormskirk and Preston.....	600,000
London and Greenwich.....	3	759,383	233,300	1,040,930	15,193	28,933		nihil.	13	10	London and Portsmouth.....	1,750,000
London and South Western.....	92	2,222,100	630,100	2,596,291	68,457	150,469	1 12 6	6 10 0	41	73	London and York.....	5,000,000
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1 0 6	5 0 0	40	48	Londonderry & Enniskillen.....	500,000
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2 2 0	4 10 0	93	110	Lynn and Ely.....	200,000
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761		7 1/2 & 10 1/2	60	88	Manchester, Bury and Ross.....	300,000
Midland railway.....	173	5,158,900	1,719,630	6,279,056	76,983	281,898			100	96	Manchester and Buxton.....	250,000
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947	4 0 0	4 0 0	100	105	Mullingar and Athlone.....	
Newcastle and Darlington.....	23	500,000		405,728				nihil.	21	49	Newcastle and Berwick.....	700,000
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466		2 0 0	50	37	Richmond & W. End Junc.....	
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2 10 0	6 16 8	100	104	Scottish Central.....	700,000
Paris and Orleans.....	82	1,600,000	400,000	1,978,415			0 16 0	8 0 0	20	39	Sheffield and Lincolnshire.....	650,000
Paris and Rouen.....	84	1,440,000			31,247	91,171		8 0 0	20	38	Shrewsbury and Gd. Junc.....	400,000
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066		nihil.	50	18	Shrew. Wolv. Dudley & B.....	900,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876		nihil.	82	93	Trent Valley.....	900,000
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0 10 6	2 2 0	50	39	West London Extension.....	64,000
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1 0 0	6 5 0	100	55	West Yorkshire.....	1,000,000
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0 15 0	5 1 8	29	37	Whitehaven and Maryport.....	100,000
Yarmouth and Norwich.....	20	187,500	62,500	230,250				nihil.	16	25	FRENCH RAILWAYS.	
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2 10 0	10 0 0	50	100	Boulogne and Amiens.....	1,500,000

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15 1/2	15 1/2	Loughborough.....	70	142 1/2	142 1/2	70	1140	
Anti Dry Rot.....	10,000	10	18 1/2		2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35		34 1/2		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27 1/2	27	Mersey and Irwell.....	500	100	100	10		
Gt. Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2 1/2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6 1/2		Neath.....	217	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1 1/2		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental.....	11,493	50	50	7	64 1/2	65	Regents or Loncon.....	21,418	33 1/2	33 1/2	2 1/2	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....				6			Somerset coal.....	800	150	150	7 1/2	123	123
Reversionary Int. Soc.....	5,325	100	100	4 1/2	104	104	Stafford and Worcester.....	700	140	140	25	180	480
R. Mail Steam Packet.....	15,000	100	60		36 1/2	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7 1/2	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100					Savern & Why & Rail Av.	3,762	26 1/2	26 1/2	5 1/2	30	30

Canals.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Ashby de la Zouch.....	1,432	113	(av.)	4	70	70
Barnsley.....	720	100	100	14	180	180
Birmingham, 1-16 share.....	3,000	118 1/2	79	10	150	160
Do. and Liverpool Junction.....	4,000	160	100		13 1/2	13 1/2
Coventry.....	5,000	100	100	20	365	365
Cromford.....	469	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forth and Clyde.....	1,297	400 1/2	40 1/2	4	440	440
Grand Junction.....	11,600	100	100	7	162	161 1/2
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Rerkley.....	5,000	do.	do.		8	8
Graham.....	749	150	150	8	185	185
Lancaster.....	11,699	47 1/2	47 1/2	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	640
Liicester.....	545	140	140	9	139	139

Water Works.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Birmingham.....	4,800	25	25	3 1/2	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7 1/2	88	90
New River L. B. Ann.....	1,500			2 1/2		
Manchester and Salford.....	6,436	av.	30	8 1/2	57	57
Vauxhall, lt. S. London.....	1,000		100	5	55	55
West Middlesex.....	8,294	av.	63 1/2	6 1/2	126	127

Docks.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Commercial Dock.....	1,065	100	100	3	10	
East and West India.....		sto.		5 1/2	137	
London.....	3,238,310	sto.		4 1/2	114 1/2	115
St. Katharine.....	1,352,752	sto.		5	116	171
Southampton.....	7,000	50	50			

AMERICAN STATE WORKS AND CANALS, ETC.

STATE WORKS.		Length in miles.	Cost.	1843.		1844.		The State Canals are all 4 feet deep, and the locks are 13 to 17 feet wide, and 80 to 90 feet in length.								
				Income.	Expend.	Income.	Expend.									
N. Y.	1 Black river canal—(including 4 yrs' def.)	35	1,524,967					<p>The six millions paid to the canal fund from auction and salt duties are not included in the estimate of cost. The Genesee valley and the Black river canals require large sums for their completion, the interest of which <i>additional</i> sum is much greater than the estimated gross income of these canals when finished. The sums required to complete these two canals are \$2,000,000 and \$600,000, making their total cost when finished \$5,553,000 and \$2,100,000; an expenditure incurred on estimated incomes (admitted to be liberal) of \$39,000 and \$14,000 respectively.</p> <p>The total receipts from the works of Pennsylvania for 1843 were \$1,019,491; for 1844 \$1,164,326, and the cost about 30 millions.</p> <p>The receipts for 1844 were as follows:</p> <table border="0"> <tr><td>Canal tolls,</td><td>578,404</td></tr> <tr><td>Railroad tolls,</td><td>252,855</td></tr> <tr><td>Motive power,</td><td>319,590</td></tr> <tr><td>Trucks,</td><td>13,477</td></tr> </table> <p>of which \$585,922 is from 118 miles of railroad, and \$578,404 from 559 miles of canal.</p> <p>The canals of Ohio are supported by a property tax of 5½ mills on the dollar. There are 853 miles of canal in the State, which yielded in 1843 \$471,623, and in 1844 \$515,393, the cost 1st Jan '43 being \$15,577,233. The increase of '44 over '43 is only \$43,770, though the year '44 has exhibited a greater increase throughout the country than ever before known.</p> <p>These 21 millions on sundry works yield no income whatever.</p> <p>The central railroad yields above 6 per cent., and is the only State work—the Erie canal excepted—which is able to stand alone.</p>	Canal tolls,	578,404	Railroad tolls,	252,855	Motive power,	319,590	Trucks,	13,477
Canal tolls,	578,404															
Railroad tolls,	252,855															
Motive power,	319,590															
Trucks,	13,477															
"	2 Cayuga and Seneca—(do. 14 years' def.)	21	237,000	16,557	10,953	24,618	14,443									
"	3 Champlain canal.....	61	1,251,604	102,308		116,730										
"	4 Chemung—(do. 11 years' deficiencies)...	23	681,609	8,140	14,486	14,385	12,740									
"	5 Chenango—(do. 7 years' def.).....	97	2,420,000	16,195	15,957	22,179	15,950									
"	6 Crooked lake—(do. 10 years' def.).....	8	156,777	461	3,674	1,498	3,951									
"	7 Erie—enlargement of.....	363	12,618,852	1,880,316												
"	8 Genesee valley—(do. 5 years' def.).....	120	3,739,000													
"	9 52 miles opened, cost \$1,500,000.....			12,292	13,819	19,641	15,557									
"	10 Onondaga lake—(do. 4 years' def.).....	6	50,000	225	2,239	621	1,636									
"	11 Oswego—(do. 14 years' def.).....	38	565,437	29,147	22,742	56,165	28,599									
Pa	12 Beaver division canal.....	25				7,381	5,386									
"	13 Delaware canal.....	60				109,278	22,870									
"	14 French creek.....	45														
"	15 Seneca river towing path.....		69,276			381										
"	16 Columbia railroad.....	82				443,336	205,067									
"	17 Eastern division.....	36				179,781	138,915									
"	18 Juniata canal.....	39														
"	19 Portage railroad.....	130				351,102	248,943									
"	20 Western division canal.....	105														
"	21 North branch Susquehanna canal.....	73														
"	22 West ".....	72				101,949	57,033									
Ohio	23 Hocking canal.....	56	975,130	4,757		5,286	4,139									
"	24 Miami canal.....	85	1,660,742	68,610	38,826	77,814	22,341									
"	25 Miami extension.....	105	2,856,636	8,291		12,723	14,741									
"	26 Miami northern division.....	35	322,000			unfin'd.										
"	27 Muskingum.....	91	1,627,318	23,167		29,385	15,027									
"	28 Ohio.....	334	4,600,000	322,754	123,398	343,711	113,210									
"	29 Wabash.....	91	3,028,340	35,922	6,400	48,589	12,817									
"	30 Walhonding.....	25	607,269	838	39,005	1,977	1,238									
"	31 Western road.....	31	255,015	7,254	1,782	8,747	2,929									
Ind.	32 Sundry works.....		11,000,000													
Ill.	33 Maume canal.....															
Ill.	34 Sundry works.....		10,000,000													
Mich.	35 Central railroad.....	110	1,842,308	149,987	75,960	211,170	89,420									
"	36 Southern railroad.....	68	936,295	24,064	7,907	60,341	70,000									

CANALS.		Length in miles.	Cost.	1843.		1844.		Div. per cent.	Value of stock.	REMARKS.
				Gross.	Nett.	Gross.	Nett.			
	Blackstone.....									
	Bald Eagle Navigation.....	25	400,000							
	Beaver and Sandy, (part).....		1,000,000							
	Charleston, (S. C.).....									
	Chesapeake and Ohio.....	184	12,370,470	47,637						We may, perhaps, at some future time be enabled to give the particulars of all these canals.
	Conestota.....	12	300,000							The Chesapeake and Ohio canal is not yet completed to the coal mines, hence its trifling income.
	Delaware and Chesapeake.....	13						26		The enlargement of the Schuylkill canal has been commenced.
	Schuylkill.....	108	3,500,000	279,795	102,221	190,993	120,624	31		The Morris canal was lately sold for one million, about one-fourth of its cost. It is said in the papers that it is to be enlarged. We have seen no report, nor heard of the appointment of any engineer.
	Farmington.....									
	James river and Kenhawa.....									
	Middlesex.....									
	Port Deposit.....	10	200,000							
	Delaware and Raritan.....	43	2,900,000	99,623	53,327					
	Southwark.....		300,000							
	Tide Water.....	45	2,900,000							
	Union.....	80	2,000,000							
	Morris.....	101	1,000,000						28	
	Dismal Swamp.....									

CANADIAN CANALS.		Length in miles.	No. of locks.	Lockage in feet.	Size of locks.			Width of canal.		Estimate.	Expended to Sept. 1843.	1843.	
					Length of chamber.	Width.	Depth on mitre sill.	Bottom.	Surface.			Income.	Expense.
	The Welland canal.....									3,918,572	2,485,572	64,658	1,169
	Main trunk from Port Colborne to Port Dalhousie	28	31	328	150.	26 1-2	8 1-2	45	81				
	Junction branch to Dunville { not added	21	1	6	150	26 1-2	8 1-2	35	71				
	Broad creek branch to Port Maitland { below.	1 1-2	1	6	200	45	9	45	85				
	The St. Lawrence canal.....												
	Galops and Port Cardinal.....	2	2	7	200	45	9	50	90				
	Rapid Plat.....	4	2	11 1-2	200	45	9	50	90	672,498	978		
	Farren's point.....	3-4	1	3 1-2	200	45	9	50	90				
	Cornwall, passing the Long Sault rapids.....	11 1-2	7	48	200	55	9	100	150	865,372	1,665,663		
	Beauharnois, do. Coteau, Cedars and Cascades road.....	11 1-4	9	82 1-2	200	45	9	80	120	1,190,087	275,426		
	Lachine, do. Lachine rapids.....	8 1-2	5	44 1-2	200	45	9	80	120	old canal.	400,000	29,288	9,011
	Elargement of do.....									1,001,333	64,439		
	Total from lake Erie to the sea.....	12	57	325									
	Chambly.....	66	9	74	120	24	6	36	60	200,000	440,000	1,409	1,096

COAL COMPANIES.		Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
R. rd.	Canals.			Gross.	Nett.		Gross.	Nett.			
	Delaware and Hudson.....	16	108	2,800,000	930,203	196,702	10			117	
	Lehigh.....	20	72	6,000,000						31	

RAILROADS		Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1883.		Div. per cent.	1884.		Div. per cent.	Previous prices.	SALES.		
							Gross.	Nett.		Gross.	Nett.			Week ending 22d February.	Shares.	Price
Me.	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	124,497	74,841	6	98½			
	2 Concord.....	35	750,000									12	130			
	N. H.	3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	110		
		4 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120	3	120
		5 Boston and Providence.....	41	1,886,135				233,388	110,823	6	282,701	156,109	6	107		
		6 Boston and Worcester.....	44	2,914,078				404,141	162,000	6	428,437	195,163	7½	117	18	117½
		7 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
		8 Charlestown branch.....		280,260						13	34,654	13,971	5½	81		
		9 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	108½	10	107½
		10 Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,835		115½	6	118
		11 Hartford and Springfield.....	25 1-2	132,852	do.											
		12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	120		
		13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
		14 Norwich and Worcester.....	59	2,170,366	not stated			162,336	24,871		230,674	99,464	3	72½	5,492	71
		15 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	118		
		16 West Stockbridge.....	3	41,516	200								4			
		17 Western, (117 miles in Mass.).....	156	7,686,202	1,686,202	30,000	100	573,882	284,432		753,753	439,679	3	99	364	99½
		18 Worcester branch to Milbury.....		8,431	506											
Con.		19 Hartford and New Haven.....	38								150,000			100		
	20 Housatonic, (19 months.).....	74	1,244,123										37½	225	37	
N. Y.	21 Stonington, (year ending 1st Sept.).....	48	2,600,000				113,889			154,724	79,845		43½	4,195	42	
	22 Attica and Buffalo.....	31 1-2	268,275				45,896	7,522								
	23 Auburn and Rochester.....	78	1,727,361				189,693	112,000					107			
	24 Auburn and Syracuse.....	26	743,931				86,291	27,331						10	116	
	25 Buffalo and Niagara.....	22	200,000		1,500	133½							100			
	26 Erie, (416 miles.).....		5,000,000										30½	320	30	
	27 Erie, opened.....	53						48,000								
	28 Harlem.....	26	2,200,000										73	1,825	70½	
	29 Hudson and Berkshire.....															
	30 Long Island.....	95	1,884,610	392,340	29,846	50				153,456	70,043		79½	8,815	78	
	31 Mohawk.....	16 3-4	1,030,919				69,948	58,780		84,306	40,000		66	275	65	
	32 Tonawanda.....	43	600,000				76,227									
	33 Troy and Greenbush.....	6	180,000													
	34 Troy and Saratoga.....	25	475,865				44,325	21,000								
	35 Troy and Schenectady.....	20 1-2	633,520				28,043									
	36 Schenectady and Saratoga.....	22	300,000				42,242	3,000	1							
	37 Utica and Schenectady.....	78	2,124,013				277,164	180,000	9					131	15	129½
38 Utica and Syracuse.....	53	1,080,219				163,701	72,000						119	10	115½	
N. J.	39 Camden and Amboy.....	61	3,200,000				682,832	383,880					110	35	110	
	40 Elizabethtown and Somerville.....	26	500,000													
	41 Morris and Essex.....															
	42 New Jersey.....	34	2,000,000													
	43 Paterson.....	16	500,000									6	94	100	94	
	Pa.	44 Beaver Meadow.....	26	1,000,000										85	25	85½
		45 Cumberland Valley.....	46	1,250,000												
		46 Franklin.....	10 1-2													
		47 Harrisburg and Lancaster.....	36	860,000										30		
		48 Hazleton branch.....	10	120,000												
		49 Little Schuylkill.....	29	900,000												
		50 Lykens Valley.....	16 1-2													
51 Mauch Chunk.....		9	100,000													
52 Minehill and Schuylkill Haven.....		18	315,000						12					144	10	140
53 Norristown.....		20	800,000											10	3	6
54 Philadelphia and Trenton.....	30	400,000											105			
55 Pottsville and Danville.....	29 1-2	1,500,000														
56 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		50	820	48		
57 Schuylkill valley.....	10	1,000,000														
58 Williamsport and Elmira.....	25	400,000				20,000										
59 Philadelphia and Baltimore.....	93	1,400,000				43,043	200,000			210,000			43	6,282	42	
Del.	60 Frenchtown.....	16	600,000													
	61 Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		358,620	346,946		48½	10	48½	
Md.	62 Baltimore and Susquehanna.....	58	3,000,000										5			
	63 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84			
Va.	64 Greensville and Roanoke.....	17 1-2	260,000													
	65 Petersburg and Roanoke.....	60	766,000										3			
	66 Portsmouth and Roanoke.....	78 1-2	850,000													
	67 Richmond and Fredericksburg.....	61 1-2	1,200,000													
	68 Richmond and Petersburg.....	22 1-2	700,000													
	69 Winchester and Potomac.....	32	500,000													
	70 Raleigh and Gaston.....	84 1-2	1,360,000													
N. C.	71 Wilmington and Raleigh.....	161	1,800,000													
	72 South Carolina.....	136											8			
	73 Columbia.....	66	5,299,224		34,410	75	201,464	77,456		328,425	180,704		55			
Ga.	74 Central.....	190	2,581,723				227,532	93,190								
	75 Georgia.....	147 1-2	2,650,000				248,026	158,207		248,096	147,523					
Ala.	76 Tusculumbia.....	46														
Ky.	77 Lexington and Ohio.....	40	500,000													
	78 Little Miami.....	40	450,000													
Ohio	79 Mad river.....	40	400,000													
	80 Monroeville and Sandusky.....															
Mich.	81 Detroit and Pontiac.....	25														
	82 Erie and Kalamazoo.....	33														
Ind.	83 Madison and Indianapolis.....	56	152,000													
	84 Champlain and St. Lawrence.....	15	212,000					12,000		58,000	24,000		110			

We particularly request statements of the traffic of each week and of the corresponding week of last year to be regularly sent to us.

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Thursday, March 6, 1845.

NEW YORK AND ALBANY RAILROAD.

This project has been kept alive for some years by a few spirited individuals, who, with much trouble and some loss of time and money, have preserved a most valuable charter, always holding themselves in readiness to surrender it into the hands of any association of gentlemen, whose influence, character and wealth were adequate to the successful accomplishment of this great and—to the city of New York—unrivalled undertaking. It is with the liveliest satisfaction we announce that, a few days since, a number of gentlemen, whose ability to carry through the project is beyond all doubt, obtained, from the persevering individuals, above alluded to, the charter, rights, surveys, etc., of the New York and Albany railroad company, for \$50,000. These latter gentlemen have secured their object, the construction of the work, and the new association have now in their hands, at a cost of little more than three hundred dollars per mile, a charter, and a mass of information, to acquire which, would have cost them at least the sum paid and the loss of an entire season. Those unacquainted with these subjects will be surprised to learn the large expenditures incurred for such purposes. In their report of 7th October, 1843, Messrs. Allen and Brown, the then president and vice president, of the New York and Erie railroad company state the expenses under the head of "miscellaneous," salaries of officers, clerkship, printing, legal expenses, etc., \$230,366 93, just five hundred dollars per mile, besides engineering, \$331,318 79. On the Western railroad, the Croton aqueduct, and numerous other works, large expenditures were also incurred for similar purposes, and necessarily so, for we desire to draw no invidious comparisons, but merely to show that the new company start with the immense advantages of an admirable charter and of very extensive surveys, together with a variety of information, at the very small cost of \$50,000.

Having stated the facts, we will conclude with the hope, that this noble undertaking will be viewed as a great work of civil engineering; that it will not fall into the hands of a set of politicians or stock jobbers; that it will be regarded by the community as a permanent investment, and, lastly, that the distinguished gentlemen, under whose direction it is to be constructed, will not be unmindful that the Empire State boasts not to this day of a single railway of the first order in this country, far less in England.

LONG ISLAND AND NORWICH AND WORCESTER RAILROADS.

During the last month more than 25,000 shares out of 30,000 the total number of shares of the Long Island railroad have been sold at prices varying from 76 to 80, and closing on 1st March at 78. It is not probable that many shares have been purchased for investment, the only transactions in which we take any interest; still it may not be altogether useless to examine the actual value of the stock with the scanty information vouchsafed to us by the directors. If the road were entirely free from debt, finished and fully equipped for its business in freight and passengers, if it had for some years regularly paid 5 per cent. to the stockholders from a trade furnished by the Island, and therefore free from competition, having at the same time a fair reserve to meet contingencies and renewals of road and machinery, the stock would then be worth about 80 as an investment. To ascertain its present value each reader must trust to his own fancy.

Again, we know that \$2,500,000 is a moderate estimate of the cost of such a road complete with a single track; we also know that \$150,000 per annum is a reasonable estimate of the cost of running, repairing and renewing; hence a gross income of \$300,000 from the road alone is required to divide 6 per cent., when the stock will of course be at par for investments. This estimate does not include steamers to cross the sound.

The sales of Norwich and Worcester shares are also numerous, and uniformly lower than those of the Long Island road, though by their statement to the legislature of Massachusetts their condition is far superior to that of the latter work. With an expenditure of \$2,170,366 they have an income of \$230,674, netting \$99,464, besides paying \$50,798 interest on debts and loans—in fact clearing \$150,000, very nearly seven per cent., yet only three per cent. were divided, and on 1st of March the stock sold for 71. With a less favorable statement the stock of the Western railroad has risen to par, and, unless they fear the loss of the New York travel, we are as much puzzled to account for the low price of this stock as for the high price of the stock of the Long Island railroad. At the same time, it is possible that the prices give their true relative values. The cost of running both these roads is given much below that in Massachusetts, per track per mile, about \$1,500, and we know of no reason for crediting the directors and engineers of either with skill, character or acquirements superior to those of the best works in that State. Allowing \$100,000 per annum for expenses, there would still remain \$130,000 for dividends, just 6 per cent. for the year 1844. If the reports of these companies are entitled to any confidence we can only say to speculators "de gustibus," etc.

We tender our thanks to P. P. F. Degrand, Esq., of Boston, for the reports of the Massachusetts railways, from which we have completed our table for 1844. We shall of course give such extracts as may be important, and may perhaps draw from them some views of interest to our readers.

The remarks in Herapath's article, in another page, will be found amusing. They can find out little about new projects; we are kept in the dark as to the actual state of the old ones.

We had expected to give our readers some account of Coleman's mode of ascending inclined planes by locomotives, with the opinions of the numerous scientific gentlemen who have examined it, but shall expect it next week.

We owe a heavy debt of gratitude to the press generally for the very flattering manner in which they have been pleased to notice our labors, and for an excellent list of exchanges. It would be unfair not to mention the Philadelphia press, which has been in both respects particularly generous. We do not presume to claim the slightest notice of the value of the Journal, but wherever the subject of railways is important we must think that we are entitled to the courtesy of an exchange; yet the only points of which we have any reason to complain, are the very ones where railways are the leading topic of the day. We allude to Boston, Albany and Montreal. The St. Catharine's Journal is our only exchange from the province of Canada, though they are obliged to refer to the pages of the Journal, when they attempt to discuss their general policy with reference to public works. Again, in Albany, at this very time, they are in want of the information in late numbers, in order to fully understand the present most anomalous condition of affairs in this State. We are sorry that while engaged in earnest and frequently able discussions on their own railways, they should feel so utterly indifferent to the success of the great cause throughout the Union, and unwillingly bid them farewell.

Sir John Rennie has been appointed president of the institution of civil engineers, in place of Jas. Walker, Esq., resigned. Herapath has a savage attack on Mr. Walker, who, we should suppose, did not neglect the admonition of his countryman, Sir Pertinax.

"The State canals of Pennsylvania will be opened on the 10th of March, at which time also, the water will be let into the Tide Water canal."—Phila. Inq.

Were the Williamsport and Elmira railroad completed, the southern counties would receive their supply of spring goods five or six weeks earlier than by the Erie canal, and the income of the State works of Pennsylvania would be greatly increased.

WESTERN RAILROAD.—Receipts for the week ending February 22:

	1845.	1844.
Passengers, - - -	\$5,652	\$3,906
Freight, etc., - - -	7,026	5,522
Total, - - -	\$12,678	\$9,428

MINERHILL AND SCHUYLKILL HAVEN RAILROAD.—The following is the amount of coal transported over this road, for the week ending on Wednesday evening last:

	1845.	1844.
Per last report, - - -	2,196 02	28,622 03
Total, - - -		31,818 05

THE COAL TRADE.—Sent by railroad up to Thursday evening last.—Miners' Journal.

Schuykill Haven, - - -	6,677 01
Poitsville, - - -	1,899 06
	8,576 07
Per last report, - - -	42,338 22
	50,914 29

In the legislature of New York they are actually discussing the propriety of restricting the Mohawk and Hudson and Troy roads from carrying freight during the summer! The next step will be to include the N. York and Erie, Harlem and Long Island railways, and the "system" may be completed by preventing all the railways in the State from carrying passengers during the season of navigation.

We affect to pity the Hindoo who worships the magnificent Ganges, but, when we see men of some education, and not without pretensions to respectability publicly prostrating themselves before this muddy divinity, "four by forty, with slopes two to one," we are overwhelmed with disgust and mortification.

From all we hear, the "Loper" is likely to supersede the "Ericsson" or "Emerson" propeller

STATE WORKS OF NEW YORK.

The income and expenses of the canals for 1844 will be found in our table of State works. We have also given the original cost, without the deficiencies, as heretofore. The comptroller gives the following summary view:

"The annual interest on \$30,461,303 84, the cost of all the State canals, and the enlargement of the Erie canal, at 5½ per cent., which is the average interest on the present State debt, is \$1,675,371 71

The nett revenue from all the State canals for the year ending 30th Sept., 1844, after deducting the cost of collection of tolls and of the maintenance of the canals, is 1,803,768 51

Excess of revenue over 5½ per cent. on the cost of canals, \$128,396 80

"This shows that the entire canal system of the State pays interest on the cost of the canals of about six per cent. per annum. This favorable result is produced mainly by the revenue of the Erie canal, which yields \$2,154,234 79, while all the other canals produce only \$243,990 81.

"The preceding estimate does not include the ascertained loss to the treasury of \$3,515,700, on account of loans of State stock to railroad corporations. If this sum be added to the cost of our system of internal improvement, it shows a total outlay of \$33,977,003 81. The annual interest paid from the treasury on account of these loans to insolvent railroads, is \$191,986 50."

The total debt, "direct and contingent," is \$23,068,413 26. Of the "contingent liabilities," \$1,650,000 may be pronounced safe, which, together with the "Astor stock," etc., being deducted, leaves the present actual debt on account of public works, \$21,289,605 58. Of this sum, \$315,700 were loaned to the Ithaca and Owego railroad company, \$200,000 to the Catskill, and \$3,000,000 to the Erie company, in all \$3,515,700 leaving the canal debt \$20,713,903. (The debt includes \$70,000 loaned to the Tloga company, which is perhaps safe). The canals yield on their present actual debt about 8½ per cent. Besides paying interest on the canal debt and on loans to "insolvent railroads," at the rate of 5½ per cent., the canals yielded a surplus of \$275,854 in 1844, but, as \$300,000 of the revenue of the canals is appropriated by law to aid in defraying the ordinary expenses of government, and as considerable sums of the capital are becoming payable, it is clear that taxation on the whole State, or an increased charge to those who benefit by the canals must be resorted to, in order to meet the liabilities of the State. The former course was preferred, and we have already given our reasons for pronouncing it both impolitic and unjust. The comptroller says,

"At the time the suspension law passed

there was an unliquidated debt against the public works of more than three millions of dollars, which has since been paid, and now forms a portion of the stock debt. This shows that these works were carried forward in a manner so loose and improvident, that, with a corps of engineers costing the State a hundred and forty thousand dollars per year, it could not be ascertained during the session of 1842 within a million and a-half of dollars of the sum due contractors and others, although two separate calls were made, with this object solely in view.

"The second call before referred to (Ass. doc. No. 173,) was answered on the 8th of April, 1842.

"The following statement shows in the first column the estimate given in that report of the amount unpaid for work done at that time; and in the second column is given the sums actually paid for arrearages to contractors and others, to the close of the last fiscal year, viz:

	Estimate of arrearages.	Am't actually paid for arrearages.
Erie canal enlargement.	\$370,036 00	\$1,576,772 84
Chemung canal.....	192,267 00	181,233 73
Black river canal.....	116,189 00	195,225 33
Genesee valley canal....	213,712 00	574,452 96
Chenango canal.....		12,495 41
Oneida river improvement		10,415 32
	\$802,207 00	\$2,550,595 59

"These sums are wholly unconnected with the amount allowed for breaches of contract under the suspension law of 1842. The allowances of this character are as follows:

On the Erie canal enlargement,	\$204,858 87
" Black river,	623 32
" Genesee valley,	152,836 74
" Oneida river improvement,	3,944 66
	\$361,813 59

"If this sum be added to the amount of arrearages before given, \$2,550,595 59, and the sum paid for land damages, about \$450,000, it shows a total of \$3,362,409 18 paid on the public works since the passage of the suspension law of 1842."

This is very ungenerous on the part of the comptroller; without such a "corps of engineers," he and his friends could never have foisted on the people the enlargement of the Erie, and the construction of the Genesee, Black river and Chenango canals, on which \$20,332,819 have been expended, exclusive of interest; which, in fact, forms the present canal debt. Without such a "corps of engineers," their vain and imbecile, yet rash opponents, and successors would never have adopted, and prosecuted to extremities, the crude, useless and extravagant projects, introduced, authorized and commenced by those now in authority in this State. These engineers had been trained to obey the orders, and even to consult the wishes of the commissioners, and one of the principal ones was complimented by Col. Young for his remarkably "close shooting" in an estimate; for the Chenango canal, we believe. These gentlemen continued to pursue the course which

had given satisfaction for many years, but public opinion having changed, the comptroller and his friends have of course followed, and, because economy is popular, are now as much in favor of retrenchment as they were, a few years since, anxious to incur the greatest possible expenditures. It is the comptroller who has changed, not the engineers.

We have here some more of the "beauties of government engineering," and another lesson to the people to retire as quickly as possible from the construction of public works, leaving all such matters to private enterprize which alone possesses the means, skill and integrity indispensable to success.

ST. LAWRENCE AND ATLANTIC RAILROAD.

This is the imposing name of the contemplated railway between Montreal and the Atlantic at Boston or Portland. We have, from the very first movements in this matter up to the present time, kept our readers aware of the various efforts made to insure the construction of this work at an early period. It is generally believed, that a favorable charter will be obtained from the Canadian parliament, now in session, and some are even so sanguine as to rely on pecuniary aid from the province. Of the probability of this we know nothing; but reasoning from experience—not only there, but in the great States of New York, Pennsylvania and Ohio—we see little prospect of anything more than nominal aid from the colonial treasury, already supposed inadequate to the completion of the St. Lawrence canal. Whether the British government will guarantee another loan, is at least doubtful, but we think that the British American land company will subscribe liberally to a route which suits their interests. They have subscribed £20,000 to any route.

We have numerous letters from gentlemen in the vicinity of the different routes, and, though strongly advocating the peculiar advantages of their favorite lines, they still more strongly urge the construction of the work on some line. The newspapers also are filled with accounts of spirited meetings, and useful and, in some cases, well drawn up statistics. An extract from a communication, not intended for the public eye, will convey a good idea of the feeling with which this great project is viewed.

"And now about our railroad, which is all the talk here, and we are acting as well as talking; we do not intend to listen to any doubts about it. The road we must and will have. The survey is already commenced in good earnest; the surveyor is now here, having commenced at Concord, and is taking a general view through, and will proceed with all possible expedition. This route com-

mences at Concord, thence to Sanbomton bridge on the Winnepisiogee river, about 3½ miles from its junction with the Merrimack, very favorable ground for a road. The engineer thinks this part of the route may be built for \$12,000 per mile, distance from Concord to Sanbomton bridge 17 miles. The route then follows up the Winnepisiogee to this place, 10 miles. No difficulty in this part of the route, it will probably be a little more expensive than the other. From this it follows the river to the outlet of the lake, 6 miles. Thence to Plymouth, 16 miles, over good ground; a portion of which has been surveyed for a canal. Thence to Haverhill, 30 miles, without any serious obstacles in the way. For two or three miles on the last part of the route it is said the grade will be 40 feet to the mile. The rise from Concord here, 27 miles, is about 230 feet. The rest of the route, except the two or three miles referred to, is less. No doubt is entertained by those best acquainted with the road, of its being the most favorable of any of its length which has been built in the United States. The route from Haverhill to Derby line, in Vermont, has been surveyed for a railroad, and found to present no insurmountable obstacle, though portions of this part of it will probably be more expensive than any in New Hampshire.

"I do not believe that Portland is the point at which to start from the seaboard for Montreal. The people at Montreal have their business in Boston, and that is the place to which they wish to go; and if they go to Portland they then must go to Boston. The argument that Portland is a little nearer Montreal than Boston is, will amount to nothing. There is no probability, I think, that the British steamers will come into Portland, and if this does not take place, there is no inducement to go to Portland, and the route that way to Boston will be greater than this. But more anon."

These are two great rival routes, the one striking the Atlantic at Boston, the other at Portland. In favor of the latter port, it is urged, that the road will be about one hundred miles shorter, and that it is a better route in an engineering point of view. It is even said that it will be thirty miles less to Boston via Portland, than via Concord, the favorite line in Boston. The great advantages of Boston in its wealth, business, railways, Atlantic steamers, etc., are known to all. Then again, there is the line up the Connecticut, uniting Boston and New Haven with Canada, for we understand that all three lines come very nearly together towards the head of that river. The construction of a line up the

valley of the Connecticut we consider tolerably certain; it will join the Western railroad at Springfield, and will bring in New York as a competitor for the winter trade and travel of the north, by means of the New York and New Haven railroad. In the summer, she has in addition the present route via the Hudson and lake Champlain. Among them all, Montreal stands a good chance of being accommodated with a railroad to some American port.

The most remarkable and gratifying feature in these proceedings, is the spirit which pervades the whole country, not excepting Lower Canada itself. It is only a few months since it was first spoken of, and it has already created a greater sensation in Canada than all their public works put together during the last ten years. We flatter ourselves that the spirit of private enterprise is awakened—it would perhaps be more correct to say is created, for the province is indebted to the unwearied exertions—not only disinterested, but made at great personal sacrifice—of an American gentleman, long resident there, for its sole specimen of a canal or railway constructed by private enterprise.

The situation of things there bears a strong resemblance to our present condition in New York. We have the government and the canals against the general interest—more especially the agricultural—in the extension of railways, and the right to use those we have. This last feature is not yet introduced into Canada, though by offering a quicker, cheaper and uninterrupted communication between Montreal and the ocean, the St. Lawrence and Atlantic railroad will necessarily injure the shipping interest at that port. For, with a drawback on goods sent to Canada, freights from Liverpool to Montreal will be less via Portland and the railway than via the gulf of St. Lawrence. Again, allow a drawback, and all Upper Canada will receive their supplies via New York, where the present Montreal importers will at once establish houses. British shipping will then lose its freights to Montreal, and the St. Lawrence canal its trade to the upper province, coarse bulky articles perhaps excepted. The annexation of Canada by congress is a thing to be talked of and laughed at, but annexation by means of the St. Lawrence and Atlantic railroad, is to be seriously considered and—accomplished.

The editor of *Herapath's Journal* thus commences the new year:

"We think we need scarcely preface the new year with any introductory remarks. However, as the system appears to be somewhat fashionable with our brother editors, perhaps it would not be amiss to remark that

it is our intention to spare no exertion, nor to waive any principle of honesty in the future, as in the past, conduct of the Journal. In respect to ability, however, we do not wish to draw the credulity of our readers to rely on promises, but wish them to judge by what we do.

"It is now bordering on ten years since this Journal was established, the first (by a priority of about two years) of any of this class of periodicals in existence, devoted to the subject of railways. We do not wish for a moment to make a boast of age, but surely, if there be any merit in long tried services, that at least is due to us. As a rumor has been attempted to be put in circulation with a view to injure the reputation of the Journal, to the effect that a party, whose name is known to the public as a partizan of particular railways, is connected with this Journal, it may be as well to mention, that the rumor is about as well founded, as that which some time ago gave out that the steeple of St. Paul's was toppling over; the Journal is now, and likely to remain, in the same hands as those which conducted it within a few months of its establishment, in May, 1835.

"The past year has been so prolific in bringing forth schemes for new railways, that it has been a difficult matter indeed, to keep pace with them. And when it is considered that the brains of a host of projectors have been actively at work, to produce as many schemes as their heated imaginations could well depict, it may be readily understood that to individual capacity, the task of following the productions of such an amount of collective labor was a pretty difficult and all absorbing one. In fact, it was found to be next to an impossibility, to obtain anything like a correct knowledge of a great number of them, without a personal inspection, the prospectuses furnishing in general, but *ex parte* statements, and in several of those pretty little painted pictures, called railway maps, errors being discovered of a serious delusive character. It was, therefore, thought desirable, that Mr. Herapath should undertake, as far as in his power lay, the duty of instituting a personal inquiry into the soundness and prospects of the new undertakings, as much with the view of satisfying ourselves, as for the immediate information of the public. This duty has been in part accomplished, and as far as the inquiry has gone, we have every reason to feel satisfied with the results, and, we believe the public—at least that portion of it which we represent—are so too. The inquiry has been attended with considerable expense, but we have not hesitated to make pecuniary sacrifice, for an object of so much importance to our readers, as correct information. The difficulties in the way of the inquiry, it was anticipated at the outset, would be great, but we did not at all imagine that they were of the formidable character they have turned out to be; these difficulties, however, have consisted not so much in discriminating when fair investigation was allowed, as in obtaining fair access to the facts. Where inquiry was most required, there in general appeared the greatest disinclination to admit

it in the manner requested. A custom house officer coming suddenly down upon a parcel of illicit traders could not have been received in a more unwelcome spirit than was Mr. Herapath, by a few of the parties who figured as the promoters of new railways. Where matters have been honestly conducted there should be nothing to conceal. Of the few who have withheld the necessary information time will show, and that quickly, whether they have done so without an object; and whether the information respecting them, of necessity indirectly ascertained, is unfounded. Although the rare incidents of this nature which have occurred are unpleasant, we think it will be discovered they are not of less value to the railway public than those of a more agreeable kind; nay, perhaps more so. Out of so many schemes, two hundred and fifty-nine (see "Journal" for Dec. 14th, p. 1,503.) it may be of more importance to learn which among them are faulty, than what are the merits and features of those that are sound. However, whichever way the balance be, Mr. Herapath has labored in both, and on the whole, we cannot but express our gratification of the results obtained.

"Mr. Herapath will, should nothing of an unforeseen nature intervene to prevent him, proceed in the course of a few weeks to Dublin, to make experiments on the Dalkey line and further investigate the atmospheric system.

"Stirring and many important events in the railway world have marked the past year; we hope shortly to be enabled to give some review of them.

"This, the first month of the new year, we expect will be crowded with meetings, preparatory to the next session, as well as to relieve, in some measure, the business of those which usually take place at a later period, in February and March, when parliament will have met. We hope to be fully prepared with arrangements that will enable us to supply our subscribers with the first and best of information.

"With these few observations we bid adieu to the old year, and greet the new, with energies prepared to meet the abundance of labor we know it will unfold."

#### ATLANTIC AND ST. LAWRENCE RAILROAD.

Mr. John Neal, in one of his interesting letters on the Montreal railroad, has confounded the "duty" with the "toll" on wheat. American wheat going to England, via the St. Lawrence, pays a duty of three shillings sterling per quarter to the province; it is then admitted into England on paying the almost nominal duty of one shilling; so that the total duty on American wheat via the St. Lawrence is only four shillings per quarter, or twelve cents per bushel, of which nine cents go into the provincial, and three cents into the imperial treasury. (The duty on potatoes imported into this country, is ten cents per bushel; and on wheat twenty-five cents per bushel; still vast quantities of the former are imported from England, France and the neighboring provinces!) Mr. Neal has point-

ed out an error in the Journal in speaking of the million of bushels of wheat carried into Boston annually. By Boston we meant New England, but even here we were wrong, for a friend informs us that the total consumption of New England is only 800,000 barrels. Had we known this earlier, it would have modified our remarks in the last Journal on the smallness of the flour trade to Boston via the Western railroad.

Our ideas on the subject of the public works of Canada are well known to our readers. We believe it will be some time before even the Welland will pay interest and expenses; as to the St. Lawrence canal there is no hope. How Mr. Neal expects to rival the route, via the Hudson and Oswego to Upper Canada, by the railroad to Montreal and thence by the St. Lawrence canals to lake Ontario, is past our comprehension. All Upper Canada will be supplied from New York from six to eight weeks earlier than the opening of the St. Lawrence between Kingston and Montreal. In saying this we merely wish to point out to Mr. Neal, that he is injuring his cause by overrating its advantages, than which, nothing is more dangerous to a new project. The great advantage of the Portland route is that it is the shortest; this is an advantage of the utmost importance, and if the difference actually be 100 miles, as has been stated, then will it be hard indeed for Boston to compete with that route for the trade of Montreal. We would also inform Mr. Neal that such assertions as "it is admitted by the Railroad Journal, of New York," etc., will do us no harm and his cause no good. All those who have given attention to these subjects for any length of time, know that the *Journal* was the first—not to admit—but to point out the vast advantages of the contemplated Great Western railroad, and we will cheerfully accept any better statement of the benefits to be conferred on the western trade by the Welland canal than is to be found in our Journal some years back. If this be the *New York*, and not the *American Railroad Journal*, then have we most lamentably failed in our main object; and we confess that, after our numerous articles and notices of the Montreal railroad during the last three or four months, we did not expect to be very ingeniously quoted as adverse to any route not in this State. We repeat that, by promising everything, the Portland project will be seriously injured, and that if he undertake to connect its success in any way with the success of the St. Lawrence canal, he will sink it in the estimation of all those who understand that work and the western trade. Besides this, however, we gave the Portland

committee some very important advice, the value of which, we much fear, they will fully appreciate when too late.

#### GREAT WESTERN RAILWAY OF CANADA.

We find in a late number of the *Oswego Palladium* an account of a meeting at Goderich—near the outlet of lake Huron, we believe—to again draw public attention to this great project. The peculiar advantages of a railroad connecting lakes Erie and Huron, or St. Clair formed the subject of a paper in this Journal a few years ago. Since that time, however, the board of works has been established, and, acting in conformity with the fixed usage here among similar bodies, has commenced a course of similar engineering: that is, they in every way discourage all attempts at private enterprise, and spend the money of the public on some job of their own, or on undertakings which their ignorance of the trade and resources of the country, as well as of the principles of engineering necessarily turn into failures. Now, when the money of the province is pretty nearly gone, we find the people of Canada east and west suddenly seized with the railway fever in the very depth of winter. We are glad to see this, even at this late hour, because it will ultimately lead to the true course to success.

It has always appeared strange to us, that the government, or some leading men in the province, did not, and indeed do not now, bring this project to the attention of British capitalists. It is entirely free from all the objections to being in any way dependent on the good faith of government, or on legislation, beyond the mere charter: it must command at once, and forever, an immense business, for its natural advantages render competition impracticable. The magnitude of the undertaking also is not such as to present insuperable difficulties, though the amount required would still be large; perhaps not less than the estimated cost of the Welland canal, about four millions of dollars for a continuous line from Hamilton to Detroit. The meeting referred to of course look to a termination on lake Huron, and a branch from some convenient point—perhaps London—would not only accommodate the business of the country, but also a large number of passengers for the north-west, and a great amount of freight in both directions. Indeed we are not sure that flour cannot be delivered at Oswego or Kingston from lake Huron via Goderich and Hamilton, quite as cheaply as via the St. Clair river and lake, the Detroit river, lake Erie and the Welland canal. As regards time, the valuable spring trade, and facility of navigation, there can be no comparison; generally speaking, goods would reach Chicago and



produce thence would reach Oswego before the opening of the Erie or Welland canals.

These are, it appears to us, the leading advantages of a railway to lake Huron, but for the great American thoroughfare, the shortest line to Detroit is the only one. It will make a nearly direct line from Boston to Chicago, and, as we understand that it goes through the best part of the Province, it will have a large Canadian way business, in addition to the vast income it must derive from the American "through travel" which awaits, and will continue to await the opening of the best route to the west.

NEW YORK AND ERIE RAILROAD.

In another page will be found an account of a meeting at Buffalo, at which the New York and Erie railroad was spoken of as necessary to secure a good route to this city by the wholesome competition which it would excite. In the *Carbondale Mirror* we notice also the petition of inhabitants of Pennsylvania in favor of their legislature granting the company permission to locate parts of their railway in that State. Its importance is very generally admitted here, though there appears little desire to subscribe to any extent. We regret, however, to observe, that Mr. Baker, in his report to the canal commissioners, makes some statements which say very little for the regard of the company for their duty to the State, to the shareholders, or to the responsible and respectable position in which they are placed. According to Mr. Baker's view of the case, they are throwing away all the advantages conferred on them by the State, by neglecting certain provisions, which neglect places them entirely at the mercy of the legislature, besides giving two-fold energy to their numerous enemies. It is lamentable also to see such communications as appeared lately in one of the principal morning papers, obviously by authority, for the views there presented are followed up in several subsequent editorial articles, in more reputable style, of course. This unfortunate production contains a violent attack on the *Miners' Journal*, for the article given at length in our last from that well conducted paper, on the petition of the company to the legislature of Pennsylvania. Whether that article warrants anything of the sort, our readers must determine for themselves; also, whether or not we answered it in the right spirit. These may appear trivial circumstances to some, but it becomes a company, which has not merely a character to establish, but a large load of odium to work off, to be careful in provoking the hostility of any—more especially of those whose established character

and superior ability renders their—the company's—supposed invective and sarcasm utterly harmless. The report of 1841 contained some passages very similar to many in the article above alluded to. A careful perusal—indeed a study of the reports of the Western and Worcester railroad corporations, engaged in an actual controversy, would be of service; an adoption of the calm and dignified style of the report of Messrs. Allen and Brown would aid the efforts of the company with the legislature and with the educated classes of the community, on whom they, after all, must depend.

TENTH ANNUAL REPORT OF THE BOSTON AND MAINE RAILROAD.

Since the last annual report, the Boston and Maine railroad, and the Maine, New Hampshire and Massachusetts railroad corporation have been united by the acceptance of the various acts passed for that purpose by the legislatures of Maine, Massachusetts and New Hampshire, on the part of the stockholders of the two corporations.

The total amount of the capital stock of the Boston and Maine railroad paid in on Nov. 30, 1844, including the capital stock of the Maine, New Hampshire and Massachusetts railroad corporation, now united with the Boston and Maine railroad.....	\$1,240,441 76
Of this sum there has been received during the year ending Nov. 30th, 1844.....	102,920 00
Received from sale of land.....	60 00
Amount refunded to the corporation, under the contract for rails.....	1,641 16
Total.....	\$104,630 16
Amount expended for the construction of the road in Massachusetts.....	505,997 76
Amount expended for the construction of the road in New Hampshire.....	798,616 74
Amount expended for the construction of the road in Maine.....	65,182 12
Cost of engines and cars.....	115,754 31
Total.....	1,485,460 93
Of these amounts there has been expended in Massachusetts during the past year.....	7,233 98
Expended during the same period in New Hampshire.....	12,107 53
Do. do. Maine.....	1,528 80
Expended for new engines and cars.....	16,867 58
Total.....	37,757 89

The other expenditures of the corporation during the year ending November 30, 1844, have been as follows:

Repairs of road in New Hampshire.....	4,948 31
" " Massachusetts.....	4,951 57
" " engines and cars.....	16,010 54
Fuel, oil, salaries and miscellaneous expenses.....	43,106 39
Amount paid to the Boston and Lowell railroad company.....	39,911 36
Amount paid to the Portland, Saco and Portsmouth railroad company.....	13,055 55
Amount paid to the Concord railroad company.....	262 47—53,329 38
Balance of interest.....	9,414 45
State tax and other taxes.....	5,375 50
Total.....	137,036 14

The income of the corporation during the year ending November 30, 1844, has been as follows:

For transportation of passengers.....	154,944 54
" " merchandize.....	70,670 14
Miscellaneous receipts.....	7,486 36
Total.....	233,101 04
A dividend of three dollars per share has been declared, payable July 1, 1844, amounting to.....	39,708 00
A dividend of three and a half dollars per share has been declared, payable January 1, 1845, amounting to.....	46,693 50
Total.....	86,401 50

The number of miles run by locomotive engines over the Boston and Maine railroad during the same period of time, was as follows:

Passenger trains.....	132,300
Merchandize trains.....	35,796
Total.....	168,096

In addition to the above the trains of this corporation have run over the Boston and Lowell railroad, drawn by their locomotives, as follows:

Passenger trains.....	31,830 miles.
Merchandize trains.....	9,420 miles.
Total.....	41,250 miles.

The passenger trains of this corporation have run over the Portland, Saco and Portsmouth railroad, in connection with the trains of that company.....47,728 miles.

STEAM BOAT LOPER.

This little steamer, destined for the trade of the Dismal Swamp canal, in North Carolina, made an experimental trip yesterday, previous to her final departure for the scene of her usefulness. That this experimental trip was in the highest degree satisfactory to both her owners and constructors, the following record of her performance will suffice.

The "Loper" left the navy yard shears at 13 minutes before 1 o'clock, and was abreast of fort Mifflin, a distance of eight miles, by government survey, at 7 minutes before 2 P. M.; and this too against a heavy head wind and the flood tide.

After rounding to, and passing abreast of the fort at 1 1/2 minutes of 2 P. M., she arrived at the shears at 20 minutes before 3 o'clock.

Taking into consideration that this was but an experimental trip, with new machinery, propellers, etc., we cannot but assert that in every respect it is a great performance; one, too, calculated to reflect credit upon all concerned. To say that sixteen miles were accomplished by an ordinary propeller canal boat, with and against a Delaware flood tide, in 106 minutes, is no mean praise. Need we say more than that the machinery, hull, etc., are from Merrick and Towne, and that her propellers are those of Captain Loper, to account for the successful result of the trial of the boat to which we allude.

This result adds another to the many proofs previously recorded, that the Loper propeller will of necessity make its way among those requiring the means of propelling boats for transportation on rivers and canals.

The engine of the boat to which we allude is of the manufacture of Messrs. Merrick and Towne, of Southwark. Their name alone is a tower of strength, to those who would have work of the kind. We would not thus have spoken of this boat, but that in bidding her good speed, we should give credit to all concerned in her construction.—U. S. Gaz.

### EXPLOSION OF A LOCOMOTIVE ENGINE BOILER, IN AMERICA.

*Dr. Lardner's Report on the cause of the Explosion, with Remarks, by Charles Hood, Esq., F.R.S., F.R.A.S., &c.*

The account of an explosion of a locomotive engine while working on a railway in Pennsylvania, has lately been published, together with a report by Dr. Lardner on the cause of the accident. The results are in several particulars extremely similar to those of the late accident on the Dover Railway, though the cause appears to be dissimilar in the two cases.

Dr. Lardner investigated all the circumstances attending the supply of water, the perfect action of the safety valves, and other circumstances likely to be instrumental in producing the accident; but he found sufficient evidence of the perfect action of the engine in every particular. After a lengthened inquiry into all the causes which could produce the result, he arrived at the conclusion that the lightning flash had suddenly heated the boiler to a high temperature, and that steam of immense elasticity was instantaneously generated, which had thus burst the boiler and produced the effects described.

This conclusion of Dr. Lardner's does not appear to me to be warranted by the facts; and I shall offer a few observations on the subject.

Adam Smith has quaintly described a philosopher to be a man whose business is to do nothing and to speculate on every thing. Nevertheless these speculations are extremely useful, except when they tend to satisfy inquiries by false reasoning. They then retard the progress of science by diverting the mind from the real track of discovery by substituting ingenious reasoning for practical deductions. Of this character appears to be the explanation so often given of the explosion of steam boilers, ascribing it to the sudden generation of steam of immense elasticity by overheated metallic surfaces. No facts have ever proved the correctness of this theory; and many cogent reasons can be adduced against it. In the present case, however, the facts appear directly opposed to this explanation; while a very sufficient explanation can be otherwise given.

The mechanical force of the lightning was sufficient after it had spent its fury on the engine, to cut or break the solid rails. The working parts of the engine were bent and broken in every direction; while the holes in the fire box, with the edges turned inwards, clearly shew the place where the lightning entered. That the lightning rent the crown of the fire box from the sides, is the obvious conclusion; and if this were done, the reaction of the steam of the ordinary elasticity used in locomotive boilers would act like a rocket, and be quite sufficient to carry away the boiler in the manner described, as the result of many boiler explosions has already proved. Dr. Lardner grounds his opinion upon the clear evidence of the action of steam, in the effect produced; but we do not require the presence of steam of greater density than that of ordinary locomotive engines, provided the rent made in the fire-box were sufficiently large to produce all the effects which are described. The absence of all appearance of the metal being overheated, which Dr. Lardner has described, is also against the theory he has propounded; while the mechanical disruption of the fire-box, by the passage of the lightning from the outer to the inner case, is what might be expected to arise from the peculiar construction of that part in so violent a shock as occurred in the present instance. The additional vent given to the steam through the three large holes

made by the lightning in the sides of the fire-box is also an additional reason against the supposition of the rupture being caused by pressure of steam; while it is also probable that had the rupture of the fire-box been produced by this pressure of steam instead of by the mechanical action of the lightning, the rupture would have taken place immediately at the part weakened by the three large holes already described, instead of at the crown of the fire-box as was found to be the case.—*Herapath's Journal.*

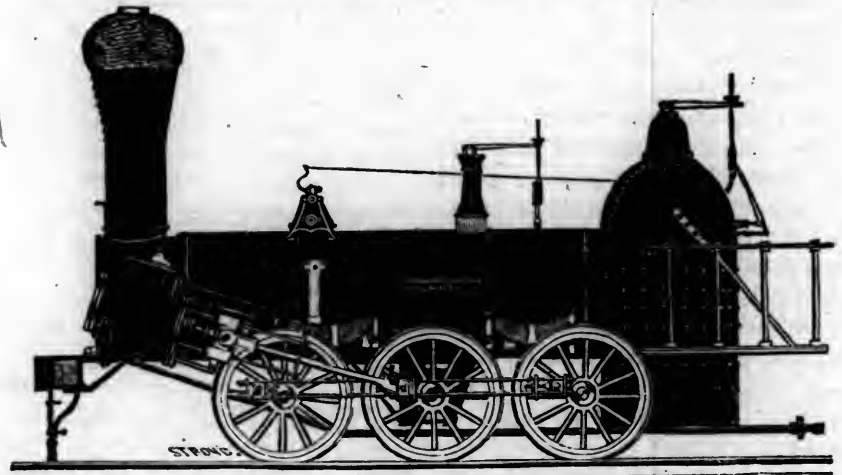
THE IRON STEAMER, "Princess Maude," took the copy of the speech of the King of the French, on opening the French Chambers, across, and was back again at Boulogne by 7, having made two voyages in four hours. She started again at 10, with a great number of pas-

sengers, for Folkestone, and returned to Boulogne, for the second time, at 3, having crossed the Channel four times in twelve hours, four out of which were spent in port at Folkestone or Boulogne.

The Pittsburgh Gazette says that a bill has passed the lower House of the Ohio Legislature, reviving and amending the Act to incorporate the "Cleveland and Pittsburgh Railroad Company," and adds—

"This is an important move for Pittsburgh, as, if we succeed in securing the terminus of the Baltimore Railroad, the road to the Lakes would be an object of trade requiring a rapid and continuous connection between Pittsburgh and the Lake country."

## NORRIS' LOCOMOTIVE WORKS, BUSH HILL, PHILADELPHIA, Pennsylvania.



MANUFACTURE their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

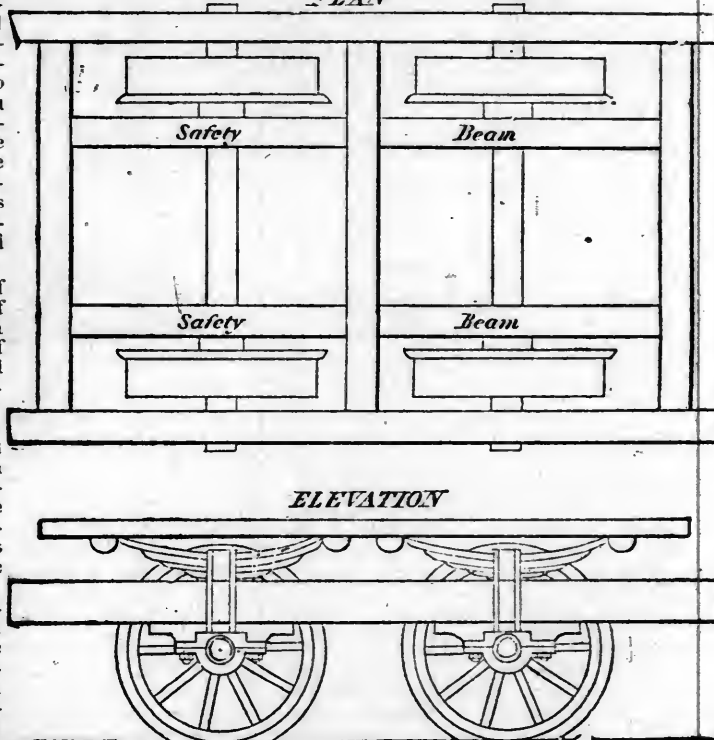
Class 1,	15 inches	Diameter of	Cylinder,	× 20 inches	Stroke.
" 2,	14	"	"	× 24	"
" 3,	14½	"	"	× 20	"
" 4,	12½	"	"	× 20	"
" 5,	11½	"	"	× 20	"
" 6,	10½	"	"	× 18	"

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

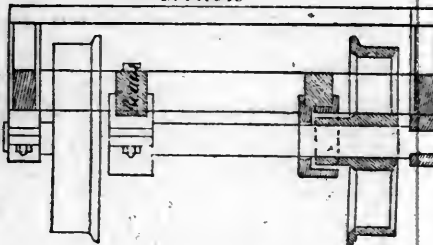
NORRIS, BROTHERS.

KITE'S PATENT SAFETY BEAM.

—PLAN



—Section



**M**ESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.  
J. P. JACKSON, Esq., Secretary.

ROBERT SCHUYLER, Esq., Vice President.  
J. WORTHINGTON, Esq., Treasurer.

	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
Leave New York, foot of Courtland street.						
For Newark.....	9, 11, 12.....	2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4 3-4, 6.....				
" New Brunswick.....	9.....	3, 4 3-4.....				
Leave						
New Brunswick.....	6, 7 1-2, 11 1-2.....	8 3-4.....	11 1-2	8 1-2		
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12.....	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	11 1-2, 4, 5 1-2, 7, 9 3-4.....	11 3-4	9 3-4		
For New York.						

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....										
Newark.....	9 1-4	25	9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2	5 1-2	12 1-2	5	12 1-2	22 1-2	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			16 3-4	50
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

**W. R. CASEY, CIVIL ENGINEER, NO. 23** Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

**SAMUEL NOTT, CIVIL ENGINEER, SURVEYOR and General Agent, Bangor, Me.** Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES —  
Boston, } Col. James F. Baldwin, Civil Engineer.  
          } Col. J. M. Fessenden, " "  
Wm. Parker, Esq., Engineer and Superintendent  
Boston and Worcester railroad. ja45

**R**AILROAD IRON AND FIXTURES. The Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO.,  
21 Broad st., N. York.  
ja45  
**S**PRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,  
5a3 Albany Iron and Nail Works, Troy, N. Y.

**LONG ISLAND RAILROAD COMPANY.**  
Trains run as follows, commencing November 1st, 1844:

Leave Brooklyn at 8 a. m. (7 1/2 New York side)—Boston Train—for Greenport, daily, Sundays excepted, stopping at Farmingdale and St. George's Manor.  
Leave Brooklyn at 9 1/2 a. m. for Hicksville and intermediate places, daily; and on Tuesdays, Thursdays and Saturdays, through to Greenport and intermediate places.  
Leave Brooklyn at 4 p. m. for Hicksville and intermediate places, daily, Sundays excepted; and on Saturdays to Suffolk Station.  
Leave Greenport for Brooklyn, Boston Train, at 1 p. m. on the arrival of the steamers, daily, Sundays excepted, stopping at St. George's Manor and Farmingdale.  
Leave Greenport at 9 a. m. Accommodation Train, for Brooklyn and intermediate places, on Mondays, Wednesdays, and Fridays.  
Leave Hicksville for Brooklyn and intermediate places, daily, Sundays excepted, at 7 a. m. and 1 1/2 p. m.

**ON SUNDAYS**  
Leave Brooklyn for Hicksville and intermediate places, at 9 1/2 a. m.  
Leave Brooklyn at 4 1/2 p. m. for Jamaica.  
Leave Hicksville at 2 p. m. for Brooklyn.  
Leave Jamaica at 8 a. m. for Brooklyn.  
Leave Jamaica at 3 1/2 p. m. for Brooklyn. jal

**BOSTON AND PROVIDENCE RAILROAD.**  
PASSENGER NOTICE.—Winter Arrangement.—To commence Monday, November 3.

On and after Monday, Nov. 4, the Passenger Trains will run as follows:  
For New York—Night Line, via Sound Steamers—Leave Boston at 4 P. M. on Tuesday, Thursday and Saturday.  
For New York—Morning Line, via Long Island Railroad—Leave Boston at 8 A. M. on Monday, Wednesday and Friday.  
Boston, Providence, Taunton, New Bedford and Way Trains.  
Leave Boston at 8 A. M., and 3 1/2 P. M.; and Providence at 8 A. M. and 3 1/2 P. M.  
Taunton at 8 1/2 A. M. and 3 1/2 P. M.  
New Bedford, at 7 1/2 A. M. and 2 1/2 P. M.  
Dedham Trains  
Leave Boston at 9 A. M.—3 P. M., 5 1/2 P. M.  
Dorham at 7 50 A. M., 10 1/2 A. M., 4 P. M.  
All baggage is at the risk of the owners thereof.  
WM. RAYMOND JEE, Sup't.

**FITCHBURG RAILROAD.**  
OPEN TO ACTON.

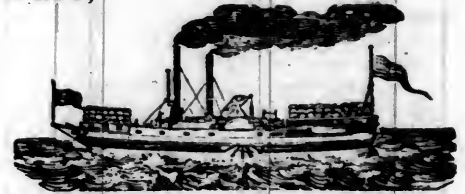
Passenger Trains will run as follows:  
Leave Charlestown at 8 A. M. and 11 and 4 1/2 P. M. Leave West Acton at 7 36 and 10 51 A. M., and 5 6 P. M.

Stages, on the arrival of the first Train of Cars at Acton, leave daily (Sundays excepted) for Littleton, Groton, Townsend, Lunenburg, Fitchburg, Ashburnham, Winchendon, Westminster, South Gardner, Templeton, Phillipston, Athol, Mass.; Fitzwilliam, Troy, Swinsey, Keene, Walpole, Charlestown, N. H.; Chester, Windsor, Woodstock, Rutland, Middlebury, Royalton, Montpelier, and Burlington, Vt.  
For further information, apply to THOMAS A. STAPLES, No. 36 Hanover st., or L. BIGELOW, No. 11 Elm st., Boston. Passengers leaving their homes at the above offices, will be supplied with Railroad and Stage tickets, and conveyed to the Fitchburg Railroad Depot, free of charge.  
Coaches will be at the Depot in Charlestown, on the arrival of the Cars, to convey passengers to any part of the city.  
jal  
S. M. FELTON, Engineer

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS	A. M.	P. M.	MILES.	FARE.
Boston	Portland		Eastern,	Daily,	7 $\frac{1}{2}$	2 $\frac{1}{2}$	106	\$3 00
"	Portsmouth		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	54	2 00
"	Newburyport		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	35	1 25
"	Salem		"	"	7 $\frac{1}{2}$ , 9, 11 $\frac{1}{2}$	2 $\frac{1}{2}$ , 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14	50
"	Portland		Boston and Maine,	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	109	3 00
Portland	Boston		"	"	7 $\frac{1}{2}$	3	109	3 00
Boston	Lowell		Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston		"	"	7 $\frac{1}{2}$ , 11	2, 4 $\frac{1}{2}$ , 5 $\frac{1}{2}$	26	75
Boston	Concord		Concord,	"		3 $\frac{1}{2}$	76	2 00
Concord	Boston		"	"		3 $\frac{1}{2}$	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11	5	41	
Nashua	Boston		"	"	6 $\frac{1}{2}$	1 $\frac{1}{2}$ , 5	41	
Boston	Worcester		Boston and Worcester,	"	7, 9	2 $\frac{1}{2}$	44	1 25
Worcester	Boston		"	"	7, 10	6	44	1 25
"	"		"	Sundays,	7			
Boston	Worcester		"	"		2		
Boston	New York via Norwich		"	Mon., Wed. & Fri.,		4		
"	" " L. Island railroad		"	Tues., Thur. & Sat.,				
"	" " New Haven		"	Daily,	9	2 $\frac{1}{2}$		
"	Albany		Western,	"	9	2 $\frac{1}{2}$	200	6 00
Albany	Boston		"	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	200	6 00
Springfield	Boston and Albany		"	"	7	3		
Boston	New York via New Haven		"	"		2 $\frac{1}{2}$		
Charlestown	West Acton		Fitchburg,	"	8	1, 4 $\frac{1}{2}$		
West Acton	Charlestown		"	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	5		
Boston	New York, via Sound steamboat		Boston and Providence,	Tues., Thur. & Sat.,		4		
"	" " L. Island railroad		"	Mon., Wed. & Fri.,	8			
"	Providence		"	Daily,	8	3 $\frac{1}{2}$	41	1 50
Providence	Boston		"	"	8	3 $\frac{1}{2}$	41	1 50
Taunton	"		"	"	8 $\frac{1}{2}$	3 $\frac{1}{2}$		
New Bedford	Boston		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$		
Boston	Dedham		"	"	9	3, 5 $\frac{1}{2}$		
Dedham	Boston		"	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	4 $\frac{1}{2}$		
New York	Greenport		Long Island,	"	7 $\frac{1}{2}$		95	2 25
Brooklyn	Hicksville & intermediate places		"	"	9 $\frac{1}{2}$		26	56 $\frac{1}{2}$
"	Greenport		"	"			95	2 25
"	Hicksville, (Saturd'y to Suffolk)		"	Tues., Thur. & Sat.,	9 $\frac{1}{2}$	4	26	56 $\frac{1}{2}$
"	Brooklyn, (Boston train)		"	Daily,		1	95	2 25
"	" (accommodation do.)		"	Mon., Wed. & Fri.,			95	2 25
Hicksville	" & intermediate places.		"	Daily,	7	1 $\frac{1}{2}$	26	56 $\frac{1}{2}$
New York	Albany & Boston via N. Haven		Steamer,	"	6 $\frac{1}{2}$			5 00
"	Middletown		New York and Erie,	"	8, 3		53	
Middletown	New York		"	"	6 $\frac{1}{2}$	3 $\frac{1}{2}$	53	
Philadelphia	Pottsville		Reading,	"	9		94	3 50
Pottsville	Philadelphia		"	"	9		94	3 50
New York	Newark		N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4 $\frac{1}{2}$ , 6, 7 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Newark	New York		[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 9, 11	1 $\frac{1}{2}$ , 4, 5 $\frac{1}{2}$ , 7, 9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	"		[9 A. M. and 4 $\frac{1}{2}$ P. M., trains, connect with Somerville Railroad.]	Sundays,	9		9 $\frac{1}{2}$	25
"	"		"	Daily,	11 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Elizabethtown	New York		"	"	9, 11	2, 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	Rahway		N. J. railroad and trans. co.,	"	7, 7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 10 $\frac{1}{2}$ , 12	3 $\frac{1}{2}$ , 5	14 $\frac{1}{2}$	31 $\frac{1}{2}$
Rahway	New York		"	"	9, 11	3, 4 $\frac{1}{2}$ , 6	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New Brunswick		"	"	6 $\frac{1}{2}$ , 7, 8 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$ , 9 $\frac{1}{2}$	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New Brunswick	New York		"	"	9	3, 4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
"	"		"	"	6, 7 $\frac{1}{2}$ , 11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
"	"		"	Sundays,	11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New York	New Brunswick		"	"	9	4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
Philadelphia	New York		Camden and Amboy,	Daily,	7		91	3 00
New York	Philadelphia		"	"	5 $\frac{1}{2}$		91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	9		30	75
Bristol	Philadelphia		"	"	4		30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"	8		93	
Baltimore	Philadelphia		"	"	9		93	
"	Washington		Baltimore and Washington,	"	9		41	2 50
Washington	Baltimore		"	"	6	5 $\frac{1}{2}$	41	2 50
Baltimore	Cumberland and inter. places.		Baltimore and Ohio,	"	7 $\frac{1}{2}$			
"	Frederick		"	"		4		
Cumberland	Baltimore		"	"	8			
Hapecock	"		"	"	10 $\frac{1}{2}$			
Martinsburg	"		"	"	11 $\frac{1}{2}$			
Harper's Ferry	"		"	"		12 $\frac{1}{2}$		
Frederick	"		"	"		2		
"	"		"	Sundays,	8			
Ellicott's Mills	"		"	Daily,	7 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$		
Richmond	Petersburg		Richmond and Petersburg,	"	10 $\frac{1}{2}$	1 $\frac{1}{2}$		
Petersburg	Richmond		"	"	5 $\frac{1}{2}$			
Albany	Schenectady		Mohawk and Hudson,	"	8			
Schenectady	Albany		"	"	9			
Albany	Saratoga		"	"	7 $\frac{1}{2}$			
Saratoga	Albany		"	"	7	12 $\frac{1}{2}$ , 5		
Troy	Saratoga		Troy and Saratoga,	"		3 $\frac{1}{2}$		
Saratoga	Troy		"	"	7 $\frac{1}{2}$			
Auburn	Rochester		Auburn and Rochester,	"	8 $\frac{1}{2}$			
Rochester	Auburn		"	"	8			
"	Buffalo		Rochester and Buffalo,	"		3		
Buffalo	Rochester		"	"		3		
"	Falls		Buffalo and Falls,	"	9			
Falls	Buffalo		"	"		1 $\frac{1}{2}$		
Buffalo	Albany		Albany and Buffalo	"	8 $\frac{1}{2}$			

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



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THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

**T O RAILROAD COMPANIES AND MANUFACTURERS** of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**RAILWAY IRON, LOCOMOTIVES, ETC.** The subscribers offer the following articles for sale:

Railway Iron, flat bars, with countersunk holes and mitred joints.	lbs. per ft.
350 tons 2 by 15 feet in length weighing	4.68
280 " 2 " " " " "	3.50
70 " 1 1/2 " " " " "	2 1/2
89 " 1 1/4 " " " " "	1.26
90 " 1 " " " " "	1

with spikes and splicing plates adapted thereto. To be sold free of duty to State governments, or incorporated companies.

Orders for Pennsylvania Boiler Iron executed.

Railroad Car and Locomotive Engine tires, wrought and turned or unturned, ready to be fitted on the wheels, viz: 30, 33, 36, 42, 44, 51 and 60 inches diameter.

E. V. Patent chain cable bolts for railway car axles, in lengths of 12 feet 6 inches, to 13 feet 2 1/2, 22-3, 3, 3 1/2, 3 1/2, and 3 1/2 inches diameter.

Chains for inclined planes, shot and stay links, manufactured from the E. V. cable bolts, and proved at the greatest strain.

India rubber rope for Inclined planes, made from New Zealand wax.

Also, Patent hemp cordage for inclined planes and canal towing lines.

Patent felt for planing between the iron chair and stone block of edge railways.

Every description of railway iron, as well as locomotive engines, imported at the shortest notice, by the agency of one of our partners, who resides in England for this purpose.

A highly respectable American Engineer resides in England for the purpose of inspecting all Locomotives, Machinery, Railway Iron, etc., ordered through us.

A. & G. RALSTON & CO.,  
No. 4 South Front st., Philad., Pa.

**MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Paterson, N. J.** The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

### Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, Paterson, N. J., or 60 Wallstreet, N. York. a45

**TO IRON MANUFACTURERS.** THE SUBscribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO.,  
ja15 No. 4 South Front st., Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lycoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer,*

**VALUABLE PROPERTY ON THE MILL Dam** For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, lace, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia.

**FRENCH AND BAIRDS PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors, and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore used to the purpose. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Anson Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburg and Jackson Railroad, Vicksburg, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. McKee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia, Pa., April 6, 1844. ja45

**S. VAIL, PROPRIETOR OF THE SPEED-** well Iron Works, near Morristown, N. J., can supply at short notice railroad companies and others with the following:

Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyres made, and they may rely upon being served according to order, and also punctually, a large quantity in the straight bar is kept constantly on hand. Crank axles for locomotive engines, made from the best Pennsylvania iron. Straight axles for locomotives for outside connection engines. Frames for engines. Wrought iron work for steamboats, and shafting of any size. Cotton Screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen:

Baldwin, Vail & Hufty, Philadelphia; Wm. Norris, Philadelphia; N. Campfield, Savannah, Ga.; J. & S. Bones, Augusta, Ga.; D. F. Guez, N. Orleans, La.; Adam Hall, N. York; J. P. Allaire, N. York; William Parker, Boston, Mass.; George W. Schuyler, N. York. ja45

**THE NEWCASTLE MANUFACTURING** Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars, Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention. ANDREW C. GRAY, ja45 President of the Newcastle Manuf. Co.



**CUSHMAN'S COMPOUND IRON RAILS,** etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, *Civil Engineer.*  
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, ja45 Reading, Pa.

FIRST ANNUAL REPORT OF THE BOSTON AND MAINE RAILROAD EXTENSION COMPANY.

In conformity with the act of incorporation the stock has been fully subscribed for; and the company was duly organized by the choice of directors. The survey and location were commenced in May, and the contracts for the graduation, masonry and superstructure concluded. The road commences at a point on the Boston and Maine Railroad in Wilmington, three-fourths of a mile east of Lubber Brook, passes near Wood-end village in Reading, through the westerly part of the village of South Reading, North Malden and Malden—thence over the marshes and across the Mystic river to Somerville—thence over the Middlesex Canal, crossing Charlestown Neck under the Medford turnpike road and the Winter Hill road—thence over the marshes to the Back Bay in Charlestown—thence by a bridge west of the State Prison and across Charles River to Boston—thence between Haverhill and Canal streets to the public square at the head of those streets. The entire length of the railroad is 17½ miles. Four miles of the track are laid, and the remainder of the road will be ready for the superstructure as soon as the season opens sufficiently in the spring to permit the laying of the rails.

The total amount of capital paid in up to December 1, 1844, was	\$428,225 00
Other receipts,	\$129 76
<b>Total,</b>	<b>\$428,354 76</b>

The expenditures up to December 1, 1844, have been as follows:

Engineering,	\$5,421 71
Land and land damage,	223,062 40
Bridges from Boston to Somerville, and over the Middlesex Canal and Mystic River,	92,543 98
Graduation,	38,907 76
Fencing,	3,953 51
Rails, chairs, &c.,	88,750 84
Sleepers,	1,870 02
Balance of interest,	275 35
Miscellaneous expenses,	917 07
<b>Total,</b>	<b>\$455,702 64</b>

THIRTEENTH ANNUAL REPORT OF THE BOSTON AND PROVIDENCE RAILROAD CORPORATION.

The business of the road during the past year has yielded a considerable increase, in each branch of trade, compared with the three preceding years, without involving any increase in the expenditures, and future prospects in regard to receipts and expenditures are encouraging. The increase of receipts was principally derived from what is termed the local business of the road.

The Long Island Railroad, connecting the city of New York and Greenport, was open for travel in August last, and, in connection with the New England railroads terminating on Long Island Sound, affords a new line of communication between Boston and New York. It was deemed due to the public convenience to make such a connection with the Long Island and Stonington Railroads as should render this line useful, by a prompt and uninterrupted passage between the two cities. Thus far, it has not commanded sufficient travel to remunerate this company for the expense incurred.

The trade on the Dedham Branch Railroad has continued to be satisfactory, and during the last summer warranted an increase in the number of trains. The passenger house, at the depot in Dedham, was enlarged last fall, to meet the wants of an increasing amount of travel.

In anticipation of the opening of the Stoughton Branch Railroad, which enters this road in

Canton, fourteen miles from Boston, we have entered into an arrangement with that corporation in regard to operating the Branch Railroad, and the tolls for the use of the main road, which we do not doubt will prove advantageous to both parties. For the accommodation of the business of this branch road, we have constructed an engine house at the junction of the Dedham Branch with the main road, and a store house in Boston.

Preparations for the extension of a second track, from Roxbury to the Dedham Branch junction, a distance of eight and a half miles, have been made, and it is expected that it will be completed in May next. This portion of the road is more curved than any other, and being traversed by the Dedham trains in addition to those which run over the whole length of the road, requires the facilities and safety which a double track affords, to prevent accidents and detentions.

During the past year the residue of the sleepers originally laid down have been replaced by new ones. The average duration of the sleepers, which were principally of white cedar, has been between seven and eight years.

As the durability of the iron rail has been a source of much speculation, we have taken pains to ascertain particularly the state of the rails on this road, and while they exhibit evidence of wear and tear arising from the action of the trains, we are happy to say that their general condition, taken in connection with the amount of renewals since the road was opened for travel in 1834, warrants the conclusion, that this important item of construction will never become one of serious expenditure; that a small annual appropriation will maintain the rails in good condition for all time; this opinion is sustained by the fact that in ten years of use to which the rails have been subjected, only 750 new rails, (about 2½ per cent of the whole number), have been put into the track; a large proportion of this number were originally of inferior quality when laid down.

The cars and engines are in the same condition as at the date of our last report, with exception of a small addition to the former.

On the 31st ultimo we made a careful estimate of the present value of the cars, engines, and other personal property of the corporation, which had been charged to the account of construction, and have charged against such depreciation from the cost to income account, the sum of forty thousand dollars, and deducted the same from the cost of construction:

The amount of capital paid in is	\$1,860,000 00
The amount expended on account of construction during the past year,	\$11,060 78
Amount previously charged, including second track from Boston to Roxbury, and Seekonk Branch,	1,914,473 80
	<b>\$1,926,134 58</b>

Deduct amount charged against depreciation of cars, engines and other personal property, from Jan. 1st, 1834, to Dec. 31st, 1844,	40,000 00
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Present amount of construction account,	\$1,886,134 58
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*Income of the past year.*

From Passengers,—	
Main Road,	\$139,265 72

Taunton Branch,	32,012 27	
Dedham "	18,379 52	\$189,657 51
From Merchandise,—		
Main road,	74,955 46	
Taunton Branch,	11,345 79	
Dedham Branch,	999 96	87,301 21

For transportation of mails, after deducting expense of carrying to and from post offices,	6,051 44
For rents, interest, &c.,	691 02
	<b>\$283,701 18</b>

*Expenditures during the year, exclusive of the amount charged to construction account, as before stated.*

Repairs of railroad, including bridges,	\$18,944 73
Do. cars and engines,	19,969 17
Salaries, fuel, oil, and miscellaneous expenses,	62,702 66
Ferry at Providence to connect with Stonington Railroad,	6,400 00
Rent paid Boston and Providence Railroad and Transportation Company in Rhode Island, for lease of their road, bridge and depot,	5,818 18
	<b>113,834 74</b>

Net earnings,	\$169,866 44
Amount standing to the credit of Income Account, Dec. 31, 1844,	\$156,108 62

The amount of dividends during the year, 3 per cent. in January, \$55,800	
Do. in July, 55,800	111,600 00

Amount of depreciation on cars, engines, &c., as above stated,	40,000 00
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Present amount of Income Account, say on Jan. 1, 1845,	116,108 62
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*The number of miles run by the Locomotives during the past year.*

Passenger trains,	102,764
Merchandise do.,	29,400
Gravel do.,	5,328
<b>Total miles,</b>	<b>137,492</b>

NINTH ANNUAL REPORT OF THE CHARLESTOWN BRANCH RAILROAD.

The amount of capital stock paid in, is	\$250,000 00
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Amount expended at the date of the last Annual Report,	\$4,019 60
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The amount expended during the past year, and charged to the cost of the road, is

For construction of road and bridges,	\$9,299 74
" land and land damages,	12,038 93
" road furniture,	3,703 81
" buildings,	1,167 64
	<b>26,210 12</b>

Total cost of road and appurtenance,	\$280,259 72
The receipts of the road for the past year, are	

For transportation of passengers,	\$7,787 63
" transportation of merchandise,	26,144 05
" rent and miscellanies,	1,521 65
	\$35,453 33
Less discount on freight,	799 43
	\$34,653 90
The expenditures of the road the past year, are	
For repairs of road,	\$1,545 16
" repairs of engine and cars,	2,471 85
" fuel, oil, salaries, wages, and miscellaneous expenses,	16,666 09
	\$20,683 10
The number of miles run by locomotive engines during the year, is	
With passenger trains	8,771
" passenger and merchandise together,	11,270
" merchandise trains,	5,930
" miscellaneous,	1,945
Total,	27,926
Two dividends of profits have been made: one of three per cent., and one of two and one half per cent. on the capital stock.	
Thirty-five thousand one hundred and ninety-one tons of ice were transported over the road in the year 1843, and forty-one thousand eight hundred and thirty-eight tons have been transported the past year.	
The manufacture of bricks on the line of the road, has been commenced on an extensive scale, affording us a new item of freight, which promises a large increase.	
<b>NINTH ANNUAL REPORT OF THE EASTERN RAILROAD COMPANY.</b>	
The total expenditures for the construction of the road, its engines and cars, and property remaining on hand Dec. 31, 1843, was	\$2,388,631 33
During the year 1844 has been added	17,753 19
Total Dec. 31, 1844,	\$2,406,384 52
A part of the property, valued at	\$23,529 50
has been disposed of this year, and additions and improvements made at the cost of	5,189 46
Diminishing the above expenditure	18,340 04
And leaving it Dec. 31, 1844,	\$2,388,044 48
The receipts have been from capital stock, 18,000 shares at \$100,	\$1,800,000
Loan of State scrip, due in 1857,	500,000
Due reserved fund and other accounts,	88,044 48
	\$2,388,044 48
The current receipts and expenditures arising out of the business, and showing the net earnings of the road for the year 1844, together with income from all other sources, and the appropriation thereof, are shown in the following tabular statement:	
Receipts from passengers,	\$293,762 32
Do. merchandise transportation,	33,194 84
Do. from mail,	10,068 50
Do. incidental,	212 80
Total,	\$237,238 46

Expenses for repairs of road,	19,176 00
Do. engines and cars,	15,938 80
Do. for oil for engines,	1,556 61
Do. do. cars,	705 72
Do. for fuel for engines,	19,039 47
Do. for miscellaneous—all other,	52,902 26
Total,	\$109,318 86
Net earnings,	\$227,919 60
Net income from property, rents, &c.,	6,661 14
	\$234,580 74
Interest on State scrip,	25,000 00
	\$209,580 74
Dividend of profits to June 30, 1844, 3½ per cent.	
Eastern Railroad, 18,000 shares,	\$63,000 00
Eastern Railroad in N. H., 4825 shares,	16,887 50
	79,887 50
Dividend of profits to Dec. 31, 1844, 4 per cent.	
Eastern Railroad, 18,000 shares,	\$72,000 00
Eastern Railroad in N. H., 4825 shares,	19,300 00
	91,300 00
Balance of profit and loss account by amount sales of property over valuation,	\$38,393 24
Surplus Dec. 31, 1843,	\$47,737 81
Surplus Dec. 31, 1844,	39,310 30
Number of miles run,	204,962
Do. passengers,	544,994
Expense per mile,	53.31 cts.
Interest on cost of the road to the stockholders from the payment of their assessments to the 31st Dec., 1844, amounts to 41.18½ per cent.	
They have received in dividends, 38.12 cts.	
The reduction of the freight on Coal on the Pennsylvania Canals will, it is supposed, enable Pittsburg to supply Philadelphia with bituminous coal. The cost of the transportation will be about \$3 09 per ton.	
This is "coming it rather strong." To carry coal 400 miles with several changes from canal to railways, besides crossing the Alleghany mountains, for ¾ of a cent per ton per mile, is something new under the sun.	
<b>Iron Freight Barges.</b> —There have recently been built at the Archimedes works, foot of Thirty-third street, six iron barges, which are to form a daily line on the Hudson, between New York and Troy. They belong to the highly respectable house of Ide, Coit & Co. of Troy, and were planned by one of the partners. They are of 250 tons burthen, 100 feet long on the keel, 17½ feet beam, and 7 feet hold, with a guard of 2½ feet all round, and the arrangements in all respects such as to afford the best possible accommodations. The owners think there is a chance that the Erie Canal will be enlarged throughout during the lifetime of	

these-boats, and have had them so constructed as to fit the enlargement, with no other alteration than taking off the guards.—*Journal of Commerce.*

**The New Packet Steamer Decatur.**—We yesterday examined this new vessel. She was launched, a short time since, from the yard of Currier & Townsend, by whom the hull was built. She now lies at the wharf of Messrs John Wood & Son, by whom, together with John Porter, Esq., she is owned. She is to be propelled by "Bard's Patent Propellor,"—that is, *two submerged paddles, revolving upon two cylinders of iron, just by the stern post, one on each side*—the cylinders pass into the vessel, and connect inside with the engine. Outside, therefore, the only machinery which is to be found, is the two paddles, and the two shafts or cylinders to which they are annexed; and these submerged, and close to the vessel, under the run. Mr. Bard, the patentee of these double propellers, is now a resident of Boston, we are informed, and formerly of Maine. His plan is said to be a great improvement on that of Hunter, and others. The iron work, engine and boiler, are all made, and to be put into working order, by Seth Adams & Co., of South Boston.

Besides the "Propellers," there will be fore and aft sails, rigged upon two masts, schooner fashion. There will be neither topsail nor bowsprit. The length of the Decatur is, on deck, 105 feet, with 22 feet beam. She is a handsome model, with clean run good bows, and flush decks, about 145 tons.

Yesterday, they were just getting the boiler on board. It is a huge, iron, cylindrical chest, with furnace attached—massively fastened with clamps, rivets and bands, and weighs about ten tons.

This steamer is to ply, as a regular packet, between this port and Boston; and is to be handsomely fitted for passengers, as well as properly arranged for the carriage of freight.—*Newburyport Herald.*

**FOREIGN EXTRACTS.**

**The Iron Trade, Railways and Ship Building.**—It gives us sincere satisfaction to lay before our readers a flattering account of the iron trade. Never do we remember a period when its prospects were brighter, or its improvement more decided. Our information from all quarters is gratifying, that from the north more particularly so. In Durham it value has been materially enhanced, and the trade in Newcastle has received such an impulse, as to warrant us in holding out most sanguine hopes, both to owners of property, consumers and the mining operative population. And here let us observe, that we are not easily captivated by a temporary fluctuation, nor deluded by an unsteady nervous improvement, which might speedily relapse into dulness, if not depression; but it is after a calm and anxious review of the trade that we deliberately express our conviction that the present improvement is based on solid grounds, and likely to be steady and progressive.

This we consider mainly attributable to the



extended adoption of railways; and the impetus which this system has given to the department in question is not confined to the home, but has had its effects on the export trade also. Thus, while the consumption of iron, to furnish new rails, carriages, engines, etc., for this country, has created a large demand in the market, and, to all appearances, that demand must increase considerably for some years at least; the development of the locomotive system abroad has so raised the value of our trade with Germany, France and America, that notwithstanding the prohibitory duties in those countries, our export trade in this metal bears an increase for the last over the preceding year of more than 80,000 tons, or in money upwards of half a million sterling.

But, independent of the favorable influence produced by railways, there is another, and equally important circumstance, which considerably affects the trade. We allude to the consumption of iron for the purposes of ship-building. The vast advantages arising from vessels being thus constructed, as regards speed, safety and economy, have been so indisputably established, that a general, if not exclusive adoption of the principle, not only for steamers, but also for sailing vessels, may be fairly anticipated. Here, then, will be a constant enormous demand for iron, which, if our mines are able to supply, will afford a high and profitable market.

With these prospects before us, we are not over sanguine in expecting a steady improvement in every branch of this industrial department.

In reference to the above subject, we may here acknowledge the receipt of a treatise, illustrating and explaining the improved forms of iron as applicable to ship-building, by the patentees, Messrs. Kennedy and Vernon, of Liverpool. The improvement they propose is simple, and likely before long to be universally adopted; its nature will be best understood by giving the words of the inventors, "Iron ship-building has made much progress in this country, but it is still capable of great improvement; and to effect this in two most essential points, we have directed our attention, by the assistance of practical observation and experience. Although we do not pretend to say that the vessels hitherto constructed are in any danger, from the adoption of iron of the common form for deck beams and side frames, we consider that the forms we have invented, and for which we have taken out a patent, effect the object of uniting the maximum of strength with the minimum of weight in the highest degree. There is no part of a ship to which strength is of more consequence than in deck beams and side frames; they are the bonds which keep it together, and if they remain firm there is no danger to any part of the vessel, built of proper materials and scientifically constructed. We have already used the patent iron in several steam vessels we have lately built, and are satisfied of its superiority over every other shape of iron hitherto in use. Heretofore, iron vessels have generally been constructed with angle iron, usually employed for the ribs of vessels, and also by nailing one or

two pieces of this angle iron with a plain bar of iron, and sometimes with rolled iron. Both these systems, it is well known, are not so strong as a bar of iron, having ribs or flanges on both the top and bottom edge."

The importance of this application to ship building must be manifest at one view, by placing the greatest quantity of iron in the weakest parts, which thus with a trifling addition of weight, affords tenfold stability and strength.—*Mining Journal*.

#### STATISTICS OF RAILWAY TRAFFIC.

Returns for the year 1844. Prepared by Mr.

J. T. Hackett, for "*Herapath's Journal*."

Number of passengers carried 19,579,191. Receipts from passengers and parcels £4,136,681, from merchandize cattle, etc., £1,448,301. Total receipts for 1844, £5,584,982, for 1843, £4,827,655, for 1842, £4,341,781.

"The above table contains the aggregate railway returns of those lines which are to be found in the official returns given in this Journal during the last year. The capital expended in the construction of those lines, as per last report, was £61,489,056, and the traffic returns for the past year, amounted to £5,584,982, from which is to be deducted 40 per cent. for working expenses: £2,233,990, £196,500 for passenger duty; and £157,724 for property tax, which will leave a sum, clear of income tax, amounting to £2,996,778, for distribution among the shareholders and would pay a dividend on the cost, of 4.87 per cent. for the year. It must be borne in mind that some of the traffic returns range only from three to five months, on the new lines opened during the year, amounting to about 180 miles, and that the Brandling Junction railway, having no returns for about three months making in all partial returns only upon rather more than 200 miles of railway, while the capital mentioned above includes the whole sum expended on the 1805 miles. These matters taken into account, together with the deduction made above for property tax, the railways referred to may be safely assumed as having paid on the whole, rather more than 5 per cent. for the past year.

"The capital expended in 1844 on 1805 miles of railway was £61,489,056; in 1843, on 1,586 miles £56,135,104, and in 1842, on 1,520 miles, £51,180,000, which gives an average cost per mile in 1844, of £34,066; in 1843, of £35,394; 1842, of £33,671. It would appear also that the sum expended on railways in Great Britain between certain periods in 1842 and 1843 was £4,955,104, and between 1843 and 1844, £5,353,952, which must have had a beneficial effect upon the trade of the country, as well as proving a very judicious investment of capital. The total traffic returns of 1844 were £5,584,982 or £3,094 per mile per annum; in 1843, £4,827,655, or £3,044; in 1842, £4,341,781, or £2,856 per mile per annum.

"Thus it appears that while railway traffic has increased in 1843 11.2 per cent. over 1842, and in 1844 over 1843 15.6 per cent., the capital expended in 1843, exceeded that of 1842 by 9.7 per cent., and that in 1844 exceeded that of 1843 by 9.6 per cent. All

things taken into account it appears that the proportional increase of traffic has exceeded by more than 50 per cent. the proportional increase of expenditure, and it is to be hoped that the extensive experience afforded by the construction and working of so many miles of railway will enable the various companies to further reduce the amount of future expenditure in both the construction and working of the lines, so as not only to afford the greatest possible amount of accommodation to the public, but at the same time, to secure a safe and handsome return for the shareholders."

*Electric Telegraph*.—The work of laying down the patent electric telegraph on the South Western railway, from London to Gosport, is nearly completed. The posts for sustaining the wires, which are fixed at about 50 yards distance, are put down nearly the whole way, and the fixing of the wires is being rapidly proceeded with. The cost of the work, about £24,000, is we understand borne in equal proportions by the company and by the board of admiralty.—*Exeter News*.

*London and Birmingham Railway*.—The traffic this half year has been very good, and the dividend will be as before, at the rate of 10 per cent. The rumor that this company intend to lay down a third set of rails, to accommodate the coal and additional goods traffic, is all fudge. The company could carry much more traffic than they have without inconvenience. Extra goods would, of course, go at night, when the line is comparatively not used.—*Herapath*.

*Thames Tunnel Company*.—The number of passengers who passed through the tunnel in the weeks ending January 18, was 19,962; amount of money, £83 3s. 6d., (last year, £105 9s. 3d.)

Jan. 25.—Passengers, 21,137; amount of money, £88 1s. 5d., (last year, £112 4s. 10d.)

*Important Fact*.—It is a singular circumstance, and one as to which there can be no doubt, that of all the accidents which have occurred in railway travelling, not one has proved fatal to any passenger in a first class carriage.

The Lancaster and Carlisle company have completed the additional agreement with the Lancaster and Preston company for the transfer of the latter railway, in consideration of a guarantee of 5 per cent. on the capital of £400,000, with an option of amalgamation, or one-third share of the profits above 5 per cent. All incumbrances, including the lease to the Lancaster canal, and the debt of £113,000 go with the property. The Lancaster and Carlisle line is progressing favorably, and the contracts have been made on very advantageous terms.—*Herapath*.

*German Railways*.—A letter from Berlin of recent date says: "There is great activity and spirit displayed here in all that concerns our railways. The chief point is, how the expense of our projects is to be met; but all agree that it is not possible to raise the means by an arrangement with the bankers of the country; therefore application has been made to a foreign banker."—*Herapath*.

ENGLISH RAILROAD SQUARE-LETT.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.		Share Capital.
							Per share.	Per cent. per annum.			Aberdeen.....	1,600,000	
Arboath and Forfar.....	15	102,000	35,000	138,870			0 12 6 2	10 0	25	27	Cambridge and Lincoln...	1,250,000	
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1 5 0 2	10 0	100	100	Chatham and Portsmouth..	5,000,000	
Branding Junction.....	23	161,700	365,470	481,452				4 10 0	50	54	Chester and Wrexham....	120,000	
Bristol and Gloucester.....	37½	400,000	211,000					nihil.	30	36	Churnet valley.....	1,800,000	
Chester and Birkenhead.....	14½	750,000	143,170	518,980	5,856	13,148	0 8 6 1	14 0	50	32	Direct Northern to York...	1,000,000	
Dublin and Drogheda.....	31	450,000	150,000	500,869				nihil.	55	72	Dublin and Belfast.....	950,000	
Dublin and Kingstown.....	6	200,000	152,200	359,000			6 0 0 6	0 0	100	166	Dundee and Perth.....	250,000	
Dundee and Arbroath.....	16½	100,000	49,445	153,416	2,989	6,993	1 5 0 5	0 0	25	29	Edinburg and Northern...	800,000	
Durham and Sunderland.....	18½	169,350	124,055	270,392	9,889	17,702		nihil.	34	29	Ely and Bedford.....	270,000	
East County and North and East.....	86½	4,443,200	341,155	3,931,905	47,385	118,726	1 6 6		45	57	Glasgow, Dum. & Carlisle.	1,300,000	
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1 2 6 4	10 0	50	57	Gt. South and West Ext...	1,200,000	
Glasgow, Paisley and Ayr.....	51	937,500		1,066,951	12,446	36,736	1 2 6 4	10 0	50	60	Gt. Grimsby and Sheffield.	600,000	
Glasgow, Paisley and Greenock.....	22½	650,000	216,666	787,884	11,572	23,177	0 5 0 2	0 0	25	12	Harwich and E. conn. Jun.	160,000	
Grand Junction.....	104	2,478,712		2,453,169	84,309	195,080	5 0 10 0	0 0	100	210	Huddersfield & M. rl. & cl.	6,000,000	
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1 12 6 3	5 0	100	119	Kendal and Windermere..	125,000	
Great Western.....	221½	4,650,000	3,679,343	7,279,539	132,235	369,904	3 10 0	7 0 0	75	138	Leeds and Dewsbury.....	400,000	
Hartlepool.....	15½	438,000	155,540	719,205				8 0 0	100		Leeds and Thirk... ..	800,000	
Leicester and Swannington.....	16½	140,000		140,000	2,207	6,317	1 5 0 5	0 0	50		Liv. Ormskirk and Preston	600,000	
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5 0 10 0	0 0	100	203	London and Portsmouth...	1,750,000	
Llanely.....	27	200,000	44,000	221,624			1 0 0	2 0 0	87		London and York.....	5,000,000	
London and Birmingham.....	12½	6,874,976	928,845	6,393,468	92,823	405,768		10 0 0	100	218	Londonderry & Enniskillen	500,000	
London and Blackwall.....	3½	804,000	266,000	1,315,640	15,978	23,870			16	6	Lynn and Ely.....	200,000	
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0 12 0	2 8 0	50	47	Manchester, Bury and Ross	300,000	
London and Croyden.....	8½	550,000	229,000	761,885	7,583	10,545	0 5 0	2 10 0	14	17	Manchester and Buxton...	250,000	
London and Greenwich.....	3½	759,383	233,300	1,040,930	15,193	28,923		nihil.	13	10	Mullingar and Athlone...		
London and South Western.....	92½	2,222,100	630,100	2,596,291	68,457	150,469	1 12 6	6 10 0	41	73	Newcastle and Berwick...	700,000	
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1 0 6	5 0 0	40	48	Richmond & W. End June.		
Manchester and Bolton.....	10	778,100	197,730	773,743	8,565	21,140	2 2 0	4 10 0	93	110	Scottish Central.....	700,000	
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761		7 1/2 & 10 1/2	60	88	Sheffield and Lincolnshire.	650,000	
Midland railway.....	178½	5,158,900	1,719,630	6,279,056	76,983	281,898			100	96	Shrewsbury and Gd. June.	400,000	
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947	4 0 0	4 0 0	100	105	Shrew. Wolv. Dudley & B.	900,000	
Newcastle and Darlington.....	23	500,000		405,728				nihil.	21	49	Trent Valley.....	900,000	
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466		2 0 0	50	37	West London Extension...	64,000	
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2 10 0	6 16 8	100	104	West Yorkshire.....	1,000,000	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415			0 16 0	0 0	20	39	Whitehaven and Maryport	100,000	
Paris and Rouen.....	84	1,440,000			31,247	91,171		8 0 0	20	38	FRENCH RAILWAYS.		
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066		nihil.	50	18	Boulogne and Amiens....	1,500,000	
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,875	14,876		nihil.	82	93	Central of France.....	1,280,000	
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0 10 6	2 2 0	50	39	Lyons and Avignon.....	2,400,000	
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1 0 0	6 5 0	100	55	Orleans, Tours & Bordeaux	2,000,000	
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0 15 0	5 1 8	29	37	Paris and Lyons.....	2,500,000	
Yarmouth and Norwich.....	20½	187,500	62,500	230,250				nihil.	16	25	Paris and Orleans.....	1,600,000	
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2 10 0	10 0 0	50	100	Paris and Rouen.....	1,440,000	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15½	15½
Anti Dry Rot.....	10,000	18½			2	
Australian Trust Company	5,700	100	35		34½	
General Steam Navigation	20,000	15	14	10	27½	27
Gt Western Steam Pa.....		100			25	
Metropolitan Wood Pav.....	15,000	10	6	5	6½	
Patent Elastic Pav.....	10,000	1	1	5	1½	
Peninsular and Oriental.....	11,493	50	50	7	64½	65
Dito.....	3,200	50	40	7		
Polytechnic Institution.....			6			
Reversionary Int. Soc.....	5,323	100	100	4½	104	104
R. Mail Steam Packet.....	15,000	100	60		36½	37
South Western Steam.....	4,000	25	5			
Ship Owners' Towing.....	3,000	10	7½	10	15	
Thames Tunnel.....	4,000	50	50			
University College.....	1,500	100	100			

Canals.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Ashby de la Zouch.....	1,432	113	av.	4	70	70
Barnsley.....	720	100	100	14	180	180
Birmingham, 1-16 share..	3,000	118½	79	10	150	160
Do. and Liverpool Junction	4,000	160	100		13½	13½
Covestry.....	500	100	100	20	365	365
Cromford.....	460	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forth and Clyde.....	1,297	400½	40½	4	440	440
Grand Junction.....	11,600	100	100	7	162	161½
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Rerkley....	5,000	do.	do.		8	8
Grantham.....	749	150	150	8	185	185
Lancaster.....	11,699	47½	47½	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	610
Liechester.....	545	140	140	9	139	139

NAME OF COMPANY.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Loughborough.....	70	142½	142½	70	1140	
Monmouthshire.....	2,409	100	100	10	160	160
Melton Mowbray.....	250	100	100	10	117	117
Mersey and Irwell.....	500	100	100	10		
Macclesfield.....	3,000	100	100	2½	15	15
Neath.....	247	100	100	17	365	365
Oxford.....	1,786	100	100	30	505	
Regents or Loncon.....	21,418	33½	33½	2½	25	25
Shropshire.....	500	125	125	6	120	120
Somerset coal.....	800	150	150	7½	123	123
Stafford and Worcester...	700	140	140	25	180	180
Shrewsbury.....	500	125	125	12	230	230
Stourbridge.....	300	145	145	14	360	360
Stroudwater.....	200	150	150	19		
Swansea.....	533	100	100	15	240	240
Severn & Why & Rail Av.	3,762	26½	26½	5½	30	30
Trent and Mersey.....	2,600	50	50	65	195	
Thames and Medway.....	8,149	19½	19½		10	10
Warwick and Birmingham.	1,000	100	100	10½	167	
Warwick and Napton.....	980	100	100	8½	122	

Water Works.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Birmingham.....	4,800	25	25	3½	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7½	83	90
New River L. B. Ann.....	1,500			2½		
Manchester and Salford....	6,486	av.	30	8½	57	57
Vauxhall, lt. S. London....	1,000		100	5	55	55
West Middlesex.....	8,294	av.	63½	6½	126	127

Docks.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Commercial Dock.....	1,065	100	100	3	0	
East and West India.....		sto.		5½	137	
London.....	3,238,310	sto.		4½	114½	115
St. Katharine.....	1,352,752	sto.		5	116	171
Southampton.....	7,000	50	50			



RAILROADS.		Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	SALES.	
							Gross.	Nett.		Gross.	Nett.			Week ending 22d February.	Shares.
N. H.	1 Portland, Saco and Portsmouth	50	1,200,000				89,997	47,166	7	124,497	74,841	6	98½		
N. H.	2 Concord	35	750,000									12	130		
Mass.	3 Boston and Maine	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	110		
"	4 Boston and Lowell	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120	1	118½
"	5 Boston and Providence	41	1,886,135				233,388	110,823	6	282,701	156,109	6	107	36	107½
"	6 Boston and Worcester	44	2,914,078				404,141	162,000	6	428,437	195,163	7½	117½	80	116
"	7 Berkshire	21	250,000	not stated				17,500	7	17,737					
"	8 Charlestown branch		280,260						13	34,654	13,971	5½	81	32	82½
"	9 Eastern	54	2,388,631				279,563	140,595	6	337,238	227,920	8	107½	26	117½
"	10 Fitchburg	50	1,150,000	just op'd						42,759	26,835		118	1	117
"	11 Hartford and Springfield	25 1-2	131,852	do.											
"	12 Nashua and Lowell	14 1-2	380,000				81,079		8	94,588	34,944	10	120		
"	13 New Bedford and Taunton	20	430,962				50,671	24,000	6	64,998	24,000	6			
"	14 Norwich and Worcester	59	2,170,366	not stated			162,336	24,871		230,674	99,464	3	71	7,617	73½
"	15 Taunton branch	11	250,000					20,000	8	96,687	20,000	8	118		
"	16 West Stockbridge	3	41,516	200								4			
"	17 Western, (117 miles in Mass.)	156	7,686,202	1,686,202	30,000	100	573,882	284,432		753,753	439,679	3	99½	19½	99½
"	18 Worcester branch to Milbury		8,431	506											
Con.	19 Hartford and New Haven	38										100			
"	20 Housatonic, (10 months.)	74	1,244,123							150,000			37		
"	21 Stonington, (year ending 1st Sept.)	48	2,600,000				113,889			154,724	79,845		42	1,875	43½
N. Y.	22 Attica and Buffalo	31 1-2	268,275				45,896	7,522					107	27	106½
"	23 Auburn and Rochester	78	1,727,361				189,693	112,000					116		
"	24 Auburn and Syracuse	26	743,931				86,291	27,334					100		
"	25 Buffalo and Niagara	22	200,000		1,500	133½							30	400	39½
"	26 Erie, (446 miles.)		5,000,000												
"	27 Erie, opened	53						48,000							
"	28 Harlem	26	2,200,000										70½	1,150	71
"	29 Hudson and Berkshire														
"	30 Long Island	95	1,884,610	392,340	29,846	50				153,456	70,043		78	4,385	79½
"	31 Mohawk	16 3-4	1,030,949				69,948	58,780		84,306	40,000		65	225	65½
"	32 Tonawanda	43	600,000				76,227								
"	33 Troy and Greenbush	6	180,000												
"	34 Troy and Saratoga	25	475,865				44,325	21,000							
"	35 Troy and Schenectady	20 1-2	633,520				28,043								
"	36 Schenectady and Saratoga	22	300,000				42,212	3,000	1						
"	37 Utica and Schenectady	78	2,124,013				277,164	180,000	9				129½		
"	38 Utica and Syracuse	53	1,080,219				163,701	72,000					115½		
N. J.	39 Camden and Amby	61	3,200,000				682,832	383,880					110	5	110½
"	40 Elizabethtown and Somerville	26	500,000												
"	41 Morris and Essex														
"	42 New Jersey	34	2,000,000										94		
"	43 Paterson	16	500,000									6	85½	75	85
Pa.	44 Beaver Meadow	26	1,000,000												
"	45 Cumberland Valley	46	1,250,000												
"	46 Franklin	10 1-2													
"	47 Harrisburg and Lancaster	36	860,000										30		
"	48 Hazleton branch	10	120,000												
"	49 Little Schuylkill	29	900,000												
"	50 Blossburg and Corning	40	600,000												
"	51 Mauch Chunk	9	100,000												
"	52 Minehill and Schuylkill Haven	18	315,000						12				140		
"	53 Norristown	20	800,000										6		
"	54 Philadelphia and Trenton	30	400,000										105		
"	55 Pottsville and Danville	29 1-2	1,500,000												
"	56 Reading	94	9,457,570	7,447,570	40,200	50				597,613	343,511		48	4,935	49
"	57 Schuylkill valley	10	1,000,000												
"	58 Williamsport and Elmira	25	400,000				20,000								
"	59 Philadelphia and Baltimore	93	4,400,000				43,043	200,000					42	5,227	43½
Del.	60 Frenchtown	16	600,000												
Md.	61 Baltimore and Ohio, (1st Oct.)	188	7,623,600				575,235	279,402		358,620	316,946		48½	22	48½
"	62 Baltimore and Susquehanna	58	3,000,000										5		
"	63 Baltimore and Washington	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	64 Greenville and Roanoke	17 1-2	260,000												
"	65 Petersburg and Roanoke	60	766,000									3			
"	66 Portsmouth and Roanoke	78 1-2	850,000												
"	67 Richmond and Fredericksburg	61 1-2	1,200,000												
"	68 Richmond and Petersburg	22 1-2	700,000												
"	69 Winchester and Potomac	32	500,000												
N. C.	70 Raleigh and Gaston	84 1-2	1,360,000												
"	71 Wilmington and Raleigh	161	1,800,000												
S. C.	72 South Carolina	136			34,410	75						8			
"	73 Columbia	65	5,299,224				201,464	77,456		328,425	180,704		55		
Ga.	74 Central	190	2,581,723				227,532	93,190							
"	75 Georgia	147 1-2	2,650,000				248,026	158,207		248,096	147,523				
Ala.	76 Fuscumbia	46													
Ky.	77 Lexington and Ohio	40	500,000												
Ohio	78 Little Miami	40	450,000												
"	79 Mad river	40	400,000												
"	80 Monroeville and Sandusky														
Mich.	81 Detroit and Pontiac	25													
"	82 Erie and Kalamazoo	33													
Ind.	83 Madison and Indianapolis	56	152,000												
Can.	84 Champlain and St. Lawrence	15	212,000					12,000		58,000	24,000		110		

We particularly request statements of the traffic of each week and of the corresponding week of last year to be regularly sent to us.

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Thursday, March 13, 1845.

WESTERN RAILROAD.—Receipts for the week ending March 1:

	1845.	1844.
Passengers,	\$5,020	\$3,693
Freight, etc.,	6,878	6,465
Total,	\$11,898	\$10,158

The receipts of the Norwich and Worcester railroad for February were

	\$11,764
Same month last year,	11,785
Receipts for January, 1845, reported,	11,600
Two months in 1845,	23,364

MINEHILL AND SCHUYLKILL HAVEN RAILROAD.—The following is the amount of coal transported over this road, for the week ending on Wednesday evening last:

	4,770-15
Per last report,	34,818-95
Total,	39,588-20

THE COAL TRADE.—Sent by railroad up to Thursday evening last.—*Miners' Journal*.

Schuylkill Haven,	5,973-06
Pottsville,	2,269-11
	8,242-17
Per last report,	50,914-29
	59,156-46

PHILADELPHIA AND COLUMBIA RAILWAY.—The following shows the collections at this office for the month of February, 1845:

	Railway.	M. Power.	Total.
Am't as per last report,	8,492-15	10,116-15	18,608-30
Do. for February, 1845,	4,715-38	9,119-03	13,834-41
Whole amount since			
Nov. 30, 1844,	13,207-53	19,235-18	32,442-71

RAILWAYS OF MASSACHUSETTS AND CANALS OF NEW YORK.

The railways of Massachusetts which have been in operation for one or more years have cost \$23,000,000, and yield a nett revenue of 6½ per cent. on that amount. The canals of New York yielded last year 6 per cent. on their cost. Here, however, the similarity ends. The railways of Massachusetts would sell to-morrow for more than they cost: the canals of New York would not bring half cost; even the Erie canal would not command the twenty millions of dollars laid out on it. The railways of Massachusetts are used throughout the year for the transportation of both passengers and freight, the canals of New York are navigable during seven months of the year for the transportation of freight. The farmer of Massachusetts may send his fresh meat, butter, etc., to market by any railway, or other mode of conveyance he may prefer, at any season of the year; the farmer of New York is strictly prohibited from the use of railways during the summer, because that

is the only way of reaching market during the hot weather, but is allowed to use the canals whenever he pleases—in summer, because the rate of speed is too low to carry fruit, meat, butter, etc., without spoiling, and in winter, because the canal is frozen up, when the permission can do the government no harm and the farmer no good. The existing railways of Massachusetts are leading to the extension of those works in all parts of the State; the canals of New York have always been an incubus on private enterprise, and, we may safely assert, that the line of railway from Albany to Buffalo has been completed in spite of them. We could not desire a better illustration of the effects of the rival systems of governmental and private works: the former cripples the energies of the people by odious monopolies and heavy taxes, and disgraces the country by the construction of works whose cost is inversely as their usefulness; the latter bestows on the country, without any taxes, a system of works as useful and honorable in peace as they are powerful in war; affords immense facilities to the great agricultural and manufacturing interests, and, by the success which almost invariably attends its efforts, gives the greatest possible encouragement to its own extension.

MR. EDITOR: I was pleased to see in a late number of your Journal a notice of Nicoll's safety switch. Mr. N. has added a valuable appendage to railroad tracks, which, I trust, will be universally tried and adopted. The accidents which result from want of adjustment of switches are very numerous, and it is not saying too much, that Mr. N. has provided a remedy for a very serious defect in the tracks as now in use.

It is not wonderful that railroad corporations are tired of examining new patent machinery and fixtures, but the safety switch of Mr. N. really deserves consideration.

MASSACHUSETTS.

[The above is from a source which entitles it to be received with confidence.—*Ed. Journal*.]

RAILWAYS OF NEW YORK.

The official document containing the reports of the various railway companies to the legislature is not yet out. The Albany Argus gives the principal table and some remarks. We select two of the latter, and shall be happy to find the second borne out by the document itself; as for the first, it is so notoriously wrong, that the writer is probably trying the gullibility of the public; in the manner of the governor, who, after a long dissertation on the canals, their immense cost and the deep interest taken in them by the public, turns to the comparatively neglected subject of education, and its limited funds, with the sarcastic observation that "it is pleasant to turn" "to subjects the most vital to republican institutions."

"This report for 1844 exhibits a very flattering condition of the roads of this State. In the aggregate, they have reached a stage of successful operation, far beyond the most sanguine anticipations. Like our public canals, the other great arm of internal improvements, their career has outstripped even the ardent predictions of their projectors."

"By reference to the cost of construction given in the table, and deducting the cost of the Schenectady and Troy, and the Albany and West Stockbridge roads, from which no revenue is derived, the total cost of the other roads is shown to be \$17,197,251, from which are derived the aggregate income of \$1,100,016. From this statement results \$17,197,251:1,100,016 :: 1:64 or 6 4-10 per cent. on the capital invested.

"This is an increase of nearly one per cent. over the results for the year 1843.

"The railroads of Massachusetts ranged about the same for that year."

We call upon the government and the legislature to enforce rigorously and by the severest penalties, proper statements of the condition of every railway company in the State. It is openly asserted in the public prints that the reports of some companies—the Long Island and the Harlem among the rest—are anything but fair. Charges of this kind, if unfounded, would subject the writer or the publisher to heavy damages, if not indeed to imprisonment; and deservedly so.

We find serious charges against the New York and Erie railroad company, in the official report of the railroad commissioner, at the very time when another instalment is called in. The great object of the *Journal* is to give the public correct information as to the actual condition of the railroad companies in the United States, and to do this is not very easy, even with pretty full reports; but when reports are drawn up purposely to entrap the unsuspecting, all we can do is to warn the public against having anything to do with them. The legislature can powerfully aid the cause of public works by insisting on full statements of the affairs of each company. It is true that the loss falls on individuals and not on the entire community, as in the case of State works; still, so vast an interest has the public in the extension and proper management of railways, that they cannot be neglected by the legislature, without inflicting at the same time serious injury on all classes of our citizens.

We acknowledge the receipt of the reports of the Massachusetts railways from H. Williams, Esq., treasurer of the Boston and Worcester railroad, also from W. R. Lee, Esq., superintendent of the Providence railroad. We are indebted to C. M. Keller, Esq., of the patent office, for the annual report of the commissioner of patents.

Will some friend oblige us with a copy of the last report of the Camden and Amboy railroad company?

A late number of the Philadelphia Ledger contains a "Prospectus for a loan of \$500,000," for the enlargement of the Schuylkill navigation, signed by C. Ellet, C. E., and dated New York, March 1, 1845. This is the first we have heard of this affair, or we should at once have warned our citizens to have nothing to do with it. Its success is based on carrying freight on a canal at the rate of 30 cents for 108 miles, or 41 2-3 cents from New York to Albany, less than half the cost by the Hudson!

We perceive that the gentlemen alluded to in our last, as having taken hold of the New York and Albany railroad, are now in Albany laying their views before the railroad committee of the legislature. They propose to construct a road of the first order, over which the distance may be run in five hours. On the other side, the friends of the Harlem demand a charter to enable them to connect their railroad—if it may be called such—with the Boston and Albany line in Columbia county. We cannot for a moment entertain a doubt as to the course the legislature will adopt. The immediate construction of a first rate railway is the end the new company have in view, the name of the Harlem railroad at once conjures up a gambling, unproductive and miserable affair, caring nothing for the accommodation of the public, and in which no man would ever think of making an investment.

A meeting has been called in Boston to discuss the policy of uniting the Worcester and Western railroads, under the title of the Boston and Albany railroad.

STATE WORKS OF NEW YORK.

Having given the financial condition of the canals, we now lay before our readers such extracts from the report of the canal commissioners as may be required to complete the view of the public works of New York.

"The navigation on the canals was commenced on the 18th of April, and closed on the 26th of November.

"From the commencement to the close, there were but few interruptions to navigation; which interruptions, and the causes of them are particularly stated in other parts of this report.

"The amount of tolls received on the canals, has been much greater during the last than in any preceding year.

"Bats have carried as heavy cargoes as heretofore, but the great increase of business on the canals has materially added to the number of lockages."

The amount expended by the commissioners on all the works during the past year is \$720,449 93. Of this sum, \$418,692 06 were for the enlargement of the Erie canal, and \$202,106 67 were for the Genesee valley canal.

"Lockages.—A table showing the number of lockages at Alexander's lock, three miles west of Schenectady, from 1824 to 1844, inclusive, is hereto appended.

"It will be seen by an examination of this table, that the number of lockages in 1844 was greater than in any other year, with the exception of 1841. The increase of 1844 over 1843, was about 5,000, and about 2,000 less than in 1841. The great number of lockages in 1841, was occasioned by the large amount of materials boated for work then in the progress of construction on the enlargement of the canal, and not by the greater quantity of ordinary freight transported.

"The delays to navigation are said to have been very great at some of the single locks in 1841.

"Although the number of lockages on any day the past season, may not have been so great as to tax the single locks to their utmost capacity, if boats had arrived regularly above and below the locks, so that no time would be lost in filling and emptying them when no boat passed; yet the delay at times, from the irregularity of the arriving of boats, was such as to make it exceedingly inconvenient to navigators at all the single locks east of Syracuse.

"If the business on the canals continues to increase, it will soon be indispensable to its accommodation to have double locks brought into use at all places from Albany to Syracuse.

"There are from Albany to Syracuse, including those at each place, 49 sets of double locks, as the same were located for the enlargement of the canal.

"From No. 1 to 23 inclusive, these locks are completed and in use, being all the locks from Albany to and including the first one west of Schenectady.

"No. 24 has not been put under contract."

Many of the remainder are in use and all are nearly completed.

TABLE

Of lockages at Alexander's lock, three miles west of Schenectady, from 1824, when the canal was opened, to 1844, both years inclusive.

Year.	No. of lockages from opening to close of canal.	Average lockages each 24 hours.	Average No. of minutes to pass each boat.	Per cent. increase over previous season.	Per cent. decrease from previous season.	Navigation opened.	Navigation closed.	No. of days of navigable season.
21	6,116	27-92	51-57	.....	.....	Apr. 13	Dec. 4	219
25	19,935	46-15	31-20	79-61	.....	.....	.....	5238
26	15,156	62-37	23-08	37-98	.....	.....	.....	18243
27	13,991	53-95	26-69	.....	14-19	.....	.....	18241
28	14,671	54-55	26-40	12-84	.....	Mar. 27	.....	20260
29	12,619	54-86	26-25	.....	14-00	May 2	.....	17230
30	14,674	60-63	23-81	16-28	.....	Apr. 20	.....	17212
31	16,281	70-80	20-33	10-97	.....	.....	.....	1230
32	18,601	77-17	18-66	14-22	.....	.....	.....	21211
33	21,619	86-76	16-59	11-01	.....	.....	.....	12238
34	22,911	95-46	15-08	10-95	.....	.....	.....	12240
35	25,798	112-16	12-81	12-60	.....	.....	.....	15Nov 30
36	25,516	118-13	12-19	.....	1-09	.....	.....	26216
37	21,053	89-92	16-01	.....	17-49	.....	.....	2)Dec. 9
38	27,962	122-61	11-74	32-81	.....	.....	.....	12Nov 25
39	24,231	100-55	14-32	.....	13-33	.....	.....	2)Dec. 16
40	26,987	118-36	12-26	11-36	.....	.....	.....	20
41	30,320	137-19	10-57	12-25	.....	.....	.....	24Nov 30
42	22,879	103-05	13-97	.....	24-54	.....	.....	20
43	23,184	108-33	13-29	1-33	.....	May 1	.....	30214
44	28,219	127-11	11-33	21-72	.....	Apr. 18	.....	26222

It will be seen that the locks of the Chenango canal are giving out, and that this vile political job, as well as its twin brother, the Genesee valley canal, has not a sufficient supply of water to—do nothing, for, such is, practically speaking, the amount of its business. The best plan would be for the State to sell them out, or, if no purchasers present themselves, to give them away, or, failing that, to abandon them to the frogs. Indeed, the increasing demand for this fashionable description of food, would seem to point out that the case is—as the governor observes—not quite desperate; and that a considerable revenue might be derived; sufficient to warrant the appointment of an acting, or rather active commissioner, and a corps of catchers and—voters.

"Chenango Canal.—This canal is 97 miles in length, extending from the city of Utica to the village of Binghamton, in the county of Broome, where it unites with the waters of the Chenango and Susquehanna rivers at their junction.

"The locks on this canal, with one exception, are of the composite kind, built in such a manner as to admit of the timber being taken out, and others put in without destroying the masonry.

"Many of the locks give evidence that the time is not far distant when they will have to undergo a thorough repair, in order to insure good navigation. There can be no doubt that the expenses for repairs on this canal for three years to come will be far greater than for the three years past.

"The sluices around the locks were constructed of wood, and many of them have

undergone a thorough repair the last season, and others will require to be rebuilt soon.

"There is a very large number of bridges on this canal. Many have been repaired the past season, and more will require it the next.

"One new double track bridge has been built in the city of Utica across the canal on Court street, which adds greatly to the convenience of that place.

"The bottom of the canal has been thoroughly cleared out in many places, the banks have been strengthened, and good navigation maintained, with but little interruption during the season. There was, however, a time that want of water was experienced on the summit, occasioned in part by the drought, but this was of short duration.

"From the decayed state of the chambers of the locks, a very great increase of leakage takes place, which, combined with the unusual increase of lockages, renders an additional supply of water necessary.

"The capacity of all the reservoirs and feeders, was, during the past season, taxed to its utmost extent, and notwithstanding a deficiency of water was experienced, and for a short time the summit level was so low that boats could not float upon it. If the drought had continued one week longer, the navigation must have been suspended for a time.

"The commissioners, in their annual report of last year, at page 70, described the destruction of the Kingsley brook reservoir, and stated the probable expense of repairing at \$8,000. They also stated that they 'were of the opinion that the water to be furnished from this reservoir would not be required for the navigation of the canal,' and therefore had not directed the superintendent to repair it. In view of the deficiency of water experienced last summer, and for the reason that an increased demand will continue to be made the commissioners are now of the opinion that this reservoir should be repaired."

"Genesee Valley Canal.—The navigation on the finished part of this canal has been maintained through the season, with but little interruption, except on the Dansville branch.

"Since the completion of this part of the canal, there has been a deficiency of water in drought seasons to supply the lockages near its southern termination.

"The canal commissioners, in their last annual report, at pages 71 and 72, say, 'The water to supply the short levels from Dansville north to the Canescraga feeder, a distance of about three miles, is obtained from Mill creek, a very inconsiderable stream, which does not afford a sufficient supply in dry seasons for this part of the canal.'

"During the months of July and August, and the first week in September, the deficiency of water was so great as to cause serious delays to navigation, and on several occasions to prevent the passage of boats."

"The experience of the two years this part of the canal has been in use, shows the necessity of obtaining an additional supply of water for these levels."

"Similar difficulties have occurred the past year, although in a less degree.

"The Canescraga feeder has afforded less water the past season, than in any previous

year since the completion of this canal. This has occasioned some interruption to navigation on the levels north of the feeder, and between it and the Genesee river.

"Until more water is obtained, either by bringing in other streams or by constructing a reservoir on Mill creek, as suggested in the report before referred to, these detentions to navigation, will in all probability, continue to occur in low stages of water." \* \* \*

"The work on the unfinished part of this canal, generally remains in the same condition as at the date of the last annual report.

"The foundations of the locks and some of the other mechanical structures are exposed to injury, and in some instances the walls of the chambers of the locks have been injured by the action of frost upon the banks.

"The Rockville reservoir has received considerable injury from freshets. The wasteway to discharge the surplus water, has been undermined and entirely destroyed. Measures have been adopted to protect the reservoir, as far as the means at the disposal of the commissioners will allow.

"The timber and plank procured for the mechanical structures on this canal, has also been protected as far as practicable. But with every care that can be bestowed on these materials, they are rapidly going to decay.

"Only a small amount of materials have been used or sold on this canal, as provided for by the act, chapter 278, laws of 1844, as they are mostly situated at too great a distance from market, or from any navigable canal, to allow of their transportation and sale."

#### ENLARGEMENT OF THE MORRIS CANAL.

We propose briefly to discuss the prospects of this undertaking, not on account of its own importance, though that is by no means slight, but because it offers an apt and very timely illustration of the causes which have produced the failure of nearly every public work in which the merchants of this city have taken any deep interest.

Some few months since it was announced, as a matter of some moment, that a gentleman, the presiding officer of an eastern railway, just emerging from its difficulties, had been chosen president of the company which had effected the purchase of the Morris canal. It was also—if not directly stated—at least very broadly intimated, that the better standing of the stock of the above railway was mainly due to the exertions of this gentleman; therefore it was at once concluded, that a similar happy result must attend his efforts in the case of the Morris canal. Now the two cases are entirely dissimilar. We avoid names, for the Morris canal is merely chosen as an example; and, we are happy to state, that what we have heard of the abilities of the gentleman alluded to, is favorable. The eastern railway was constructed by an experienced and educated engineer, who had seen much service under Messrs. McNeill and

Whistler; it was a well constructed work and has, we have always understood, been respectably superintended. But a large portion of the funds for the construction of the road, consisted of a loan from the State of Massachusetts—a most singular move by the way—and debts to some amount were incurred. The projection of the railway was premature, hence the income for a few years was comparatively small, and, even when it had materially increased, the interest on the loan, and the payment of debts falling due, absorbed all, leaving nothing for the shareholders. Under such circumstances, there was no remedy but patience, and doubtless some tact was required on the part of the directors, to prevent an explosion among the shareholders. This is their great merit; and it is no trifling one.

Now the difficulties in the way of the Morris canal are of an engineering nature, and the services of a good man of business, though always useful, dwindle into insignificance when we examine the great and complicated engineering considerations which must be thoroughly discussed and mastered, before the enlargement of such a singular canal could be confidently recommended to the shareholders. Yet it was within a very short time of the appointment of the president, that the intention of enlarging the canal was announced all over the country, though we confidently assert, that—supposing the enlargement desirable—our ablest engineers would have required more time to investigate the case, than the present direction has taken to put the work under contract; we might almost say, than the time in which it is to be completed—the end of May, as we find it in the papers, for we have heard of no report, or the appointment of an engineer. The mere financial matters of a well constructed railway in operation, and well superintended, are within the range of the powers of any tolerable man of business; but, before determining on the enlargement of the Morris canal, we should thoroughly understand the coal trade in all its numerous branches and bearings, the cost of transportation should be well examined, and, above all, the capabilities of the present canal, as regards quantity and price, should have been laid before the public in the clearest manner, followed by an analysis of the means by which the doubling of its capacity would render it productive to the shareholders. To do this is no three or four weeks' work; and, without the least disrespect to the mercantile community, we say, that the ablest men of business in the city would find long and close study indispensable to fully comprehend this matter, even when

laid before them in the clearest manner which such an investigation admits of. We go further: the higher order of merchants—unfortunately a very small class—would be the most anxious to secure eminent professional aid, and the greater their abilities, in their own department, the higher the qualifications they would look for in their engineer: those of more limited capacity would select agents of their own calibre, for the rule works both ways to admiration. At the same time there may be some embryo Smeaton or Telford *in cog*, under whose auspices the Morris canal is to become an honor to the country; if so, we would advise the company to introduce him to the public.

Now as the company gives us no data, we must go to work with such materials as we have at hand. The cost of coal at Easton, the western terminus of the Morris canal, is \$2 50 per ton, and, unless it can be carried for \$1 50 thence to New York, the trade will seek other channels. The experience of the Schuylkill canal has demonstrated, that with boats as large as those to be used on the enlarged Morris canal, a total charge of one cent per ton per mile is ruinous. That canal is 108 miles long, and has 616 feet lockage; the Morris canal is 101 miles long, and has 1,600 feet rise, principally overcome by means of inclined planes. The lowest down freight on the Erie canal (363 miles long, with 698 feet lockage,) which yields any return, is two cents per ton per mile, and it is the large quantity of up-freight, at high rates, four to five cents per ton (2,240 lbs.) per mile, which enables them to carry flour in full loads at two cents per ton per mile. Now, assuming that freight can be carried as cheaply on the Morris as on the Erie canal—which no man in his senses can suppose practicable—the cost of coal on board the canal boats at Jersey city will be as follows: \$2 50 at Easton + \$2 00 freight to Jersey city, \$4 50 per ton, at least half a dollar per ton more than the trade can possibly afford. What the actual cost is likely to be, we may perhaps undertake to determine, when we know the capacity of the old canal, the cost per ton per mile, the expense of working the planes, the supply of water and the dimensions of the boats and locks on the old plan; then a report from some engineer of standing of the cost of enlarging the canal, after a close survey of the entire line, showing us clearly the manner in which boats of double the size would cheapen the cost of transportation, so as to render the sum required for the original purchase as well as the sum required for the enlargement judicious expenditures, will furnish us with the necessary data. These data should have

been laid before the shareholders for their sanction, obtaining which the work would be on a respectable footing. Suppose—to use the grandiloquent language of the day—that some “celebrated financier” had been appointed to the command of Perry’s fleet on lake Erie; the only difference would have been a change in two little pronouns at the end of the commodore’s laconic despatch, which would *then* have read somewhat in this fashion: “We have met the enemy, and—we are their’s.” The duties of a purser do not differ more from those of a “fighting captain,” than do the duties of the presiding officer of a well constructed eastern railway in operation, from those of the engineer who is to lead the Morris canal to success, supposing success to be attainable. We must resume the subject at some other time.

#### MISCELLANEOUS ITEMS.

**Railroad Meetings.**—Our citizens are now thoroughly aroused on the subject of the contemplated railroad from Columbus to the Lake—and we think, from present indications, that the work will not only be speedily commenced but prosecuted to completion. Two meetings have recently been held relative to the subject—the first on Thursday evening 19th inst., the second on Tuesday last. Both were very large, the proceedings spirited, and marked by the most perfect unanimity of sentiment. A considerable number of persons addressed the meetings, including some of our most substantial and influential farmers, all of whom appeared fully conscious of the vast importance of the work, and expressed their undoubting confidence of our ability, by a vigorous and united effort, to construct it.—Let the other counties but show the same spirit that Delaware exhibits, and perform their portion of the task, and there can be no doubt as to the speedy accomplishment of the work.—*O’entangy Gazette.*

**Another Railroad Open.**—On Thursday last, our ears were greeted with the steam whistle from a new quarter, and our eyes, in a short time, with a view of the new engine “Northampton” as she came puffing in to our Depot with the first train of cars upon the Northampton and Springfield Railroad, from Cabotville. On Friday at 3½ P. M. was presented the novel and imposing spectacle, henceforth to be a common occurrence, of a train of cars leaving our Depot, for each of the four points of the compass at the same hour. One for the metropolis of New England—one for the capital of the Empire State—one for the capital of Connecticut, and thence to the Commercial emporium of the Union—while another winds its way northward, to meet the coming tide of business along up the valley of the Connecticut—and ultimately we doubt not, of the St. Lawrence, taking in its course the commercial cities of British America.—Already, the consummation has exceeded the most sanguine dreams of enterprise

twelve years ago, and the indomitable spirit of New England is still pushing onward to the achievement of greater triumphs. Ten years now develop more progress than an ancient century.—*Springfield Gazette, March 5.*

**Progress of the Railroad.**—The laborers commenced work on the depot grounds, in the rear of Pleasant St. on Monday week; and they have made sad havoc with the pleasant places, where “many a time and oft,” a “weary pilgrim” has reclined his tired limbs, of a summer’s afternoon, under the shade of an old tree. The aged are filled with sadness to see the places of their childhood so changed by the “hand of improvement”; but the young are delighted with the novelty.

Hundreds flock daily to see the honest Hibernians ply the nimble shovel. They are as industrious as bees, and they remove the earth with astonishing rapidity. Some fifty horses and carts are on the ground, and men enough to keep them a moving.—*Northampton Gazette.*

**Grand Gulf and Port Gibson Railroad.**—The Railroad from Grand Gulf to Port Gibson, Miss., is to be finished at last. All the difficulties which have heretofore prevented the completion of this road are now removed, and we learn from the Port Gibson Herald, that the sum required for the purchase of the right of way, amounting to the sum of \$10,000, has been liberally subscribed by the citizens, and the agent of the road has, it is said, gone to Philadelphia to complete the arrangement by which the necessary funds (some \$70,000) will be raised for finishing the railroad.—*Ledger.*

To the Michigan Legislature notice has been given of a joint resolution authorizing the Governor to receive from individuals or corporations propositions for purchasing the works of internal improvement belonging to the state, and report the result to the next legislature.

Within a few days past a Bill has passed both branches of the Pennsylvania Legislature for the incorporation of the Wisconsin Canal Company. This Canal is one of the unfinished works of the State, although it was about four fifths completed some three or four years ago; and the object of the present legislation is to induce its completion by individuals, who will be entitled to hold it on advantageous terms. A moderate outlay will suffice to bring it into operation. The Canal will connect the State Canal at Duncan’s Island with the western terminus of the Lyken’s Valley Railroad, which latter penetrates the first or lower great Anthracite Coal field of Pennsylvania.

The Bear Mountain Railroad, which was noticed in this paper some two or three months since as being under contract, penetrates the same coal field at another point, and has its western terminus on the Pennsylvania State Canal, at a point about eight miles above Harrisburg. These two works will probably be in operation in the Spring of 1846, and as the exhaustless coal regions

which they will cause to be opened are so much nearer to tide water than any other sources of supply, their operations must rise rapidly in extent and importance. The most careful calculations of all the items of cost, including mine rent, mining, transportation, &c. show conclusively that coal of the best quality can be furnished at Havre de Grace through these works and the Pennsylvania and Tide Water Canals, at the low rate of two dollars and fifty cents per ton. At this price it is manifest that the demand will always keep pace with the supply, and we should not be surprised to see the coal trade of the Susquehanna region rising to some two or three hundred thousand tons per annum in the course of the next three or four years.—*Baltimore American.*

The Schuylkill Navigation Company have determined to let the water into the canal and open it for trade on Tuesday next, the 10th inst.

The Post says it was announced to the Railroad Committee, at the hearing Tuesday afternoon, by the President of the Eastern Railroad company, that a reduction of fares on that road would be made about April 1st, and the rates thereafter would be 25 cents to Lynn, 40 cts to Salem, \$1 to Newburyport, with a proportionate reduction at other way stations. If the Maine road consents thereto, the fare from Portsmouth to Boston will then be \$1.50.

We learn that the citizens of Canandaigua are taking into consideration the construction of a railroad from that place, along the west side of the Lake, to Bath, on the Choaetor river, thence down that river to unite with the Erie Railroad at its mouth. The distance is about sixty miles, and the route favorable; and passing through a populous and rich agricultural section of the State.

**The Aqueduct.**—We paid a visit last week to the new aqueduct, now being constructed by Mr. J. A. Roebling, across the Alleghany. Since the commencement of the work, Mr. Roebling has laboured with the utmost perseverance, day and night, to complete it within the time specified in his contract—the first of April. The suspension ropes, which extend from pier to pier in the form of an inverted arch, are to consist of seven strands of wire, each strand being about three inches in diameter. Four of these strands are already finished across the entire length of the structure, and the fifth will be completed to-day. The ropes will then be wrapped in annealed wire, (No. 14) which will render it one solid mass, and as each individual wire is varnished before it is put across, and as the whole will be painted when finished and wrapped, it will be impervious to water and consequently not liable to be weakened or impaired by the weather. On these two immense wire ropes the structure is to be suspended.—But this is not the only reliance for strength. The trunk is to be constructed from pier to pier—the sides being of solid lattice work—that is, strong beams placed in this form, XXX. The beams are to be placed contiguous to



each other for greater strength, so that when finished the trunk alone, without the wire ropes, will be a firm and strong structure, capable, not only of sustaining its own weight, but, also, of bearing up as much additional work as a lattice work bridge would do. In effect, the trunk is a lattice work bridge without arches, like those across the Beaver river. The ropes being suspended across strong stone towers placed upon the piers, are in fact inverted arches, capable of sustaining more than double the additional weight which the letting in of the water would place upon the trunk,—the trunk itself is an independent, strong and immovable structure: so that when finished, the aqueduct will not be liable to be moved, either from the swell of water or the effect of storms.

The wires are carried across the river from one pier to another, by a wheel which traverses the whole distance upon ropes unwinding the wire from the reels as it goes. The ropes are moved by horse power.

The splices of the wire are made by placing the two ends together and winding them with fine annealed wire, and it is done so strongly, that sufficient force will break the wire, but will not affect the splice. We saw this satisfactorily tested.

When finished, the large ropes are to be wrapped by machinery—the invention, we believe, of Mr. Roebling himself, which will enable him to do it efficiently and expeditiously. Labor and energy on the part of the contractor, have done every thing in his power to have the Aqueduct finished by the first of April, and if it is not completed by that time, which is doubtful, as the whole trunk is yet to be put up, he is confident of being able to do it within a short time after.

The work is one which will be a credit not only to Mr. Roebling, but to our city, composed as it is of the manufactures of our unsurpassed mechanics.—*Pittsburg Chronicle.*

**Maryland Coal.**—We notice that at the new wharf of the Maryland and New York Iron and Coal Co., Canton, the bark Daniel Webster is taking in a cargo of 400 tons of Coal from the Mount Savage mines, destined for Port au Prince. It is, we learn, designed for the use of the French Naval service.—The investigations made at Washington, in reference to the comparative value of the different coals, in our country, particularly for steam purposes, it will be remembered resulted in giving the Maryland Coal the preference. Hence this demand for foreign use. The time will come when Baltimore will be the great Coal mart of the Union.—*Balt. Pat., Monday.*

The following article from *Herapath* will be perused with interest by our readers generally, and more particularly by those in Massachusetts, where they are about establishing a Board somewhat on the English plan. It appears to be generally conceded, that something or other must be done to

prevent the public from being drawn into ruinous schemes by plausible adventurers; also to make the railways yield the accommodations which the community has a right to expect. We are not prepared to discuss this question now, but it strikes us, that the difficulty in the way of filling a Railway Board with competent members will be much greater here than in Europe. At any rate, we of New York know that such men as the Stephensons, Rennies, &c., would never rise above the rank of assistants on our State works, where liberal acquirements, a high sense of honor, and success in *civil engineering*, would present insuperable bars to their advancement. In Massachusetts, the system will work better than in New York, and, *à fortiori*, better than in Pennsylvania; an account of the more advanced state of society which brings men of a higher grade into public life. Many entertain the idea that the true plan is, to pass some general law under which individuals may associate and construct railways wherever they please, leaving it to the common sense of the public to look after their own interests as shareholders, and trusting to the spirit of private enterprise to prevent imposition by wholesome rivalry. We confess our leaning to the latter plan, but unfortunately it is impracticable in New York, as it conflicts with the purity of our republican canal institutions in a manner not to be tolerated in the Empire State.

#### BOARD OF TRADE AND THE RAILWAYS.

Many speculations have been afloat respecting the course the Board of Trade would pursue with the railways. Some expected it would take a minute view of all the circumstances of the railways, and others that it would merely give an opinion of the fitness or unfitness of certain lines in an engineering point of view, and the ability of the parties to carry them out as expressed by its various notices. Tuesday's 'Gazette,' has settled the matter to a certain extent, but still left much in darkness. It has declared which of certain lines it will report in favour of to Parliament, and which against, but it has left us no clue as to the nature and character of its intended reports to the legislature. According to the statement of Captain Laws at Brighthouse, Lord Dalhousie has determined to report decidedly on every case. If this "decidedly" means fully and specifically, the Board will have enough to do to steer clear of error, in the numerous schemes before it and from the impossibility of its obtaining that information necessary for such a report within any reasonable time. We will mention one case out of several which happened to Mr. Herapath while he was out. When he went to Leeds he was so fully, as he thought, satisfied that he could, with his previous information, easily get over all that was then to

be done, that he made his arrangements to leave Leeds in three days. However, such he found to be the difficulty in obtaining information and weighing that which he received, and in examining the plans, sections, and part of the ground, and inquiring into the nature and character of the trade of the district, that though he exerted himself to an extent which overpowered his physical abilities, it cost him sixteen instead of three days before he could leave Leeds, and then a great deal was left unfinished. The same happened at Manchester, where he was a much longer time, and at Newcastle and York. He has been heard to say that twelve months' incessant and undivided attention at the several places together, would not be enough to enable him to report satisfactorily to himself on the schemes now out. If, then, such be the labour required by a man of most active habits and intimately acquainted with all the principles and bearings of railways from their very origin, what time must be required by gentleman almost fresh to the subject, and who have not half, and, perhaps, we may say, not a tenth the facilities of getting and eliciting true information that he has?

Our opinion therefore, is that the Board will not venture to report in detail on the schemes brought before it. If it should, it will be at a great risk to its own character, and the interest of the public. No man, as was observed in two very able articles lately in the "Times," could come to a correct conclusion even on the engineering merits of a line, without a personal inspection of the ground, with the plan and section in his hand. But when the various ramifications of trade, the bearings of new schemes on existing lines, the requirements of peculiar localities come to be considered, it is extremely difficult, and we think impossible, for any body of men, however industrious and talented, to afford an opinion worth anything, unless by a cool and deliberate inspection of the locality, and making themselves masters of the subject in all its details on the spot. If any one doubts this, let him look at the account of the West Riding, &c. Railways, and the trade of the district given by Mr. Herapath, in our No. for Dec. 7th. No man can read this without being struck with the great care and circumspection, and long and laborious investigation demanded, to decide correctly, and to do justice between railways and the district they have to serve.

Railways are not like common roads, of a moderate cost and accessible at all points, in which, if an error is committed, like a silver or gold trinket, they will be worth something when of no use for their original purpose. Very different indeed are railways. When railways are made, it is at a great expense. They can only be approached at points distant from each other, and are comparatively useless to all intermediate localities. Should there be an error in their construction or position, they become like the iron castings of a great and expensive machine, useless and valueless, and the cost

of construction is just so much money wasted.

Neither is the mischief confined to a simple waste of money, however great it may be, nor to a short period. A railway once made is a fixture, and, if badly laid out, perpetuates its injury. For though another may be constructed, it is two to one if the desire of keeping as far off as possible, and the commendable principle of not allowing existing lines to be unnecessarily interfered with, do not drive it as much the other side of the true course as the existing one is on this.

To those who imagine the decision on railway subjects is easy, let him take up the Churnet Valley case, and he will find it difficult to say anything on one side, to which an equally good set off may not be made on the other. That the Churnet is a very good line no man doubts; that it is the line which ought to have been made, and would have been made, if it had not been for the blundering conduct of the government officer, is equally certain, but the difficulty is, since the Grand Junction and Manchester and Birmingham are in existence, to say whether this very good and proper line shall now be made or not. If one says that it ought not, he is met by the question, "Shall all that large and populous district between the Derby Junction, and Grand Junction, and Manchester and Birmingham railways be left unprovided with a railway, and the 400,000 inhabitants of Manchester, the capital of the manufacturing districts, be sent for ever miles further round, to support the monopoly of an ill judged line?" If on the other hand, he contends that it ought to be made, he is met directly by the following argument, "Is there not already a very good railway communication with Manchester by lines which have done the public good service? If you destroy railway property thus, by competing lines, who will invest their money in such property?—and what will be the consequence, but an abandonment of schemes highly advantageous to the country?"

Now who would hastily decide in the face of such conflicting and powerful arguments? We are in favour of the Churnet line, but we candidly admit, that the arguments on the other side are very weighty, but not so much so, as those given by us in our last, in favour of the Caornet.

The Brighton is another case of difficulty, though not equal to the former. A line is made through the recommendation of the Government officer, which ought never to have been, and the question is, whether the one originally laid out, ought now to be granted. To our mind it ought not. The public, we admit, would have been carried *via* Shoreham, on a much better line, and more comfortably, and for the benefit of commerce, Shoreham, on account of its harbour, not Brighton, is the proper place to reach first. The voice of reason was, however, not heard or not listened to, and the present Brighton line was made at an enormous expense. By this line, the Brighton public is carried in a shorter time than it

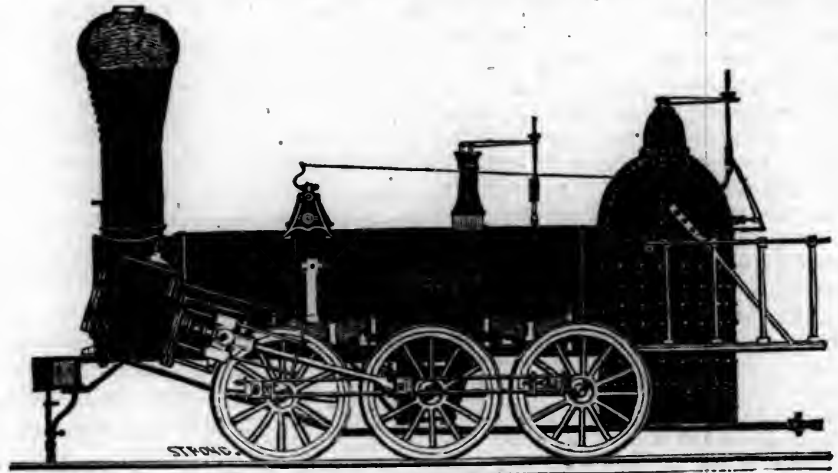
could by the other, and, there is every reason to believe, at the same expense. So that the public would gain nothing except in comfort by a new line, which cannot be put in competition with the sacrifice of so large a sum of money.

The cases we have mentioned show the very great care that is necessary in the decisions of the Board of Trade. We do not adduce them to deter the Board from the free exercise of its power, nor to prejudice the public; but if possible to increase its care and caution to avoid error to which the very best of us are so liable. An error in the Board's decision will be a matter of no ordinary importance. Government will, no

doubt, support it by the whole weight of its influence for the sake of the patronage, and Parliament will hence sanction the error, unless very glaring. What will be the consequence? Why work will be done which must have to be undone, or the public and individuals suffer by it *ad infinitum*, and hundreds of thousands, perhaps millions, spent in a mischievous rather than a beneficial object. Rash and daring decisions are, therefore, to be deprecated, and however desirable it may be for promoters of schemes to know their fate as early as possible, we would rather see the Board of Trade take time to digest and mature its opinions than to adopt error.

## NORRIS' LOCOMOTIVE WORKS

BUSH HILL, PHILADELPHIA, Pennsylvania.



MANUFACTURE their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	15 inches Diameter of Cylinder,	× 20 inches Stroke.
" 2,	14	× 24 " "
" 3,	14½	× 20 " "
" 4,	12½	× 20 " "
" 5,	11½	× 20 " "
" 6,	10½	× 18 " "

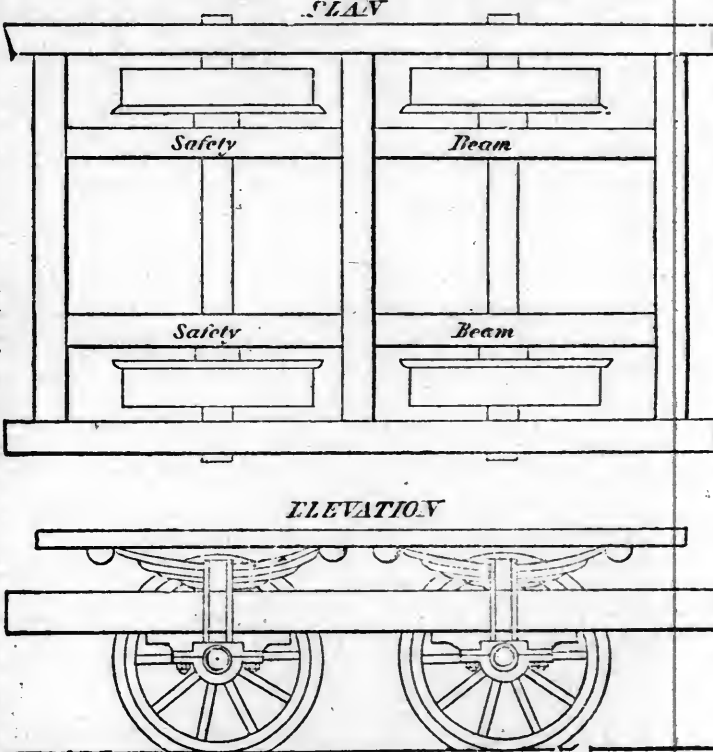
With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

NORRIS, BROTHERS.

KITE'S PATENT SAFETY BEAM.

Messrs. Editors.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.



Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,

GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,

W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.

W. R. CASEY, CIVIL ENGINEER, NO. 23. Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

REFERENCES.— Boston, Col. James F. Baldwin, Civil Engineer. Col. J. M. Fessenden, " " Wm. Parker, Esq., Engineer and Superintendent Boston and Worcester railroad. ja45

RAILROAD IRON AND FIXTURES. THE Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO., 21 Broad st., N. York. ja45 SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address: JOAN F. WINSLOW, Agent, Albany Iron and Nail Works, Troy, N. Y. ja53

LONG ISLAND RAILROAD COMPANY. Trains run as follows, commencing November 1st, 1841:

Leave Brooklyn at 8 a. m. (7 1/2 New York side)—Boston Train—for Greenport, daily, Sundays excepted, stopping at Farmingdale and St. George's Manor. Leave Brooklyn at 9 1/2 a. m. for Hicksville and intermediate places, daily; and on Tuesdays, Thursdays and Saturdays, through to Greenport and intermediate places. Leave Brooklyn at 4 p. m. for Hicksville and intermediate places, daily, Sundays excepted; and on Saturdays to Suffolk Station. Leave Greenport for Brooklyn, Boston Train, at 1 p. m. or on the arrival of the steamers, daily, Sundays excepted, stopping at St. George's Manor and Farmingdale. Leave Greenport at 2 1/2 a. m. Accommodation Train, for Brooklyn and intermediate places, on Mondays, Wednesdays, and Fridays. Leave Hicksville for Brooklyn and intermediate places, daily, Sundays excepted, at 7 a. m. and 1 1/2 p. m. ON SUNDAYS. Leave Brooklyn for Hicksville and intermediate places, at 9 1/2 a. m. Leave Brooklyn at 4 1/2 p. m. for Jamaica. Leave Hicksville at 2 1/2 p. m. for Brooklyn. Leave Jamaica at 8 a. m. for Brooklyn. Leave Jamaica at 3 1/2 p. m. for Brooklyn. ja1

BOSTON AND PROVIDENCE RAILROAD. PASSENGER NOTICE.—Winter Arrangement.—To commence Monday, November 4.

On and after Monday, Nov. 4, the Passenger Trains will run as follows: For New York—Night Line, via Sound Steamers—Leave Boston at 4 P. M. on Tuesday, Thursday and Saturday. For New York—Morning Line, via the Long Island Railroad—Leave Boston at 8 A. M. on Monday, Wednesday and Friday. Boston, Providence, Taunton, New Bedford and Weymouth Trains. Leave Boston at 8 A. M., and 3 1/2 P. M.; and Providence at 9 A. M. and 3 P. M. Taunton at 8 1/2 A. M. and 3 1/2 P. M. New Bedford, at 7 1/2 A. M. and 2 1/2 P. M. Dedham Trains. Leave Boston at 9 A. M.—3 P. M., 5 1/2 P. M. Dedham at 7 50 A. M., 10 1/2 A. M., 4 P. M. All baggage is at the risk of the owners thereof. WM RAYMOND LEE, Sup't.

FITCHBURG RAILROAD. OPEN TO ACTON.

Passenger Trains will run as follows: Leave Charlestown at 8 A. M. and 1 P. M. Leave West Acton at 7 30 p. m. 10 51 A. M., and 6 P. M. Stages, on the arrival of the first Train of Cars at Acton, leave daily (Sundays excepted) for Littleton, Groton, Townsend, Lunenburg, Fitchburg, Ashburnham, Waverham, Westminster, South Gardner, Templeton, Phillipston, Athol, Mass.; Fitzwilliam, Troy, Swinsey, Keene, Walpole, Charlestown, N. H.; Chester, Windsor, Woodstock, Rutland, Middlebury, Royalton, Montpelier, and Burlington, Vt. For further information, apply to THOMAS A. STAPLES, No. 35 Hanover st., or L. BIGELOW, No. 1 Elm st., Boston. Passengers leaving their names at the above offices, will be supplied with Railroad and Stage tickets, and conveyed to the Fitchburg Railroad Depot, free of charge. Coaches will be at the Depot in Charlestown, on the arrival of the Cars, to convey passengers to any part of the city. ja1 S. M. FELTON, Engineer.

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.

ROBERT SCHUYLER, Esq., Vice President.

J. P. JACKSON, Esq., Secretary.

J. WORTHINGTON, Esq., Treasurer.

	DAILY.						SUNDAY.	
	A. M.			P. M.			A. M.	P. M.
Leave New York, foot of Courtland street.							9	4-4
For Newark	9, 11, 12				2, 3, 4-4, 6, 7-2			
" Elizabethtown	9, 11				2, 3, 4-4, 6			
" Rahway	9, 11				3, 4-4, 6			
" New Brunswick	9				3, 4-4			
Leave New Brunswick	6, 7-2, 11-2			8-4			11-2	8-2
Rahway	6-4, 7, 8-4, 12			4-4, 9-4				
Elizabethtown	7, 7-2, 8-2, 10-2, 12			3-2, 5				
Newark	7-2, 8-4, 9, 11			11-2, 4, 5-2, 7, 9-4			11-4	9-4
For New York.	9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4-4 P. M. to meet the Somerville train, and for Philadelphia.							

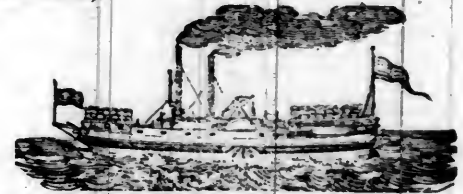
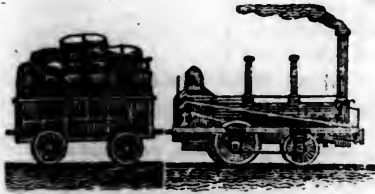
TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York			9-4	25	14-2	31-4	19-4	31-4	31-2	50
Newark	9-4	25			5-2	12-2	10-2	25	22-2	50
Elizabethtown	14-2	31-4	5-2	12-2			5	12-2	16-4	50
Rahway	19-4	31-4	10-2	25	5	12-2			11-4	37-2
New Brunswick	31-2	50	22-2	50	16-4	50	11-4	37-2		

TRAINS LEAVE	FOR	BY RAILROAD	DAYS	A. M.	P. M.	MILES.	FARE.
Boston	Portland	Eastern,	Daily,	7½	2½	106	\$3 00
Boston	Portsmouth	"	"	7½	2½, 4½	54	2 00
"	Newburyport	"	"	7½	2½, 4½	35	1 25
"	Salem	"	"	7½, 9, 11½	2½, 3½, 4½, 6	14	50
"	Portland	Boston and Maine,	"	7½	2½, 3½, 4½, 6	109	3 00
Portland	Boston	"	"	7½	3	109	3 00
Boston	Lowell	Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston	"	"	7½, 11	2, 4½, 5½	26	75
Boston	Concord	Concord,	"	"	3½	76	2 00
Concord	Boston	"	"	"	3½	76	2 00
Boston	Nashua	Nashua and Lowell,	"	7, 11	5	41	.....
Nashua	Boston	"	"	6½	1½, 5	41	.....
Boston	Worcester	Boston and Worcester,	"	7, 9	2½	44	1 25
Worcester	Boston	"	"	7, 10	6	44	1 25
"	"	"	Sundays,	7	"	"	"
Boston	Worcester	"	"	"	2	"	"
Boston	New York via Norwich	"	Mon, Wed. & Fri,	"	"	"	"
"	" " L. Island railroad	"	Tues, Thur. & Sat,	7	"	"	"
"	" " New Haven	"	Daily,	9	2½	"	"
Albany	Boston	Western,	"	9	2½	200	6 00
Springfield	Boston and Albany	"	"	8½	1½	200	6 00
Boston	New York via New Haven	"	"	7	3	"	"
Charlestown	West Acton	Fitchburg,	"	8	1, 4½	"	"
West Acton	Charlestown	"	"	7½, 10½	5	"	"
Boston	New York, via Sound steamboat	Boston and Providence,	Tues, Thur. & Sat,	"	"	"	"
"	" " L. Island railroad	"	Mon, Wed. & Fri,	8	"	"	"
Providence	Boston	"	Daily,	8	3½	41	1 50
Taunton	"	"	"	8	3½	41	1 50
New Bedford	Boston	"	"	8½	3½	"	"
Boston	Dedham	"	"	7½	2½	"	"
Dedham	Boston	"	"	9	3, 5½	"	"
New York	Greenport	Long Island,	"	7½, 10½	4½	"	"
Brooklyn	Hicksville & intermediate places	"	"	7½	"	95	2 25
"	Greenport	"	"	9½	"	26	56½
"	Hicksville, (Saturd'y to Suffolk)	"	Tues, Thur. & Sat,	9½	"	95	2 25
Greenport	Brooklyn, (Boston train)	"	Daily,	"	4	26	56½
"	" (accommodation do.)	"	"	"	1	95	2 25
Hicksville	" & intermediate places.	"	Mon, Wed. & Fri,	"	"	95	2 25
New York	Albany & Boston via N. Haven	Steamer,	Daily,	7	1½	26	56½
"	Middletown	New York and Erie,	"	6½	"	53	5 00
Middletown	New York	"	"	8, 3	"	53	.....
Philadelphia	Pottsville	Reading,	"	6½	3½	94	3 50
Pottsville	Philadelphia	"	"	9	"	94	3 50
New York	Newark	N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4½, 6, 7½	9½	25
Newark	New York	[9 A. M. and 3 P. M., con-	"	7½, 8½, 9, 11	1½, 4, 5½, 7, 9½	9½	25
"	"	nect with Morris Railroad.]	Sundays,	9	4½	9½	25
New York	Newark	[9 A. M. and 4½ P. M., trains,	Daily,	11½	9½	9½	25
"	Elizabethtown	connect with Somerville Rail-	"	9, 11	2, 3½, 4½, 6	14½	31½
Elizabethtown	New York	road.]	"	7, 7½, 8½, 10½, 12	3½, 5, 6	14½	31½
New York	Rahway	N. J. railroad and trans. co.,	"	9, 11	3, 4½, 6	19½	31½
Rahway	New York	"	"	6½, 7, 8½, 12	4½, 9½	19½	31½
New York	New Brunswick	"	"	9	3, 4½	31½	50
New Brunswick	New York	"	"	6, 7½, 11½	8½	31½	50
"	"	"	Sundays,	11½	8½	31½	50
New York	New Brunswick	"	"	9	4½	31½	50
Philadelphia	New York	Camden and Amboy,	Daily,	7	"	91	3 00
New York	Philadelphia	"	"	5½	"	91	3 00
Philadelphia	Bristol	Philadelphia and Trenton,	"	9	"	30	75
Bristol	Philadelphia	"	"	9	4	30	75
Philadelphia	Baltimore	Philad. Wil. and Baltimore,	"	8	"	93	.....
Baltimore	Philadelphia	"	"	9	8	93	.....
"	Washington	Baltimore and Washington,	"	9	5, 11½	41	2 50
Washington	Baltimore	"	"	6	5½	41	2 50
Baltimore	Cumberland and inter. places	Baltimore and Ohio,	"	7½	"	"	"
"	Frederick	"	"	"	4	"	"
Cumberland	Baltimore	"	"	8	"	"	"
Hancock	"	"	"	10½	"	"	"
Martinsburg	"	"	"	11½	"	"	"
Harper's Ferry	"	"	"	"	12½	"	"
Frederick	"	"	"	"	2	"	"
"	"	"	Sundays,	8	"	"	"
Ellicott's Mills	"	"	Daily,	7½, 12	4½	"	"
Richmond	Petersburg	Richmond and Petersburg,	"	10½	1½	"	"
Petersburg	Richmond	"	"	5½	"	"	"
Albany	Schenectady	Mohawk and Hudson,	"	8	5½	"	"
Schenectady	Albany	"	"	9	3½	"	"
Albany	Saratoga	"	"	7½	2	"	"
Saratoga	Albany	"	"	7	12½, 5	"	"
Troy	Saratoga	Troy and Saratoga,	"	"	3½	"	"
Saratoga	Troy	"	"	7½	"	"	"
Auburn	Rochester	Auburn and Rochester,	"	8½	"	"	"
Rochester	Auburn	"	"	8	3	"	"
"	Buffalo	Rochester and Buffalo,	"	"	3	"	"
Buffalo	Rochester	"	"	"	"	"	"
"	Falls	Buffalo and Falls,	"	9	"	"	"
Falls	Buffalo	"	"	"	1½	"	"
Buffalo	Albany	Albany and Buffalo	"	8½	"	"	"

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

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THURSDAY, MARCH 20, 1845.

[WHOLE No. 455. VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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FRENCH & BAIRD, Philadelphia, Pa. [See Adv.]  
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JOHN F. STARR, Philadelphia, Pa.  
MERRICK & TOWNE, do.  
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. [See Adv.]  
ROSS WINANS, Baltimore, Md.  
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## FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arrester have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore patented. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine; by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicols, Superintendent Philadelphia, Reading and Portville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Supt Hartford and New Haven Railroad; W. R. McKee, Supt Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Supt New Jersey Railroad Trans. Co.; J. Elliott, Supt Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Supt Elizabethtown and Somerville Railroad; R. R. Chyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Supt Macon Railroad, Macon, Ga.; J. H. Cleveland, Supt Southern Railroad, Monroe, Mich.; M. F. Chittenden, Supt M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

FRENCH & BAIRD.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia, Pa., April 6, 1845.

\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

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Engine, 6 wheels, weighing with wood and water about 10 tons, with Tender complete, made by Baldwin, for sale by A. & G. RALSTON & CO.  
Mar. 20, 1m. 4 South Front St., Philadelphia.

**SPRING STEEL FOR LOCOMOTIVES**  
Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent  
ja53 Albany Iron and Nail Works, Troy, N. Y.

**TO RAILROAD COMPANIES AND MANUFACTURERS** of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE,  
ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**RAILROAD IRON, AND LOCOMOTIVE**  
 Tyres imported to order and constantly on hand  
 by **A. & G. RALSTON**  
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 Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
 ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
 etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
 Albany, N. Y.

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**A. & G. RALSTON & CO.,**  
 ja45 No. 4 South Front St., Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

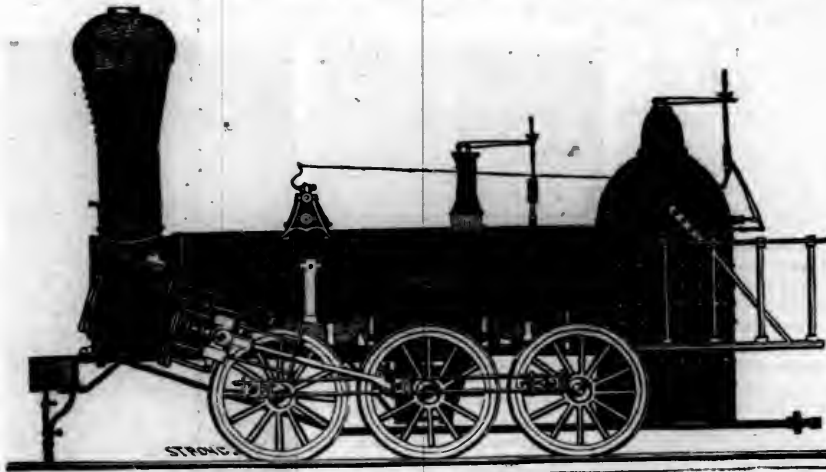
From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



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**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lycoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS**, 48 State st., or to **CURTIS, LEAVENS & CO.**, 106 State st., Boston, or to **A. & G. RALSTON & Co.**, Philadelphia. ja45

**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches Diameter of Cylinder,	× 20 inches Stroke.
" 2,	14 " " "	× 24 " "
" 3,	14 1/2 " " "	× 20 " "
" 4,	12 1/2 " " "	× 20 " "
" 5,	11 1/2 " " "	× 20 " "
" 6,	10 1/2 " " "	× 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion.

Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

SIXTH ANNUAL REPORT OF THE NEW BEDFORD AND TAUNTON RAILROAD CORPORATION.

Amount of capital stock paid in, \$400,000.  
 Amount expended on cost of road at the time of the last annual report, \$396,253 56; since which time there has been paid for land, &c., \$256 62. Total \$396,510 18.  
 Amount paid for 20-31 parts of engines, cars, &c., at the time of last annual report, \$32,239 69; amount expended since, \$2,161 83. Total, \$34,451 52.  
 Whole cost of road, engines and cars, \$430,961 70.

The receipts during the year, ending 31st December, 1844, have been as follows:

Amount received for transportation of passengers, \$46,744 63; merchandize, \$14,444 57; U. S. Mail, \$2,109; from Taunton Branch Railroad Corporation, under our agreement with them, on 1st November, 1839, \$1,708 54. Total, \$64,997 74.

The expenditures during the year, ending 31st December, 1844, have been as follows:  
 Repairs of road, \$3,786 62; repairs of engines and cars, \$6,893 77; fuel, oil, salaries and miscellaneous expenses, \$13,500 12. Total, \$24,180 51.

There have been two dividends declared during the year, of 3 per cent. each, on the amount of capital \$400,000, say \$24,000.

Statement of the number of miles run by the different trains over the road, for the year ending 31st December, 1844:

Passenger trains, 26,880 miles; merchandize trains, 12,520; clearing track of snow, 401; gravel trains, 595. Total, 40,396 miles.

NINTH ANNUAL REPORT OF THE NASHUA AND LOWELL RAILROAD CORPORATION.

The total amount of capital stock paid in, is \$380,000.

The amount expended the past year including the sum taken previously from the contingent fund, is for repairs of road and depots, \$20,618 61; for repairs of engines and cars, \$19,220 40; for fuel, salaries, and all other miscellaneous expenses, \$19,804 77. Total, \$59,643 78.

The amount received the past year, is— from passengers, \$47,165 67; from merchandize, \$44,753 84; from miscellaneous receipts, \$2,668 29. Total, \$94,587 80.

The amount expended for repairs of road and depots, and for engines and cars, includes the sum of \$18,216 41, which has been taken from the contingent fund during the last four years, and expended as the public convenience and economy required, for alteration and enlargement of depot, side track, renewals of road, and for a new locomotive engine, passenger cars, and sundry machinery for repairs.

\$5,645 68 of the above sums was included under the head of miscellaneous expenses in our last report, and has been deducted from the same item in this report.

During the past year, there has been divided from the profits of the road, \$38,000, being two dividends, one of four, and the other six per cent.

Owing to the public patronage of the road, a reduction of about 20 per cent. on

the net income of passenger fare, took place on the 1st November last. A reduction on freight of an equal amount was made the 1st May last.

The number of miles run by our locomotives during the year, has been as follows:  
 With merchandize trains, 11,900 miles; with passenger trains, 28,875; with miscellaneous trains, 1,575. Total, 42,350.

FIRST ANNUAL REPORT OF THE OLD COLONY RAILROAD CORPORATION.

The act passed March 16th, 1844, creating the 'Old Colony Railroad Corporation,' vested in the persons named in the first section of said act the choice of one of two routes. In the exercise of that authority, the said persons, after a patient investigation of the whole subject by a competent committee, adopted the route first mentioned and described in said act.

Sufficient subscriptions having been first obtained, this corporation was fully organized on the 25th day of June last, by the choice of seven directors, and the adoption of the necessary by-laws.

In accordance with the foregoing decision, after a very thorough and careful survey and examination, the line of the road has been definitely located from Little Neck, in Dorchester, to Plymouth, and the grading and masonry of the entire line has been put under contract upon terms as favourable as had been anticipated, and the work has been commenced and is now rapidly progressing. The other contracts are in a state of forwardness, and the directors confidently anticipate that the whole line will be finished and opened for use before the close of another year.

Seven thousand shares of capital stock have been created, on which there has been paid the sum of \$87,820 00.

The expenditures have been as follows:  
 For preliminary surveys, engineering and other expenses, \$3,579 50; for land and damages, \$31,095 29; amount cash on hand to balance, \$53,145 21. Total, \$87,820.

SEVENTH ANNUAL REPORT OF THE WEST STOCKBRIDGE RAILROAD CORPORATION.

The whole amount expended by the corporation for the original construction of the road, interest on money borrowed, and expenses attending the original construction, is, \$41,316 29; there is due from the corporation for money borrowed, and other debts created in constructing the road, about \$200 00; making the whole cost of the road, including interest on money borrowed, \$41,516 29.

Since the presentation of our last annual report, we have made contracts with the Berkshire Railroad Corporation, and Hudson and Berkshire Railroad Company, respectively, for the joint use of the railroad and buildings, copies of which are herewith annexed. The two corporations have occupied the road under said contracts since the first day of April last.

A dividend of four dollars per share was

made on the first of April last, the first ever declared by this corporation.

A settlement of all existing claims and differences between this corporation and the Hudson and Berkshire Railroad Company, has been made during the past year.

The whole number of miles run by passenger and freight trains on the road during the year, both being commonly run in connection, is 4258.

TENTH ANNUAL REPORT OF THE TAUNTON BRANCH RAILROAD CORPORATION

The total amount of capital paid in, is \$250,000 00.

The expenditures during the year ending November 30, 1844, have been as follows:

For repairs of the railroad,	\$6,880 51
" " " cars and engines,	3,729 80
Amount paid to the Boston and Providence Railroad Co. for their portion of the receipts from passengers and merchandize,	42,823 54
Amount paid to the New Bedford and Taunton Railroad Co., under the agreement between the two Corporations, and an account of freight,	3,757 73
Miscellaneous expenditures,	12,136 67
Expended on depots,	1,008 00
Expended for new merchandize cars,	1,189 01
Total amount of expenditures,	\$71,525 33

The income of the corporation during the year ending November 30, 1844, has been as follows:

Amount received from the transportation of passengers,	\$65,348 91
Income from transportation of merchandize,	28,920 66
Miscellaneous receipts,	2,417 08
Total amount of income,	\$96,686 65

A dividend of four per cent. has been declared, payable on June 19, 1844, amounting to \$10,000 00

A dividend of four per cent. has been declared, payable on December 23, 1844, amounting to 10,000 00

Total, \$20,000 00

The number of miles run by passenger trains over the Taunton Branch Railroad exclusively, during the year ending Nov. 30, 1844, has been 13,944

The number of miles run by merchandize trains during the same period, has been 6,930

The number of miles run by other trains, has been 696

Total, 21,570

SECOND ANNUAL REPORT OF THE WORCESTER BRANCH RAILROAD COMPANY.

This railroad, commenced in November, A. D. 1843, has been constructed from a point on the Boston and Worcester Railroad, a few rods west of the covered bridge in this town to the depot at its north terminus on Lincoln square, where a few days' labor on the turning table and connecting track will make the work complete. The railroad has been partially used since the 4th of July last, but there have been interruptions from repairs of the high embankment at the junction with the Boston and Worcester Railroad, and its use has been obstructed by the want of turning tables,

side tracks and other arrangements, which will soon be supplied.

On the fourteenth of August last, the company voted to create and offer to the original stockholders, seventy shares of new stock at fifty dollars per share, to provide funds for contracts and claims on the company.

The amount received for stock is \$3,125. do. tolls, \$-7 85; due for stock, \$25 00; Total, \$3,237 85.

There has been expended for land and construction, \$3,430 83.

The claims and accounts outstanding, are estimated at \$505 93.

#### BOARD OF TRADE AND THE RAILWAYS.

If the Board of Trade continue as it has begun it will merit the gratitude of the country. Its decisions on the Kent lines have been as judicious as they are just. Some of the schemes rejected are, no doubt, very good things, but the principle which seems to have guided the Board is a proper balance between the wants of the public and protection of existing railway interests. If present Companies can and will do that for the public which they ought, the Board has shown a disposition to support them and to crush meddling interlopers. Such conduct will give a stability to railway property and encourage legitimate enterprise, and is therefore both right and proper. But nothing the Board has yet done will admit of the inference which has been drawn from it by some. They think because it has to a certain extent protected railway property that it will crush all new schemes which affect present railways. Our conclusions from what it has done are very erroneous if it is so. We believe the Board will protect existing railways so far only as the public by that protection can be benefitted. If existing lines cannot serve the public as it should be served, then new lines to other parties will be granted, though these new lines should interfere with old ones. It would indeed be very hard if one portion of the country must be forever damned to support railways either not well planned in the beginning or not sufficiently comprehensive; or from circumstances incapable of rendering that service to the community which is wanted. We are of opinion that such lines, though respected to a certain extent, will not be fenced round by the Board of Trade in their monopoly.—*Heapath's*.

#### NEW PROJECTED RAILWAYS.

We give below the decisions of the board of trade with regard to railways, which we have arranged on a more convenient plan. We regret exceedingly that want of space deprives us of the opportunity of exposing the gross errors and flagitious transactions of the railway department. We have repeatedly deprecated these interferences with private enterprise, for we are convinced that the results will prove of most serious injury to the community and to the engineering profession—as it is, the railway engineers are already at the mercy of the government officials.

The decisions show a want of sound principles which justifies our previous doubts, and makes us very mistrustful as to the propriety of allowing powers so exorbitant to remain in such hands. The partiality exhibited towards the old companies, the disregard of public interests, and the inattention shown to the most meritorious plans, are features which eminently characterize the proceedings of the board. The rejection of the Salisbury, Exeter and Falmouth line is a prominent instance of mal-administration, and has no grounds on which it can be justified. Here is a railway proposed to pass along the existing mail route, protecting a valuable line of traffic, communicating with important towns, and having for its terminus the packet port of Falmouth, and the large and wealthy mining districts of Cornwall. The saving in the journey to Falmouth would be 46 miles, one hour and a half, and 10s., and yet all these facts are overlooked, and because there is a line of railway from London to Bristol, and another from Bristol to Exeter, the public interests are to be totally disregarded. Many cases of great flagrancy might be adduced, but the rejection of the Salisbury and Falmouth line furnishes a case which out-herods Herod, in the way of government meddling and mismanagement. We question even whether the continent could produce any parallel to this proceeding, which is equally mischievous and unjustifiable.

We would seriously urge upon engineers the position in which they now stand, and the prospects before them. The railway engineers are in a state of thralldom, the mining engineers are threatened, and the marine engineers have reason to apprehend a new attack. Three or four years ago it would have passed belief that such things should be meditated, it is even now almost incredible that they have been carried into effect. It is painful to reflect that our most eminent engineers—men who have given the profession an universal reputation—should now be dependent for employment on the fiat of a military engineer, necessarily incompetent and that their plans, estimates and designs are to be subjected to the judgment of such an individual. At present the chain is but light, yet the Stephenson, Brunel, Locke, Cubitt, Braithwait, Rastrick, Macneil and Vignoles, are as effectually exposed to dictation of the board of trade, and as completely at its mercy as it is well possible to conceive. The chain may be drawn tighter, the board of trade may become more exacting, and more meddling, but our engineers have had the bit put in their mouth, and it is with the board of trade to pull the reins. The ultimate designs of the board of trade are, on their own confession, to buy up all the railways in the country and possess themselves of them, and it then follows that the engineers will become the members of an English Corps des Ponts et Chaussees, a result which no well thinking man will desire to see produced, for it must both morally and pecuniarily injure the profession, and through them the public. We expect all therefore, as engineers and as shareholders, to make the firmest stand in behalf of the rejected lines

and against the board of trade. There must be no tampering, no paltering, no hesitation no dependence, no reliance upon anything, but the certain effects of a strong pressure from without.—*C. E. & A. Journal*.

#### MISCELLANEOUS ITEMS.

*Midland Railway.*—This Company have ordered 6 new passenger engines of a very powerful description. They are to have 6 wheels, 5½ feet driving wheels, and 3¾ feet leading and trailing wheels; 15 inch cylinders; 22 inch stroke; and are to weigh 18 tons, of which 11 are on the driving wheels. They have also ordered two new goods engines of 20 tons each, 6 wheels 4¾ feet, all coupled. The stroke is to be 24 inches, but the cylinders the same as those of the passenger engines. These engines it is computed will be about 250-horse power.—*Herapath's*.

*Cashel (Irish) Railway.*—There have been 4000 tons of rails for this undertaking contracted for by Messrs. Cruttwell Allies, and Co., of the Cwm Celyn and Blaina Iron-Works (and subsequently an additional large quantity), at £8. 6s. per ton delivered. They are of the same pattern as those introduced with so much success on the Dublin and Drogheda Railway, patented by Mr. Thomas Evans, of Dowlais Iron-Works, and weigh 92 lbs. per lineal yard, which we believe to be the heaviest rail yet introduced. The excellent and powerful machinery at these works is well calculated for turning these monster rails out well.—*Mining Journal*.

*Exportation of Iron.*—It is satisfactory to observe, that notwithstanding the almost prohibitory duties in France, Germany, and the United States, the export trade in Iron is still on the increase; and, as the railway system extends in foreign countries, which it must inevitably do, a demand will be created for the articles, the extent of which it is difficult to over estimate. The exports at present are equal to about a third of our entire production, and are in themselves greater than the entire production of 1823. The following shows the progressive increase in each year since 1836:—

1837, 206,000 tons.	1840, 284,000 tons.
1838, 271,000 "	1841, 376,000 "
1839, 269,000 "	1842, 381,000 "
	1843, 460,000 tons.

*Cast Iron Rails.*—The committee of the above company met last week for the purpose of receiving tenders, agreeable to their advertisement, for 1000 tons of cast-iron rails, as published in the *Mining Journal* of the 4th inst. The contract was taken by Messrs. Buckland, Stothert, and Co., Maesteg Iron-Works, at £4. 14s. 6d. per ton delivered. Several of the leading proprietors in this concern, headed by the experience of Mr. Buckland, are impressed with the superiority of cast-iron rails, in lengths of four and a half feet each, weighing 105 lbs. per lineal yard, over those of wrought-iron, in lengths of eighteen to twenty feet each, and are de-



terminated to put the same practically to the test. The rail now selected is of the fish-bellied order, and designed, we understand, by Mr. W. Brunton, of Eagle's Bush. The rail and chair are so ingeniously contrived as to form one casting: and although requiring to be moulded in a three part box, yet Mr. Brunton has so arranged this apparently expensive method of molding, that they are made and turned out of hand with equal facility and cheapness as the common tram plate. We understand that a rail very similar to the above was introduced thirty years since at the Butterley Iron-Works, with great success, by Mr. Brunton, and subsequently on a railroad communicating with Port Talbot. Should the expectations of the committee be realised, as to the greater durability, as well as less resistance to the waggons, together with a better adhesion of locomotive-engines, on their cast-iron rails, as compared with those of malleable iron, a great revolution will soon be introduced in the construction of railways, as well as a considerable saving. We, however, confess to having our doubts upon these points.—*Mining Journal*.

**Iron Trade—England and France.**—While the English Government has of late years been gradually liberating our iron trade from every sort of restriction, the French have been hedging in theirs with every imaginable sort of fiscal protection. Mark the results. In 1841 the quantity of coal raised in this country was at least ten times the quantity raised in France; and in the same year four tons of iron were made in this country for every ton made in France. The coal consumed in the iron-works alone of Great Britain rather more than doubled the whole quantity of coal raised in France. In England the average quantity of coal raised within the year by each person employed in coal mines was 253 tons; in France, it was only 116 tons. In France, 47,800 persons were employed in producing one-fourth the quantity of iron produced in Great Britain by 42,400. The prices of iron to the consumer in France are from 100 to 250 per cent. higher than in England. France has not even succeeded in making herself independent of foreign supplies; the quantity of coal imported in 1841 was within a trifle of half the quantity raised; and nearly 50,000 tons of British iron was imported—pig-iron being subject to a duty of £3. 2s. 6d., and plates, bars, and rods, to a duty varying from £3. 7s. 4d. to £16. 14s. 9d.—*Mining Journal*.

**A FEW PARTICULARS OF THE SCOTCH PIG-IRON TRADE.**

[From our Glasgow Correspondent.]  
Total produce in 1844, 346,200 tons.  
Exported from Scotland direct to foreign ports 39,200 tons; exported from Liverpool to foreign ports, 33,000; stock on hand here 31st Dec., about 55,000; used for home consumption, 219,000. Total, 346,200 tons.  
The average price for the twelve months was £2. 16s. per ton delivered here; the lowest number of furnaces in operation at

any period during the year was 51, and the greatest 70—being the number at present in blast.

**Caution to Engineers—Verdict of Manslaughter.**—A few days since the boiler at Mr. Morris's iron-works, Park-lane, Tipton, exploded, and killed a boy who was employed on the works. At the inquest on the body, it was proved by the evidence of scientific men, and from a careful examination of the broken boiler, that it must have become empty and red-hot, in consequence of neglect on the part of the engineer, who was absent from the engine when the explosion took place, and that it would not have happened if he had used common care and attention to his duties: it was also proved that the boilers and all the machinery were in perfect order, when H. Thompson, the man at fault, took charge of the engine, after it had been working through the night. The jury returned a verdict of manslaughter, and the engineer was committed for trial.—*Mining Journal*.

**Iron Steam Ships.**—A new war steamer has been launched at Liverpool, named the *Iron Prince*, the greatest novelty in which is having an iron deck, also iron bulwarks, and iron rigging; she is 108 feet in length, double lapped and rivetted, rigged as a three masted schooner, and propelled by the screw, and has two engines of 55-horse power.

**Geological Curiosity.**—(From a Correspondent).—A few days since, as a miner, named W. Ellis, was working in the Penydarran Mine Works, at forty-five yards depth, he struck his mandril into a piece of shale, and, to the surprise of the workmen, a frog leaped out of the cleft. When first observed, it appeared very weak, and, though of large size, could crawl only with difficulty. On closer examination, several peculiarities were observed; its eyes were full sized, though it could not see, and does not now see, as, upon touching the eye, it evinces no feeling. There is a line indicating where the mouth would have been, had it not been confined, but the mouth has never been opened. Several deformities were also observable, and the spine, which has been forced to develop itself in an angular form, appears a sufficient proof of its having grown in very confined space, even if the hollow in the piece of shale, by corresponding to the shape of the back, did not place the matter beyond a reasonable doubt. The frog continues to increase in size and weight, though no food can be given to it—and its vitality is preserved only by breathing through the thin skin covering the lower jaw. Mr. W. Ellis, with a view of giving his prize as much publicity as possible, has deposited it at the New Inn, Merthyr, where it is exhibited as "the greatest wonder in the world, a frog found in a stone forty-five feet from the surface of earth, where it has been living without food for the last 5000 years!"—*Mining Journal*.

**Iron Tubing.**—M. Hector Ledru laid before the meeting of the Paris academy of sci-

ences some specimens of cold drawn iron and other tubing. A few years ago the only tubing made in France, for gas and other purposes, except lead tubing, was made by hand. In England iron drawn tubing (by heat) without soldering, was first made, and was imported, by special permission, into France, on account of its vast superiority over hand made soldered tubes. Within the last two years the French have, in this branch of manufacture, eclipsed the English, for they now, by pressure, draw tubing cold, and it is in every respect perfect; indeed, much more perfect than the hot drawn tubing.

**TRAFFIC RETURNS OF FRENCH RAILWAYS FOR THE YEAR 1844.** (From the *Journal des Chemins de fer*.)

Seven railways 333½ miles in length, costing 205 millions of francs (8,200,000*l.*) or at the rate of 24,625*l.* per mile. The receipts for the past year amount to about 21,274,300 francs, (850,972*l.*), or at the rate of 2,556*l.* per mile per annum, by deducting 50 per ct. from that sum for working expenses, we have 1,278*l.*, which would pay a dividend of rather less than 5½ per ct.

The largest amount of the aggregate traffic for any month during the year, was carried in the month of September; although the maximum traffic on the Versailles, left and right bank, and on the St. Germain was carried in June; that upon the Strasburg and the Gard in July; that of the Paris and Rouen in September; and that of the Paris and Orleans was carried in October.

**Bolton and Leigh Railway.**—The engineers of the Liverpool and Manchester railway are engaged in making surveys of the Bolton and Leigh and Kenyon and Leigh Junction lines, with a view to the improvement of the gradients and inclines. It is understood that the Liverpool and Manchester intend to render the former line, which they have lately purchased, much more efficient, and to make the means of communication between Bolton and Leigh and Manchester more frequent than at present.—*Man. Guar.*

**Dublin and Drogheda Railway.**—The amount for passengers and parcels during the week ending 16th January, was £503; the number of passengers, 6,090.

**Railway Speculators.**—We believe that the consequences of the decisions of the board of trade, no matter what they be, will be most disastrous to several towns in the West Riding, a large number of individuals having embarked their capital, and speculated far beyond their means, in the hope of realizing immense profits from their gambling enterprise. But of course it is not possible that all the projected lines can succeed—indeed it is yet uncertain whether any of them will, notwithstanding the vast sums which have already been spent in preliminary requirements; and hence the anxiety of the speculators to know the fate of their respective undertakings. The decision of the board of trade may be considered as almost decisive, and those projects which they do not recommend may be considered as shelved for the future.—*Leeds Times*.





AMERICAN RAILROADS.													SALES.		
Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843. Income.		Div. per cent.	1844. Income.		Div. per cent.	Previous prices.	Week ending 22d February.	
							Gross.	Nett.		Gross.	Nett.			Shares.	Price.
	1 Portland, Saco and Portsmouth.	50	1,200,000				89,997	47,166	7	124,497	74,841	6	98½	3	99½
N. H.	2 Concord.	35	750,000									12	130		
Mass.	3 Boston and Maine.	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	110		
	4 Boston and Maine extension.	17 1-4	455,703	unfin.											
	5 Boston and Lowell.	26	1,863,746				277,315	144,000	8	316,909	147,615	8	118½		
	6 Boston and Providence.	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	107½	29	108½
	7 Boston and Worcester.	44	2,914,078				401,141	162,600	6	428,437	195,163	7½	116	254	116½
	8 Berkshire.	21	250,000	not stated				17,500	7						
	9 Charlestown branch.		280,260						13	34,654	13,971	5½	82½	15	82
	10 Eastern.	54	2,388,631				279,563	140,595	6	337,238	227,920	8	117½	110	109½
	11 Fitchburg.	50	1,150,000	just op'n'd						42,759	26,835		117.	23	120
	12 Hartford and Springfield.	25 1-2	400,000	400,000	2,000	100									
	13 Nashua and Lowell.	14 1-2	380,000				84,079		8	94,588	34,944	10	120		
	14 New Bedford and Taunton.	20	430,962				50,671	24,000	6	64,998	24,000	6			
	15 Northampton and Springfield.		172,883	unfin.											
	16 Norwich and Worcester.	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	73½	6,822	69½
	17 Old Colony.		67,820	unfin.											
	18 Stoughton branch.	4	67,909	unfin.											
	19 Taunton branch.	11	250,000					20,000	8	96,687	20,000	8	118		
	20 Vermont and Massachusetts.														
	21 West Stockbridge.	3	41,516	200		100						4			
	22 Western, (117 miles in Mass.,).	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	99½	291	99½
	23 Worcester branch to Milbury.		8,431	506											
Con.	24 Hartford and New Haven.	38		100,000	10,000	100							100	15	98
	25 Housatonic, (10 months,).	74	1,244,123							150,000			37	25	35½
	26 Stonington, (year ending 1st Sept.,)	43	2,600,000	650,000	13,000	100	113,889			154,724	79,845		43½	2,050	41
N. Y.	27 Attica and Buffalo.	31 1-2	268,275				45,896	7,522							
	28 Auburn and Rochester.	78	1,727,361	200,000	14,000	100	189,693	112,000					106½		
	29 Auburn and Syracuse.	26	743,931			133½	86,291	27,334					116		
	30 Buffalo and Niagara.	22	200,000		1,500								100		
	31 Erie, (446 miles,).		5,000,000										30½	738	30
	32 Erie, opened.	53						48,000							
	33 Harlem.	26	2,200,000										71	350	70
	34 Hudson and Berkshire.					50									
	35 Long Island.	95	1,884,640	392,340	29,846					153,456	70,043		79½	5,788	77
	36 Mohawk.	16 3-4	1,030,919	400,000	10,000	100	69,948	58,780		84,306	40,000		65½	100	62½
	37 Tonnawanda.	43	600,000				76,227								
	38 Troy and Greenbush.	6	180,000												
	39 Troy and Saratoga.	25	475,865				44,325	21,000							
	40 Troy and Schenectady.	20 1-2	633,520				28,043								
	41 Schenectady and Saratoga.	22	300,000				42,242	3,000	1						
	42 Utica and Schenectady.	78	2,124,013	none.	20,000	100	277,164	180,000	9				129½	15	129
	43 Syracuse and Utica.	53	1,080,219	do.	16,000	62½	163,701	72,000					115½		
N. J.	44 Camden and Amboy.	61	3,200,000				682,832	383,880					110½	59	110½
	45 Elizabethtown and Somerville.	26	500,000												
	46 Morris and Essex.														
	47 New Jersey.	34	2,000,000										91	20	94
	48 Paterson.	16	500,000									6	85		
Pa.	49 Beaver Meadow.	26	1,000,000												
	50 Cumberland Valley.	46	1,250,000												
	51 Harrisburg and Lancaster.	36	860,000										30		
	52 Hazleton branch.	10	120,000												
	53 Little Schuylkill.	29	900,000												
	54 Blossburg and Corning.	40	600,000												
	55 Mauch Chunk.	9	100,000												
	56 Minchill and Schuylkill Haven.	18	315,000						12				149	8	143½
	57 Norristown.	20	800,000										16	125	6½
	58 Philadelphia and Trenton.	30	400,000										105	5	104
	59 Pottsville and Danville.	29 1-2	1,500,000												
	60 Reading.	94	9,457,570	7,447,570	40,200	50				597,613	343,511		49	3,990	50½
	61 Schuylkill valley.	10	1,000,000												
	62 Williamsport and Elmira.	25	400,000				20,000								
	63 Philadelphia and Baltimore.	93	4,400,000				43,013	200,000			210,000		43½	4,800	42½
Del.	64 Frenchtown.	16	600,000												
Md.	65 Baltimore and Ohio, (1st Oct.).	188	7,623,600				575,235	279,402		658,620	346,946		48½	106	48½
	66 Baltimore and Susquehanna.	58	3,000,000										5		
	67 Baltimore and Washington.	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	68 Greensville and Roanoke.	17 1-2	260,000												
	69 Petersburg and Roanoke.	60	766,000										3		
	70 Portsmouth and Roanoke.	78 1-2	850,000												
	71 Richmond and Fredericksburg.	61 1-2	1,200,000												
	72 Richmond and Petersburg.	22 1-2	700,000												
	73 Winchester and Potomac.	32	500,000												
N. C.	74 Raleigh and Gaston.	84 1-2	1,360,000												
	75 Wilmington and Raleigh.	161	1,800,000												
S. C.	76 South Carolina.	136													
	77 Columbia.	66	5,299,224		34,410	75	201,464	77,456		328,425	180,704		55		
Ga.	78 Central.	190	2,581,723				227,532	93,190							
	79 Georgia.	147 1-2	2,650,000				248,026	158,207		248,096	147,523				
Ky.	80 Lexington and Ohio.	40	500,000												
Ohio	81 Little Miami.	40	450,000												
	82 Mad river.	40	400,000												
Ind.	83 Madison and Indianapolis.	56	152,000												
Can.	84 Champlain and St. Lawrence.	15	212,000					12,000		58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Thursday, March 20, 1845.

WESTERN RAILROAD.—Receipts for the week ending March 8:

1845.	1844.
Passengers, - - - \$4,395	\$3,840
Freight, etc., - - - 6,066	5,291
Total, - - - \$10,461	\$9,131

MINEHILL AND SCHUYLKILL HAVEN RAILROAD.—The following is the amount of coal transported over this road, for the week ending on Wednesday evening last:

5,660-06
Per last report, - - - 39,589-00
Total, - - - 45,189-05

THE COAL TRADE.—Sent by railroad up to Thursday evening last.—*Miners' Journal'.*

Schuykill Haven, - - - 4,362-15
Pottsville, - - - 2,655-15
- - - 7,018-11
Per last report, - - - 58,156-46
65,174-57

The receipts from the public works of Canada are rather less than those of last year, but a larger portion of the trade sought this city—hence the distress of "western New York!" The income is about \$100,000, and the interest on the debt is \$500,000, when completed, the difference will be still greater, and in the same direction.

"The business on the Long Island railroad for the present year has commenced very favorably. The receipts up to the 10th of March, as compared with last year, are

1844.	1845.
January.....	\$3,256 \$10,081
February.....	2,849 8,000
Ten days in March.....	1,117 3,000
Total.....	\$7,222 \$21,881
Increase in 1845.....	\$14,692

"This return does not include the profits from the boats, which are said to amount to a handsome sum. "On the Harlem railroad the collections are largely increased, and amount to fifty per cent. over last year, the same increase through the year will give them a receipt of \$210,000 for the year."

We find the above in the Express. It will be remembered that the Long Island road was not opened till November last; hence the increase in income. The receipts are about \$9,000 per month, but will no doubt increase greatly. The above rate of income does not clear ordinary expenses.

In the Michigan legislature, Mr. Pratt introduced a bill to incorporate the Michigan railroad company, and provide for and authorize the sale of the Central and Southern railroads.

The capitalists of Boston very coolly state that Judge Preble was somewhat in error, when announcing their hearty co-operation in the Montreal and Portland railroad. They go for Boston and nothing but Boston.

TO THE EDITOR OF THE RAILROAD JOURNAL:

SIR: In looking over the list of American railroads, I observe that you state the cost of the Hartford and Springfield railroad, (No. 11) 25½ miles long, to be \$132,852. This is an error, which, I presume, has originated in this manner. A portion of this road is located in Massachusetts, and a portion in Connecticut; in the annual returns to the legislature, the company report to either State the cost of that portion only which is located in the State to which the return is made. The amount above stated is the cost of that portion of the road which is located in Massachusetts, as you will perceive by referring to the return made to the legislature of said State.

The Hartford and Springfield Railroad was built by the Hartford and New Haven railroad company, by virtue of an amendment to the charter of the latter company; and the two roads should be considered as one—being under the control of one board of directors. I have received the last report of the Hartford and New Haven company, from which I extract the following:

Cost of the Hartford and New Haven railroad, 38 miles.....	\$1,100,000
Cost of the extension to Springfield 25½ miles.....	600,000
Total 63½ miles.....	\$1,700,000
Number of shares.....	12,000
Paid on each share.....	\$100—
Amount of loans and debts.....	500,000
	\$1,700,000

For the American Railroad Journal.

RAILROAD COMMUNICATION BETWEEN NEW YORK AND ALBANY.

With regard to the necessity of a railroad communication between New York and Albany, I believe there is but one opinion among the good citizens of Gotham—while the importance of the object is universally acknowledged; as yet but feeble efforts, and even these divided, have been made to accomplish it. The New York and Albany company, after a sickly existence of a few years, has at length yielded up the ghost. The Gosben and Albany company, the twin-sister of the former, still exists, but without the signs of life, and would ere this have been numbered among the things that were, but for the new life breathed into its charter by the legislature of 1844. It is now, however, in a state of relapse, and its healthy resuscitation can hardly be expected.

Under these circumstances, I would respectfully direct the attention of the merchants and forwarders of New York to another project of recent origin, and of the highest importance to their interests. Efforts have been made, and so far successful, that a bill has already been reported by the railroad committee of the senate, for the incorporation of a company to construct a railroad from the city of Schenectady to the village of Catskill.

Respecting the feasibility of the proposed route, I remark that in the fall of 1837, the writer of this assisted in the examination of a route for a canal across the country, from Schenectady to Catskill, when a very practicable line was found by continuing the level of the enlarged canal from the Schoharie creek, leaving the Mohawk valley, a little above and nearly opposite Schenectady, upon a level about 60 feet above the level of the canal in that city; from thence to tide water of the Hudson, at Catskill, is a descent of about 296 feet, the distance not exceeding 40 miles, and the route direct, level and gradually descending. From actual surveys and personal examination, it is ascertained that the route from Schenectady to Catskill is more direct, and the elevations can probably be overcome with easier grades than on any other

route between the Mohawk and Hudson rivers. No grade need exceed 20 feet per mile, and the distance decidedly shorter than any other travelled road. The distance from Albany and Troy to Schenectady is increased from 16 to more than 20 miles, with grades much steeper than would be necessary on the Catskill route; the whole distance from Catskill to Schenectady, as now travelled, is from 15 to 20 miles further than by the proposed railroad.

Should this road be constructed, passengers could leave New York in the morning, and sup at Saratoga in the evening. Another important advantage to be gained by the city of New York, is the increased facilities for the transportation of merchandize westward. In addition to the time gained in the spring and fall, when the navigation above Catskill is closed by ice; the increasing difficulties at the Overslaugh, and the great amount of lockage between Albany and Schenectady, are wholly avoided, thus on the average shortening the time now required for the transportation of produce and merchandize between New York and Schenectady, at least 48 hours. Experience has proved, that short railroad are commenced and prosecuted with a much better prospect of final completion than long ones. The country is full of the evidences of the truth of this remark. Hence the construction of this road would form an important link of the chain, that must ultimately connect New York with the line of railroads from Albany to Buffalo. In conclusion—I know of no route of the same extent, where a railroad could be graded with more facility and economy; nor do I know of a route, either occupied or in prospect, where a better, or even as good a reward will be offered for the investment necessary for its construction.

SCHENECTADY.

We tender our sincere thanks to J. J. D. for his very friendly communication and kind promises. It is only by such gentlemen pointing out where we are wrong, and aiding us in the pursuit of truth, that the Journal can ever become, what we desire to make it, the manual of the shareholder in public works generally.

We acknowledge the receipt of copies of the late report of the South Carolina railroad company.

Our acknowledgement of the receipt of the map of the Paterson railroad was crowded out last week. It shows that, with much better ground, the distance from Suffren's, a point on the New York and Erie railroad, to New York, is 12 miles less via Paterson than via Piermont.

The Carbon County Gazette contained lately a very good article on the vast benefits to be conferred on Pennsylvania by the New York and Erie railroad. By the bye, will either of these papers inform us whether they of the coal region experience any inconvenience from the closing of the canals during winter?

When speaking of the Harlem railroad, we mean the New York and Harlem railroad, and do not in any way refer to the railroad from Harlem to White Plains, of which we do not even know the name, or by what authority built or held.

The Hartford and New Haven railroad has declared a dividend of three dollars a share, from the earnings of the last six months. No income was derived from the road between Hartford and Springfield until the 9th December last.

For Liverpool, England—The very superior new and copper fastened A. No. 1 Barque Muskingum, W. R. Wells, master, will positively sail on Monday, for the above port—(from Cincinnati!)

## ENLARGEMENT OF THE MORRIS CANAL.

It will be readily gathered from our remarks on this project, that we consider it a mere speculation—a mode of running up the value of the stock so as to enable the present holders to sell at an advance, without the slightest care as to its ultimately becoming valuable or not. The idea prevails only too generally in this city, that canals and railways must be brought forward by mere adventurers; that they are not to be regarded by men of wealth as offering a lucrative and secure investment; but, that the great object is to cry up the value of the stock by any misrepresentations, no matter how gross, so as to entrap the unsuspecting part of the community, who, seeing the entire stock of a railway changing hands in a few weeks, at a large advance, naturally imagine there must be some foundation for such operations, and, in an unfortunate hour, become purchasers themselves, when the scene is changed in a moment; the stock is at once discovered to be worthless, they sell out in despair at an immense sacrifice to the very persons from whom they purchased, and when, in a few months, a sufficiently large flock of the uninitiated has collected to justify hopes of a good shearing, the conjurers again commence their degrading performances, which are, in our opinion, quite as disreputable as the sales of "gold watches" to countrymen, or the impositions practised in the lowest auctions cells.

We will as briefly as possible point out how this principle of action has been the cause of heavy losses to individuals in this city, and has so long retarded the undertaking of the most important works. The Mohawk and Hudson railroad was undertaken by gentlemen whose object was to sell out at an advance; they consequently paid little or no attention to the construction of the work, and the result was a wretched location and a paltry superstructure at an immense cost. Though the business has been beyond anticipation, the road has earned little, and its only chance of ultimate success rests on its most important portions being rebuilt. Still the original holders of the stock sold at an immense advance. Now, had this work been viewed as an investment and not as a speculation, the stock would have risen as high, and the purchasers would have received an equivalent for their money.

The Harlem railroad is a sort of harlequin among the "faucies," the stock varying from 8 to 80, and its actual value remaining pretty much the same thing. An enormous sum has been sunk here, and it is viewed by thousands as a beacon to warn them from having anything to do with railroads.

In the case of the Stonington road, able engineers were employed, and an admirable railway constructed, but there was no business to warrant the construction of a road, the gross income last year only reaching 6 per cent on the cost.

Of the New York and Erie railroad we have already given our opinions at length. The interests of the road were sacrificed to speculators, not in the stock, but in lands and lots through which the road was to pass, and in place of dividing 6 per cent., the affairs of the company became so confused, that a new direction was called in about eighteen months since to prevent the road sticking fast. Still we believe this great work will go on in spite of its "friends."

Of the Long Island railroad we scarcely know what to say. The charges openly made against the direction are such as to lead us to suspect the worst; and we hazard little in saying that, *this* work at least forms no exception to the general remark, that mere gambling has been the main object in view in the principal works got up in this city.

To point out the effects which have resulted from an opposite system is unnecessary. They are abundantly demonstrated in the condition of the public works of Massachusetts and of England.

## REPORT ON THE SURVEY FOR A RAILROAD FROM BLOSSBURG TO RALSTON—By Jno. C. Trautwine, Civil Engineer.

An eminent merchant of Philadelphia, to different members of whose firm, here and abroad, we are under obligations for numerous attentions, has forwarded to us the above pamphlet, accompanied by a letter, from which we take the liberty of selecting the following extract:

"In looking over the list of railroads in the American Railroad Journal, I find you have not inserted a road in which I am interested, and take this opportunity of communicating some details, which I hope may be acceptable. The road to which I allude is the Tioga Navigation company's railroad—which commences at Blossburg in Tioga county, and runs to the New York State line, a distance of 25.90 miles, and connects with the Corning railroad, a distance of 14.25 miles, the two roads are 40 miles in length, and the cost was \$15,000 per mile, or \$600,000.

"Observing in the last number of the American Railroad Journal that you call attention to the unfinished state of the Williamsport and Elmira railroad, I have taken the liberty to send you a copy of the report on the survey for a railroad between Blossburg and Ralston, which would connect the Williamsport and Elmira railroad with the

Blossburg and Corning railroads. We are making an effort to have this road finished, which will connect the N. York State works with those of the State of Pennsylvania."

We now give such portions of Mr. Trautwine's report as may be of interest to our readers.

"The route surveyed (but which I think may be shortened about 2 miles) is 24½ miles in length; and has for about two-thirds of that distance grades of 100 feet to a mile.

"Between the towns of Ralston and Blossburg, and running nearly at right angles with a line drawn from one to the other, is an elevation called the Burnt Ridge, the general height of which is about 1,500 feet above Blossburg; the latter place being exactly 500 feet above the former. This ridge presents no gaps properly so called, that can be availed of in the location of our road; but there are at certain points moderate depressions of its summit, of which I selected that which lies about 2½ miles, north of Ogden's, as the most favorable for our purpose, when considered with reference to the grades and distances required to reach the respective points of termination. This depression, where my line crosses it, is 1,335 feet above Ralston, and 835 feet above Blossburg."

"As my graded line from the summit to the point A, near Secrist's, had a descent of 116.16 feet to a mile, it will be deviated from in the final location, so far as to obtain a grade in the hill slopes of 100 feet to the mile;—which, as on the west side of Burnt ridge, will require no deviation of more than a few rods from my path."

"The road from its location throughout on the side slopes of narrow and circuitous streams must necessarily consist of a series of curves. In some few instances it may be necessary to adopt radii as short as 300 feet, but this degree of curvature is readily traversed by the six driver engines of Messrs. Baldwin and Whitney, indeed I have seen them pass a curve of less than 100 feet radius, with perfect ease.

"For crossing Roaring Branch at either of the points designated on the map, I recommend a single span of about 100 feet on Burr's plan, which I consider far superior to all other combinations for wooden bridges of large span. As this bridge will cross the stream at a considerable elevation, the railroad should be carried over its top; and it should be well weatherboarded at the sides. This will be the longest bridge on the line; but from the very small amount of work required on its abutments and approaches, its cost will be quite trifling, that of the entire woodwork probably not exceeding \$1,200."

"There will be several embankments and a few cuts, varying from 10 to 30 feet, but rarely reaching a total length of 100 feet, and some few sharp points of rocks to be blasted away. With these exceptions, the grading will consist of but little more than a transverse levelling of the road bed. As to the cost of constructing the road, it will depend chiefly on the kind of superstructure that may be adopted; the grading and bridging being as before remarked, very light.

"The mountain railroad leading from Ralston to the neighboring coal mines, over ground very similar to ours was graded, and a wooden superstructure without broken stone ballasting laid on it ready for the iron rails, at an entire expense of but \$2,000 per mile; and from a comparison of that road with the line of my exploration, I do not think that the cost of those two items, together with the bridging, will in our case exceed about \$3,500 a mile, and if a flat bar of 2½ inches by ¾ of an inch, weighing 29 tons at \$65 per ton be laid, the entire cost per mile, including spikes, splicing plates, etc., complete, would be about \$5,800 per mile.

"But I should by all means recommend several very important deviations from this plan, viz: 1st, to cover the entire graded surface with about 15 inches of coarsely broken stone, before laying the cross ties; with an additional depth of about 6 inches between them after they are laid; 2d, to Kyanize or Payenize thoroughly all the timber employed in the construction of the roadway, bridges, etc.; 3d, to employ a heavy bar rail about 2 inches wide at top, 2¼ at bottom and 1¼ deep; which I feel entirely confident, from observation, will be found greatly superior to the ordinary T rail as regards durability.

"These changes would increase the cost of the road to not more than \$10,000 per mile; or for a road 24½ miles in length, to a total of but \$245,000, a trifling sum when considered in connection with the importance of the work upon which it would be expended.

"Were the road a mere isolated one, without important connections at both ends, I should (if indeed I advised any road at all under such circumstances) recommend the lighter rail; but this is not the case with your contemplated enterprise. It forms a very short, but most important closing link in a great chain of internal improvements, extending over all the northern, middle and southern States of the Union. It is part of the shortest line of improvements, by about 200 miles between the metropolis of our country and Buffalo on lake Erie; and consequently must immediately on its completion, form the most eligible route for the transportation of merchandize, etc., from the former city, together with Philadelphia and Baltimore, to the western States, not to mention the pleasure travelling from the south to the falls of Niagara, which takes place every summer, nor the immense quantities of anthracite from the coal region of Pennsylvania, to supply western New York, a great part of Ohio, etc., which must chiefly seek this route. These sources of income, the security of which to your road, no one at all conversant with the topography of the country can for a moment doubt, supercede all necessity for entering into a detailed calculation of the probable revenue of the road, as they at once ensure a profitable return to a vastly larger amount of capital than can, without a most prodigal extravagance be employed in the construction of the work."

It will be observed that this and the Williamsport and Elmira railway have the same

end in view—the connection of the State works of Pennsylvania with those of New York, also with the New York and Erie railway, the latter being by far the more important of the two to the State of Pennsylvania. They are, therefore, to a great extent, competing lines; and their relative merits may be briefly given thus; the Blossburg route requires only 24½ miles to effect a junction, the Elmira route requires about 50 miles. The gradients on the former route are 100 feet per mile, for 16 miles, with curves of 300 feet radius: on the latter the gradients are 45 feet per mile, with a minimum radius of 1,200 feet. The distance from Williamsport on the west branch of the Susquehanna to Corning, N. Y., via Blossburg is 90 miles, and from the same point to Elmira it is only 75 miles. Taking into consideration the saving in distance, and the vast superiority in curves and gradients, the cost of transportation on the latter would not exceed half that on the former, if both were in operation. But the less eligible route only requires half the length of new railway. Of the costs of completion of the two lines we cannot speak with any confidence, though the shorter line will of course be more expensive, as it crosses a ridge, while the longer passes through a gap in the mountain, long known as the most favorable passage from the waters of the west branch to those of the Chemung.

We are under the necessity of protesting strongly against one of Mr. Trautwine's positions, that an extensive business in freight can be carried on over grades of 100 feet per mile, and around curves of 300 feet radius.

PUBLIC WORKS OF CANADA.

The "Report of the Board of Works" forwarded to a friend by an honorable member of the legislative council, is a voluminous document, got up in a very imposing form, but presenting no general view of the condition of the various works, their total cost to this time, their income, etc. Our readers will, however derive some idea of their extent and variety from the following "statement" of moneys expended by the "Board of Works," in which are not included previous expenditures and liabilities, amounting to some millions of dollars. The expenditures only come down to the 1st July, 1844, so they include only a small portion of the outlay of 1844, though they are still sufficiently formidable.

	£	s.	d.
Welland canal.....	238,995	14	10
<i>St. Lawrence Canals, viz:</i>			
Prescott to Dickenson's landing.....	13,490	19	4
Cornwall (to the time of opening the canal in June, 1843.....	57,110	4	2
Cornwall (to repair breaks in the banks since the above period).....	9,925	16	4

Beauharnois.....	162,281	19	5
Lachine.....	45,410	11	2
Expenditure on dredge, outfit, etc., applicable to the foregoing in common.....	4,402	16	3
Lake St. Peter.....	32,893	19	3
Burlington bay canal.....	18,539	11	2
Hamilton and Dover road.....	30,044	16	5
<i>Newcastle District, viz:</i>			
Scugog lock and dam.....	6,645	8	1
Whitlas lock and dam.....	6,101	7	11
Crooks lock and dam.....	7,849	9	6
Heely's falls.....	8,191	5	1
Middle falls.....	219	2	8
Ranney's falls.....	228	6	8
Chisholm's rapids.....	7,599	14	0
Harris' rapids.....	1,591	9	6
Removing sundry impediments in the river.....	185	17	0
Port Hope and Rice lake road.....	1,433	16	4
Bobcaygean, Buckhorn and Crooks rapids.....	12	0	0
Applicable to the foregoing works generally.....	6,674	1	2
<i>Harbors and Light Houses, and Roads leading thereto:</i>			
Windsor harbor.....	15,335	18	3
Cobourg harbor.....	10,381	6	3
Port Dover.....	3,121	10	4
Long Point light house and light ship.....	2,163	8	5
Burwell harbor and road.....	136	10	0
Scugog road.....	1,292	6	3
Port Stanley.....	16,242	10	10
Rondeau harbor, road and light house.....	60	4	2
Port Stanley road.....	24,335	13	5
Expenditure on outfit, etc., applicable to the foregoing in common.....	2,328	13	7
River Ottawa.....	35,603	13	6
Bay of Chaleurs road.....	15,736	16	11
Gosford road.....	10,801	10	10
Main North Toronto road.....	686	19	4
Bridges between Montreal and Quebec.....	20,809	19	11
Cascades road.....	13,287	19	6
London and Sarnia road.....	19,837	5	11
London and Brantford road.....	36,182	18	5
London and Chatham, Sandwich and Amherstburgh road.....	12,789	0	1
River Richelieu.....	92	4	0

The Welland canal is to be finished this year. The tolls through, 26 miles, are 8½ cents per barrel of flour, 11½ cents per barrel of pork, 20 cents per barrel of ashes, coal and pig iron 50 cents per ton, boards 75 cents per M. feet and merchandize one dollar per ton. Vessels of 50 tons and upwards pay three dollars. The tolls on this canal are 32 mills per barrel of flour per mile. On the Erie canal they are one mill per barrel per mile. The tolls on coal are 50 cents for 26 miles, and the Schuylkill canal company expects the freight on 108 miles to be only 30 cents after the canal is enlarged. The great size of the Welland canal renders high tolls necessary, and its trifling length prevents their being injuriously felt.

We are glad to find here the receipts for 1842; these were carefully left out when all the papers were publishing the increase in the trade of this canal. They were for 1841 £20,210 19s. 9d.; 1842, £23,946 19s. 6d.; 1843, £16,135 7s. 8d.; 1844, £25,573 3s. 10d. The small increase from 1842 to 1844 did not suit the views of certain persons. The reason of the sudden fall from 1842 to 1843 is to be found in the circumstance, that heavy losses attended all shipments of 1842, and numbers were ruined in Montreal and Quebec. The American trade in 1844 brought

the receipts up to those of 1842. The friends of discriminating tolls said nothing of the diversion of trade to the Welland canal in 1842, because it paid no toll to the State of New York; but the trade of 1844 passing by Oswego contributed to the revenue of the State, and to the business of our citizens. Discrimination may be defined thus: "it is better that the western trade should be sacrificed than that Oswego should be benefited."

The other canals of the province are pretty much like the Chanengo, Black river and similar abortions here, of which we are disagreeably reminded by the tax-gatherer in his never failing rounds. Taken altogether, they deserve a high stand among the government works of this country; and, if disposed to bet, we would back them against any works in America for greatness of cost and smallness of income. As was observed by an engineer intimately acquainted with the public works of the province, "they are literally carrying out the views of Dean Swift's philosopher, whose highest ambition it was to confer on his country a race of sheep without any wool." (*Journal*, 1843, p. 274.) In fairness we must admit that their qualifications are beyond the possibility of doubt.

REPORT OF THE SURVEY OF THE PROJECTED LINE OF RAILROAD FROM STANSTEAD TO MONTREAL VIA SHERBROOKE AND ST. HYACINTHE—By *Wm. P. Crocker, C. E.*

A copy of this report has also been kindly forwarded to us by the gentleman to whom we are indebted for the report of the board of works. We are thus enabled to give our readers some idea of the nature of the route in Canada, or rather of one of the routes, for it appears that Mr. Crocker only examined the circuitous route which appeared to present better ground.

The line commences 2½ miles within the State of Vermont, and enters Canada at the village of Rock Island, thence to Halley, 12 miles, thence to Waterville, 11 miles, thence to Sherbrooke, 10 miles, thence to Melbourne, 15 miles, thence to St. Hyacinthe, 35 miles, thence to Longueuil, a little below Montreal, 40½ miles. Total distance 123½ miles, and estimated at \$2,225,059, with the ordinary T rail, 56 pounds to the yard, estimated at 1d. currency per pound, a singular mode of reckoning, which for the benefit of readers on both sides of the lines, we will translate into \$37 20, or £9 6s. cy. per ton. The highest gradients we observe, are 71½ feet per mile for a distance of nearly 7 miles in two portions, and 79½ feet per mile for 3¼ miles continuous. The engines, cars and buildings are estimated at \$87,000.

The committee have appended some "statistical information" as to the probable income, the recapitulation of which is:

Passengers.....	£18,780
New England tonnage.....	3,125
Eastern township tonnage.....	4,000
“ “ cattle.....	1,000
“ “ pork, horses, sheep.....	1,550
“ “ salt.....	750
“ “ potatoes.....	5,000
Sawn lumber.....	3,000
Seigniorial tonnage and agricultural products.....	7,250
Cordwood.....	9,250
Mails.....	1,000
	£54,705

"In the foregoing estimate it will be observed that the *present* position of affairs only has been considered. The committee have, however, every confidence in believing that the construction of the railway would cause an immense and immediate increase to every present branch of business and industry, and a corresponding beneficial result to the railroad proprietors."

They further observe,

"By the foregoing statement it would appear that the committee anticipate a trade in certain specified items, amounting to £54,705.

"The annual expense of working the railroad when constructed, is estimated on the results of several railroads in the United States at the same rate as the Eastern railroad in Massachusetts:

The annual expense for the entire distance of 123½ miles would be	- £21,621 10s.
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At the rate of the Western railroad, which is believed to be the most expensive, it would be	- 29,782 10
	£51,404

The average being	£25,702
Leaving a disposable surplus of	£29,003

"The expenditure on the construction of this railroad will be found by the accompanying report from the engineer employed to be estimated at, say in round numbers, £550,000.

"It may therefore be anticipated, if the foregoing estimates are founded on correct data, that the railroad will yield a return equal to about five per cent. on the capital invested without considering the progressive increase of traffic which its establishment will occasion."

WESTERN RAILROAD.

The bill to increase the stock of this corporation was discussed in the senate, on Tuesday, and passed to a third reading by a large majority. So far as we understand the views of the stockholders, who have unanimously voted to ask for the increase, they represent that they have placed in the sinking fund, towards the payment of their debt, which matures thirty years hence, the sum of \$390,000—that \$60,000 of this amount was derived from the *actual nett income* of the road. Consequently, the stockholders, including the State, have received on their 30,000 shares,

\$2 per share dividend less than they otherwise would have received. It is the uniform policy of the New England railroad companies, to keep the "income account" totally distinct from the "construction account." Had it been otherwise, the Lowell, the Worcester, the Eastern and other roads, would not have paid a dividend to this day. When the "construction account" of these roads is increased new stock is created to represent it, and the nett earnings are divided, after paying for the expenses, repairs, etc. The petitioners ask that there may be no invidious distinction made between them and other companies—they do not wish to disturb the sinking funds, but simply ask the privilege of creating as much new stock, to be sold at not less than \$100 per share, as will represent the amount of actual nett earnings fairly belonging to "dividend account," but paid by them to the sinking funds, to be locked up for thirty years. This they consider to be a hardship, and greatly to the detriment of their property. The State has received this year a dividend of \$30,000 on its third, say 10,000 shares; but if the directors had been allowed to divide the real nett income, as other roads do, the dividend would have been \$50,000, and the patriotic stockholders would have received in like proportion.

The bill, as passed and amended by the senate, 27 to 4, provides that \$330,000 of the \$390,000 shall be expended upon the road, *in construction*, from time to time, as the increased business of the road may render it necessary; and that the remainder, being the amount actually paid in out of the nett earnings, shall be added to the general receipts of the road, to be disposed of as the directors (four on the part of the State and five on the part of the private stockholders) may in their discretion think proper, viz: for repairs, depreciation or dividends, thus placing the stockholders of this road upon a par with those of other roads in the commonwealth; and it cannot be denied that they are as deserving as any others. In the mean time, the operations of, and the payments to, the sinking funds, are to go on the same as before, and will be sufficient, at the end of thirty years, to redeem the whole debt, leaving the cost of the road represented by shares of \$100 each.—*Boston Courier*.

*New York and Hartford Railroad.*—A railroad through the interior of Connecticut from Hartford to New York, is one of the best openings for the investment of capital that presents itself in the whole Union. Unlike a road on the borders of the sound, it would have no competition—the borders are already well supplied with steamboats and sail craft, from every inlet. But a road from Hartford or Meriden, which shall nowhere approach within twenty miles of the coast, and passing through a dense manufacturing and agricultural region, would have almost if not quite sufficient within itself, in its way travel and freight to pay the interest on the cost of the road. In addition to this it would be nearer by from 20 to 30 miles than any other road could be, and would consequently command more of the long travel from New



York to Boston than all the other roads combined. The road would go through or in the immediate vicinity of, so as to command the communication of Farmington, Waterbury, Bristol, Plymouth, Woodbury, Middlebury, Southbury, Newton, Danbury, etc., a region of country that would be eminently benefitted, and to open a communication with which would be beneficial to Hartford as well as to them. This road, once opened, would be the great track of eastern travel, and the stock as an investment, would pay a very large per cent. I know of no road that could equal it, certainly none of equal length. It would command all the travel from the great commercial metropolis eastward, in winter, and three-fourths of it in summer. On it would be transported the whole of the great mail, paying the highest rate of travel, as well as thousands of tons of merchandize that are now sent down to the different ports on the sound. Such an opening for enterprise and for capital is not to be found unoccupied, and scarcely even occupied on the continent.—*Hartford Times*.

#### Augusta, March 8th.

The Georgia railroad is in full operation to Covington. The grading and bridging is complete to the State road, except a few weeks light grading near the terminus, and a few hundred yards of work about 11 miles above Covington, and about three weeks work about Yellow river bridge.

The wooden structure is complete for about 10 miles beyond Covington, and the iron (delayed by the bridge) has nearly reached Yellow river. There can be no other delay, and there are now two companies laying it down, with a contract for completion by the 1st of September, which they inform me will be done. The nett income for the past six months \$111,280.—*Charleston Mercury*.

**Railroad Business.**—Although the passenger house of the Western railroad corporation in this town, was thought to be very large and ample for the wants of the company, when first built, is now found insufficient with the cars and passengers from the southern and northern railroads pouring into it, or, rather, around it, the company will ultimately be under the necessity of removing it, and building a larger one, for the accommodation of the new intersecting roads. This depot must become an immense transit for passengers and goods to the four points of the compass.—*Springfield Republican*.

The account we gave in our commercial department on Saturday, of the imports at Trieste, did not include six or eight large locomotives, made in this city by Mr. Norris, and shipped to that port for the great railroad. We may add that twenty-four of these locomotives have been ordered to be sent to Trieste, about half of which have been already shipped, and the others are being completed; while to several other ports on the western side of the continent, other engines of the same kind and from the same manufactory, have been sent. This is indeed a triumph of Philadelphia skill. Success to it and those who assist in its development.—*U. S. Gaz.*

We learn that goods were forwarded from this city on Saturday, to Pittsburg, by way of the Baltimore and Susquehanna railroad, and the Pennsylvania canals. It will be seen by the advertisements that the several transportation lines are now receiving goods to be forwarded by the above route; and the freights we understand are moderate.—*Balt. American*.

**Presentation of Plate to Mr. Brunel.**—On Friday last a sumptuous entertainment took place at the Albion tavern, on the occasion of presenting Mr. I. K. Brunel, the engineer to the Great Western, Bristol and Exeter, Bristol and Gloucester railways, and other great public works, a testimonial of the high appreciation of his services. The chair was taken by Mr. Charles Russell, M. P., the chairman of the Great Western railway, and nearly a hundred of the subscribers sat down to dinner. The testimonial, which, prior to the entertainment, was exhibited in an adjoining room, is of very beautiful workmanship, and consists of a centre piece, and four accompanying ornamental dishes for fruit or flowers, with six salt cellars, all of silver gilt, in the style of Louis XIV. The value of the testimonial is upwards of 2,000 guineas, and the subscriptions were limited to the sum of 10 guineas from each subscriber. The centre piece consists of a magnificent candelabrum, surmounted by a beautifully designed group of figures, representing on the base, or plinth, rising from the pediment between the brackets, Science, Genius and Invention aiding Commerce; while around the base are groups representing the four seasons. Elaborately wrought scrolls spring from the curved sides, supporting the candelabra for containing 12 lights. This costly and chaste designed ornament, which was executed by Mr. B. Smith, of Duke's street, Lincoln's Inn Fields, measures 34 inches in height, is 30 inches square, and the weight of it is about 1,500 ounces. The flower and fruit dishes are of a triangular form, each being 12 inches in height and 14 inches in diameter. They have very rich scrolls, with groups of figures round the pillars supporting baskets, exquisitely designed, and weight together about 750 ounces. The six salt cellars are of a massive and highly wrought character, circular in form, with very rich feet, composed of figures riding on dolphins, the weight of the six being about 100 ounces.

Immediately on the cloth being removed, a table bearing the testimonial was exhibited to the company amidst deafening cheers. And the usual loyal toasts having been given and responded to, the chairman proposed—"The health of their distinguished guest, Mr. Brunel," and in doing so paid a high and well merited tribute of praise to the ability and energy displayed by him, as well in the execution of the Great Western railway, as in the other important works in which he has been successfully engaged.

The toast was drunk with three times three and one cheer more, reiterated again and again.

Mr. Brunel, who was evidently affected by the very warm manner in which the toast had

been responded to, briefly returned thanks, and adverted with much feeling to the difficulty under which he labored in returning thanks, surrounded as he was by many of those with whom he had become acquainted in the course of his railway experience, but whose professional connection with him had ripened into a hearty and lasting friendship. It was indeed a source of deep gratification to receive a testimonial from and amidst such friends, and they would believe him when he said that his gratitude to those who had manifested so much kindly feeling towards him amounted almost to a feeling of pain from his inability to express all that he desired to give utterance to. (Loud cheers.) They would permit him to repeat that his feelings overpowered him, and that he would only say the kindness he had this day experienced would never be effaced from his memory. (Cheers.) In his heart it would dwell forever. Renewed cheering.)

The next toast was also that of "Sir Isambard Brunel," which was also drunk with three times three.

Among the toasts that followed were those of the "Chairman," "Mrs. Brunel" and "Mr. C. A. Saunders, the secretary of the Great Western railway."

Mr. Saunders, to whose able negotiations the present high standing of the Great Western railway may be truly said to be mainly ascribed, in returning thanks, made the important railway announcement that the differences between the Great Western and the South Western railways had been amicably settled.

The dinner was admirably provided by Messrs. Staples, and indeed it partook rather of the comfort, quiet and elegance of a private party, than the bustle and inconvenience almost inseparable from a public entertainment.

The inscription, which we have omitted to mention, in describing the candelabrum, on which it is engraved, is as follows:

Presented to

ISAMBARD KINGDOM BRUNEL, ESQ.,  
the Engineer in Chief of the Great Western, the Bristol and Exeter, the Cheltenham and Great Western Union, and the Bristol and Gloucester railways,

By 257 Subscribers,  
to commemorate the completion of those great national works, and to record their admiration of the science, skill and energy manifested in the design and execution of them, their gratitude for the advantages conferred on themselves and the public; and their esteem for the integrity and worth of his personal character.—*London Morning Herald*.

**South Devon Railway.**—The tenders for twenty-four engines—sixteen of 43-inch cylinder, or about 45 h. p., and eight of 12 h. p.—were received in the early part of the week at Exeter, by Mr. Brunel, and the authorities of the South-Devon railway, which is to be worked on the atmospheric principle. The contracts were taken by Boulton and Watt and Messrs. Rennie; the amount, from £40,000 to £50,000. The principal Cornish engineers and founders were in attendance.

## GERMAN RAILWAYS.

The following particulars will be found interesting in continuation of the notices we have already published on the subject of the German railways.

From the city of Hanover to that of Brunswick, a distance of 40 English miles (and in speaking of miles throughout, we of course take the English and not the German miles), the line is in full operation, and has been for nearly nine months past. From the last-named city to Oschersleben, a small township in Prussia, there is a continuation of railway for 30 miles; and this distance, as likewise the line from Brunswick to Hanover, has been constructed entirely at the expense of the two Governments. At Oschersleben the Brunswick line forms a junction with the Magdeburg and Halberstadt Railway, also 30 miles long, and terminates at the city of Magdeburg, and at the same terminus as the Magdeburg and Leipzig line. The last-named railway, viz., the Magdeburg and Halberstadt, has been constructed by a Company, and the shares are principally in the hands of the merchants of Magdeburg and the landed proprietors of the Halberstadt district, and runs through one of most fertile agricultural countries in Europe. The cost of this line has been about £7,095 per mile, and pays about 6 per cent. interest to the shareholders, besides leaving nearly 2 per cent. more in the hands of the Directors towards defraying the cost of a second line of rails. All these lines are single at present.

We have next the Magdeburg, Cothen, Halle, and Leipzig railway, with double line of rails, which cost about £9,020 per mile. This railway forms at Cothen (the capital of the Duchy of Anhalt-Cothen) a junction with the Berlin Anhalt-Cothen Railway, and conveys the passengers from Magdeburg to Leipzig, a distance of 72 miles, in about four hours, including stoppages. The management of this line was left entirely in the hands of Mr. COSTENOBLE from 1839 to the commencement of the present year, and the Company has to thank this gentleman for the eminent services rendered them; and it is universally admitted that the discipline observed upon this line cannot be rivalled. The dividends of this Company are limited to 10 per cent. by law, and over this amount the fares, &c., are reduced. Since opening this line, in 1839, a new line of rails has been laid down from the surplus capital, and still the proprietors have been in the receipt of from 6 to 8 per cent. on their shares. The traffic has been yearly increasing, and being so central a place, the merchandise from the steamboats plying up the Elbe from Hamburg, and along the Brunswick and Halberstadt Railways, together with the passengers, fall to this Company.

The next line of importance is that between Anhalt, Cothen and Berlin. The distance is 96 miles, and being a single one the cost is only £6,910 per mile. This may be said to be one of the best conducted railways in Germany; the promptitude in

the conveyance of goods, and the great attention and civility paid to passengers, cannot be surpassed anywhere—and above all, the extreme care taken to prevent accidents, by the strict discipline observed among the employés, is remarkable. The distance is performed in five hours, including a great many stoppages, as this line runs through a very populous district, and the large towns of Trebbin, Luckenwalde, Luterbog, Wittenberg and Dessau, are close to it. Between Wittenberg and Dessau it crosses the Elbe, in two separate branches, and the bridge is considered a masterpiece of architecture.

At Berlin, the Chairman of the Company, Major VON CRONSTEIN, and the assistant Managing Director, Mr. SZEPAKICK, are invariably found at their posts, superintending the starting of trains, twice a day; and if the locomotive does not sound the whistle at the *very moment* the clock announces the precise time of departure, the Major may be seen twisting his moustachios as expressive of his displeasure at the negligence of the conductor. The machine master on this line, Mr. WILLIAM ROBSON, formerly in the employ of Mr. STEPHENSON of Newcastle, enjoys the full confidence of the Directors for the great attention paid to the locomotive department, and it is well known that the expenses of working this line are less than the majority of the other lines. And considering the great cost of fuel, having to draw their coals from England for preparing coke, and other necessities for repairing their locomotives, this Company does well to pay between 7 and 8 per cent. besides adding to their reserve fund. The active original proprietor of this line was the celebrated Mr. DANNERBERGE, a gentleman well known for his industrious and talented pursuits as a chemist, and the founder of one of the largest calico printing works on the Continent.

The traffic on the Berlin-Anhalt-Cothen Railway has very much increased since the opening of the Berlin and Stettin, and Berlin and Frankfort lines, conveying to it the produce of the Baltic on the one side, and that from the Polish provinces on the other; and it will no doubt remain one of the standard lines of Prussia. When the Hamburg and Berlin line is opened, a further increase of traffic must fall to its share, as a great portion of that which now exists between the Elbe and Magdeburg will take a more direct communication. The journey from Berlin to Dresden, via Leipzig or to Hanover, via Magdeburg and Brunswick, takes now one day—and there is time sufficient at either of the intermediate places to transact commercial business, if requisite. There are two passenger and two merchandise trains departing and the same number arriving daily. From Berlin to Hanover, a distance of 230 miles, the fares are, First-class carriage 27s. Second-class 18s., Third-class 11s. 1d., and from this it follows, taking the cost of travelling from London to Birmingham, a distance of 112 miles, in a first-class carriage, at 30s., and from Berlin

to Hanover, a distance of 230 miles, at 27s. that English railway travelling is exactly 127 per cent. dearer than German, in which latter country everything appertaining to railways is so much dearer than in the former, and when they have to draw all the principal ingredients for preparing, and then for carrying on their operations, such as rails, locomotives, and fuel, from England!

The carriages on the Prussian lines are, throughout, very comfortably arranged, and the second class are cushioned, and closed with glass windows.

Near the terminus of the Berlin-Cothen line is that of the Berlin Potsdam, 18 miles long, and opened since 1838, connecting the capital with this splendid town (the Windsor of Prussia), which is the favourite residence of the Royal family, and a place of great resort to the people of Berlin for amusement; the country round about being full of splendid residences of the nobility and Court, and the scenery most magnificent.

Trains leave 5 times a day, and run the distance in one hour: first-class carriage 2s.; second-class, 1s. 6d.; and third-class, 1s.—*Railway Times.*

**RAILROAD IRON AND FIXTURES.** THE Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO.,  
21 Broad st., N. York.

ja45

**S. VAIL, PROPRIETOR OF THE SPEED-** well Iron Works, near Morristown, N. J., can supply at short notice railroad companies and others with the following:

Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyres made, and they may rely upon being served according to order, and also punctually, a large quantity in the straight bar is kept constantly on hand. Crank axels for locomotive engines, made from the best Pennsylvania iron. Straight axles for locomotives for outside connection engines. Frames for engines. Wrought iron work for steamboats, and shafting of any size. Cotton Screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen:

Baldwin, Vail & Hufty, Philadelphia; Wm. Norris, Philadelphia; N. Campfield, Savannah, Ga.; J. & S. Bones, Augusta, Ga.; D. F. Guez, N. Orleans, La.; Adam Hall, N. York; J. P. Allaire, N. York; William Parker, Boston, Mass.; George W. Schuyler, N. York.

ja46

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,  
Reading, Pa.

ja45

KITE'S PATENT SAFETY BEAM.

Messrs. Editors.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

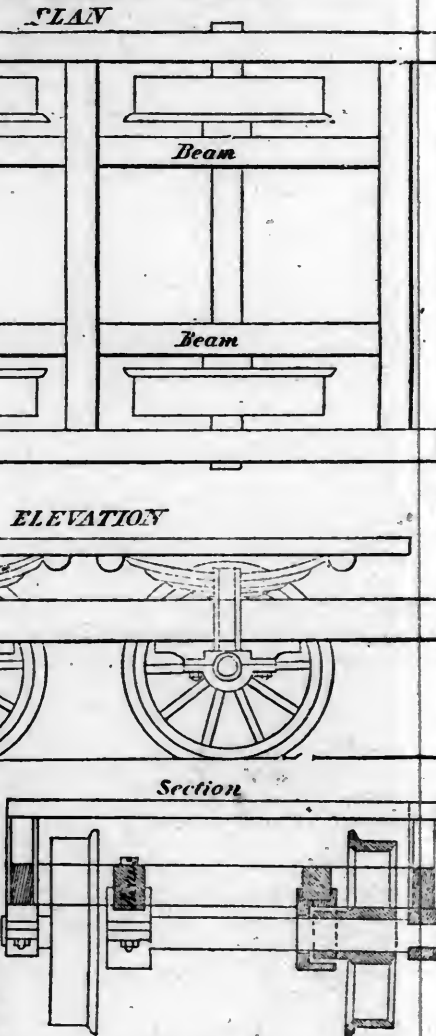
The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,

GEORGE CRAIG, Superintendent,

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES. —

Boston, { Col. James F. Baldwin, Civil Engineer.  
Col. J. M. Fessenden, "  
Wm. Parker, Esq., Engineer and Superintendent  
Boston and Worcester railroad. ja45

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co., Boston.

MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, PATTERSON, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.

ROBERT SCHUYLER, Esq., Vice President.

J. P. JACKSON, Esq., Secretary.

J. WORTHINGTON, Esq., Treasurer.

	DAILY.				SUNDAY	
	A. M.		P. M.		A. M.	P. M.
Leave New York, foot of Courtland street.						
For Newark.....	9, 11, 12.....	2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4 3-4, 6.....				
" New Brunswick.....	9.....	3, 4 3-4.....				
Leave						
New Brunswick...	6, 7 1-2, 11 1-2.....	8 3-4.....	11 1-2	8 1-2		
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12.....	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	1 1-2, 4, 5 1-2, 7, 9 3-4.....	11 3-4	9 3-4		
For New York.						
	9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.					

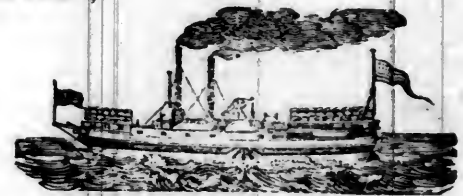
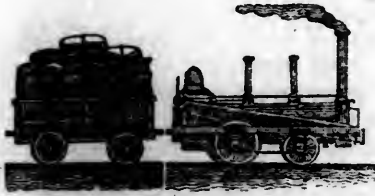
TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....										
Newark.....	9 1-4	25	9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2	5 1-2	12 1-2	10 1-2	25	22 1-2	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2	5	12 1-2	16 3-4	50
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2	11 3-4	37 1-2

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS.	A. M.	P. M.	MILES.	FARE.
Boston	Portland		Eastern,	Daily,	7 $\frac{1}{2}$	2 $\frac{1}{2}$	106	\$3 00
"	Portsmouth		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	54	2 00
"	Newburyport		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	35	1 25
"	Salem		"	"	7 $\frac{1}{2}$ , 9, 11 $\frac{1}{2}$	2 $\frac{1}{2}$ , 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14	1 50
"	Portland		Boston and Maine,	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	109	3 00
Portland	Boston		"	"	7 $\frac{1}{2}$	3	109	3 00
Boston	Lowell		Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston		"	"	7 $\frac{1}{2}$ , 11	2, 4 $\frac{1}{2}$ , 5 $\frac{1}{2}$	26	75
Boston	Concord		Concord,	"		3 $\frac{1}{2}$	76	2 00
Concord	Boston		"	"		3 $\frac{1}{2}$	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11	5	41	
Nashua	Boston		"	"	6 $\frac{1}{2}$	1 $\frac{1}{2}$ , 5	41	
Boston	Worcester		Boston and Worcester,	"	7, 9	2 $\frac{1}{2}$	44	1 25
Worcester	Boston		"	"	7, 10	6	44	1 25
"	"		"	Sundays,	7			
Boston	Worcester		"	"		2		
Boston	New York via Norwich		"	Mon., Wed. & Fri.,		4		
"	" " L. Island railroad		"	Tues., Thur. & Sat.,		7		
"	" " New Haven		"	Daily,	9	2 $\frac{1}{2}$		
"	Albany		Western,	"	9	2 $\frac{1}{2}$	200	6 00
Albany	Boston		"	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	200	6 00
Springfield	Boston and Albany		"	"	7	3		
Boston	New York via New Haven		"	"		2 $\frac{1}{2}$		
Charlestown	West Acton		Fitchburg,	"	8	1, 4 $\frac{1}{2}$		
West Acton	Charlestown		"	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	5		
Boston	New York, via Sound steamboat		Boston and Providence,	Tues., Thur. & Sat.,		4		
"	" " L. Island railroad		"	Mon., Wed. & Fri.,	8			
"	Providence		"	Daily,	8	3 $\frac{1}{2}$	41	1 50
Providence	Boston		"	"	8	3 $\frac{1}{2}$	41	1 50
Taunton	"		"	"	8 $\frac{1}{2}$	3 $\frac{1}{2}$		
New Bedford	Boston		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$		
Boston	Dedham		"	"	9	3, 5 $\frac{1}{2}$		
Dedham	Boston		"	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	4 $\frac{1}{2}$		
New York	Greenport		Long Island,	"	7 $\frac{1}{2}$		95	2 25
Brooklyn	Hicksville & intermediate places		"	"	9 $\frac{1}{2}$		26	56 $\frac{1}{2}$
"	Greenport		"	Tues., Thur. & Sat.,	9 $\frac{1}{2}$		95	2 25
"	Hicksville, (Saturd'y to Suffolk)		"	Daily,		4	26	56 $\frac{1}{2}$
Greenport	Brooklyn, (Boston train)		"	"		1	95	2 25
"	(accommodation do.)		"	Mon., Wed. & Fri.,			95	2 25
Hicksville	" & intermediate places.		"	Daily,	7	1 $\frac{1}{2}$	26	56 $\frac{1}{2}$
New York	Albany & Boston via N. Haven		Steamer,	"	6 $\frac{1}{2}$			5 00
"	Middletown		New York and Erie,	"	8, 3		53	
Middletown	New York		"	"	6 $\frac{1}{2}$	3 $\frac{1}{2}$	53	
Philadelphia	Pottsville		Reading,	"	9		94	3 50
Pottsville	Philadelphia		"	"	9		94	3 50
New York	Newark		N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4 $\frac{1}{2}$ , 6, 7 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Newark	New York		[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 9, 11	1 $\frac{1}{2}$ , 4, 5 $\frac{1}{2}$ , 7, 9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	"		[9 A. M. and 4 $\frac{1}{2}$ P. M., trains, connect with Somerville Railroad.]	Sundays,	9	4 $\frac{1}{2}$	9 $\frac{1}{2}$	25
New York	Newark		"	Daily,	11 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	Elizabethtown		"	"	9, 11	2, 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14 $\frac{1}{2}$	31 $\frac{1}{2}$
Elizabethtown	New York		"	"	7, 7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 10 $\frac{1}{2}$ , 12	3 $\frac{1}{2}$ , 5	14 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	Rahway		N. J. railroad and trans. co.,	"	9, 11	3, 4 $\frac{1}{2}$ , 6	19 $\frac{1}{2}$	31 $\frac{1}{2}$
Rahway	New York		"	"	6 $\frac{1}{2}$ , 7, 8 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$ , 9 $\frac{1}{2}$	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New Brunswick		"	"	9	3, 4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New Brunswick	New York		"	"	6, 7 $\frac{1}{2}$ , 11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
"	"		"	Sundays,	11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New York	New Brunswick		"	"	9	4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
Philadelphia	New York		Camden and Amboy,	Daily,	7		91	3 00
New York	Philadelphia		"	"	5 $\frac{1}{2}$		91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	9		30	75
Bristol	Philadelphia		"	"		4	30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"	8		93	
Baltimore	Philadelphia		"	"	8		93	
"	Washington		Baltimore and Washington,	"	9		41	2 50
Washington	Baltimore		"	"	6	5, 11 $\frac{1}{2}$	41	2 50
Baltimore	Cumberland and inter. places.		Baltimore and Ohio,	"	7 $\frac{1}{2}$	5 $\frac{1}{2}$		
"	Frederick		"	"		4		
Cumberland	Baltimore		"	"	8			
Hancock	"		"	"	10 $\frac{1}{2}$			
Martinsburg	"		"	"	11 $\frac{1}{2}$			
Harper's Ferry	"		"	"		12 $\frac{1}{2}$		
Frederick	"		"	"		2		
"	"		"	Sundays,	8			
Ellicott's Mills	"		"	Daily,	7 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$		
Richmond	Petersburg		Richmond and Petersburg,	"	10 $\frac{1}{2}$	1 $\frac{1}{2}$		
Petersburg	Richmond		"	"	5 $\frac{1}{2}$			
Albany	Schenectady		Mohawk and Hudson,	"	8	5 $\frac{1}{2}$		
Schenectady	Albany		"	"	9	3 $\frac{1}{2}$		
Albany	Saratoga		"	"	7 $\frac{1}{2}$	2		
Saratoga	Albany		"	"	7	12 $\frac{1}{2}$ , 5		
Troy	Saratoga		Troy and Saratoga,	"		3 $\frac{1}{2}$		
Saratoga	Troy		"	"	7 $\frac{1}{2}$			
Auburn	Rochester		Auburn and Rochester,	"	8 $\frac{1}{2}$			
Rochester	Auburn		"	"	8	3		
"	Buffalo		Rochester and Buffalo,	"		3		
Buffalo	Rochester		"	"				
"	Falls		Buffalo and Falls,	"	9			
Falls	Buffalo		"	"		1 $\frac{1}{2}$		
Buffalo	Albany		Albany and Buffalo	"	8 $\frac{1}{2}$			

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

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THURSDAY, MARCH 27, 1845.

[WHOLE No. 456, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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## FRENCH AND BAIRDS PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburg and Jackson Railroad, Vicksburg, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. McKee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

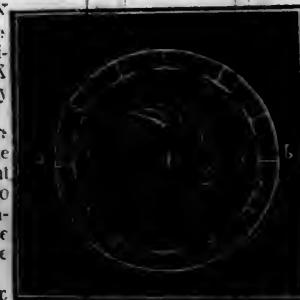
**A GOOD SECOND HAND LOCOMOTIVE**  
Engine, 6 wheels, weighing with wood and water about 10 tons, with Tender complete, made by Baldwin, for sale by A. & G. RALSTON & CO., Mar. 20, 1m. 4 South Front St., Philadelphia.

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When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.



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 Tyres imported to order and constantly on hand  
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 Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled), of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
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**CUSHMAN'S COMPOUND IRON RAILS,** etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN,** Civil Engineer, Albany, N. Y.  
 Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO IRON MANUFACTURERS.** THE SUBSCRIBERS, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. P. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

**A. & G. RALSTON & CO.,**  
 ja45 No. 4 South Front St., Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS,**  
**WELDED WROUGHT IRON TUBES**

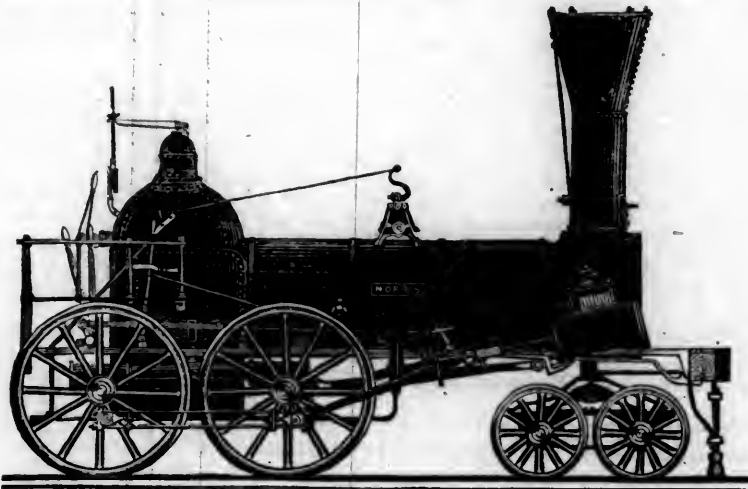
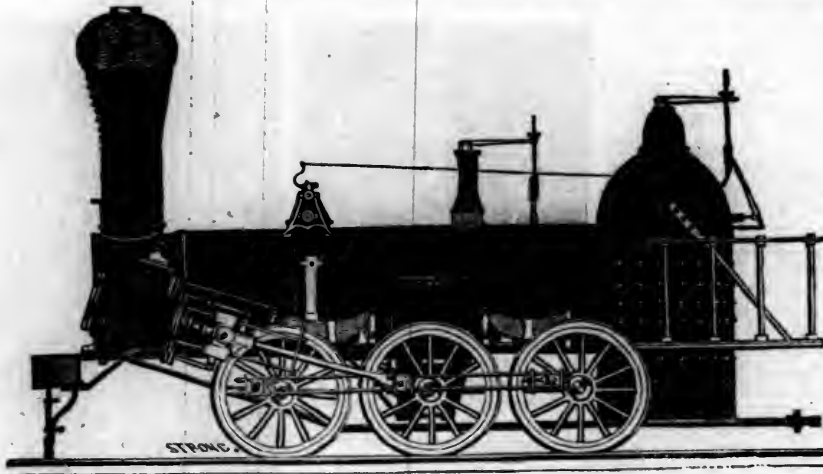
From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER TUBES.



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**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches Diameter of Cylinder,	× 20 inches Stroke.
"	2,	14	" " × 24 " "
"	3,	14 1/2	" " × 20 " "
"	4,	12 1/2	" " × 20 " "
"	5,	11 1/2	" " × 20 " "
"	6,	10 1/2	" " × 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order; and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

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**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Biluminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 21 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY,** Civil Engineer.

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Cravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing:

Main brick building, 120 feet long, by 46 ft. wide, two stories high. A machine shop, 47x13 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 69x45 1/2 feet two stories high, with a shed part 45x20 feet, containing a large air furnace, cupola, grate and corn oven.

Store house—a range of buildings for storage, etc., 290 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS,** 48 State st., or to **CURTIS, LEAVENS & CO.,** 106 State st., Boston, or to **A. & G. RALSTON & Co.,** Philadelphia. ja45

FIRST ANNUAL REPORT OF THE SOUTH-CAROLINA RAILROAD COMPANY.

The Directors of the South Carolina Railroad Company have the honor to submit herewith their *First Annual Report*, for the year ending on the 31st of Dec., 1844. Since the last annual meeting at Columbia of the stockholders of the L. C. & C. R. R. Company, and of the So. Ca. C. & R. R. Company, the consolidation of these two Companies, under an act of the Legislature of South-Carolina, bearing date the 19th December, 1843, has been perfected; and all the chartered "Rights, Privileges and Property" of both are now centered in and enjoyed by one corporation, under the name of the South-Carolina Railroad Company.

The gross receipts, current expenses, and nett income, on the two Roads, previous to consolidation, for the year 1843, were:

From 1st Jan. to 1st July, on	
Hamburg Road,	\$171,241 48
From 1st Jan. to 1st July, on	
Columbia Branch,	44,740 73

Total,	\$215,982 21
Current expenses on Hamburg Road,	\$103,147 76
Current Expenses on Columbia Branch,	20,108 86
Interest on sterling Bonds and floating note debt,	59,000 00

Total,	\$182,253 62
Nett income,	\$33,725 59

From 1st July to Dec. 31, 1843,	
on Hamburg Road,	\$177,074 03

From 1st July to Dec. 31, 1843,	
on Columbia Branch,	49,835 01

Total,	\$226,904 04
Current Expenses on Hamburg Road, including 3 locomotives,	111,673 16
Current Expenses on Columbia Branch,	18,437 52
Interest on sterling Bonds, and floating note debt,	59,000 00

Total,	\$189,110 63
Nett income,	\$37,987 36

From which nett incomes the Board of Directors declared, for the first half-year, a dividend of \$1 per share; and from the last half-year \$1 25 per share, making for the year \$2 25 on each share, and equivalent to 3 per cent. on the par value of \$75 on the Road stock.

The above statement of expenditures and nett revenue would not seem to accord, on comparison, with the statements in the report of 1843. In that exhibit, as the Companies had not been consolidated, and the interest on the sterling bonds and floating debt of the L. C. & C. R. R. Company, had been previously provided for out of the funds of that Company, and charged in their books—it was not, and very properly, by the Auditor of the S. C. C. & R. R. Company, brought into the account of current expenses paid by him against the Railroad income. As under the head of current expenses, is now correctly embraced

all these charges for interest, it was necessary in a comparative exhibit of expenditures and of net income for the two years, to embrace interest on bonds and note debt in those for 1843, as they had been embodied in the consolidated Company account for 1844.

The gross receipts, current expenses and nett income, for the year 1844, on the Roads, as consolidated, were:

From 1st January to 1st July,	
receipts,	\$244,035 14
Expenses, including 1 locomotive and extra burden cars,	185,438 07
Nett income,	58,597 07

From 1st July to 1st January,	
1845, receipts,	288,835 81

Expenses, including 2 locomotives, patents, extra passenger and burden cars, and machinery,	207,234 24
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Nett income,	\$31,598 57
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From the above a dividend of \$1 50 was declared on each share for the first half year, and \$2 25 for the last half year, making \$3 75 on each share, and equivalent to 5 per cent. interest on the par cost on each share now represented in the company. From the exhibit now made, it appears that the gross receipts for the year 1844 exceeded those of 1843 by \$39,967 70, and the nett profits by \$38,671 69, while the current expenses for the same period exceeded those of the previous year by \$21,305. This statement goes to confirm, in part, a fact previously brought to the notice of the stockholders, that an increase of business on a rail road does not necessarily involve a corresponding increase of current expenses, where the Company is properly prepared with locomotives, and the requisite number of cars to meet the business offered. The fixed capital is in the road bed, and an appropriation of but one-tenth of that amount for an increase of motive power, may more than double or quadruple the capacity of the Company to do the business offered, and at a very inconsiderable augmentation of what may legitimately be charged to current expenses. In the expenditures, however, brought under this head, on the South-Carolina Rail road, are included \$21,025 for three new locomotives and extra wheels; \$17,493 for new passenger and burden cars; \$2,400 for patents for spark arresters and chilled boxes, and \$775 for extra permanent machinery in the work-shops. If from these various appropriations to permanent objects, and amounting in the aggregate to \$41,693, be deducted \$23,561 50, the amounts expended on similar objects, as shown in the Report for 1843, we would have \$18,027 to be deducted from \$21,305, the excess of current expenditures for 1844, which would reduce that sum to \$3,278, and show that an increase of 20 per cent. on the gross income of the Road from freight and passengers, involved an increase of but 1 per cent. on the legitimate current expenditures,

and exhibit the encouraging result of 90 per cent. on the nett revenue.

FIRST ANNUAL REPORT OF THE VERMONT AND MASSACHUSETTS RAILROAD COMPANY.

More than one million of dollars have been already subscribed to our capital stock—and the first assessment, of ten dollars per share, has been laid, payable on the first day of March next.

The success which has attended the Fitchburg Railroad, and the promise of ample remuneration which accompanies this enterprise, renders the early completion of the road to Brattleborough a matter beyond reasonable doubt.

The directors, regarding it as desirable to procure still further subscriptions for stock, have adopted a course destined to accomplish this object—and have taken steps preparatory to placing a portion of the road under contract, and to break ground at as early a day as may be practicable.

FIRST ANNUAL REPORT OF THE STOUGHTON BRANCH RAILROAD CORPORATION.

400 shares of the capital stock having been subscribed for, on the 28th of May last, the corporation was duly organized by the election of seven directors, who then chose a president, an agent, a treasurer, and a clerk, and shortly after an engineer.

Previous to this date, the route had been resurveyed, and soon after the road definitely located. It diverges from the Boston and Providence Railroad at the Canton depot, passes about 200 yards to the east of Kinsley's forge; crosses the upper end of Franklin Bisby's (forge) pond; passes about 100 yards to the west of the widow Polly Bird's house; and terminates in the rear of the orthodox meeting-house, in the village of Stoughton, being just four miles in length. The steepest ascent is 45 feet per mile, and the curvatures, except those at each end of the road, not less than 1830 feet radius.

The receipts from stockholders have been \$38,075 00  
From the Boston and Providence R. Co. 25,000 00

	\$63,075 00
The expenditures have been as follows:	
Incidental expenses,	\$828 40
Salaries of officers,	1,060 00
Graduation, masonry, fencing, and wooden materials for, and laying of track,	22,482 45
Depots and turn table,	5,520 54
Iron materials for the track,	26,203 14
Land and damages,	5,519 75
Interest,	132 46
Cash in the hands of the treasurer,	4,328 26
	\$63,075 00

FIRST ANNUAL REPORT OF THE NORTHAMPTON AND SPRINGFIELD RAILROAD CORPORATION.

The corporation was organized by the adoption of by-laws and the choice of seven directors on the 30th day of May last. It being ascertained that \$350,000 had been subscribed, it was voted that that sum constitute the capital stock of the corporation.

Three assessments, amounting to 25 per cent. of the capital stock, have been made





from Charlestown to Block Island, at a cost of about 81,000 00  
 In all, \$206,000 00  
 To meet which \$230,000, of new stock has been created, making in all \$1,150,000 which has been promptly taken by the stockholders. It only remains to inform the Legislature that a dividend of interest will be paid to the stockholders of the road in February ensuing.

ANNUAL REPORT OF THE DIRECTORS TO THE STOCKHOLDERS OF THE DELAWARE AND RARITAN CANAL, AND CAMDEN AND AMBOY RAILROAD AND TRANSPORTATION COMPANIES, JANUARY, 1845.

The directors submit to the stockholders the following statement of the business of the year 1844.

There has been received on the

	Gross.	Expenditures.	Nett.
Railroad,	\$784,191 23	\$379,234 92	\$404,956 31
Canal,	131,490 71	+47,035 72	84 454 99

In all,	915,681 94	426,270 64	489,411 30
Deduct interest on the loans of the Cos.			186,930 30
			302,481 00

Also paid to the stockholders of the Philadelphia and Trenton Railroad to equalize dividends, 1 per cent. in July, and 1 per cent. in January, 19,984 00

Nett profits, 282,497 00  
 It will be perceived by reference to the report of 1844, that there has been an increase of receipts over the last year, on the railroad, of 101,359 25  
 And on the Canal, of 31,867 24

In all, of -	133,226 49
The number of passengers carried from city to city in 1844, -	200,810,
Being an increase over 1843, of -	37,767
The coal carried through the Canal amounts to -	267,496 Tons.
Of which there was from the river Schuylkill and Reading Railroad, 194,858 "	
From Bristol, 72,638 "	
Being an increase in the quantity over 1843, of -	69,164 "

The Directors have never lost sight of the principle laid down by them in their full report of January, 1840, of "preserving their capital unimpaired." In carrying out this safe rule, and in meeting the demands of an increased business, both in passengers and in merchandise, it has been necessary to increase the number, and improve the character of their locomotives, cars, crates steamboats and towboats, and to make large and valuable additions and improvements to their shops, depots, wharves and engine houses.

Among the principal expenditures in 1844, to effect these objects, are the following :

For a new iron towboat, built at Camden, -	\$13,847 30
For advances on a new iron passage boat, to take the place of the "Independence." ("The Independence" will be attached to the towing establishment.)	8,460 91
For a new boat, 210 feet long, and 60 feet	

*Including transit duties paid to the state of New Jersey	\$23,935 84
†Including " " " " " "	10,547 01
The companies have also paid the State on account of dividends this year,	16,000 00
And interest on bonds,	1,020 00
Whole amount paid to the State of New Jersey in 1844,	\$51,502 85

wide, intended to take the place of the "Swan," in transporting goods to South Amboy, -	37,321 38
Permanent additions to the wharves at S. Amboy, -	5,658 91
Permanent additions to the wharves at Camden, -	4,355 83
New brick engine houses at New Brunswick and Camden, -	1,673 53
New brick transportation house at Camden, -	2,958 70
	\$74,276 56

The railroad is in excellent order. The original sleepers having been renewed by substituting sleepers prepared for the purpose, by being immersed for a long time in corrosive sublimate, or salt and lime water. The canal is also in excellent order. The banks have now become settled and firm. The works were originally made in so substantial a manner, that there has not been a day lost in its use during the past season. It is worthy of remark, that notwithstanding the severity of the drought of the past summer, (which entirely suspended the navigation of some canals, and greatly affected all in our neighboring state) there has always been an abundant supply in the Delaware and Raritan Canal, and hence any fears which may have been entertained of difficulties from this cause, must now be discarded.

The regular increase in the productiveness of this work, may be judged from the following statement :

Its receipts in 1840 were -	\$79,967 94
" 1841 " -	81,543 44
" 1842 " -	93,334 25
" 1843 (13 months) -	101,269 67
" 1844 were -	131,490 71

This additional revenue has been principally derived from the transportation of coal, a business for which the canal was chiefly constructed, and one which must continue to increase.

REPORT OF THE MOHAWK AND HUDSON RAILROAD COMPANY.

Length of road in operation in 1844, 16 miles, 4,521 feet.

Length via new road, nearly completed, 17 miles.  
 Cost of construction to Jan'y. 1, 1844, \$1,053,848 90

Expended on account of the new section at Schenectady, to January 1, 1845, now completed, 91,827 06

Expended on account of the new branch road at Albany, nearly completed, 137,124 17

do. for construction in 1844, which includes laying the old track with heavy iron H rail, 24,702 39

do. for interest on debts contracted prior to 1843, 10,389 99

do. for expenses of repairing and running the road, 34,040 69

Amount of dividends, none.  
 Income from passengers, 66,293 81

do. freight, 10,059 79  
 do. mail contract, a portion of which has not yet been paid, 3,450 00

do. rents of tenements, 778 64  
 do. sales of cars, old iron, stationary engine, horses, &c. 11,500 08

do. bond and mortgage of 1844, 125,000 00  
 Number of through passengers, 132,685

do. way passengers, none.  
 do. locomotive engines, 6

Number of freight cars, -	68
do. other cars, -	34
An undivided interest with the Utica and Schenectady, Syracuse and Utica, Auburn and Syracuse, and Auburn and Rochester railroad companies, in Passenger cars, -	100
Mail and baggage cars, -	28
Number of machine shops, -	1
do. horses, -	8
Average number of men in the employ of the company, including those engaged in the construction of the new branch road at Albany, 93.	
Number of miles run by passenger trains, -	34,112
Number of miles run by freight and all other trains, -	27,400

REPORT OF THE UTICA AND SCHENECTADY RAILROAD COMPANY.

Length of road in operation, 78 miles.

Cost of construction to Jan. 1, 1844, \$2,124,013 29

Expended for construction in 1844, 44,651 71

Income from passengers, \$2,168,665 00  
 do. freight, 306,278 75  
 do. other sources, as follows: 9,402 27

Syracuse and Utica R. R. Co. on debt due on sale to that company of engines, coaches, &c. under contract of 1st December, 1838, 21,515 58

Transportation of U.S. mail, 16,251 05  
 Sales of railroad iron to Central Railroad, Mich. 17,614 84

Miscellaneous receipts, 13,329 10  
 68,710 57

Number of through passengers, 101,215  
 Number of way passengers, 60,634 1/2

Receipts from through passengers, \$253,017 15  
 Receipts from way passengers, 53,261 60

Expenses for repairing and running road, 132,538 41

Amount of dividends, 160,000 00  
 Number of locomotive engines, 12

Number of passenger, mail, and baggage cars, as follows: 31-100 of 128 passenger, mail and baggage cars, being the common stock running between Albany and Rochester, say 41

Number of freight or service cars, 70  
 do. machine shops, 1  
 do. horses, 3

Average number of men employed, 120  
 Number of miles run by passenger trains, 126,573

do. do. other trains, making repairs of road, carrying materials, &c. 38,333

ANNUAL STATEMENT OF THE SYRACUSE AND UTICA RAILROAD COMPANY.

Length of road 53 miles.  
 Cost of construction, \$1,115,897 56

Deduct amount charged to "depreciation of property," &c. for reduced value in cars, engines, &c. 30,000 00

\$1,085,897 56

Received from 82,038 through pas. grs. 158,024 56  
 do. 39,708 1/2 way do. 23,022 78

Received on account of freight, 3,457 09  
 do. U. S. mail, 6,956 25

Received from miscellaneous sources, 2,471 64  
 Expenses of repairing and running road, 71,068 81

Am't expended on account of construction, 35,678 42  
 Dividend paid Feb. 15, 1844, 40,000 00

do. Aug. 15, 1844, 40,000 00  
 Number of locomotives, 9.

An undivided interest in 100 passage, 17 baggage, and 11 mail cars, owned by the roads between Albany and Rochester.

Freight cars, 27.  
 Machine shops, 1.

Average number of men in the employment of the company, 85.

Number of miles run by passage trains, 87,000.  
 do. do. 20,000.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.			Total sums, in pounds, authorized to be raised by loan or mortgage.			Total sums, in pounds, expended at dates of latest balance sheets.			Cost of working in pounds for six months as stated in latest balance sheets.		Total earnings, in pounds, for six months as stated in latest balance sheets.		Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.	
		£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.					£
Arboath and Forfar.....	15	102,000			35,000			138,870											Aberdeen.....	1,600,000	
Birmingham and Gloucester.....	55	1,187,500			407,336			1,500,806			39,261		53,203	0	12	6	2	10	Barnsley Junction.....	200,000	
Branding Junction.....	23	161,700			365,170			481,452						4	10	0	50	54	Belfast and Ballymena.....	385,000	
Bristol and Gloucester.....	37	400,000			211,000									nihil.				30	Blackburn and Accrington.....	400,000	
Chester and Birkenhead.....	14	750,000			143,170			518,989			5,856		13,148	0	8	6	1	14	Birk. and Ches. Junction.....	1,000,000	
Dublin and Drogheda.....	31	450,000			150,000			500,869						nihil.				55	Bolt, Wigan and Liverpool.....	800,000	
Dublin and Kingston.....	6	200,000			152,200			359,000						6	0	6	0	100	Caledonian.....	1,800,000	
Dundee and Arbroath.....	16	100,000			49,445			153,416			2,989		6,993	1	5	0	0	25	Cambridge and Lincoln.....	1,250,000	
Durham and Sunderland.....	18	169,350			124,055			270,292			9,889		17,702					34	Chatham and Portsmouth.....	5,000,000	
East County and North and East.....	86	1,443,200			1,341,155			3,931,905			47,385		118,726	1	6	6		45	Chester and Wrexham.....	120,000	
Edinburgh and Glasgow.....	46	1,125,000			375,000			1,649,523			29,429		55,866	1	2	4	10	50	Churnet valley.....	1,800,000	
Glasgow, Paisley and Ayr.....	51	937,500						1,066,951			12,446		36,736	1	2	6	10	50	Direct Northern to York.....	4,000,000	
Glasgow, Paisley and Greenock.....	22	650,000			216,666			787,881			11,572		23,177	0	5	0	2	25	Dublin and Belfast.....	950,000	
Grand Junction.....	104	2,478,712						2,453,169			84,309		195,080	5	0	10	0	100	Dundee and Perth.....	250,000	
Great North of England.....	45	969,000			581,017			1,262,518			12,201		36,189	1	12	6	3	5	Edinburg and Northern.....	800,000	
Great Western.....	221	4,650,000			3,679,343			7,272,539			132,235		369,904	3	10	0	7	75	Ely and Bedford.....	270,000	
Hartlepool.....	15	438,000			155,540			719,205										34	Glasgow, Dum. & Carlisle.....	1,300,000	
Leicester and Swannington.....	16	140,000						140,000			2,207		6,317	1	5	0	5	0	57	Gt. South and West Ext.....	1,200,000
Liverpool and Manchester.....	32	1,209,000			497,750			1,739,835			57,239		117,559	5	0	10	0	100	Gt. Grimby and Sheffield.....	600,000	
Llanelly.....	27	200,000			44,000			221,624						1	0	0	2	0	Harwich and E. coun. Jun.....	160,000	
London and Birmingham.....	12	6,874,976			1,928,845			6,393,468			92,823		405,768					100	Huddersfield & M. rl. & cl.....	600,000	
London and Blackwall.....	3	804,000			266,000			1,315,640			15,973		23,870					16	Kendal and Windermere.....	125,000	
London and Brighton.....	56	1,793,800			998,350			2,630,451			29,372		84,880	0	12	0	2	8	Leeds and Dewsbury.....	400,000	
London and Croyden.....	8	550,000			229,000			761,885			7,583		10,545	0	5	0	2	10	Leeds and Thirsk.....	800,000	
London and Greenwich.....	3	759,383			233,300			1,040,930			15,193		28,933					10	Liv. Ormskirk and Preston.....	600,000	
London and South Western.....	92	2,222,100			630,100			2,596,291			68,457		150,469	1	12	6	6	10	London and Portsmouth.....	1,750,000	
Manchester and Birmingham.....	31	2,100,000			690,586			1,923,699			15,397		58,162	1	0	6	5	0	London and York.....	5,000,000	
Manchester and Bolton.....	10	778,100			197,730			773,743			8,565		21,140	2	2	0	4	10	Londonderry & Enniskillen.....	500,000	
Manchester and Leeds and Hull.....	81	2,937,500			1,943,932			3,921,593			46,653		156,761					71 & 10L	Lynn and Ely.....	200,000	
Midland railway.....	178	5,158,900			1,719,630			6,279,056			76,983		281,898					100	Manchester, Bury and Ross.....	300,000	
Newcastle and Carlisle.....	61	878,240			188,563			1,135,069			26,499		73,947	4	0	0	4	0	Manchester and Buxton.....	250,000	
Newcastle and Darlington.....	23	500,000						405,728											13	Mullingar and Athlone.....	
Newcastle and North Shields.....	7	150,000			153,876			309,629			8,943		18,466						10	Newcastle and Berwick.....	700,000
North Union.....	39	739,301			308,306			1,015,447			9,071		37,794	2	10	0	6	16	Richmond & W. End Jun.....		
Paris and Orleans.....	82	1,600,000			400,000			1,978,415											48	Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000						31,247			91,171								93	Sheffield and Lincolnshire.....	650,000
Preston and Wyre.....	19	830,000			179,852			355,161			4,191		7,066						60	Shrewsbury and Gd. Jun.....	400,000
Sheffield and Manchester.....	19	1,150,000			311,759			951,455			11,895		14,876						100	Shrew. Wolv. Dudley & B.....	900,000
South Eastern.....	88	2,996,000			1,530,277			3,464,172			40,993		81,482	0	10	6	2	2	50	Trent Valley.....	900,000
Taff Vale.....	30	465,000			154,785			590,006			8,509		18,414	1	0	0	6	5	100	West London Extension.....	64,000
Ulster.....	25	519,150			20,000			448,636			5,401		13,856	0	15	0	5	1	8	West Yorkshire.....	1,000,000
Yarmouth and Norwich.....	20	187,500			62,500			230,250											16	Whitehaven and Maryport.....	100,000
York and N. Mid. and Leeds and Selby	28	1,062,500			167,500			676,644			27,132		55,752	2	10	0	10	0	50	FRENCH RAILWAYS.	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15	15	Loughborough.....	70	142	142	70	1140	
Anti Dry Rot.....	10,000	10	18		2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company.....	5,700	100	35		34		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation.....	20,000	15	14	10	27	27	Mersey and Irwell.....	500	100	100	10		
Gt Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental.....	11,493	50	50	7	64	65	Regents or Loncon.....	21,418	33	33	2	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....				6			Somerset coal.....	800	150	150	7	123	123
Reversionary Int. Soc.....	5,323	100	100	4	104	104	Stafford and Worcester.....	700	140	140	25	480	180
R. Mail Steam Packet.....	15,000	100	60		36	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Severn & Why & Rail Av.....	3,762	26	26	5	30	30

Canals.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Ashby de la Zouch.....	1,432	113	av.	4	70	70
Barnsley.....	720	100	100	14	180	180
Birmingham, 1-16 share.....	3,000	118	79	10	150	160
Do. and Liverpool Junction.....	4,000	160	100		13	13
Coventry.....	500	100	100	20	365	365
Cromford.....	460	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forth and Clyde.....	1,297	400	40	4	440	440
Grand Junction.....	11,600	100	100	7	162	161
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Rerkley.....	5,000	do.	do.		8	8
Grantham.....	749	150	150	8	185	185
Lancaster.....	11,699	47	47	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	610
Liechester.....	545	140	140	9	39	139

Water Works.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Birmingham.....	4,800	25	25	3	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41	2-3	7	88
New River L. B. Ann.....	1,500			2	57	57
Manchester and Salford.....	6,486	av.	30	8	55	55
Vauxhall, lt. S. London.....	1,000		100	5		



AMERICAN RAILROADS.													SALES.		
Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices	Week ending 27th March.	
							Gross.	Nett.		Gross.	Nett.			Shares.	Price
N. H.	1-Portland, Saco and Portsmouth.	50	1,200,000				89,997	47,166	7	124,497	74,841	6	99½	69	113½
	2-Concord.	35	750,000									12	130	35	70½
Mass.	3-Boston and Maine.	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	110	35	110½
	4-Boston and Maine extension.	17 1-4	455,703	unfin.											
	5-Boston and Lowell.	26	1,863,746				277,315	144,000	8	316,909	147,615	8	118½	1	120½
	6-Boston and Providence.	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	106½		
	7-Boston and Worcester.	44	2,914,078				404,141	162,000	6	428,437	195,163	7½	116½	15	116½
	8-Berkshire.	21	250,000	not stated				17,500	7	17,737					
	9-Charlestown branch.		280,260						13	34,654	13,971	5½	82	12	71½
	10-Eastern.	54	2,388,631				279,563	140,595	6	337,238	227,920	8	109½	10	109½
	11-Fitchburg.	50	1,150,000	just op'n'd						42,750	26,835		120	51	121
	12-Nashua and Lowell.	14 1-2	380,000				84,079		8	94,588	34,944	10	120		
	13-New Bedford and Taunton.	20	439,962				50,671	24,000	6	64,998	24,000	6			
	14-Northampton and Springfield.		172,883												
	15-Norwich and Worcester.	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	69½	8,968	70½
	16-Old Colony.		87,820	unfin.										16	102
	17-Stoughton branch.	4	87,909	unfin.											
	18-Taunton branch.	11	250,000					20,000	8	96,687	29,000	8	118		
	19-Vermont and Massachusetts.														
	20-West Stockbridge.	3	41,516	200		100						4			
	21-Western, (117 miles in Mass.).	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	99½	504	102½
	22-Worcester branch to Milbury.		8,431	506											
	23-Housatonic, (10 months).	74	1,244,123							150,000			35½	75	82
Con.	24-Hartford and New Haven.	38	1,100,000	100,000	10,000	100						6	89		
	25-Hartford and Springfield.	25 1-2	600,000	400,000	2,000	100									
	26-Stonington, (year ending 1st Sept.).	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		41	5,284	41
N. Y.	27-Atica and Buffalo.	31	336,211				45,896	7,522		73,248	48,033	0			
	28-Auburn and Rochester.	78	1,796,342	209,000	14,000	100	189,693	112,000		237,667	152,007	6	106½	50	106
	29-Auburn and Syracuse.	26	766,657				86,291	27,334		96,738	52,544	6	116		
	30-Buffalo and Niagara.	22	200,000		1,500								100		
	31-Erie, (446 miles).		5,000,000										30	464	31½
	32-Erie, opened.	53						48,000		126,020	59,075				
	33-Harlem.	26	1,206,231							140,685	62,399		70	425	70
	34-Hudson and Berkshire.	31	575,613			50				35,029	1,941	0		50	14
	35-Long Island.	96	1,610,221	392,340	29,846					153,456	58,996	0	77	10,365	76½
	36-Mohawk and Hudson.	17	1,317,893	400,000	10,000	100	69,948	58,780		179,804	45,763	0	62½	225	64½
	37-Saratoga and Schenectady.	22	303,658				42,242	3,000	1	34,666	8,455	0			
	38-Schenectady and Troy.	20 1-2	640,800				28,043			32,646	6,365	0			
	39-Syracuse and Utica.	53	1,151,576	none.	16,000	62½	163,701	72,000		192,061	120,992	7	115½	100	115
	40-Tonnawanda.	43	727,332				76,227			114,177	75,865	5			
	41-Troy and Greenbush.	6	180,000												
	42-Troy and Saratoga.	25	475,801				44,325	21,000		38,502	9,971	2½			
	43-Utica and Schenectady.	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	120		
N. J.	44-Camden and Amboy.	61	3,200,000				682,832	383,880		784,191	404,956		110½	146	110½
	45-Elizabethtown and Somerville.	26	500,000												
	46-Morris and Essex.														
	47-New Jersey.	34	2,000,000										94	169	93½
	48-Paterson.	16	500,000									6	85		
Pa.	49-Beaver Meadow.	26	1,000,000												
	50-Cumberland Valley.	46	1,250,000												
	51-Harrisburg and Lancaster.	36	860,000										30		
	52-Hazleton branch.	10	120,000												
	53-Little Schuylkill.	29	900,000												
	54-Blossburg and Corning.	40	600,000												
	55-Mauch Chunk.	9	100,000												
	56-Minehill and Schuylkill Haven.	18	315,000						12				143½		
	57-Norristown.	20	800,000										6		
	58-Philadelphia and Trenton.	30	400,000										104		
	59-Pottsville and Danville.	29 1-2	1,500,000												
	60-Reading.	94	9,457,570	7,447,570	40,200	50				597,613	343,511		50½	1,613	50½
	61-Schuylkill valley.	10	1,000,000												
	62-Williamsport and Elmira.	25	400,000				20,000								
	63-Philadelphia and Baltimore.	93	1,400,000				43,013	200,000			210,000		43½	9,014	43½
Del.	64-Frenchtown.	16	600,000												
Md.	65-Baltimore and Ohio, (1st Oct.).	188	7,623,600				575,235	279,402		658,620	346,946		48½	30	48½
	66-Baltimore and Susquehanna.	58	3,000,000										5		
	67-Baltimore and Washington.	38	1,800,000				177,227	71,691		212,129	104,529		81		
Va.	68-Greensville and Roanoke.	17 1-2	260,000												
	69-Petersburg and Roanoke.	60	969,880							122,871	72,898	3			
	70-Portsmouth and Roanoke.	78 1-2	850,000												
	71-Richmond and Fredericksburg.	61 1-2	1,200,000												
	72-Richmond and Petersburg.	22 1-2	700,000												
	73-Winchester and Potomac.	32	500,000												
N. C.	74-Raleigh and Gaston.	84 1-2	1,360,000												
	75-Wilmington and Raleigh.	161	1,800,000												
S. C.	76-South Carolina.	136			34,410	75				532,871	140,196	3			
	77-Columbia.	66	5,671,452				201,464	77,456		328,425	180,704		55		
Ga.	78-Central.	190	2,581,723				227,532	93,190		248,026	158,207				
	79-Georgia.	147 1-2	2,650,000												
Ky.	80-Lexington and Ohio.	40	500,000												
Ohio	81-Little Miami.	40	450,000												
	82-Mad river.	40	400,000												
Ind.	83-Madison and Indianapolis.	56	152,000												
Can.	84-Champlain and St. Lawrence.	15	212,000					12,000		58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.

Thursday, March 27, 1845.

WESTERN RAILROAD.—Receipts for the week ending March 15:

	1845.	1844.
Passengers,	\$4,704	\$4,394
Freight, etc.,	5,146	3,643
Total,	\$9,852	\$8,037

Nett gain in ten weeks, \$38,987—being 31 per cent. over last year, when the gain was \$185,000 over '43.

MINEHILL AND SCHUYLKILL HAVEN RAILROAD.—The following is the amount of coal transported over this road, for the week ending on Wednesday evening last:

	4,549-01
Per last report,	45,189-05
Total,	49,747-06

THE COAL TRADE.—Sent by railroad up to Thursday evening last.—Miners' Journal.

Schuykill Haven,	3,916-08
Pottsville,	2,616-03
	6,562-11
Per last report,	65,174-57
	71,736-68

Sent by canal up to Thursday evening last: From Pottsville, 2,071-07

The canal was opened throughout on the 10th of March, but owing to stormy weather, no boats moved for several days after the opening.

No returns from Schuykill Haven or Port Clinton.

The *Tribune* is not pleased with our remarks on the canals of New York, but like every other political paper in the State, cautiously avoids any notice of the State monopoly of western freight—and the immense injury inflicted on the farmer of western New York by this "peculiar institution." Our respective opinions on the relative merits of governmental and private works, may or may not be important, but here we have a fact which we must grapple with, or pass by as "an ugly customer." Every political Journal in the State has so far adopted the latter course. They fear that, if the farmer, and the inhabitants of western New York, generally, were allowed to select their own mode of transportation, the revenue of the Erie canal might be somewhat diminished; and, though western New York and this city would be benefitted by the permission to an extent exceeding the entire income of the canal, they, the politicians, would lose a little patronage. He must indeed be blind, who imagines that there would be a moment's hesitation in such a case.

But there are other causes why we shall have the misfortune (if such it be) to differ with all papers devoted to one object, and conducted mainly with the view of supporting that object, right or wrong.—Though conducting a railroad Journal, and believing railroads to be every way better adapted to this coun-

try than canals we are by no means slow in pointing out any of their defects, as the last few numbers of our Journal will testify. Now, for example, with a tariff or Texas journal, the case is different: they admit nothing which does not favor tariff or Texas, and would not comprehend, far less appreciate, the course of a journal, which only asks whether the information be true, without respect to its being for or against the general cause which such journal advocates.

RAILWAYS OF NEW YORK.

The "annual report of the secretary of State, relative to railroad statistics," is out. Of the fifteen railroads which have reported, the aggregate length is 638½ miles, the cost \$19,606,737, the gross income for 1844 \$1,768,472, the expenses for 1844 \$799,753, the earnings \$968,719, and the dividends \$516,491. In this statement we have assumed the gross receipts of the 38½ miles of the Albany and West Stockbridge railroad at \$184,813, and its dividends at 6 per cent. on cost. The actual dividends of all these roads little exceed 2½ per cent. The secretary says, "The Buffalo and Black Rock, the Cayuga and Susquehanna, the Buffalo and Niagara Falls, the Lewiston, and the Lockport and Niagara Falls railroad companies have not reported to this office the present year." He might have added that some of the reports sent in were little better than nothing.

When a railroad is in debt, and has occasionally to meet payments of principal as well as interest falling due, the work may earn well, though the shareholders for a time receive nothing; hence, the actual amount paid in dividends does not give a fair view of the condition of the works. The reports will of course appear in the Journal, and it will be our duty closely to examine them, and aid our readers in arriving at correct conclusions as to the working of the system in this State. The rate per cent. of dividend is not given in the reports, and in filling up our table we may have committed some errors. Out of fourteen railroads, six only have declared dividends! indeed, we might say out of nineteen, for we presume that the roads which have not reported are in no very enviable condition.

The price of railroad iron has greatly advanced, and would range from 80 to 90 dollars in New York. A careful examination of the English railway and mining journals leads us to believe that a considerable advance will be maintained for some time, though the present rise must necessarily be, to some extent, speculative. Still it has deterred the New Jersey railroad company from relaying their track, and will probably have the same effect on the Utica and Schenectady and Utica and Syracuse companies. The former of these companies petitioned to be allowed to increase their capital \$500,000; but, as they will require about 10,000 tons of iron, they must ask for a million, or give up for the present. This news will be a severe blow to the western States, especially Ohio and Michigan, where the spirit of private enterprise, so long kept down by governmental competition, was just beginning to show itself. Pennsylvania was fortunate enough to get in nearly 10,000 tons before the rise, principally, if not exclusively, to aid in developing her resources in coal and iron. Our friends "down east" will be under the necessity of adding a million or two to their estimate of the Montreal railroad.

It appears that the Canadian "ministry" are bothered to death with complaints and serious charges against the board of works, which will probably fall after this year; that is, after all the money is gone.

A charter has been granted from Montreal to the province line, so as to connect with either the Portland or Boston route, but we hear nothing decisive as to the guarance of two or three per cent. on a considerable sum, to aid the road in the province, without which there is little prospect of success—we might say none. It will of course be opposed by the board of works.

A complete survey of the routes from Montreal to the lines is indispensable, to show which route will be most advantageous to that city: for, as the capital must come thence, if it come from Canada, the first question is, which route is best for Montreal. Two routes, differing materially in character, have been surveyed, and found practicable, but we have not seen an attempt at an investigation of their comparative merits, though this must be done, and well done too, before any decisive movement can be expected in Montreal. A little exertion might secure an appropriation for a survey, though it should not be left to the board of works to carry it through, as no man in the province would trust his own money in their hands, or would place any confidence in their statements. We do not profess to know whether any course would secure the necessary amount of subscriptions, but there will be no chance of success, without a full and fair examination of the rival routes, by men whose skill and character will command the confidence of men of business.

We acknowledge the receipt of the reports of the New York railroads from some friend at Albany; of the argument of C. G. Loring, Esq., on behalf of the Eastern railroad company, from B. T. Reed, Esq.; of several pamphlets on the Schuykill navigation, and of the report of the Petersburg railroad company.

It appears that the legislature is about giving permission to the New York and Erie railroad company to make a branch to Newburgh and will revive the charter of the Goshen and Albany railroad. In connection with this latter move is the project of connecting the Paterson railroad with the Erie, 18 miles from Piermont, so as to make a continuous line from Jersey city to Albany. Should these plans ever be carried out, the last 18 miles of the Erie railroad would be useless, as all the freight would go by Newburgh during nine months of the year, and all the passengers by Jersey city throughout the year.

The legislature of New York has imposed canal tolls on freight carried over the Troy railroads, and it is proposed to impose the same on the Mohawk and Hudson railroad, with a very ingenious "improvement," as "additions," as often called here. The length of the railroad is 17 miles; of the canal between the same points, 30 miles, on which latter distance they intend to charge canal tolls. Each ton (2240 pounds) of merchandize will therefore pay 60 cents canal tolls for the privilege of being carried over 17 miles of railroad—very nearly as much as the railroad company would charge for transportation, including loading and unloading, wharfage, insurance, etc., were the trade open to competition. Were the Erie railroad completed, the State would impose canal tolls on all freight and passengers diverted from the Erie canal, and it is well known that a vast number of emigrants and others pass in boats with their furniture from Albany to Buffalo. As we observed some time since, the government and the canals are out in full force against the railways and the people, and the success of the former is pretty certain—for a time.

The N. York canals will be opened 15th April.

## RAILWAY LEGISLATION.

On reading the numerous articles on railway legislation which have appeared in the British Quarterlies during the last year, we little imagined that we were ourselves on the very eve of similar exciting scenes and contentions. But, within two months, the legislature of New Hampshire has made a railway somerset, and, in place of opposing the formation of corporations as hitherto, is now more likely to trench on the rights of the citizens in their favor. In the legislatures of Maine and Canada, the projected Atlantic and St. Lawrence railway is said to have carried all before it, and the guarantee of 2½ to 3 per cent. on a considerable loan by the province to a company appears to be confidently anticipated. The State of Massachusetts having wisely abstained from entering into competition with her own citizens, and having thus given fair play to private enterprise, finds her territory already so traversed by railways, that new projects partake, in many cases, of the nature of competing lines, and a sort of railway board has been formed to prevent the construction of too many roads, as in England. Even Vermont has been slightly agitated by the projected railroad to Burlington, and we again notice some very small symptoms of vitality now that Montreal appears to be regarded as the terminus, rather than that flourishing village. In New York we have applications for, and amendments to charters without end. From the very slight acquaintance with the trade, wants and resources of the country, possessed by most of our public men, from their want of general information, and above all, from their inability to grasp the great and complicated subject of railways, we anticipate nothing very favorable to the cause, unless by sheer good luck. The total omission of the subject in his message, by a governor of Mr. Wright's pretensions, to which we alluded at the time, demonstrates far too forcibly the truth of our not very complimentary observation. Any man—not steeped in political squabbles—could see that railway legislation would be the most difficult subject to handle of any to be brought forward during the session. In Pennsylvania, railroads and canals are in a wretched condition; and we see no signs of railway legislation becoming necessary there. Virginia has not granted the Baltimore and Ohio railroad an unrestricted right of way to the Ohio, and has thus shown a disposition to throw obstacles in the way of a work which has already encountered and overcome more difficulties than half the railways in the Union. In Michigan there is a strong

disposition to "sell out" their railways, and we are happy to notice that the Philadelphia Inquirer ably advocates the same policy there with reference to their "main line," which is nearly one-third railway. In another page will be found some pungent and pertinent remarks on the present condition and prospects of the works of Ohio and Pennsylvania.

## CHAMPLAIN AND ST. LAWRENCE RAILWAY.

*The Bane and Antidote.*

Having in our last, as well as at various other times, given our readers pretty full information on the progress and prospects of the government works of Canada, we now submit to them the results produced by the opposite principle—private enterprise.

Small and weak as may appear the antidote, it will yet be sufficient eventually to counteract the withering influence of a course of government jobbing, surpassing, if possible, that of New York, Pennsylvania, Ohio or Illinois. It is the star which points out the only way to success in public works—the union of skill and character. We venture to predict that the board of works, backed by the governor and both houses, will never make such a report and such a statement of the achievements of any work they have undertaken, as is here presented to the shareholders, by John E. Mills, Esq., the chairman, and W. D. Lindsay, Esq., the commissioner of the Champlain and St. Lawrence railway. We give a few extracts.

"I cannot perhaps better introduce the subject than by calling your attention to the very satisfactory statement of the returns of the business of the past season, now on the table, out of which we have not only paid the balance due on the lease of the "Prince Albert," iron steamer, but are enabled this day to declare a dividend of £3 10s. per share, payable on the 20th of next month, leaving our contingent fund nearly the same as last year.

"It is a matter of satisfaction to know that the actual current expenses have by no means been increased in proportion to the business and returns.

"The sources from which we have derived an increased revenue over former years are from an influx of foreign travel and a great improvement in our inward trade.—These two important sources we have every reason to presume will annually continue to improve.

"Our outward trade has declined this year somewhat, but from the fact of Laprairie having been made a warehousing port, there can be no doubt that the returns of our next season's business outward, between Laprairie and St. Johns, will show very differently from those now before you; so much indeed are the committee under this impression, that they strongly recommend adequate pro-

vision for a great increase of business on the line generally; and in doing so they confidently hope that the receipts of the coming season will enable the company to pay for all additional outlay, besides meeting the repairs to the road, without trenching on a future dividend: these repairs, it may be as well to state, involve a renewal of the superstructure; but it is expected that the plans and precautions recommended to this end, are such as will enable the company to proceed in their regular business without interruption.

"The iron steamer, which had been scarcely tried when I last addressed you, has been found from her capacity and light draught of water, to fill her place in the line to great advantage. It is, however, considered of importance that the company should have control over a second boat, and the committee recommend that the services of another one should be secured—and, if possible, of smaller dimensions.

"In consequence of Laprairie being made a warehousing port, the committee recommend improving the approach to the company's wharf, so as to afford every facility to the craft engaged in the western trade.

"I have again to report the continued absence of all accident to passengers transported over our road—a strong presumptive proof of the care and attention to their respective duties of the servants of the company having charge of the same, all of whom, I am happy to say, have given entire satisfaction to the committee.

"I will not trespass on your time, gentlemen, further than to congratulate you on the very prosperous condition of the affairs of the company; the best evidence of which, and of its estimation by the public, being the prominent position our stock assumes in the money market.

JOHN E. MILLS, Chairman.  
Railroad office,  
Montreal, Jan. 20, 1845. }

## GENERAL STATEMENT FOR 1844.

Gross receipts of the business of 1844,	£15,333 19 11
Less probable amount of overcharges and deductions,	100 00 00
	<hr/>
	15,233 19 11
Off current expenses, including bridge and a new passenger car, etc.	8,815 12 00
	<hr/>
	6,418 7 11
Add contingent fund remaining of '43,	1,732 2 6
	<hr/>
	8,150 10 5
Out of which paid on account of iron steamer, (the balance,)	3,035 19 4
	<hr/>
Amount at the disposal of the company	5,114 11 1
Out of which a dividend of £3 10s. per share, is declared upon the capital stock paid in £43,000 is	3,500 00 00
	<hr/>
Contingent fund carried to 1845,	1,614 11 1
Number of passengers,	27,698
Number of tons goods and lumber,	12,639
	W. D. LINDSAY, Commissioner.

The current expenses include from £800 to £1,000 for a new bridge, passenger car, etc.

At the last annual meeting a handsome

sum was voted for a piece of plate to be presented to the chairman, John E. Mills, Esq., and in the proceedings of the present year we find it

"Resolved, That in consideration of the valuable and gratuitous services rendered to the company by Charles H. Castle, Esq., as treasurer and registering clerk, the sum of \$250. be voted him as an evidence of the value entertained of his services by the stockholders."

#### GOVERNMENT ENGINEERING IN OHIO AND PENNSYLVANIA.

*Management of Public Works in Ohio.*—The speech of Mr. Eckley, in yesterday's Journal, will well pay perusal. It is on a subject that has excited a good deal of the public attention. In connection with this subject, it is our intention to publish the report of the standing committee on the national road, presented to the Senate by Mr. Anderson on the 2d instant. We have attentively examined this report, and we have no hesitation in saying that it discloses a scene of speculation and fraud seldom witnessed. It is no wonder that the national road runs the State in debt. We shall publish this document at the earliest period our columns will allow. The facts should be spread before the people, far and wide.—*Ohio State Journal.*

"I do not arise for the purpose of making charges against the board of public works. That has already been done by one who, as a witness, he commended to the other side, as one entitled to full credit and belief; and who needs no corroborating proof with those who are apposed to the passage of this bill. He offered as a witness a no less personage than John Brough, Esq., auditor of State. When alluding to the estimate of the different members of the board of works, that functionary uses the following language:—'Upon bringing up the disbursements to such a point, that results could be safely ascertained, it was found that while Mr. Ransom's estimates are not paid in full, the payments on the Wabash and Erie canal have exceeded even Mr. Dickinson's last estimate from twenty-five to thirty thousand dollars, and those on the road from thirteen to fifteen thousand dollars. Also the payments on the Miami extension canal have exceeded the estimates of Mr. Spencer, rising seventy thousand; exclusive of seven thousand dollars to his unrestricted check. It would be well if the matter stopped here, and these payments, however excessive, embraced the whole debt. But it does not. Checks are still outstanding, and more are due to contractors. From the best information we can get, there was yet uncovered by the late loan at the end of the fiscal year, about two hundred thousand dollars of debt on the works. The legislature undoubtedly intended to provide for the whole debt of the State, and the fund commissioners labored assiduously to carry out that purpose. The one has been thwarted in its object, while the others, resting upon what they considered the most au-

thentic information, have been betrayed into statements which unfortunately are not substantiated by the facts.' But it would be fortunate for those implicated, if the Auditor had stopped here. In the same document he continues as follows:—'unlearned as I am in the checks and balances that have been established, and the manner of keeping accounts on the public works, I am not able to throw any light upon these discrepancies which cast a temporary gloom upon the finances, and must, far beyond their actual importance, affect the credit of the State. If this is but another of the many errors of judgment of which, in the construction of our public works, we have had so much reason to complain—if the debt was actually under-estimated, it cast many strong doubts upon the system itself, and the watchfulness as well as competency, of the officers who have it in charge. If the keeping correctness of detail in the keeping of accounts, had been observed, these officers should have known to a fraction what amount of checks had been issued, and what had been paid, and have been able to estimate nearer than one hundred thousand dollars, what amount would remain due on the completion of existing contracts. But speculations upon or repining at results, are alike vain. The evil is upon us. The debt exists, and its payment is a duty from which we may not shrink. Investigation into the conduct of public officers is not only the right, but, under these circumstances, it is the duty of the general assembly.'

"But the same witness proceeds, and in the same communication tells us, 'that no one can doubt, by looking at the cost of the works, but what there has been an inordinate and almost profligate expenditure of money on the Wabash and Erie and the Miami extension canals.' So alarming was the expenditure, that the auditor joined with the other fund commissioners, in refusing to pay the checks upon certain portions of those works. And who can doubt but what the auditor was right, when he looks at the figures, and finds that those canals cost about double the amount per mile, that the Ohio canal cost? From this fact alone, who doubts the charges made by the auditor? and who does not feel that the half was not told? Sir, if the legislature had taken decided steps years ago, and turned out these unfaithful servants, millions would have been saved to the State. For it is a fact at which all honest men must startle, that when the Ohio canal was completed and the Miami canal finished up to Dayton, our entire debt was only \$1,900,000; which has since that time increased to nearly \$20,000,000. Who that knows anything about these works or the finances of the State, believes the great increase has been honestly incurred? What important works have we made since that time, that our liability should be increased three-fold? Sir, since that time, our State has been one common plunder ground. Frauds and speculation have been the order of the day. Such transactions as are shown forth in the report just read, will account for the amount

of debt we now owe. And this is but an isolated case, from the whole mass that is, and perhaps always will be shrouded in mystery. Another matter and he would dismiss the board of public works.

"He had been told that the subordinates had been in the habit of hiring laborers at fifty cents a day, and charging the State one dollar; thus making out of the sweat and toil of the poor laboring man one hundred per cent. In view of the millions that the State has already lost, who can now doubt the truth of these charges?"

#### THE SALE OF THE PUBLIC WORKS.—THE DEBT AND HONOR OF THE STATE.

Mr. Herr, of Lancaster, recently made a long speech in our legislature, in favor of the sale of the main line of the public works. He contended that the integrity of the commonwealth could not be maintained without such sale; and that any member who argued to the contrary exhibited a lamentable ignorance of the real state of affairs. He earnestly advocated the payment to the uttermost farthing of the State debt, and said that in order to accomplish this, we must husband our means, always having a strict regard to the interests of the people, upon whom we must rely in the final emergency—not by constant appeals to their patriotism for that term has lost its charm by its too frequent use, (patriotism and love of country have of late years been a sovereign balm for all our ills)—but by giving them an evidence that we never lose sight of their interest in all our deliberations.

His view was to stay the destructive policy of repudiation. Our means he regarded as ample, if properly applied—but in the first place, he thought that the price of the public works should be fixed at an available sum, or a sum likely to be obtained, and that the people would sustain this course on the part of the legislature. But if on the other hand, the legislature should refuse to take any further action in the disposition of the public works, he for one should not be surprised if, before a twelvemonth, repudiation should be favored through the length and breadth of the commonwealth.

We perceive also that Mr. Cooper has suggested a bill, calculated to effect the object of sale, without reducing the price.—His plan is to let the company go into operation, on \$10,000,000 being subscribed—the stockholders then to elect six directors and the State three—the works to be under the control of these nine. The stockholders to receive five per cent. out of the revenues of the works, on the \$10,000,000 subscribed—the State to receive five per cent. on the stock held by her, if the revenues should amount to enough. If they should yield more than five per cent. on the \$20,000,000 the balance to be divided equally between the State and the stockholders. By this plan, the State debt would be reduced \$10,000,000 at once, while the stockholders would receive no more from the revenues of the work, than they now receive in the shape of interest. Another feature is, that as the

revenues from the public works increase, more stock is authorized to be subscribed, until the whole \$20,000,000 shall have been taken. The subject is an important one, and we trust that the legislature will govern themselves accordingly.—*Phil. Inq.*

**RAILROADS VERSUS CANALS.**—The following from the London Times of the 22d February, shows that John Bull begins to discriminate between canal and railway loans in this country. The shot is a fair one, and worthy the late Rev. S. Smith, to say that so long as the Schuylkill Canal paid dividends of 25 per cent., and its stock was worth \$350 per 100, it was kept at home; but now, when below par, it is offered abroad. Such is the onward march of railways, that this class of improvements in the eastern states is already decidedly preferred: and a great change is taking place in the public mind in this state and in Pennsylvania.

The contest for superiority between the Schuylkill Canal and Reading Railway, is looked upon with much interest by our citizens, and a year more will settle the question in favor of the cheaper transportation, at all seasons of the year, by the "better improvement of the age." The panacea in Pennsylvania, as well as in this state, appears to be to enlarge the canals; while all experience in England shows that small canals are the most profitable. We are not aware that a single canal in England has been enlarged, and the experiment on our Erie Canal is anything but satisfactory to our tax-paying citizens, or creditable to our engineering talents. It was estimated to cost \$12,000,000—then \$23,000,000; and if ventured on again, and railways do not supersede its necessity, we predict that the sum required will greatly exceed this amount. It has been stated in our columns, and it is undeniably true, that if the enlargement were accomplished, it would be necessary to keep up a rate of tolls to pay the interest on the debt and to extinguish the same, that would constitute a barrier to cheap transportation greater than the Alleghany ridge. The like result will in all probability be the case in Pennsylvania.

*From the London Times.*

The following paragraph appears in the Report of the Schuylkill Navigation Company, which was received with the last file of Philadelphia papers:

"With a view to the further improvement of the Navigation, the Board applied to the Legislature at its last session, and obtained an extension of the time for improving and completing for fifteen years from March 8th, 1845, and at the same time the restriction which prevented persons not citizens from holding stock was removed."

To those who are unacquainted with the facts of the case, this paragraph appears harmless enough, but it has created no small amusement among those who have heard the situation in which the company is placed. Some time ago, it seems, so great was its prosperity, that it used to pay at the rate of 25 per cent., and then the greatest

precaution was taken to prevent aliens from participating in the advantage.—Now, however, the Philadelphia and Reading Railroad, which is finished, has proved such an injurious competitor, that it has left off paying a dividend altogether. Under these circumstances, application is made to the Legislature to allow aliens to participate in a property from which they were excluded when it was productive of any benefit. Many think this is a preparatory step towards the negotiation of a loan in Europe, but considering the estimation in which Pennsylvania credit is at present held, it was certainly a needless trouble.—*J. of Commerce.*

**BALTIMORE AND THE WEST.**

**Cheap and Quick Transportation.**—The present rates at which the various kinds of merchandise are transported between the city of Baltimore and the Ohio river, by way of the Rail road route to Cumberland, are so very moderate that, when taken in connection with the saving of time growing out of the shortness of the route and the great despatch employed, they cannot fail to attract the attention of Western merchants. For the information of those who are unacquainted with the rates we will state them.

From Baltimore to Pittsburgh the aggregate charge per 100 lbs. on all merchandise (except Coffee, Tin plate, Manufactured Tobacco and Fish in barrels) is 95 cents, viz. From Bal. to Cumb'land by rail road, 35 cts. Wagon carriage from Cumberland to Brownsville, 50 Steamboat freight from Brownsville to Pittsburgh, by Monongahela Improvement, 10

Through from Balt. to Pittsburgh, 95 cts.

On the excepted article above named, viz: Coffee, Tinplate, Manufactured Tobacco and Fish in barrels, the charge on the Rail road from Baltimore to Cumberland is only 25 cents per 100 lbs. and the aggregate charge through from Baltimore to Pittsburgh is, therefore, 85 cents.

From Baltimore to Wheeling the aggregate charge per 100 lbs. on all merchandise (other than the articles above excepted) is 110 cents, viz:

From Balt. to Cumberland, by rail-road, 35 cts. Wagon carriage from Cumberland to Wheeling, 75

Trough from Balt. to Wheeling, \$1.10

On the excepted articles above named the charge by the Rail road from Baltimore to Cumberland is only 25 cents per 100 lbs, and the aggregate charge through from Baltimore to Wheeling is one dollar.

Receipts are given by the forwarders in Baltimore to deliver merchandise in eight days, at either Pittsburgh or Wheeling.

**Philadelphia and Baltimore.**—We observed that the rates of freight between Philadelphia and Baltimore have been brought down to very low prices. The Rail road Company advertise to carry dry goods at 12½ cents and groceries at 10 cents

per 100 lbs. from Philadelphia to Baltimore; and the Ericsson Steamboat Line (by way of the Chesapeake and Delaware Canal) at 10 cents per 100 lbs. for all kinds of merchandise.—*Balt. American.*

**FIFTEENTH ANNUAL REPORT OF THE PETERSBURGH RAILROAD COMPANY.**

The board of directors have the satisfaction of informing the stockholders, that the business of the road and the affairs of the company have improved considerably since the last annual meeting.

The receipts of transportation for the twelve months just ended, were \$122,870 81. This is \$5,141 28 greater than it was the year before. At the same time there was a considerable saving in the expenses attending the business. This saving amounted to \$12,230 83 in the expenses, and \$3,888 10 in the interest account, making altogether \$16,118 93. The amount of the expenses was \$49,972 33, and the interest \$3,745 98—in all, \$58,718 31.

The increase in the receipts and the saving in the expenses made the nett income \$21,260 21 greater than it was the year before. The amount of the nett income was \$64,152 50.

We paid off during the twelve months \$41,887 72 of our debt and a dividend of 3 per cent. to the stockholders. Our whole debt (deducting the assets) is now only \$94,592 93, about one half of which matures this year, and the remainder the year following.

The increase in the receipts was from passengers. In the freight there was a slight falling off; but this was only in the receipts, and was caused by the reductions made in our rates of transportation in October, 1843. These reductions, you may remember, were made with the expectation that they would arrest the decline which had commenced in the tonnage of the road. This they have done; and although we have not yet felt their good effects in our receipts, yet we have every reason to believe that we will soon do so, as the quantity of freight last year increased about 2500 tons. If we have a similar rate of increase for the current year, it will add \$12,000 to our revenue. We have a fair prospect of even a larger increase than this, as the freight business has commenced much earlier and better this year than it did last.

Freight receipts for the month of February, 1844, \$5,847; same for the month just ended, \$7,487; increase for the month, \$1,640.

The prospect of further increase in the travel of the road is also favorable. Besides the improvement we may expect in this item of our business, from the improving condition of the country, we look for some from a reduction of the high rate of fare charged on the Baltimore and Washington railroad, which we presume will soon be made. The fare on that road was originally fixed by the legislature of Maryland; but an act has lately been passed authorizing the company to reduce it. This we have no doubt will be



carried into effect, as the directors of that company have always expressed their intention to do it as soon as the power should be given them. A fair reduction of the rate on that road will add considerably to the travel going between the north and south, and of course to ours.

But even with no increase in our receipts, we shall be abundantly able to provide for the debt falling due this year, and continue the dividend of three per cent. Next year we think the prospect is now certain, that we shall be able to extinguish the whole of the debt, and increase the dividend; and we believe the prospect of good and regular dividends thereafter is also as certain.

By order of the board of directors.

H. D. BRAD, President.

March 3d, 1845.

STATEMENT OF THE AFFAIRS OF THE PETERSBURG RAILROAD COMPANY, FEBRUARY 1st, 1845.

Capital stock paid in, - - - - -	769,000 00
Debt—To the state, - - - - -	16,000 00
Individuals in account, - - - - -	5,594 46
Dividends uncalled for, - - - - -	3,006 50
Bills payable, - - - - -	29,352 83
Bonds due in 1845, - - - - -	18,149 55
“ “ 1846, - - - - -	44,600 00
	116,703 34
Profit and loss, - - - - -	84,176 24
	\$969,879 58

Cost of railroad, engines and cars, steamboats and hotel, - - - - -	798,064 20
New track, - - - - -	96,319 27
Weldon bridge, - - - - -	53,385 75
	947,769 22

The debts due the company are,	
By Greenville and Roanoke railroad company, - - - - -	13,445 46
By Raleigh and Gaston do. - - - - -	200 61
Freight accounts of Jan. (col. in Feb.) - - - - -	5,180 22
Post-office department, - - - - -	1,497 03
Individuals in account, - - - - -	1,157 15
Cash, - - - - -	629 88
	\$969,879 58
	\$130,941 96

RECEIPTS AND DISBURSEMENTS OF THE PETERSBURG RAILROAD COMPANY FROM FEBRUARY 1st, 1844, TO FEBRUARY 1st, 1845.

<i>Receipts.</i>	
Cash in hand Feb. 1st, 1844, - - - - -	1,548 23
From steamboats, - - - - -	120 86
Rent of hotel, - - - - -	800 00
Received of the debts due the company, - - - - -	5,602 06
Gross amount of transportation, - - - - -	122,870 81
	\$130,941 96

<i>Disbursements.</i>	
On account of new track, - - - - -	115 64
Expenses of transportation, - - - - -	49,972 33
Interest of debt, - - - - -	8,745 98
Amount of debt paid off, - - - - -	48,408 13
Dividend of July and January, - - - - -	23,070 00
Cash, - - - - -	629 88

DETAILED STATEMENT OF THE RECEIPTS AND EXPENSES OF TRANSPORTATION FROM FEBRUARY 1st, 1844, TO FEBRUARY 1st, 1845.

<i>Receipts.</i>	
From Freight, - - - - -	65,988 53
Passengers, - - - - -	41,682 28
Mail, - - - - -	15,200 00
	122,870 81

<i>Expenses.</i>	
General superintendence:	
Salaries of president, treasurer and clerk, - - - - -	4,500 00
Depot Expenses:	
Cost of agents and labor at depots, including those on the Greenville railroad - - - - -	6,326 25

<i>Train expenses:</i>	
Wages of enginemen, conductors, firemen, train hands and cast of fuel and oil, - - - - -	12,704 00
Repairs of engines and cars:	
Wages of men and cost of materials of all kinds, - - - - -	8,497 38
Repairs of railroad:	
Wages of overseers and cost of laborers and materials of all kinds, - - - - -	15,067 50
Miscellaneous expenses, - - - - -	2,877 20
	49,972 33

Income after payment of expenses, - - - - -	72,898 44
Deduct interest account, - - - - -	8,745 98
Net income, - - - - -	\$64,152 50

*The Railroad Projects.*—The two branches of the legislature seem to be remarkably at variance in regard to some of the numerous railway projects now before them; and from present appearances there is danger that the wishes, of not the rights of the people will be seriously disregarded. In reference to the Farmingham petition, particularly, there is a singular disagreement between the two bodies. The house, by a very decided vote, has shown a disposition to grant the prayer of the petitioners, while the Senate, with still greater unanimity, has declared against them.

There is some danger that our legislature may overstep its authority in these matters. That authority is to guard the constitution and laws against infringement, and to afford necessary protection to private rights. The general principles of legislative power are the same in their application to railway as to manufacturing and other corporations; and it is a question whether the whole subject of railway enterprises should not be left to individual or private responsibility, under the operation of general laws, as is now the case with manufactures. We regret that the proposition submitted by Mr. Dwight, for the appointment of a board of railway commissioners, has been so ill received in the house. Such a measure, judiciously organized, would be a decided improvement upon the present embarrassing and expensive mode of legislation upon a subject which has become, and is likely to continue for years, one of engrossing importance.—*Bost. Trav.*

*Dublin and Cashel Railway.*—The directors have completed a contract for the works between Inchicore (near Kilmainham) and Carlow. There is a difference of only £1,500 between the estimate of the engineers and the amount of the contract.

We understand that an iron steamer of nearly 300-horse power has commenced being built by Messrs. George Lunell and Co., ship builders and engineers, at Bristol, which is to embrace all the new improvements extant; she is to form one of the extensive fleet of the Bristol general steam navigation company, who have steamers constantly plying between the above place and the various Irish and many other stations. This company have adopted the use of Smart's elliptical convex propellers, and it is expected the vessel in question, having this much ap-

proved adaptation, with the determined intention of the eminent builders to outvie, if possible, even the most perfect, will produce such a boat as may justly entitle them to the name they already bear, and rank them among the first builders and engineers in this or any other quarter of the globe.—*Mining Journal.*

*Increasing Adoption of Iron.*—We find that the preference for iron in the construction of vessels is daily becoming more general and decided. Our accounts from all quarters intimate this growing preponderance in favor of metal over wood; in Liverpool there are innumerable inquiries for iron vessels, both for sailing and steaming purposes, and the demand has within the last few weeks been so peremptory and incessant, that we entertain no doubts but that, at the close of the year, the greatest difficulty will be experienced in obtaining iron for ship-building. The iron market in Liverpool has been much excited of late, and pig iron has been speculated in to a considerable extent; and pig iron, 1, 2 and 3, Scotch has been sold during the week at Glasgow, on 'Change, at 95s. net cash—the demand for consumption being very great—and doubtless will be much higher. The Low Moor company, on Monday, made a general advance of £1 per ton, and we hear that our accounts, published last week, respecting that and the Bowling company having bought largely of Scotch pig iron is incorrect. On the whole the brightest prospects may be confidently entertained for the trade, and the difficulty will not now consist in the limited demand, but the inadequate supply in the market.—*Mining Journal.*

*The Iron Trade.*—This important branch of commerce still continues its promising position, and, in proportion as the value enhances, speculators extend their operations. This evinces an anticipation of a still greater increase, and confirms our former opinion, that the advantages are not merely present, and the effect of ordinary fluctuation, but permanent and prospective. All accounts testify the progressive ascendancy of iron, and it is impossible to predict where it will stop. Most of the Welsh, Staffordshire, and Scotch ironmasters, have closed their books against any further orders at present, although the nominal prices may be quoted as follows:—Bars in Wales, 9l. per ton; ditto in London, 9l. 10s.; pigs in Glasgow, No. 1, 4l. 10s.; ditto in Wales, 5l. 15s.; rail, 10l. 15s.; nail rod, 10l. 10s.; hoop, 11l. 10s.; and steel, 12l. A further advance is looked for of 20s. per ton upon Staffordshire bars, hoops, sheets, and rods daily, as the difference in price between Welsh and Staffordshire metal must be maintained. This re-action in the British market has had its effect on Swedish iron, which, as well as steel, has, with in the last week, shown an advance of 2l. per ton; a good deal of weighty business has been transacted, and the market, on the whole has been well looking up.—*Mining Journal.*

*Railways and Public Accommodation.*—It has been remarked that England is a nation of grumblers, and its propensity for that characteristic has procured it more social and other advantages than other nations enjoy. The enterprize of capitalists has given the middle and poorer classes speedier and cheaper conveyance than the old coach travelling, yet John Bull tries what more he can "squeeze" out of the companies by grumbling, and, if he can, to get an inside place at outside fares, forgetting, too, that in the old mode of travelling, he had to encounter wet and wind and provide accordingly—forgetting, too, the cost of construction and of maintenance of railways, and the impositions which they had to encounter in their infancy. Already are the second class carriages so comfortable, that officers of the guards travel by them to Windsor, and an increase of comfort would render the first class typical of vacant possession. Let the public, then, unite in voice with the companies, in getting a reduction of the taxes on companies, which contribute about four per cent. of their receipts to poor and other taxes, and five per cent. to government for duty—amounting together for the existing 55 railways to above £500,000 per annum. Let them direct their grumbling to those iniquities as they have been shown to be, and then cheap travelling and comfort will come at railroad pace.—*Railway & Com. Gaz.*

*Railway Statistics.*—Great Britain counts at present 1,984 miles of railway at work and nearly 1,240 in course of construction. Germany possesses 1,320 miles decreed and in progress. Belgium has finished 152 miles of railway, and is now making 86 more. France, according to M. Teisserene, holds the last rank in railways among the nations of the continent. Taken in reference to the population of each country, he estimates that the length of railways finished or in progress give—in England, 11.73 miles to 100 inhabitants; in Belgium, 10.74 ditto; in Germany, 9.61 ditto; in France 9.50 ditto.—*Mining Journal.*

*The Iron Trade.*—All our advices still continue to represent the cheering revival which this trade has experienced within the last few weeks, and, at the same time prospects of a far greater advance are confidently held out. This expectation is founded chiefly on the growing consumption of that article for cases in which it was hitherto unappropriated—thus the buildings of iron roofs, houses, and fire-proof fabrics have required in Liverpool alone upwards of 20,000 tons of cast and wrought metal during the last year; and 25,000 tons of plate and angle iron is now actually in use for the construction of iron ships and steam-boats.

A great demand has also been created abroad for foreign machinery of every kind. But the chief cause to which this encouraging increase is to be attributed is the vast extension of railways, and the number now in progress, certain of completion in a few years. If the quantity can be procured, iron will be wanted, at a low calculation—

in Great Britain and Ireland, for 2000 miles, in Prussia and Germany, 2500; in France, 1600; Russia and the rest of Europe, 1500; Total, 7600 miles. This, at 300 tons per mile, will alone require 2,280,000 tons of iron; and if the atmospheric principle be adopted, the quantity will be more than doubled. It appears that the Germans, anticipating the demand in England, and her probable inability to meet it, have turned their attention to their own resources. Already they have proved their ability to compete with us in the construction of machinery, and their power of casting iron has arrived almost at perfection.—*Mining Journal.*

*The Metal Trade.*—(From a correspondent).—The prices of iron (English), as given by you last week, are 10s. per ton too low—Bars in London should have been quoted at £8. 10. and in Wales at 7l. 10.; and this week you will find them, on enquiry, to be even 10s. per ton higher still—viz., 8l. in Wales, and 9l. in London; rods, rails, and other articles in the same proportion. In fact, the immense demand for iron has forced the price up to 10s. per ton nearly every week, and continues so to do. Tin plates have also advanced at least 3s. per box; and Scotch pigs cannot now be bought below 4l. 5s. or 4l. 10s. per ton at Glasgow, and only in limited quantities. Cash down now for distant delivery.

*The Iron Trade—Glasgow, Feb. 15.*—A most important feature in the demand for Scotch pigs, and a sufficient cause for further considerable advance, will be found in the transactions which have taken place this week in Liverpool. The Bowling Iron Company effected at purchase of 6000 tons on Monday last; and it is said that the Lowmoor Company also made a similar bargain—the former, however, is certain. That these wealthy and extensive manufacturers of iron have not bought on speculation, is a fact which is now fully ascertained; but that they were compelled to do so by dire necessity, their own produce being quite insufficient to enable them to carry on their works. Dealers have now obtained 85s. net, and the makers, we understand, are holding for 90s. Bar iron is firm at 8l. at which sales are reluctantly made by the makers; and, from accounts brought by the American packet to-day, numerous purchasers will be in the market immediately.

*Feb. 20.*—At the monthly meeting of the ironmasters, held here yesterday, the advanced price of 4l. 10s. (pig-iron) was firmly maintained; and from the many pressing orders in the market for immediate completion, and for export, the feeling of the meeting betokened a further advance.

*Birmingham, Friday Evening.*—A further advance of 20s. per ton in the price of iron was declared by most of the large houses in the South Staffordshire district on Thursday last. This rise notwithstanding the recent and rapid advances, did not, however, come altogether unexpectedly on the trade, as the principal ironmasters have for some time

past declined to execute orders at the former prices. No fresh orders to any extent will, we believe, now be taken, unless at the advanced rates, and even these will be difficult to execute, as we are informed many of the manufacturers have more orders on hand than they can supply for the next twelve months. Whether the rise will be a permanent one, we cannot, of course, undertake to say, but the trade is regarded as in a most unsettled and feverish state, from the uncertainty as to the continuance of present prices. As might be expected, under these circumstances, a corresponding advance has taken place in nearly all descriptions of manufactured goods, including nails, in which a rise of 15 per cent. has been declared. We are glad to find, as regards the nailers—a class of persons whose labour has been greatly depressed—an advance of 10 per cent. on their wages was decided on at a meeting of the masters held at Dudley on Tuesday. Of manufactured goods for the foreign market, we may observe that the orders are comparatively light, the greater demand being for iron rails, chairs, &c.—*Mining Journal.*

**RAILROAD IRON AND FIXTURES.** THE Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO.,  
21 Broad st., N. York.

**S. VAIL, PROPRIETOR OF THE SPEED-** well Iron Works, near Morristown, N. J., can supply at short notice railroad companies and others with the following:

Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyres made, and they may rely upon being served according to order, and also punctually, a large quantity in the straight bar is kept constantly on hand. Crank axles for locomotive engines, made from the best Pennsylvania iron. Straight axles for locomotives for outside connection engines. Frames for engines. Wrought iron work for steamboats, and shafting of any size. Cotton Screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen:

Baldwin, Vail & Hufty, Philadelphia; Wm. Norris, Philadelphia; N. Campfield, Savannah, Ga.; J. & S. Bones, Augusta, Ga.; D. F. Guez, N. Orleans, La.; Adam Hall, N. York; J. P. Allaire, N. York; William Parker, Boston, Mass.; George W. Schuyler, N. York.

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLL,  
Reading, Pa.

KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—  
As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 25, 1840.

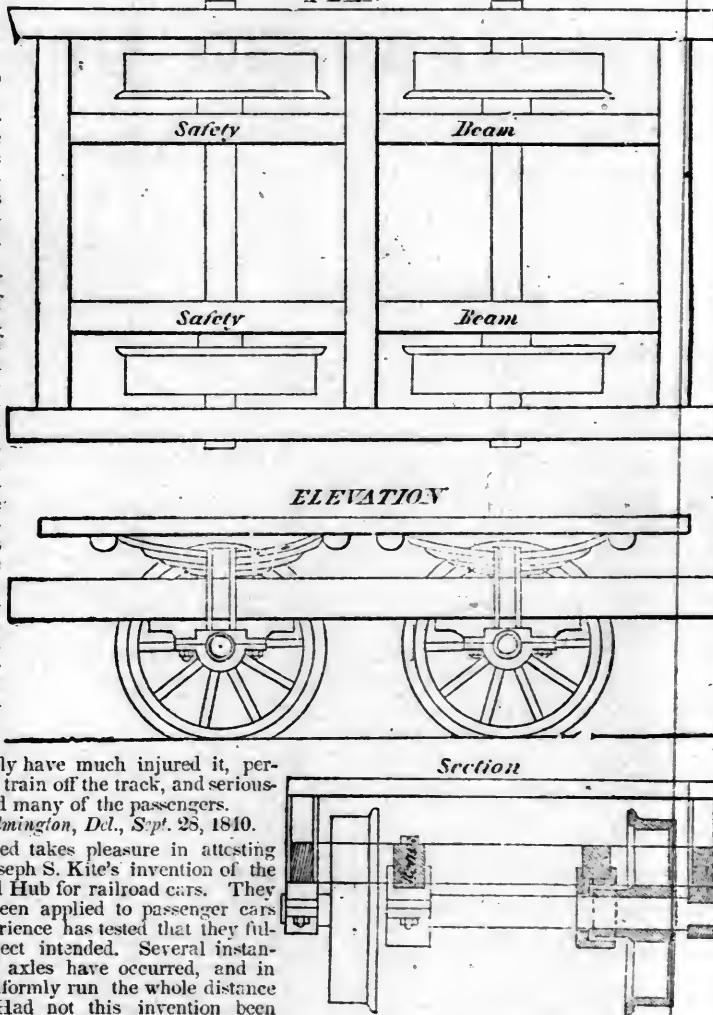
The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

REFERENCES.—  
Boston, Col. James F. Baldwin, Civil Engineer.  
Col. J. M. Fessenden, "  
Wm. Parker, Esq., Engineer and Superintendent Boston and Worcester railroad. ja45

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y.  
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co., Boston.

MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, PATTERSON, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.  
Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.  
Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.

ROBERT SCHUYLER, Esq., Vice President.

J. P. JACKSON, Esq., Secretary.

J. WORTHINGTON, Esq., Treasurer.

Leave New York, foot of Courtland street.	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
For Newark.....	9, 11, 12.....	2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4 3-4, 6.....				
" New Brunswick.....	9.....	3, 4 3-4.....				
Leave						
New Brunswick...	6, 7 1-2, 11 1-2.....	8 3-4.....	11 1-2	8 1-2		
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	1 1-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4		

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

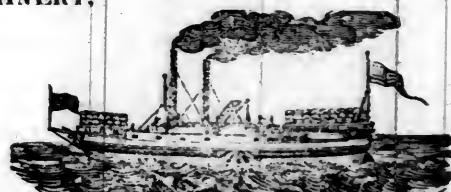
TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS-	A. M.	P. M.	MILES.	FARE.
Boston	Portland		Eastern,	Daily,	7 $\frac{1}{2}$	2 $\frac{1}{2}$	106	\$3 00
"	Portsmouth		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	54	2 00
"	Newburyport		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	35	1 25
"	Salem		"	"	7 $\frac{1}{2}$ , 9, 11 $\frac{1}{2}$	2 $\frac{1}{2}$ , 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14	50
Portland	Portland		Boston and Maine,	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	109	3 00
Boston	Boston		"	"	7 $\frac{1}{2}$	3	109	3 00
Boston	Lowell		Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston		"	"	7 $\frac{1}{2}$ , 11	2, 4 $\frac{1}{2}$ , 5 $\frac{1}{2}$	26	75
Boston	Concord		Concord,	"	"	3 $\frac{1}{2}$	76	2 00
Concord	Boston		"	"	"	3 $\frac{1}{2}$	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11	5	41	
Nashua	Boston		"	"	6 $\frac{1}{2}$	1 $\frac{1}{2}$ , 5	41	
Boston	Worcester		Boston and Worcester,	"	7, 9	2 $\frac{1}{2}$	44	1 25
Worcester	Boston		"	"	7, 10	6	44	1 25
"	"		"	Sundays,	7	"	"	"
Boston	Worcester		"	"	"	2	"	"
Boston	New York via Norwich		"	Mon., Wed. & Fri,	"	4	"	"
"	" L. Island railroad		"	Tues., Thur. & Sat,	"	"	"	"
"	" New Haven		"	Daily,	"	2 $\frac{1}{2}$	"	"
"	Albany		Western,	"	9	2 $\frac{1}{2}$	200	6 00
Albany	Boston		"	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	200	6 00
Springfield	Boston and Albany		"	"	7	3	"	"
Boston	New York via New Haven		"	"	"	2 $\frac{1}{2}$	"	"
Charlestown	West Acton		Fitchburg,	"	"	"	"	"
West Acton	Charlestown		"	"	8	1, 4 $\frac{1}{2}$	"	"
Boston	New York, via Sound steamboat		Boston and Providence,	Tues., Thur. & Sat,	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	5	"	"
"	" L. Island railroad		"	Mon., Wed. & Fri,	"	4	"	"
Providence	Providence		"	Daily,	8	3 $\frac{1}{2}$	41	1 50
Taunton	Boston		"	"	8	3 $\frac{1}{2}$	41	1 50
New Bedford	Boston		"	"	8 $\frac{1}{2}$	3 $\frac{1}{2}$	"	"
Boston	Dedham		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	"	"
Dedham	Boston		"	"	9	3, 5 $\frac{1}{2}$	"	"
New York	Greenport		Long Island,	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	4 $\frac{1}{2}$	"	"
Brooklyn	Hicksville & intermediate places		"	"	7 $\frac{1}{2}$	"	95	2 25
"	Greenport		"	"	9 $\frac{1}{2}$	"	26	56 $\frac{1}{2}$
"	Hicksville, (Satur'd'y to Suffolk)		"	Tues., Thur. & Sat,	9 $\frac{1}{2}$	"	95	2 25
Greenport	Brooklyn, (Boston train)		"	Daily,	"	4	26	56 $\frac{1}{2}$
"	" (accommodation do.)		"	"	"	1	95	2 25
Hicksville	" & intermediate places.		"	Mon., Wed. & Fri,	"	"	95	2 25
New York	Albany & Boston via N. Haven		Steamer,	Daily,	7	1 $\frac{1}{2}$	26	56 $\frac{1}{2}$
"	Middletown		New York and Erie,	"	6 $\frac{1}{2}$	"	53	5 00
Middletown	New York		"	"	8, 3	"	"	"
Philadelphia	Pottsville		Reading,	"	6 $\frac{1}{2}$	3 $\frac{1}{2}$	53	"
Pottsville	Philadelphia		"	"	9	"	94	3 50
New York	Newark		"	"	9	"	94	3 50
Newark	New York		N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4 $\frac{1}{2}$ , 6, 7 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	"		[9 A. M. and 3 P. M., con-	"	7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 9, 11	1 $\frac{1}{2}$ , 4, 5 $\frac{1}{2}$ , 7, 9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	"		nect with Morris Railroad.]	Sundays,	9	4 $\frac{1}{2}$	9 $\frac{1}{2}$	25
New York	Newark		[9 A. M. and 4 $\frac{1}{2}$ P. M., trains,	Daily,	11 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	Elizabethtown		connect with Somerville Rail-	"	9, 11	2, 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14 $\frac{1}{2}$	31 $\frac{1}{2}$
Elizabethtown	New York		road.]	"	7, 7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 10 $\frac{1}{2}$ , 12	3 $\frac{1}{2}$ , 5	14 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	Rahway		N. J. railroad and trans. co.,	"	9, 11	3, 4 $\frac{1}{2}$ , 6	19 $\frac{1}{2}$	31 $\frac{1}{2}$
Rahway	New York		"	"	6 $\frac{1}{2}$ , 7, 8 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$ , 9 $\frac{1}{2}$	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New Brunswick		"	"	9	3, 4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New Brunswick	New York		"	"	6, 7 $\frac{1}{2}$ , 11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
"	"		"	Sundays,	11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New York	New Brunswick		"	"	9	4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
Philadelphia	New York		Camden and Amboy,	Daily,	7	"	91	3 00
New York	Philadelphia		"	"	5 $\frac{1}{2}$	"	91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	9	"	30	75
Bristol	Philadelphia		"	"	9	4	30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"	8	4	93	
Baltimore	Philadelphia		"	"	9	8	93	
"	Washington		Baltimore and Washington,	"	9	5, 11 $\frac{1}{2}$	41	2 50
Washington	Baltimore		"	"	6	5 $\frac{1}{2}$	41	2 50
Baltimore	Cumberland and inter. places		Baltimore and Ohio,	"	7 $\frac{1}{2}$	"	"	"
"	Frederick		"	"	"	4	"	"
Cumberland	Baltimore		"	"	8	"	"	"
Hancock	"		"	"	10 $\frac{1}{2}$	"	"	"
Martinsburg	"		"	"	11 $\frac{1}{2}$	"	"	"
Harper's Ferry	"		"	"	"	12 $\frac{1}{2}$	"	"
Frederick	"		"	"	"	2	"	"
"	"		"	"	"	"	"	"
Ellicott's Mills	"		"	Sundays,	8	"	"	"
Richmond	Petersburg		Richmond and Petersburg,	Daily,	7 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$	"	"
Petersburg	Richmond		"	"	10 $\frac{1}{2}$	1 $\frac{1}{2}$	"	"
Albany	Schenectady		Mohawk and Hudson,	"	5 $\frac{1}{2}$	"	"	"
Schenectady	Albany		"	"	8	5 $\frac{1}{2}$	"	"
Albany	Saratoga		"	"	9	3 $\frac{1}{2}$	"	"
Saratoga	Albany		"	"	7 $\frac{1}{2}$	2	"	"
Troy	Saratoga		Troy and Saratoga,	"	7 $\frac{1}{2}$	12 $\frac{1}{2}$ , 5	"	"
Saratoga	Troy		"	"	7 $\frac{1}{2}$	3 $\frac{1}{2}$	"	"
Auburn	Rochester		Auburn and Rochester,	"	8 $\frac{1}{2}$	"	"	"
Rochester	Auburn		"	"	8	3	"	"
"	Buffalo		Rochester and Buffalo,	"	"	3	"	"
Buffalo	Rochester		"	"	"	3	"	"
"	Falls		Buffalo and Falls,	"	"	"	"	"
Falls	Buffalo		"	"	9	"	"	"
Buffalo	Albany		Albany and Buffalo	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	"	"

# American Railroad Journal, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 14.]

THURSDAY, APRIL 3, 1845.

[WHOLE No. 457; VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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One page, single insertion.....	8 00
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One square ".....	1 00
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H. R. DUNHAM & Co. N. Y.  
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PHENIX FOUNDRY, N. Y.  
R. HOE & Co. N. Y.  
J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)  
TROY IRON AND NAIL FACTORY, H. Burden Agent. (See Adv.)  
ANDREW MENEELY, West Troy. (See Adv.)  
ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
NORRIS, BROTHERS, Philadelphia, Pa.  
KITE'S Patent Safety Beam. (See Adv.)  
FRENCH & BAIRD, Philadelphia, Pa. [See Adv.]  
BALDWIN & WHITNEY, Philadelphia, Pa.  
JOHN F. STARR, Philadelphia, Pa.  
MERRICK & TOWNE, do.  
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. [See Adv.]  
ROSS WINANS, Baltimore, Md.  
CYRUS ALGER & CO., South Boston Iron Company.  
SETH ADAMS, Engineer, South Boston, Mass.  
HINCKLEY & DRURY, Boston.  
C. C. ALGER, [Stockbridge Iron Works,] Stockbridge, Mass.

## IRON MERCHANTS and IMPORTERS.

DAVIS, BROOKS, & Co. N. Y. [See Adv.]  
A. & G. RALSTON & Co. Philad. Pa. [See Adv.]  
THOMAS & EDMUND GEORGE, Philadelphia. [See Adv.]

## FRENCH AND BAIRDS PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Mettewee Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Chyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. Philadelphia, Pa., April 6, 1844.

\* \* \* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

A GOOD SECOND HAND LOCOMOTIVE TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,  
ja53 Albany Iron and Nail Works, Troy, N. Y.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE,  
ja45 N. E. cor. 12th and Market sts, Philad., Pa.

**RAILROAD IRON AND LOCOMOTIVE**  
 Tyres imported to order and constantly on hand  
 by **A. & G. RALSTON**  
 Mar. 20th 4 South Front St., Philadelphia.

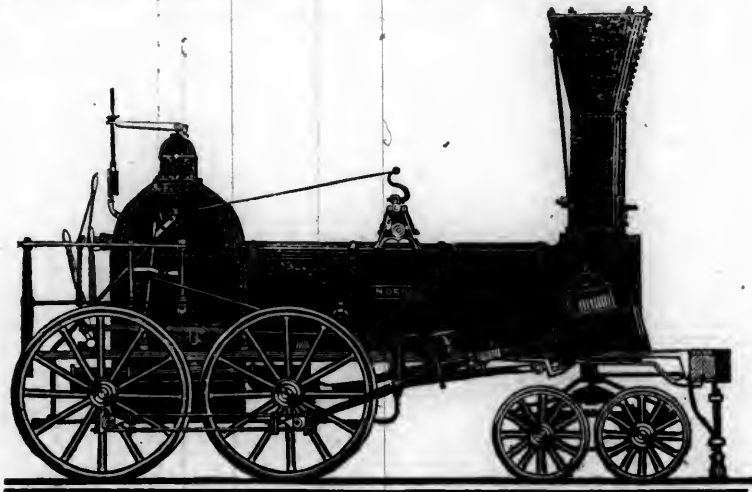
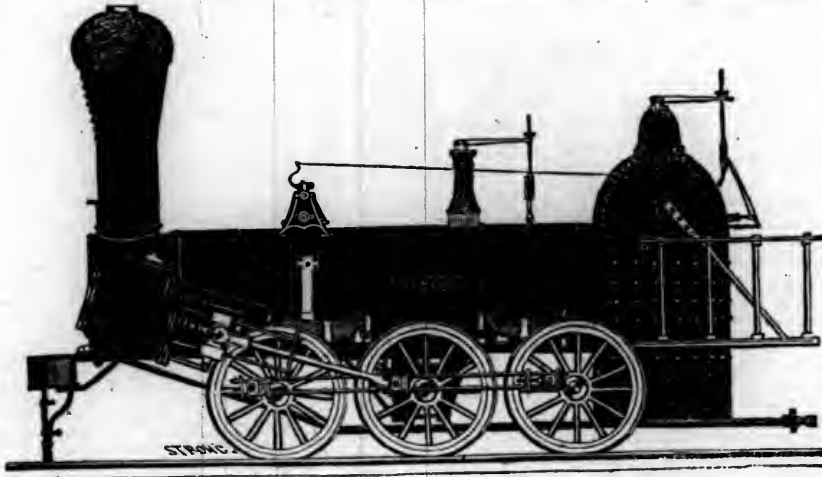
**THE NEWCASTLE MANUFACTURING**  
 Company continue to furnish at the Works, situated in the town of Newcastle, Del. Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
 ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS,** etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. CUSHMAN,** *Civil Engineer,*  
 Albany, N. Y.  
 Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NORRIS' LOCOMOTIVE WORKS**  
 BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following description, viz:

Class 1,	15 inches Diameter of Cylinder,	× 20 inches Stroke.
" 2,	14 " " "	× 24 " "
" 3,	14½ " " "	× 20 " "
" 4,	12½ " " "	× 20 " "
" 5,	11½ " " "	× 20 " "
" 6,	10½ " " "	× 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**TO IRON MANUFACTURERS.** THE SUBSCRIBERS, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

**A. & G. RALSTON & CO.,**  
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**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

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From 4 inches to 4 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



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**MORRIS, TASKER & MORRIS.**  
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**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY,** *Civil Engineer,*

**VALUABLE PROPERTY ON THE MILL Dam** For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS,** 48 State st., or to **CURTIS, LEAVENS & CO.,** 106 State st., Boston, or to **A. & G. RALSTON & Co.,** Philadelphia. ja45

REPORT OF THE AUBURN AND SYRACUSE RAILROAD COMPANY.

Length of road, 26 miles.	
Cost of construction:	
Commissioners' expenses,	\$335 32
Office,	8,532 13
Engineering,	33,337 58
Land account,	82,360 35
Grading,	343,921 40
Superstructure & buildings,	160,453 01
Outfit account,	37,309 17
	\$665,848 96
Balance of interest account,	80,756 55
	\$746,605 51
Receipts from passengers,	80,553 17
do. all other sources except capital stock,	16,184 71
	96,737 88
Number of through passengers,	80,538
do. way do.	9,716
	90,254
Exp. for repairing and running the road,	\$44,193 76
do. of constn, int. on State loan, &c.	20,051 09
Amount pd. for dividends,	31,547 00
	95,791 85
Number of locomotives, 3.	
do. passenger and mail cars—an undivided interest by contract and purchase in all passenger and mail cars on the line between Albany and Rochester.	
Number of freight cars, 18.	
The company has no machine shop and no horses.	
Average number of men employed, 45.	
The number of miles run by passenger trains was	41,548
do. do. freight and all other trains,	7,858
	49,406

REPORT OF THE AUBURN AND ROCHESTER RAILROAD COMPANY.

Length of road in operation, 78 miles.	
Cost of construction to Jan. 1, 1844,	\$1,727,361 15
Expended on construction in 1844, to Jan. 1, '45,	68,981 34
	\$1,796,342 49
Total construction to Jan. 1, 1845,	
Income from the 1st day of January, 1845, to 1st of January, 1845, viz:	
From through passengers	\$136,260 18
do. way do.	78,986 77
do. freight	7,808 40
do. United States mail	13,650 00
do. other sources	962 03
	\$237,667 38
Income for the year 1844	\$237,667 38
Expended for repairs and running road,	85,660 12
Amount of dividends paid in the year 1844:	
On the 1st day of February, 1844	49,000 00
On the 1st day of August, 1844	56,000 00
	\$105,000 00
Number of through passengers, 50,512	
do. way do.	70,857
	121,369
Total number of do.	121,369
Number of miles run, viz:	
By passenger trains	128,696
do. freight trains	8,736
do. all other trains	21,671
	159,103
Total miles	159,103
Number of locomotives, 10.	
Number of freight cars, viz: eight-wheel cars, 12; four-wheel cars, 5; total, 17.	
Number of passenger and other cars: an undivided interest with the Mohawk and Hudson, and the Utica and Schenectady, and the Syracuse and Utica, and the Auburn and Syracuse railroad companies, of 78-251 of the following, viz:	
Eight-wheel passenger cars, 38; four-wheel do. 62; eight-wheel baggage cars, 10; eight-wheel baggage and mail cars, 4; four-wheel baggage cars, 7; four-wheel mail cars, 7; total, 128.	

Number of horses, 4.  
 Number of machine shops, 2.  
 Average number of men in the employment of the company, 136.

REPORT OF THE TONAWANDA RAILROAD CO.

The length of the rail road of this company in operation for the year 1844, is 43 miles.

The cost of construction of the road, including cost of depots, warehouses, shops and locomotives, cars and other running machinery, is, as near as can be estimated, (a part of the road now undergoing reconstruction,) \$727,331 87.

The income for the year 1844, was as follows:

For through passengers,	\$71,307 61
For way do.	21,331 45
	\$92,639 06
For freight	15,722 00
For all other sources, including U. S. mail, after deducting expense of side mails	5,816 22
	\$114,177 28
Total	\$114,177 28
Number of through and way passengers in 1844:	
No. of through passengers, 52,962, paying	\$71,307 61
No. of way passengers, 26,570, paying	21,331 45
Expenses of construction and repairs in the year 1844:	
Expenses of construction	\$159,831 87
do. of repairs and superintendence	38,311 93
As this head is required to include all the expenditures, it is proper to add that under the act of February 7, 1844, this company made a loan of \$150,000 upon hypothecation of its increased stock and mortgage of its road.	
Interest on this loan paid in 1844	\$2,706 68
do. and sinking fund on loan of State credit	7,000 00
Interest on bonds and mortgages	1,120 00
Principal and interest, mortgage paid up	2,140 00
Paid for new locomotive purchased	6,096 54
	\$47,207 02
The amount of dividends paid in 1844, or declared in 1844, and paid in 1845	\$23,337 33
Being \$4 per share on 5000 original shares, and one third of that sum on 2500 increased shares as a sinking fund to meet the debt of \$150,000.	
Number of locomotives, &c.: 5 locomotives; 5 eight-wheel passenger cars; 7 four-wheel passenger cars; 2 four-wheel baggage cars; 1 four-wheel mail car; 2 eight-wheel freight cars; 50 four-wheel freight cars; 1 carpenter's shop; 1 machine shop; 1 locomotive house; 2 car houses; 4 horses.	
The average number of men in the employment of the company, including superintendent, clerks, engineers, treasurer, secretary, register, carpenters, firemen and laborers, were 84.	
The number of passenger trains which passed over the road in 1844, calling it a trip from Rochester to Attica and back, was 580; and the number of miles run, 49,880.	
The number of freight trains were 164; averaging 50 miles each, and the number of miles run by such trains was 8200.	

The amount of dividends paid in 1844, or declared in 1844, and paid in 1845

Being \$4 per share on 5000 original shares, and one third of that sum on 2500 increased shares as a sinking fund to meet the debt of \$150,000.

Number of locomotives, &c.: 5 locomotives; 5 eight-wheel passenger cars; 7 four-wheel passenger cars; 2 four-wheel baggage cars; 1 four-wheel mail car; 2 eight-wheel freight cars; 50 four-wheel freight cars; 1 carpenter's shop; 1 machine shop; 1 locomotive house; 2 car houses; 4 horses.

The average number of men in the employment of the company, including superintendent, clerks, engineers, treasurer, secretary, register, carpenters, firemen and laborers, were 84.

The number of passenger trains which passed over the road in 1844, calling it a trip from Rochester to Attica and back, was 580; and the number of miles run, 49,880.

The number of freight trains were 164; averaging 50 miles each, and the number of miles run by such trains was 8200.

REPORT OF THE ATTICA AND BUFFALO RAILROAD COMPANY.

Amount expended in the purchase of real estate and construction of the road, to April 1, 1844, as it appears from the books and papers in this office	\$289,906 35
Cars and engines	37,310 87
Expended under the following heads in the completion of the road since that date.	
Depot in Buffalo	1,035 95

Right of way	1,739 92
Grading road	111 15
Road expenses in Lancaster	1,331 88
Lands in Buffalo	405 00
Turn outs and turn tables	269 86
Buildings and furniture	417 05
Paid on contract for engine house	1,590 00
Engine house and shop swept away	1,814 50
Machine shop	49 25
Sundry expenses by superintendent	229 59
	\$336,211 37
Amount of receipts for the year ending Dec. 31, 1844, as per report submitted	73,248 34
Expenses during same period, as per same report	25,215 05

REPORT OF THE SARATOGA AND SCHENECTADY RAILROAD COMPANY.

The Saratoga and Schenectady Railroad, extending from the village of Saratoga Springs to the city of Schenectady, is 22 miles long.

The cost of construction is \$300,000 00

The receipts of the company from January 1st, 1844, to December 31, 1844, both days included, are:

From passengers on 14,511, through	\$18,696 16
From passengers on 23,121, way	9,371 39
	\$28,067 55
From freight	4,935 35
From transportation U. S. mail	1,663 60
From all other sources	1,081 14
The expenditures of the company for same, are:	
For construction, depot and cars, and to be released from maintaining fence	3,658 06
For repairing and running road	26,209 03
	\$30,867 09
The number of locomotives is 3; passenger cars, 6; freight cars, 10; machine shop, 1; horses, 4.	
The average number men in employment of company, 24.	
The number of miles run by engine, with passenger trains, 33,166. The freight is run in same train with passengers.	

REPORT OF THE SCHENECTADY AND TROY RAILROAD COMPANY.

Length of road in operation, 20 1/2 miles.

Cost of construction to January 1st	\$640,799 60
Income from passengers	31,067 25
do. freight	1,578 39
do. other sources	216 95
No. of through passengers, 60,677; way passengers, 5400.	
Amount received from through passengers	29,570 12 1/2
do. do. way do.	1,497 12 1/2
Expenses for repairing and running road	26,280 81
Expended on construction, (new engine and cars,)	7,280 00
	\$34,345 12 1/2
Dividends, none.	
Number of passenger cars, 7; locomotives, 3; freight cars, 19; mail cars, none; other cars, 24; machine shop, 1; horses, none.	
Average number of men per day for the year, 27.	
Number of miles run by passenger trains, 42,245.	
No separate trains run for freight.	

THE PUBLIC WORKS OF PENNSYLVANIA. Views of Mr. Smith.

The sale of the Public Works continues to be discussed at Harrisburg. We trust that something of a satisfactory character will be done in relation to this important matter before the adjournment. The people

at the last election decided by a very large majority in favor of the sale. But this decision seems to have had very little effect upon the minds of some members. The matter is a plain one. Are the Public Works managed with as much economy by the State, as they would be by a Company? Is it likely that the profits from the Public Works, as controlled by the State, will for years to come prove more than equal to the amount of the interest on the sum for which they may be sold? In short, are the taxes more likely to be reduced by selling than by retaining the Public Works; and will their retention hold out a better prospect of the ultimate payment of the State Debt than their sale? These questions seem to cover the whole ground.

Mr. Smith, of Lancaster, a few days since, made a very able speech in favor of the sale. He said that office-holders who batten, and the office-hunters who expect to batten on the public spoils, strenuously resist the disposal of the Works, because to them they are all, every thing—life or death. He gave a table, showing the cost of our finished and unfinished lines, the interest at five per cent. for ten years, the expenditures and revenue to 1844. The aggregates he made thus:

Cost, .....	\$28,616,375
Interest at 5 per ct. for ten years, .....	14,211,382
Expenditures, .....	9,831,286
Revenue, .....	9,286,644

From the above, he said it would appear that the original cost of our public works was \$28,616,375 01; the interest on the same, not including the interest on sums paid for surveys, lock-keepers, Canal Commissioners, &c., was \$14,211,382 06; the expenditures \$9,831,286 68, and the revenue \$9,286,644 26. Add the interest to the expenditures, and we had \$24,042,668 74. From this deduct the revenue, and there appeared an actual loss from these works of \$15,756,004 48.

He contended that the Works, instead of being profitable, were annually sinking us deeper in public debt. He believed, moreover, that in the hands of a Company, economically managed, they would yield a handsome income, and prove a profitable investment. Mr. S. also gave an official table, shewing that while the heavy tax-paying counties had voted with great unanimity for the sale of the Main Line, those that had drawn more money for School purposes than they had paid for State Taxes, had voted against the sale. Mr. S. concluded his remarks with this language:

"It need not therefore surprise us that the gentlemen from Centre and Cambria, should argue so strenuously against the sale. What matters it to them and their constituents, that our public improvements are increasing our burdens? What care they for a three mill tax, while they draw more out than they pay into the State Treasury? Wonder not that they talk so lightly of our taxes, and generously hope that no country will complain of such a trifling burden. Sir, a three mill tax is no trifling burden. Oppressive,

however, as it is, it would be borne with less difficulty, and some cheerfulness, if the relief desired so unanimously by the people should be granted. Deny this; refuse to sell your canals and railroads—disregard the solemnly expressed wishes of the people—and if repeated insults should render them desperate, and serious consequences follow, upon your heads rest the responsibility. You act not in the dark. By an overwhelming majority has this question been settled. Is it to be re-settled, re-examined—and shall the will of the people be overruled and shamefully disregarded by selfish, wreckless demagogues? Will gentlemen still doubt and hesitate?

"Our doubts are sometimes traitors,  
And make us lose the good we oft might win,  
By daring to attempt."

Such, sir, is the present case. 'To doubt the wisdom of this measure is treason to ourselves, to the people and our creditors. We may doubt too much, too long, and to our sorrow. Pyrrho of old, doubted until reason tottered, and said there was no truth. Hobbes, the English philosopher, doubted, until he denied the existence of matter, and questioned his own personal identity—while sacred writ gives us the history of a doubting christian who would not believe unless he could lay his fingers into print of the nails, and thrust his ruthless hand in the pierced side of his crucified Lord. And gentlemen would compare unfavorably with the skeptic of old, both sacred and profane, if conviction failed to follow facts so clearly and conclusively established, and might continue to doubt, and doubt though an angel reasoned, or one rose from the dead."

#### GREAT WESTERN RAILWAY OF CANADA.

Some one has been pleased to forward us the Hamilton (Canada) Gazette, in which we are glad to perceive that public attention is again turning, and we hope not in vain, to the vast benefits which would be secured to the province and to the American travelling public, by the construction of a railway from the western extremity of Ontario to a point opposite Detroit. We have on numerous occasions alluded to this first of all Canadian projects, and ever anxious to forward the cause of railways and of every undertaking of private enterprise, we send to the *Gazette* copies of some numbers of the *Journal* containing articles which may not be without use. The principal one was pretty extensively noticed at the time in the upper province, and the conclusion to which it comes as to the western terminus is now placed beyond the reach of controversy by the great economy which has been introduced in the working of railways, and, still more so, by the obvious policy of making this route to the west such an one as to defy competition—a position it may assume, if it only receive fair play in the development of its natural advantages. With the re-

mark, that the gentleman to whom we are indebted for the above paper is well known to, and highly esteemed by, our ablest and most successful civil engineers, and is necessarily well known to many of the prominent citizens of Montreal, to whom we refer them for his standing in the capital, we proceed to make a few suggestions as to the proper mode of bringing this project to the attention of *British* capitalists: for, from a variety of causes which we cannot go into now—of which the want of means is *not* one—there is nothing to be done here *at this time*, or perhaps in Boston either.

The mode of bringing forward the claims of railways in England must be adopted "in extenso." The object of the work must be clearly stated, the cost at which that object can be accomplished must be given in such a manner as to carry conviction, and thirdly, it must be shown that the end to be attained is sufficiently great to warrant the expenditure. Above all, it will be indispensable to avoid that vague grandiloquence so much in vogue when speaking of the "great west," as well as the gross exaggerations and foolish assumptions which characterize the documents of our canal commissioners and boards of public works; of these, by the way, we saw a specimen in an Oswego paper, where some lecture of Mr. Merritt, at Montreal, was reported, in which the repeal of the corn laws is demanded from England, and prohibitory duties on imports from the United States are asked from Canada to insure the success of the St. Lawrence canals! It is impossible to conceive anything so different from the productions of such men as Messrs. Merritt, Killaly etc., as the plain, clear, straightforward appeals of the projectors of useful and honorable works in England to the public on whom they depend for support.

Men of considerable ability and standing have been occasionally sent to England from this country, and, generally, without success. The reason is that those sent out were generally cashiers or money brokers, than whom, no class of the community is more incapable of taking in at one view the great points of a vast project, or they were, more or less, politicians by profession. It is useless to examine their relative demerits; they are quite sufficient to swamp any really useful undertaking, though in foisting "State works" on the people they are quite at home, as we of New York, Ohio and Pennsylvania only too well know. It is not impossible that some of our Canadian neighbors may suspect their condition will be little better when Messrs. Merritt and Killaly have "had



their will of them." Suppose the advantages of the Great Western railway to be advocated by the former *à la* St. Lawrence canal, and the engineering considerations to be presented by the latter, *à la* Beauharnois canal, at a meeting of half a dozen accomplished London merchants with one of the Rennies, Stephenson or Brunels, as their professional adviser; who can doubt the "denouement." The visionary ideas and ill digested information of the former would be as quickly discerned by the educated English man of business as would the "great experience and scientific acquirements" of the Canadian Smeaton be understood by any of the distinguished engineers of England. The Great Western railway would be at once associated with government works got up for some vile jobbing purpose and would be avoided like the plague by those seeking investments. It is of course not to be expected that men of equal standing with eminent British capitalists and engineers can be sent out; but men competent from experience and acquirements, and—above all—of undoubted character, can be found and their services secured. So great and decided are the inducements which the Great Western railway holds out for investment, that we must believe it sure of success if ably and honestly introduced to the notice of British capitalists, assuming, as we necessarily must, that a safe and lucrative investment in Canada would be a desideratum with them; a position we cannot doubt, though we make not the slightest pretensions to *know* such to be the case. That is of course the first question to be put, and, if the answer be favorable, we are sanguine enough to believe that proper exertions will secure the immediate commencement and rapid completion of the Great Western railway.

We take the following from the *Burlington (Vt.) Free Press*—

We are happy to observe that the La-prairie and St. John's Railroad Company has applied to the Provincial Parliament for an extension of its charter from St. John's to the Province line, at or near Missisquoi Bay—a distance of about 26 miles—with a view to connect with the contemplated road to this place; and should the charter be granted—of which there is little doubt—we have strong assurances that the stock will be promptly taken, and the work at once entered upon.—This would leave but *thirty-six miles*—the distance between Burlington and the Province line, at Missisquoi Bay—to complete the communication by railroad from Boston to Montreal. This 36 miles traverses, in very nearly a direct line, a level region of the Champlain valley, opposing as few se-

rious difficulties, and affording as many facilities, as any other route of equal length in New England. A survey of this route is shortly to be made, and will verify our assertion. Looking at the subject in this aspect then, it stands thus: Fifty miles of this line is already constructed, from Boston to Fitchburgh, and of its ultimate and speedy extension to Burlington, no reflecting man doubts; at the northern extremity, we have a railroad already in operation from Montreal to St. John's, with every probability of its immediate extension to the line; and then we have but 36 miles between Burlington and the line, to be overcome by the joint efforts of all concerned. This route, too, be it observed, traverses no wilderness country, of perpetual snow and frost, but the best portions of Massachusetts, New Hampshire, Vermont, and Canada, every mile of which is rich in that productive industry and natural resource which alone can sustain such enterprises.

There can be no question as to the beneficial effects of railroads upon agriculture generally. They practically place the country farmer upon a par with the cultivator in the neighborhood of the city; and the evidence of this fact is to be observed in the fact that never so many farms were offered for sale in the immediate vicinity of Boston, as since the construction of the roads converging to that city, while the lands of the interior, upon the several routes, have proportionally appreciated in value. With a railroad communication to Boston, every article of produce would have a known uniform cash value, and instead of lying six or eight months on hand, and being blown upon and refused, even in exchange for tape and buckram, would be sought for, at prices barely below the city market. A fat ox, for instance, instead of being sold at a price to allow the drover two hundred pounds for shrinkage, may be put on board the car and set down at Brighton while the farmer's corn is yet undigested in his maw.

*Montreal and Portland Railroad.*—We have already informed our readers that a charter had been obtained from the provincial legislature of Canada, for a railroad from Montreal to connect at the Province line with the proposed road from Portland. We understand that the charter authorizes a branch, from any point of the route, to terminate at the Province line in the county of Stanstead, which will connect with the proposed route from Boston through Concord. A letter from a friend living on this route and near the line, says the feeling is strong and general in Montreal in favor of the Portland terminus, arising essentially from the representations of Judge Preble, and, in some degree, from the impression that the means and influence of the British and American Land Company will be available in securing a subscription for the entire stock of that part of the road within the Province. It is supposed that the agents of that company will be able to procure large subscriptions "at home," and these impressions are confirmed by the activity and in-

fluence of the people of Sherbrooke, who fear that if Boston should be preferred to Portland for the Atlantic terminus, the shorter and better route by the outlet of Magog lake will be preferred to the route by way of Sherbrooke. Our correspondent expresses a belief, however, that the current of public opinion will be reversed in Montreal. Still he thinks that the friends of the Concord and Stanstead line have reason to pursue their efforts, with a reasonable prospect of success.

A writer in the *Montreal Gazette* of the 18th says—

"In an enterprize involving such an immense expenditure as a railway communication from Montreal to the Atlantic, it is obvious that but one of the proposed lines can be constructed; and since, in calculating the probabilities of success, the friends of the Portland line have seemed to rely so confidently upon the aid of the capitalists of Boston, it becomes a matter of grave consideration whether, without that aid, that project can be secured, and, consequently, whether, with all which may else be said in favor of it, the rival route via Concord and Stanstead is not the only one which can succeed."—*Boston Courier*.

*Rates of Transportation—East and West.*

—The *Baltimore American* says that the aggregate charge per 100 lbs., on all merchandise between Baltimore and Wheeling, is 110 cents, viz.—from Baltimore to Cumberland, by railroad, 35 cts.; wagon carriage from Cumberland to Wheeling, 75 cts.; total, 110 cts. On coffee, tin-plate, manufactured tobacco, and fish in barrels, a reduction of 10 cents per hundred is made. Freight is carried through from Baltimore to Pittsburgh, via Brownsville, for 95 cents per hundred lbs. A reduction of 10 cts. on this rate is made on the articles named above. Receipts are given by the merchants in Baltimore, for the delivery of merchandise in eight days, at either Pittsburgh or Wheeling.

*Pennsylvania Canal open.*—The Pennsylvania Canal is open, and boats are in motion. The opening rates of freights by railroad and canal from Philadelphia to Pittsburgh are: Groceries, per 100 lbs., \$1 12½; hardware, do., \$1 12½; drugs, do., \$1 12½; dry goods, do., \$1 37½. Time through, 10 or 12 days.

Freights to Pittsburg, via Baltimore and Susquehanna Railroad and Pennsylvania Canals—dry goods, \$1 12½; groceries, 87½; coffee, 75; hardware and cutlery, 87½; china ware, 87½ per 100 lbs., and no commissions charged either in Baltimore or Pittsburgh for shipping.

*Coal on Railroads.*—A statement made by the Reading Railroad Company sets forth the fact that the locomotive engine "Manataw-ny," weighing about 13½ tons, from July 1st to Dec. 1st, 1844—five months—made 81 trips on the road, transporting 16,120 tons of coal. The "United States," weighing about 18 tons, during the same time, 58 trips, with 21,205 tons of coal.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
							Per share.	Per cent. per annum.				
							£	s. d.	£			
Arboath and Forfar.....	15	102,000	35,000	138,870			0	12 6 2	10 0	25	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5 0 2	10 0	100	Barnsley Junction.....	200,000
Brandling Junction.....	23	161,700	365,470	481,452				4 10 0	50 54	54	Belfast and Ballymena....	385,000
Bristol and Gloucester.....	37½	400,000	211,000					nihil.	30 36	36	Blackburn and Accrington..	400,000
Chester and Birkenhead.....	14½	750,000	143,170	518,989	5,856	13,148	0	8 6 1	14 0	50	Birk. and Ches. Junction...	1,000,000
Dublin and Drogheda.....	31	450,000	150,000	500,869				nihil.	55 72	72	Bolt., Wigan and Liverpool	800,000
Dublin and Kingston.....	6	200,000	152,200	359,000				6 0 0 6	0 0	100	Caledonian.....	1,800,000
Dundee and Arbroath.....	16½	100,000	49,445	153,416	2,989	6,993	1	5 0 5	0 0	25	Cambridge and Lincoln....	1,250,000
Durham and Sunderland.....	18½	169,350	124,055	270,392	9,889	17,702		nihil.	34 29	29	Chatham and Portsmouth...	5,000,000
East County and North and East	86½	4,443,200	1,341,155	3,931,905	47,385	118,726	1	6 6		45	Chester and Wrexham....	120,000
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1	2 6 4	10 0	50	Churnet valley.....	1,800,000
Glasgow, Paisley and Ayr.....	51	937,500		1,066,951	12,446	36,736	1	2 6 4	10 0	50	Direct Northern to York....	4,000,000
Glasgow, Paisley and Greenock..	22½	650,000	216,666	787,884	11,572	23,177	0	5 0 2	0 0	25	Dublin and Belfast.....	950,000
Grand Junction.....	104	2,478,712		2,453,169	84,309	195,080	5	0 10 0	0 0	100	Dundee and Perth.....	250,000
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1	12 6 3	5 0	100	Edinburg and Northern....	800,000
Great Western.....	221½	4,650,000	3,679,343	7,272,539	132,235	369,904	3	10 0 7	0 0	75	Ely and Bedford.....	270,000
Hartlepool.....	15½	438,000	155,540	719,205				8 0 0	100	100	Glosgow, Dum. & Carlisle..	1,300,000
Leicester and Swannington.....	16½	140,000		140,000	2,207	6,317	1	5 0 5	0 0	50	Gt. South and West Ext....	1,200,000
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5	0 0 10	0 0	100	Gt. Grimsby and Sheffield..	600,000
Llanely.....	27	200,000	44,000	221,624				1 0 0 2	0 0	87	Harwich and E. coun. Jun..	160,000
London and Birmingham.....	121	6,874,976	1,928,845	6,393,468	92,823	405,768		10 0 0	100	218	Huddersfield & M. r. l. & c.	630,000
London and Blackwall.....	3	804,000	266,000	1,315,640	15,978	23,870			16 6	6	Kendal and Windermere...	125,000
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0	12 0 2	8 0	50	Leeds and Dewsbury.....	400,000
London and Croyden.....	8½	550,000	229,000	761,885	7,583	10,545	0	5 0 2	10 0	14	Leeds and Thirsk.....	800,000
London and Greenwich.....	3½	759,383	233,300	1,040,930	15,193	28,933		nihil.	13 10	10	Liv. Ormskirk and Preston	600,000
London and South Western.....	92½	2,222,100	630,100	2,596,291	68,457	150,469	1	12 6 6	10 0	41	London and Portsmouth....	1,750,000
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1	0 6 5	0 0	40	London and York.....	5,000,000
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2	2 0 4	10 0	93	Londonderry & Enniskillen	500,000
Manchester and Leeds and Hull..	81	2,937,500	1,943,932	3,921,593	46,653	156,761		7. & 10L	60 88	88	Lynn and Ely.....	200,000
Midland railway.....	178½	5,158,900	1,719,630	6,279,056	76,983	281,898			100 96	96	Manchester, Bury and Ross	300,000
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947	4	0 0 4	0 0	100	Manchester and Buxton....	250,000
Newcastle and Darlington.....	23	500,000		405,728				nihil.	21 49	49	Mullingar and Athlone....	
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466		2 0 0	50 37	37	Newcastle and Berwick... 700,000	
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2	10 0 6	16 8	100	Richmond & W. End Junc. ....	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415				0 16 0	8 0 0	20	Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000			31,247	91,171			8 0 0	20	Sheffield and Lincolnshire.	650,000
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066		nihil.	50 18	18	Shrewsbury and Gd. Junc. ....	400,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876		nihil.	82 93	93	Shrew. Wolv. Dudly & B. ...	900,000
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0	10 6 2	2 0	50	Trent Valley.....	900,000
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1	0 0 6	5 0	100	West London Extension... 64,000	
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0	15 0 5	1 8	29	West Yorkshire.....	1,000,000
Yarmouth and Norwich.....	20½	187,500	62,500	230,250				nihil.	16 25	25	Whitehaven and Maryport	100,000
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2	10 0 10	0 0	50	FRENCH RAILWAYS.	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15½	15½	Loughborough.....	70	142½	142½	70	1140	
Anti Dry Rot.....	10,000		18½		2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35		34½		Melton Mowbray.....	250	100	100	10	117	117
General hteam Navigation	20,000	15	14	10	27½	27	Mersey and Irwell.....	500	100	100	10		
Gt Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2½	15	15
Metropolitan Wood Pav..	15,000	10	6	5	6½		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	5	1	1½		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental..	11,493	50	50	7	64½	65	Regents or Loncon.....	21,418	33½	33½	2	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution...				6			Somerset coal.....	800	150	150	7½	123	123
Reversionary Int. Soc.....	5,329	100	100	4½	104	104	Stafford and Worcester...	700	140	140	25	180	180
R. Mail Steam Packet....	15,000	100	60		36½	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing....	3,000	10	7½	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Seyern & Why & Rail Av.	3,762	26½	26½	5½	30	30
							Trent and Mersey.....	2,600	50	50	65	495	
							Thames and Medway.....	8,149	19½	19½		10	10
							Warwick and Birmingham..	7,000	100	100	10½	167	
							Warwick and Napton.....	980	100	100	8½	122	

Canals.

Ashby de la Zouch.....	1,432	113	av.	4	70	70
Barnsley.....	720	100		14	180	180
Birmingham, 1-16 share..	3,000	118½		79	150	160
Do. and Liverpool Junction	4,000	160			13½	13½
Coventry.....	500	100		20	365	365
Cromford.....	460	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forth and Clyde.....	1,297	400½	40½	4	440	440
Grand Junction.....	11,600	100		7	162	161½
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Rerkley....	5,000	do.	do.		8	8
Grantham.....	749	150		8	185	185
Lancaster.....	11,699	47½		3	40	40
Leeds and Liverpool.....	2,897	100		34	640	640
Lieicester.....	545	140		9	39	139

Water Works.

Birmingham.....	4,800	25	25	3½	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7½	88	90
New River L. B. Ann.....	1,500			2½		
Manchester and Salford....	6,486	av.	30	8½	57	57
Vauxhall, lt. S. London....	1,000		100	5	55	55
West Middlesex.....	8,224	av.	63½	6½	126	127

Docks.

Commercial Dock.....	1,065	100	100	3	80	
East and West India.....		sto.		5½	137	
London.....	3,238,310	sto.	40	4½	114½	115
St. Katharine.....	1,352,752	sto.		5	116	171
Southampton.....	7,000	50	50			



RAILROADS.		Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1943.		Div. per cent.	1944.		Div. per cent.	Previous prices.	SALES.	
							Gross.	Nett.		Gross.	Nett.			Shares.	Price.
Me.	1 Portland, Saco and Portsmouth.	50	1,200,000				89,997	47,166	7	124,497	74,841	6	113½	83	100½
N. H.	2 Concord.	35	750,000									12	70½	26	139½
Mass.	3 Boston and Maine.	55	1,485,461				178,745	68,499	6	233,101	86,401	6½	110½	5	110½
"	4 Boston and Maine extension.	17-1-4	455,703	unfin.											
"	5 Boston and Lowell.	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120½	2	120½
"	6 Boston and Providence.	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	108½		
"	7 Boston and Worcester.	44	2,914,078				404,141	162,000	6	428,437	195,163	7½	116½	33	118½
"	8 Berkshire.	21	250,000	not stated.				17,500	7	17,737					
"	9 Charlestown branch.		280,260						13	34,654	13,971	5½	70½	7	83
"	10 Eastern.	54	2,388,631				279,563	140,595	6	337,238	227,920	8	109½	21	109½
"	11 Fitchburg.	50	1,150,000	just op'n'd						42,759	26,835		120	38	122
"	12 Nashua and Lowell.	14-1-2	380,000				84,079		8	94,588	34,944	10	121		
"	13 New Bedford and Taunton.	20	430,962				50,671	24,000	6	64,998	24,000	6			
"	14 Northampton and Springfield.		172,883	unfin.											
"	15 Norwich and Worcester.	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	70½	6,515	70
"	16 Old Colony.		87,820	unfin.									102	28	102
"	17 Stoughton branch.	4	63,075	unfin.											
"	18 Taunton branch.	11	250,000					20,000	8	96,687	20,000	8	118		
"	19 Vermont and Massachusetts.														
"	20 West Stockbridge.	3	41,516	200		100						4			
"	21 Western, (117 miles in Mass.,)	156	7,686,202	4,686,202	30,060		573,882	284,432		753,753	439,679	3	102½	1,032	103½
"	22 Worcester branch to Milbury.		8,431	506											
"	23 Housatonic, (10 months,)	74	1,244,123							150,000			82	86	31
Con.	24 Hartford and New Haven.	38	1,100,000	100,000	10,000	100						6	89		
"	25 Hartford and Springfield.	25-1-2	600,000	400,000	2,000	100									
"	26 Stonington, (year ending 1st Sept.,)	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		41	1,975	40½
N. Y.	27 Attica and Buffalo.	31	336,211				45,896	7,522		73,248	48,033	0			
"	28 Auburn and Rochester.	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	106	18	106½
"	29 Auburn and Syracuse.	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
"	30 Buffalo and Niagara.	22	200,000		1,500								100		
"	31 Erie, (416 miles,)		5,000,000										31½	1,083	31½
"	32 Erie, opened.	53						48,000		126,020	59,075				
"	33 Harlem.	26	1,206,231							140,685	62,399		70	825	68½
"	34 Hudson and Berkshire.	31	575,613			50				35,029	1,941	0	14		
"	35 Long Island.	96	1,610,221	392,340	29,846					153,456	58,996	0	75½	5,400	76½
"	36 Mohawk and Hudson.	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	64½	325	63½
"	37 Saratoga and Schenectady.	22	303,658				42,242	3,000	1	34,666	8,455	0			
"	38 Schenectady and Troy.	20-1-2	640,800				28,043			32,646	6,365	0			
"	39 Syracuse and Utica.	53	1,151,576	none.	16,000	62½	163,701	72,000		192,061	120,992	7	115		
"	40 Tonawanda.	43	727,332				76,227			114,177	75,865	5			
"	41 Troy and Greenbush.	6	180,000												
"	42 Troy and Saratoga.	25	475,801				44,325	21,000		38,502	9,971	2½			
"	43 Utica and Schenectady.	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	129	58	128
N. J.	44 Camden and Amboy.	61	3,200,000				682,832	383,880		784,191	404,956		110½	43	110½
"	45 Elizabethtown and Somerville.	26	500,000												
"	46 Morris and Essex.														
"	47 New Jersey.	34	2,000,000										93½		
"	48 Paterson.	16	500,000									6	85		
Pa.	49 Beaver Meadow.	26	1,000,000												
"	50 Cumberland Valley.	46	1,250,000												
"	51 Harrisburg and Lancaster.	36	860,000										30		
"	52 Hazleton branch.	10	120,000												
"	53 Little Schuylkill.	29	900,000												
"	54 Blossburg and Corning.	40	600,000												
"	55 Mauch Chunk.	9	100,000												
"	56 Minehill and Schuylkill Haven.	18	315,000						12				143½	10	150
"	57 Norristown.	20	800,000										6½	135	6
"	58 Philadelphia and Trenton.	30	400,000										104		
"	59 Pottsville and Danville.	29-1-2	1,500,000												
"	60 Reading.	94	9,457,570	7,447,570	40,200	50				597,613	343,511		50½	4,110	50½
"	61 Schuylkill valley.	10	1,000,000												
"	62 Williamsport and Elmira.	25	400,000				20,000								
"	63 Philadelphia and Baltimore.	93	4,400,000				43,043	200,000			210,000		43½		
Del.	64 Frenchtown.	16	600,000												
Md.	65 Baltimore and Ohio, (1st Oct.)	188	7,623,600				575,235	279,402		658,620	346,946		48½		
"	66 Baltimore and Susquehanna.	58	3,000,000										5	200	6
"	67 Baltimore and Washington.	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	68 Greensville and Roanoke.	17-1-2	260,000												
"	69 Petersburg and Roanoke.	60	969,880							122,871	72,898	3			
"	70 Portsmouth and Roanoke.	78-1-2	850,000												
"	71 Richmond and Fredericksburg.	61-1-2	1,200,000												
"	72 Richmond and Petersburg.	22-1-2	700,000												
"	73 Winchester and Potomac.	32	500,000												
N. C.	74 Raleigh and Gaston.	84-1-2	1,360,000												
"	75 Wilmington and Raleigh.	161	1,800,000											12,853	43½
S. C.	76 South Carolina.	136	5,671,452		34,410	75				532,871	140,196	5			
"	77 Columbia.	66					201,464	77,456		328,425	180,704				
Ga.	78 Central.	190	2,581,723				227,532	93,190							
"	79 Georgia.	147-1-2	2,650,000				248,026	158,207		248,096	147,523				
Ky.	80 Lexington and Ohio.	40	500,000												
Ohio	81 Little Miami.	40	450,000												
"	82 Mad river.	40	400,000												
Ind.	83 Madison and Indianapolis.	56	152,000												
Can.	84 Champlain and St. Lawrence.	15	212,000					12,000		58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Thursday, April 3, 1845.

WESTERN RAILROAD.—Receipts for the week ending March 22:

1845.	1844
Passengers, - - -	\$4,713 \$3,824
Freight, etc., - - -	6,821 4,629
Total, - - -	\$11,534 \$8,453

MINEHILL AND SCHUYLKILL HAVEN RAILROAD.—The following is the amount of coal transported over this road, for the week ending on Wednesday evening last:

6,004-09	
Per last report, - - -	49,747-06
Total, - - -	55,751-15

THE COAL TRADE.—Sent by railroad up to Thursday evening last.—*Miners' Journal.*

Schuylkill Haven, - - -	6,930-11
Pottsville, - - -	3,295-12
- - -	9,686-03
Per last report, - - -	71,736-68
- - -	81,422-71
Sent by canal up to Thursday evening last:	
From Pottsville, - - -	2,071-07

HUDSON AND MOHAWK RAILROAD.

A particular notice of this railway is required on many accounts. It was the first work of the kind in the State, it has exerted a powerful influence on the cause of railroads in New York, and has had no small share in contributing to our present disgraceful financial position; the possession of a system of canals hypothetically unrivalled in the world for their success, yet requiring taxation to meet their liabilities and, what is far worse, degrading the people of western New York below any community, within our knowledge, by denying them the right to judge for themselves in one of their most important transactions, that of selecting their own mode and time of sending their produce to, and receiving their supplies from, the Atlantic cities. We of course refer to the report of the State engineers, Messrs. Jervis, Mills and Hutchinson, in which they made out to the satisfaction of the politicians the vast superiority of canals over railways; hence, in a great measure, the State debt. With this brief allusion to a subject, to which we must recur very soon, we proceed to make a few remarks on the Mohawk and Hudson railroad.

This work was commenced by gentlemen whose means were quite adequate to the undertaking; but, as we observed on a previous occasion, their great object was not to construct a good railroad, but to cry up the stock so as to be enabled to sell out at an advance. This being the case, there was little attention paid to the location or construction; the consequence was a very bad location and the ordinary cheap superstructure or plate rail, at an immense cost. A substantial track, at a cost which the trade will not justify, is perhaps not unknown, but to in-

cur great expense to make a poor road was a distinction reserved for the State of New York. We are sorry to say that this work does not stand quite alone: our State furnishes another, or the other specimen of this kind of engineering. Many of our readers will know the work to which we refer; the late Ithaca and Owego—now the Cayuga and Susquehanna railroad. The inclined planes on these roads have been the astonishment of all engineers and persons at all acquainted with these matters, being made in defiance of the practice and experience of England and this country, and one, the Mohawk railroad, being actually referred to by the above State engineers as the representative of the capabilities of railways! so late as 1835.

The reader will say that there was no inducement to make a bad road, that they might cry up the stock quite as well while making a good work. True; but it will be found that works undertaken in the wrong spirit will be almost always executed correspondingly. And it is to this general remark that we desire at this time to draw particular attention. The spirit of private enterprise is just awakening, and it is probable, that two very important charters will be granted by the legislature: the right to construct a northern and an eastern railroad, the only works which can connect this city with the interior. Now if these works be viewed by the first board of directors, as mere speculations, they will soon sink to the level of the Harlem, Long Island, Mohawk, etc., but if the leading men in the first instance subscribe with the intention of permanently investing their own means, success is certain. For, their own judgment and strong common sense will determine the probable income, and the cost of the work will be obtained with all desirable accuracy from educated and experienced civil engineers of character, the only class of engineers employed by men spending their own money, and we might add, seldom found associated with those spending the money of the public. See, for example, our State works, since the opening of the Erie canal, each more costly and less productive than its predecessor.

We have already expressed our satisfaction at the list of names to the application for a charter from New York to Albany, and must here add, that a late notice published by them to correct certain erroneous impressions circulated by their opponents, is everything that could be desired.

Boards of directors, animated by this spirit, will give the city a railroad such as she requires to the old and wealthy river counties, and the cities and villages from Albany to Buffalo, and a continuous railway to the capital of New England, running through a country thickly settled by a people contributing, per head, more to the business of railways than any other on earth.

BUFFALO AND NEW YORK AND ERIE RAILROAD.

After stating the seven (!) contemplated connections of the New York and Erie railroad with the central line from Albany to Buffalo the *Ithaca Chronicle* very pithily remarks:

"In the Babel strife of all these projects, their advocates seem to have forgotten that the desired connection of the northern and southern routes has already been made to their hands. The Cayuga lake and the Cayuga and Susquehanna railroad furnish the desired link. The Buffalonians and Rochesterians, especially had better look at it. The Auburn and Rochester road sweeps across the Cayuga lake, at the bridge, and comes direct to the steamboat landing, from whence boats can run at all seasons of the year, (the lake being never frozen over,) to Ithaca, and thence the Cayuga and Susquehanna railroad connects with the New York and Erie at Oswego. The distance from Buffalo to New York by this

route is probably somewhat less than by the Seneca route."

We knew this as well as the *Chronicle*, but, like all others, have overlooked it. The communication is as good as any proposed, and, leaving the central line well to the eastward, will find business from the splendid country between Auburn and Buffalo, besides aid in such changes in the Ithaca railroad as may be required, but which are trifling compared with the construction of an entire new line. The proposed connection of the Erie canal with lake Ontario at Sodus bay gives also additional importance to the route from Buffalo to New York via Ithaca and the New York and Erie railroad.

THE COAL TRADE.

Notwithstanding the great increase in the quantity of anthracite coal mined in 1844, the stocks on hand this spring are unusually, if not indeed unprecedentedly low, though the winter has been mild, almost beyond anything on record, and though the navigation of the Delaware has been uninterrupted. Such was the scarcity that \$1 90 to \$2 00 per ton was paid from Philadelphia to New York, and the actual price of "egg coal" rose to six dollars per 2,000 pounds. With an ordinary winter, greatly increasing the consumption and entirely cutting off the supply from Philadelphia by sea, the price would have increased to such an amount as to have been most severely felt by the poor in our northern cities, where the want of fuel causes a degree of misery which must be seen to be believed. We should have been dependent on England and the British provinces for this necessary of life had the winter been severe. The fact is, that the demand is increasing much more rapidly than the means of bringing coal to market. The Schuylkill and Lehigh navigations are, or ought to be, adequate to furnish four times the quantity of anthracite coal consumed in 1844, but it would appear that they cannot do it at present prices, hence other means must be looked to. We have already given some particulars about a new source, and hope, in a few weeks, to be able to speak confidently as to its capabilities and prospects of success. For the present we must conclude with observing, that we do not view every new work as a rival for the present trade, but rather as an auxiliary to bring an increased quantity to market without interfering with the business or prices of existing establishments.

The friends of discriminating tolls say, if the State will abate one-fifth part of the tolls of the Erie canal route, and nothing on the Oswego, charging 28 cents on a barrel of flour from Buffalo to Albany, instead of 35 cents, against 20 cents from Oswego, and 8 cents on the Welland—together 28 cents, then the State would gain or keep \$250,000, which otherwise will be lost to the treasury by means of these rival canals, the Oswego and Welland. We will see.

Here we have the result of discrimination, if crowned with complete success, annihilating all the Oswego trade.

Buffalo trade now pays.....	\$1,000,000
An abatement of tolls of one-fifth would abstract from this revenue.....	200,000
Leaving.....	800,000
If by this modification, exclusively of Erie canal tolls, Buffalo should take all the Oswego trade, which amounts to about one-eighth part of the whole, it would add at the reduced toll, to the Buffalo route.....	100,000
Yielding an aggregate of.....	900,000
But the State will have lost all toll on the Oswego route, 209 miles, which at the present rate on her one-eighth part of the trade would be.....	71,772
Which deducted from the \$900,000 leaves.....	\$828,228

## MAIL TRANSPORTATION ON RAILROADS.

The post office department has been involved, since the establishment of these lines of communication, in constant difficulties with them; and these difficulties, we are inclined to think, on examination, have resulted from a cardinal error in its views as to a proper standard of compensation for the service required of it. The present moment, when a new postmaster general, represented as able and intelligent, has been placed at the head of the department, seems to be an auspicious one for an examination of its past policy on all subjects, and a change in it, where it has been hitherto injudicious or defective.

It has been the fashion to denounce railroads as extortioners in their charge for the transportation of the mail, on the ground that, as their charges for freight and passengers are generally less than by the old mode of conveyance, there is no reason why the charge for the transportation of the mail should not be reduced in proportion, and it has also been alleged that it was *due to the government* to afford it the most complete accommodation of its mails at the lowest rate.

These views, it is believed, will not bear examination. The important lines of railroad throughout the country have been made either by States, or by corporations consisting entirely of individuals, or in which the State was a partner. There are comparatively few of these companies which are paying to the corporators even legal interest; and this is particularly the case with the companies on the great mail route between New York and New Orleans, on which the charge for mail transportation has been most complained of. Indeed on this route three railroads only, as far as we know, (*viz*: the two lines between New York and Philadelphia, and that between Washington and Baltimore,) are paying dividends to their proprietors. Is it then unreasonable that the companies on this great line of thoroughfare should feel themselves authorized to make a charge, in all cases, *corresponding to the accommodation afforded by them*, whether to the government or the public? It is obvious that this standard cannot be exceeded, as both the post office department and individuals would give up the use of an improvement the moment it became *their interest* to do so.

As regards the argument that, because freights have been reduced, the transportation of the mails should be, it may be remarked that freight transportation is, or should be, always at slow and economical rates of speed, while the mail *ought to be* carried at the highest; and on the roads where

large and important mails are carried, and on which the charge for its transportation is most complained of, an accommodation is required for it, much greater than was formerly exacted, when it was carried on the same routes in mail wagons and post coaches. The companies are required not only to furnish a car, or an apartment of a car, expressly fitted up for the accommodation of the mail, and for the assortment of letters and papers on the road, but also for the comfortable accommodation of the mail agent, who is always on the route, and of any special agents who may from time to time be sent over the route, by the department.— Were an exact calculation entered into, we have little doubt that, in most cases, it would be found that the price paid by the department would not exceed what would be received by the company for a bulk of merchandize equal to the space occupied by the mail, and the passage money of the mail agents, with the great disadvantage in the transportation of the mail, that its carriage at a higher rate of speed makes it much more expensive than ordinary freight, and that the mail agent instead of occupying, like any other passenger, a single seat in the car, has a small room in a car furnished him.

Take, for example, the line of railroad between Baltimore and Philadelphia. This road it appears from the reports of the post office department, is ninety-nine miles long, and \$30,600 it seems is the price paid for mail transportation on it, twice daily, eight months of the year, and once a day the remaining four months; a separate car being required for the great northern and southern mail. We discard the consideration of the second mail, because no special accommodation is required for it, and as it is only required by the department at seasons of the year when a second train would be run by the company at any rate, it may be deemed rather an accommodation to the company than otherwise, to allow the mail to be divided, and a portion to go by its second train. But considering this as the compensation paid for the transportation of a daily mail between Baltimore and Philadelphia, let us see what this large sum, as it appears on the first view, amounts to.

The mail being carried each way daily, \$30,600, divided by the number of trips, (730) gives \$42 as the charge made the department for the transportation of an *eight wheeled car* from Baltimore to Philadelphia, which might as well carry eight tons of merchandize, as the mail. Now the average price for the transportation of merchandize

by the railroad between Philadelphia and Baltimore is certainly not less than six dollars per ton, which would give \$48 as the fair compensation of the car were it loaded with merchandize, in lieu of the mail, so that not only the mail and mail agent are carried in this case at less than would be paid for the car were it loaded with merchandize—but in addition the department is furnished with a room in the car, warmed and lit up, for the especial accommodation of the mail agent, at the expense of the company, which is moreover bound to transport its special agents whenever required by the department, free of charge.

Of course the comparison is much more forcible if made with reference to a car filled with passengers. If instead of carrying the mail and mail agent, the car should carry forty passengers, (the average number conveyed by a car,) the company would have received *one hundred and sixty* dollars, instead of forty-two dollars, the price paid by the department for the mail and mail agent. It is evident that the cost to the company is precisely the same, for an eight wheeled car warmed and lit up for the accommodation of the mail and mail agent, travelling at passenger speed, as if this car carried its complement of passengers.

It will not do to say in reply to these facts that it adds but little to the expense of a train to convey an additional car. The great expense of the company is *in its original outlay*, on which it has a right to receive, if it can be had, a fair return, and in the annual expense of keeping in order its road and machinery. Every description of transportation may be legitimately levied on for its fair proportion, (in the ratio of the accommodation afforded to it) for these objects; and with equal propriety might every other interest as well as the post office department contend that it should pay only the *extra* expense occasioned by its particular business, and thus nothing could be levied to keep up the railroad and pay dividends to the shareholders. It is obvious then, that if an improvement is to be maintained, and its proprietors are to receive a return from it, every abatement from what would be a fair charge to the department, must necessarily augment the charges on other transporters and passengers.

And *why* should the *federal government* be particularly spared in adjusting a tariff of charges on these lines? If the improvements are paying less, as they generally are, than a fair profit to their proprietors, no party can more *legitimately* be expected to pay a full equivalent for the service rendered it

(and more, as we have observed above, cannot, it is evident, be obtained) than the government, which has contributed nothing to them, while the benefits of the improvements are ten-fold, aye, a *hundred-fold* to it, what they ever can be to *all other* interests. Let us hear what a high public functionary, a former secretary of war, (Mr. Spencer) says in his report laid before congress in December, 1841. The following is extracted from that document.

"A third element, of great importance in the consideration of the defences of the sea-coast, and of the northern and northwestern frontiers, consists in the facility and rapidity of interior communications. They are strictly means of defence, and incapable of being perverted to any purpose of conquest—a feature which commends them to every friend of our institutions. The facility afforded by the ocean to movements for the purposes of attack, is met by a facility of movement on land, furnished by the triumphs of genius and art in the application of steam power to land carriage, and in the construction of lengthened lines of canals. The speed with which troops can be moved obviates the necessity of embodying large masses of them at any point, and the amount of force required for the defence of any given post would consequently be diminished in proportion to the reduction in the time necessary to concentrate it. The whole force along the whole line may be rendered available for the defence of any point in that time; while, without such means of communication, a separate army would be required at each city, harbor or military post, that was to be defended. This may be illustrated by facts within the knowledge of all. Troops may now be brought from New York to the city of Washington in eighteen hours, in a condition requiring little or no repose to fit them for immediate action; and the whole physical force of the populous country between those points may be concentrated at any intermediate place in a few hours. Were Philadelphia assailed or threatened, a movement of military force from Pittsburg, which but a short time since would have occupied from twenty to twenty-five days, could now be accomplished in five. Similar illustrations are furnished by various railroads and canals in different parts of the country; and, as the great secret of success in war is supposed to be the ability to oppose the many to the few, it is evident that in any defensive operations we shall be able to compete with, and to conquer any probable force that an invading enemy could bring against that portion of our territory which is intersected by these interior communications. Another consequence of no little moment flows from the same cause: the power to defend ourselves with armies of very diminished numerical force, compared with those which have heretofore been necessary in our national conflicts, or those which are usually employed on the European continent.

"The facilities afforded by canals and

railroads to collect, with any desirable expedition, the supplies of an army from a country abounding with them, and to transport them to the proper points, will render large depots unnecessary; an object of attack to an enemy is thus removed, and the consequences of the capture of large collections of munitions of war or of subsistence, by a hostile force, thus enabled to maintain itself, are obviated.

"The expense of military operations will be reduced beyond any present means of exact calculation by the same facilities. During the last war with Great Britain the cost of transportation from New York to Plattsburg, Sackett's Harbor or Buffalo, was from \$5 to \$12 per hundred. The present cost to Plattsburg is 30 cents, and to the other points named 60 cents per hundred. A 12-pounder, which, at the cheapest rate, could not have been carried to Buffalo for less than \$200, may now be transported to the same point in one fifth or one-eighth the time, for \$24. In every point of view in which these works can be considered, their cost is *as much actually added to the defensive means of the nation, without any expense to the general governments*, other than the subscriptions it has authorized to a few of them: and *it may be affirmed, without exaggeration, that the aggregate of saving, in any future war in which we may be engaged, in the comparative small amount of military force that will be necessary for defence, and in the cheapness of transportation afforded by railroads and canals now in existence, will be equal to the cost of their construction.* If, then, the making of these works has been premature or improvident in reference to the means of the States that undertook them, and has involved them in pecuniary embarrassments, the national government should not complain of an enterprise that has placed these incalculable advantages in its hands; and, if it cannot relieve, will at least sympathize in the misfortunes which have resulted from such efforts."

All, however, that is asked of the government, is that it should pay, for the service rendered it, in a much less ratio than it was always willing to pay, previous to the introduction of these lines of railroad, *for increased speed*—while it is gravely contended by the post office department that the mails should be carried at not exceeding or even less than what was formerly paid for conveyance in mail wagons.

It has been alleged as a reason why the mail should be carried lower on railroads in America, that it is transported at a lower rate in England, but *the fact is otherwise*; a great mistake having been made on this head from the circumstance of the payment on railroads in England being made *per trip per mile* and in this country only *per mile*, so that, as many trips are made on leading lines of railroad in England, and several mails per day are carried on all of them,

the compensation on important lines of railroad in England, greatly exceeds, and we have no hesitation in saying *averages at least double*, what is paid in this country; and this, too, without taking into consideration the *relative weight* of mails in this country and in England, which, on leading routes in America, are *three or four times heavier* than on corresponding routes in England.

The result of these conflicting views, on the part of the department and the railroad companies, has been to bring about rules of compensation which in our opinion cannot fail to work badly.

In section 20th of the late post office bill it is provided,

"That to insure, as far as may be practicable, an equal and just rate of compensation, according to the service performed, among the several railroad companies in the United States, for the transportation of the mail, it shall be the duty of the postmaster general to arrange and divide the railroad routes, including those in which the service is partly by railroad and partly by steamboats, into three classes, according to the size of the mails, the speed with which they are conveyed, and the importance of the service; and that it shall be lawful for him to contract for conveying the mail with any such railroad company, either with or without advertising for such contracts, *provided*, that for the conveyance of the mail on any railroad of the first class, he shall not pay a higher rate of compensation than two hundred dollars per mile per annum, or than is now obtained by law; nor for conveying the mail on any railroad of the second class, a greater compensation than one hundred dollars per mile per annum; nor for carrying the mail on any railroad of the third class, a greater compensation than fifty dollars per mile per annum. And in case the postmaster general shall not be able to conclude a contract for carrying the mail on any of such railroad routes, at a compensation not exceeding the aforesaid maximum rates, or for what he may deem a reasonable and fair compensation for the service to be performed, it shall be lawful for him to separate the letter mail from the residue of the mail, and to contract, either with or without advertising, for conveying the letter mail over such route, by horse express or otherwise, at the greatest speed that can reasonably be obtained; and also to contract for carrying over such route the residue of the mail, in wagons or otherwise, at a slower rate of speed: *provided* that if one-half of the service, on any railroad, is required to be performed in the night season, it shall be lawful for the postmaster general to pay 25 per cent in addition to the aforesaid maximum rates of allowance: *and provided further*, that if it shall be found necessary to convey over any railroad route more than two mails daily, it shall be lawful for the postmaster general to pay such additional compensation as he may think just and rea-

sonable, having reference to the service performed, and the maximum rate of allowance established in this act."

Now the objection to the above rules for compensation for railroad service, in the transportation of the mail, is that the compensation to be paid is not to be *in proportion to the accommodation to the department*, or service rendered to it, but according to standards which form no criteria in relation to it. For example, a railroad may be a very circuitous one. It may be twice as long between the points which it connects as the stage road, over which the mail was formerly carried, between the same points; so that the mail may really be very little expedited by it, and the department, on the standard adopted by it, will pay precisely *in proportion to the defectiveness of the road*. Another company may have incurred great extra expense in improving, as much as possible, the grades of its road, in laying down the most perfect superstructure, in cutting down or tunnelling hills and bridging valleys, so as to approximate as nearly as possible to an air line, between points, and by the standard of the post office department it will find its compensation for the transportation of the mail *diminished* precisely in the ratio of the directness of its route, and the increased expedition procured for the mail on it.

Nor are these imaginary cases. Take, for instance, the railroad which we have before referred to, between Baltimore and Philadelphia, which is ninety-nine miles long, and takes the place of a stage road of greater length; while the Baltimore and Ohio railroad, which is 179 miles between Baltimore and Cumberland, substitutes a stage road of about 130 miles: and yet, by the standard of the post office bill, a daily mail on these two routes must be paid for at the same rate per mile, although it is evident that on any proper standard of distance, the mail is really transported *much farther* in being carried a given number of miles on the Baltimore and Philadelphia, than on the Baltimore and Ohio railroad; and the gain in time, and of course the accommodation to the department, on a comparison with the distance of stage transportation substituted by a given number of miles on either railroad, is still more in favor of that between Baltimore and Philadelphia.

It does not alter the erroneousness of the standard that, in the particular case of the Baltimore and Philadelphia road, the accidental circumstance of a second train being run on the road enables the postmaster general to send a mail by it, and thereby to increase the compensation per mile on that

route. This might or might not be, and the cost to the company and the service rendered the department are really no greater than if in the event of one train daily only being run on the road, the whole mail had been sent by it. If, as before observed, two or more trains are run on a road it is probably rather an accommodation, than otherwise, to a company to *divide* the amount of mail matter between them, and the accommodation to the department, and service rendered it, would probably be as great with only one daily train (if there be no other for the conveyance of passengers) as from any number of them.

Again, a railroad of given length may be run very slow and very irregularly, another of the same length very fast and with great precision. It is impossible not to see that the department is much better accommodated in the second than the first case, and ought reasonably to pay more for it. Yet, according to the post office bill, both companies are to be paid the same sum for a daily mail for the same distance. It is obvious that such a rule must necessarily lead more or less, to bad and sluggish service; that companies, other things being equal, will be less inclined to run quickly when an important branch of their business, the transportation of the mail, is equally well paid whether it be done at slow and economical rates of speed, or at high and costly rates, and that the service of the department, if it is desired to be properly performed, exacts a different standard.

The only discretion allowed in the post office bill seems to be confined to two cases, that of more than two daily mails and night service. But if we are right in our view of the matter, it can be of little importance to the department to have more even than two daily mails between two points, unless more than one train is run, in which case if the additional mail can be conveyed (as it is where more than one daily mail is run) as freight or baggage, without the necessity of an extra car or mail agent, it is rather advantageous to a company to divide the mail, than to send it all by one train. As regards night service, we can very readily see why it should be in many cases less acceptable to a company than day service, but we confess we do not see why it should be paid higher. The proper standard of value seems to us, in all cases, the *value of the service to the party receiving it*, in other words, the accommodation afforded by it. If a mail equally ponderous be transported with equal speed by daylight as by night, the service is of equal value to the department, and should be

equally paid, as if it were performed by night, for the simple reason that, were the mail not carried by railroad, it must be by stages, or mail wagons, in which night service would cost no more than day service, and, if it did, it would be as likely to be avoided by day service on a railroad, as the reverse.

But the strongest consideration against the standard of compensation in the post office bill, and in favor of that suggested by us is, that in establishing it, the department guarantees itself in the most effective manner against extortion. Suppose, instead of paying, as the postmaster general must under the bill, so much per mile for the transportation of a mail of given bulk between two points, without reference to its being transported on a straight or a crooked railroad, or slower, or faster, or even at more or less cost. than it would be between the same points by stages or mail wagons, it be adopted as a rule that the department will pay in all cases, the compensation which would be required for stage or wagon transportation, between the same points, but no advance on it, except where there is a saving in time, and then *in proportion to the saving in time*, we can see at once that we have a rule which, while it would admit of the department paying liberally where there was an equivalent benefit, would give compensation only *in the ratio of benefit*, and which, while it enables the department to secure the speediest transportation by railroad, by adequate compensation, where it was of great moment to secure it, at once in its operation restricted the department and cut down the compensation on railroads, where there was no great advantage to the department in employing them, and of no great moment to the department if its offer was declined. Take, again, for illustration, the two roads before cited by us. The Baltimore and Philadelphia railroad, if run *as it should be*, say at the rate of at least twenty miles per hour, would take the mail between Baltimore and Philadelphia in five or five and a half hours, or in seven hours less than it could be in mail wagons, assuming the distance by the stage road one hundred miles, and these last to transport it at a speed of eight miles per hour. The same saving in time only could be effected between Baltimore and Cumberland, nearly twice the distance (supposing the same rate of speed on the railroad and on the stage road) in consequence of the increased distance by the railroad. Is it not right that the same *advance* on stage compensation should be paid in each of these cases for the same saving of time, and does



not the department best guard itself against extortion by apportioning its inducements for railroad service precisely *in the ratio of its importance to it*, without reference to standards of fair compensation which would on the one hand secure with certainty to the department the service of railroads which gave but little more expedition to its mails than parallel stage roads, and were therefore comparatively unimportant to it, and would be apt, on the other hand, to lose it the service, or at any rate the best service of roads which, on account of greater directness and the high speed attained on them, it might be extremely important to command?

To make a practical application of our views—let us suppose \$200 per mile the cost of mail transportation by wagons or post coaches for a mail of the size and importance of that conveyed between Baltimore and Philadelphia, and between Philadelphia and Cumberland, the department would of course not be justified in paying more than this merely to have it conveyed by railroad, except in consideration of increased speed, but would probably be justified in paying at least \$2,000 annually advance on stage or wagon transportation for every hour saved in time, on either of these routes. Now the distance between Philadelphia and Baltimore by the stage route being 100 miles, and between Baltimore and Cumberland 130 miles, the prices which would be paid on these routes for the transportation of the mail by the standard proposed by us, would be as follows, viz:

Between Baltimore and Philadelphia 100 miles of stage or wagon transportation, at \$200 per mile, would cost	\$20,000
Add for seven hours gain in time by railroad, at \$2,000 per hour,	14,000
	\$34,000
Between Baltimore and Cumberland 130 miles of stage or wagon transportation, at \$200 per mile would cost	26,000
Add for seven hours gain in time, at \$2,000 per hour,	14,000
	\$40,000

It will be seen on comparing these results with the contract prices of the department, that the whole amount which would be paid on both routes varies \$175 only from the actual contracts—the price paid on the Philadelphia and Baltimore route being \$3,400 less, and that on the Baltimore and Cumberland road \$3,225 more than would be given by the standard we propose, but with this great difference in favor of the standard we suggest, that in all cases good and willing service would be rendered, instead of

bad and reluctant service. Can there in fact be a more reasonable supposition than that railroad companies will be willing to give all possible expedition to the mail, if they are paid *in proportion to the speed they give*, compared with stage transportation, and that on the contrary if they are paid a certain rate per mile, whether their roads be direct or indirect, or whether their trains run slow or fast, that even when on other considerations they may be willing to run fast, they will keep *their schedules open*, or in other words require a long time to be allowed them, in order to avoid a risk of fines in the event of failure. In any case, and whatever the standard of compensation, fines should of course be imposed for failures to connect.

We are satisfied that a modification of the standard of compensation for the transportation of the mail on railroads on the simple principle laid down by us, that of the accommodation afforded the department, would correct the present bad service on many important railroads, give the department a greater control of hours, than it now has, increased expedition, and be attended with, *on the whole*, no increase of expense to the department, but rather a diminution. Nothing can be worse than the present service on many important routes. For instance, between Baltimore and Philadelphia, from eight to nine hours is allowed for a mail which ought to be conveyed at farthest in five and a half or six. Between New York and Philadelphia the case is not quite so bad, but five hours at the utmost is all that should be required for the delivery of the mail between these cities. South of Petersburg, in Virginia, on the great northern and southern lines, the most important in the United States, the failures are of almost constant occurrence. We can readily conceive of this bad service when railroad companies are paid a fixed sum per mile, whether more or less time is required by them for the carriage of the mail, and whether the service is performed well or badly.

We beg leave respectfully to submit these suggestions to the new postmaster general, satisfied as we are that a great improvement may be made by the department in its mail transportation, by railroad, and without any increase of the aggregate cost of this item. It will be found, we have no doubt, that on the principle suggested by us, and on this principle only, it can command the best service of important and essential railroads, and this best service cannot be dispensed with without great prejudice both to the department and the public. It is in vain to attempt to substitute the accommodation

which such lines can afford, where they are as direct, or nearly so, in their course, as the stage routes, by carrying the letter mail by express on horseback, and the newspaper mail in wagons. The day for such a system has gone by. These expedients may answer where the railroad is so indirect that not much time can be saved by it, or where it does not connect important points, and they will enable the department to resist extortion in such cases. But where the service to be performed by a railroad is really of great value to the department and the country, there is no plan to secure it, and to secure its being well performed, *but to pay a fair equivalent for it*.

P.S. We would respectfully request of the editor of Hunt's Merchant Magazine a publication of the above article by way of response to a portion of an article in the December number of the Magazine entitled "the post office department," in which the writer however well informed on the other points of the article, is evidently in error on the subject of mail transportation on railroads.

*Western Railroad.*—It will be seen by our Legislative report that the bill authorizing this company to increase its capital, and allowing it to divide its nett income, has passed the House by a unanimous vote. Mr. Russell of Boston stated in his interesting speech, that the shares of the company (20,000 in all) were distributed among seventy-five towns in the state, and were held by 1094 stockholders, as follows, viz: 740 stockholders, (more than half of the whole,) have 5 shares each and under; 170 hold from 5 to 10; 130 from 10 to 20; 99 from 20 to 50; 33 from 50 to 100; and 22 hold 1000 shares and over. It is thought by many that the day is not far distant, when the shares of this road will take rank with those of the Fitchburg, the Lowell, and the Worcester. —*Courier*.

*Tennessee and Coosa Railroad.*—As the action of the last Alabama Legislature upon the appropriation of the 2 per cent. fund has been very generally noticed in the public prints of this State, I deem it proper to correct an error into which all seem to have fallen in regard to the amount of the fund. There is now upon special deposit in the Bank of the State of Alabama about \$220,000, and it is supposed that the balance yet in the Land offices, and also that which will accrue from future sales of land, will increase the fund to \$240,000. This will give to each of the Railroads, the Tennessee and Coosa, and Montgomery and West Point, \$120,000, instead of \$60,000, as I observe has been generally stated. Both of these works bear an important relation to the internal improvement system of Georgia, and it is believed that the loan of this fund, although burdened with ungenerous restrictions, will go very far towards ensuring their construction.—*Chronicle and Sentinel*.

**Railroad to Worcester**—The incredulity which beset many, when this subject was first mentioned, has been rapidly disappearing, and very many of those who scouted at the idea when it was first brought forward in our columns, begin to feel the faith which presages success. The advantages of such a route, its feasibility and the interest which capitalists abroad are beginning to feel in it, are beginning to open all eyes to the fair prospect.

Since matters have taken the decided turn in favor of the extension of the Fitchburg Railroad to Keene rather than to Brattleboro', it is beginning to be seen that the best route after all from Boston to the latter place is by way of Worcester and through this place. The ranges of hills and the course of streams on the map make the road "stand out" as most feasible. We hope to be enabled hereafter to point out the advantages which, to those who have examined the matter, seem so apparent.

A petition has been or will soon be presented to the legislature for a charter. It is done at the present session that the matter may be hastened by orders of notice and other necessary steps. During the coming summer the surveys can be made, and looking through the successive steps, we hope to be able ere long to chronicle the proceedings, when the road shall open to this place. —*Barre Gazette.*

**Monongahela Improvement.**—The advantages of the route of travel and the transportation of goods between the east and west, by way of the Monongahela Improvement, are daily becoming more apparent. We learn from a statement in the Pittsburgh Gazette that the quantity of freight shipped from Brownsville to Pittsburgh from January 4 to the 8th instant, was 4,317,804 lbs.; and that the total freight shipped from Pittsburgh to Brownsville during the same period was 1,498,252 lbs. The through passengers for the same period were 1403, and the way passengers 1304. The great bulk of this travel was within the three weeks ending on the 8th instant; and one half of the whole transportation business on the work during the time mentioned, excepting in coal and one or two other items, was done after the 15th of February, at which time it is said to have fairly commenced. The increase after the 15th of February was surprising, "and we venture the assertion," says the editor of the Pittsburgh Gazette, "was never surpassed, in ratio, in the history of any work in this country. This (he adds) is true, especially of the travel, and the business of the week ending on Saturday evening will show a very large aggregate over any previous week." —*Baltimore American.*

**Continental Locomotives.**—We learn, by the *Industriel Alsacien*, that the locomotive engines on Meyer's principle are getting into very general favor. Our readers will recollect the extract that we published some

time ago from a report of the *Société Industrielle de Mulhousen*, giving an account of the different improvements made by Mr. Meyer in the first of his locomotives. Subsequently, we (*Industriel Alsacien*) published a table of the consumption of fuel by the engines on the Paris and Versailles railway, (left bank,) very favorable also to another engine on the same system from the establishment of Messrs Meyer and Co. At the request of a committee of distinguished civil engineers of Paris, this engine was also employed on the Paris and Orleans railway; and, after many months of experiment, it was always found to occupy the first place, in spite of the presence of a good number of locomotives by the celebrated Stephenson, many of which had been constructed after the engine of Meyer and Co. Notwithstanding this formidable opposition, the Paris and Orleans railway company selected Meyer's engines, which have since so admirably worked, and the system has been found so superior to the others, that the said company have just given Messrs Meyer and Co. an extensive order; but it is not only in France that these locomotives are appreciated to their fullest extent. We had occasion to speak of the orders successively obtained by the house of Meyer and Co. from the governments of Bavaria and the grand duchy of Baden. We hear now that the Austrian government has given its preference to this house, over the English builders, who offered even to supply their engines at lower prices. "These facts have more weight than mere words, and we name them here to the honor of the French builders, and especially to those of Mulhousen." —*Mining Journal.*

**Progress of Railways.**—The manifest abatement in the fevered and questionable speculation, and the steady tone of the share market, which we observed with satisfaction last week, still continues, and it is with no small pleasure that we perceive and announce this decided change. Had the alarming excitement which pervaded the Stock Exchange but a few days since, and which threatened the interest of our commerce and monetary relations, existed much longer, the country would, before long, have experienced a reaction, and a consequent panic, from which we feel perfectly convinced she would have scarcely ever recovered. Seldom has our stability been threatened so imminently; seldom, we are confident, has a more fearful catastrophe impended our nation, and we do hope that some steps, bold, energetic, and decisive, such as the importance of the case demands, will be taken to prevent the recurrence of a danger, the extent of which but few, we believe, have any idea. Enterprise is beneficial, gambling ruinous, and reprehensible. Happily the latter, which, a few weeks since, disgraced our market, has, in a great measure, disappeared; and the results of the last week are on the whole unusually satisfactory. The increase in the traffic receipts for the first eight weeks of this year, as compared with the correspond-

ing period of last year, is 100,622l., for the undermentioned twenty-five railways:

Birmingham and Gloucester.....	£2677
Chester and Birkenhead.....	514
Eastern Counties.....	2173
Edinburgh and Glasgow.....	1984
Glasgow and Greenock.....	161
Glasgow, Paisley, and Ayr.....	1597
Grand Junction.....	5164
Great North of England.....	1932
Great Western.....	16117
Liverpool and Manchester.....	3245
London and Birmingham.....	5411
London and Brighton.....	2618
London and South-Western.....	2315
London and Croydon.....	1214
Manchester and Birmingham.....	3413
Manchester, Bolton, and Bury.....	636
Manchester and Leeds.....	5943
Midland Company.....	10314
Newcastle and Carlisle.....	1633
North Union.....	2889
Present and Wyre.....	899
South Eastern and Dover.....	15143
Sheffield and Manchester.....	1126
Ulster.....	124
York and Midland.....	1070

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ja45

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Wrought Iron Tyres made from the best iron and of any given diameter, and warranted to be sound in the welding. Railroad companies wishing to order, will be pleased to give the exact inside diameter or circumference to which they wish the tyres made, and they may rely upon being served according to order, and also punctually, a large quantity in the straight bar is kept constantly on hand. Crank axels for locomotive engines, made from the best Pennsylvania iron. Straight axles for locomotives for outside connection engines. Frames for engines. Wrought iron work for steamboats, and shafting of any size. Cotton Screws of any length or size. Railroad Jack screws, a late invention, and highly approved. Self-acting pumping apparatus for railroad water stations. He refers to the following gentlemen:

Baldwin, Vail & Hufty, Philadelphia; Wm. Norris, Philadelphia; N. Campfield, Savannah, Ga.; J. & S. Bones, Augusta, Ga.; D. F. Guez, N. Orleans, La.; Adam Hall, N. York; J. P. Allaire, N. York; William Parker, Boston, Mass.; George W. Schuyler, N. York. ja46

**NICOLLS' PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,  
Reading, Pa.

ja46

KITE'S PATENT SAFETY BEAM.

Messrs. Editors.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

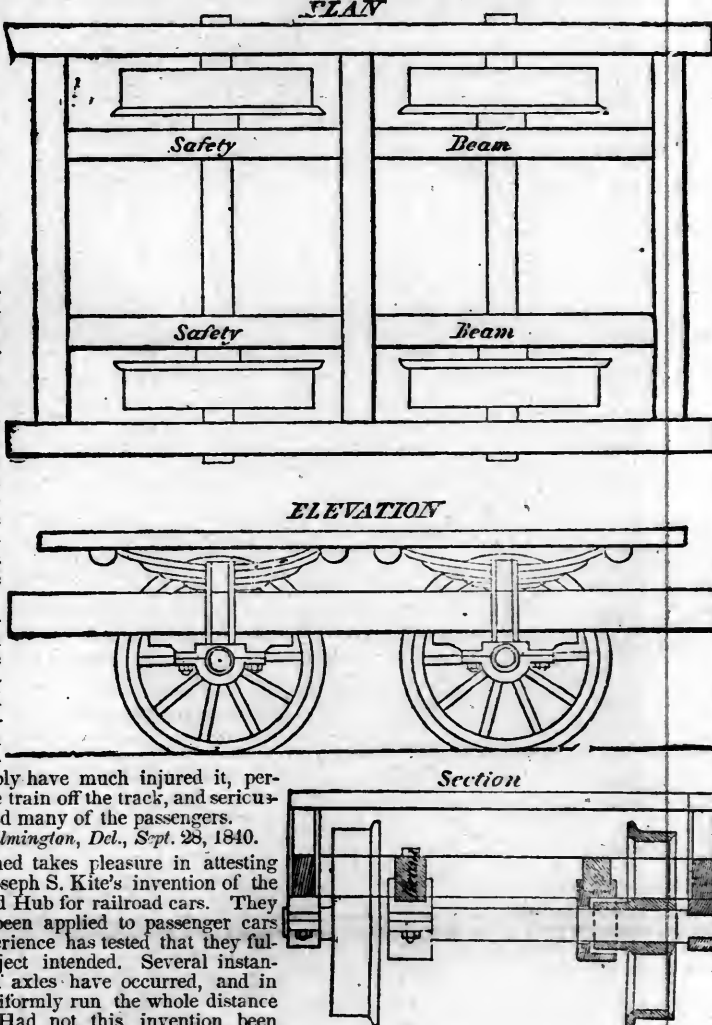
The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

REFERENCES.—  
Boston, { Col. James F. Baldwin, Civil Engineer.  
Col. J. M. Fessenden, " "  
Wm. Parker, Esq., Engineer and Superintendent  
Boston and Worcester railroad. ja45

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y.  
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Ewing, Philadelphia; Wm. E. Coffin & Co., Boston.

MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.  
Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.  
Spikes are kept for sale, at Factory Prices, by J. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.  
J. P. JACKSON, Esq., Secretary.

ROBERT SCHUYLER, Esq., Vice President.  
J. WORTHINGTON, Esq., Treasurer.

Leave New York, foot of Courtland street.	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
For Newark.....	9, 11, 12.....	2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4 3-4, 6.....				
" New Brunswick.....	9.....	3, 4 3-4.....				
Leave New Brunswick...	6, 7 1-2, 11 1-2.....	8 3-4.....	11 1-2	8 1-2		
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	1 1-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4		

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

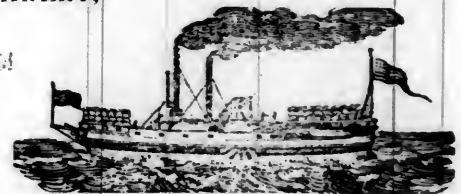
TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

TRAINS LEAVE	FOR	BY RAILROAD	DAYS	A. M.	P. M.	MILES.	FARE.
Boston	Portland	Eastern,	Daily,	7½	2½	106	\$3 00
"	Portsmouth	"	"	7½	2½, 4½	54	2 00
"	Newburyport	"	"	7½	2½, 4½	35	1 25
"	Salem	"	"	7½, 9, 11½	2½, 3½, 4½, 6	14	50
"	Portland	Boston and Maine,	"	7½	2½	109	3 00
Portland	Boston	"	"	7½	3	109	3 00
Boston	Lowell	Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston	"	"	7½, 11	2, 4½, 5½	26	75
Boston	Concord	Concord,	"	"	3½	76	2 00
Concord	Boston	"	"	"	3½	76	2 00
Boston	Nashua	Nashua and Lowell,	"	7, 11	5	41	...
Nashua	Boston	"	"	6½	1½, 5	41	...
Boston	Worcester	Boston and Worcester,	"	7, 9	2½	44	1 25
Worcester	Boston	"	"	7, 10	6	44	1 25
"	"	"	Sundays,	7	"	"	"
Boston	Worcester	"	"	"	2	"	"
Boston	New York via Norwich	"	Mon., Wed. & Fri.,	"	"	"	"
"	"	"	Tues., Thur. & Sat.,	7	"	"	"
"	"	"	Daily,	9	2½	"	"
"	Albany	Western,	"	8½	2½	200	6 00
Albany	Boston	"	"	8½	1½	200	6 00
Springfield	Boston and Albany	"	"	7	3	"	"
Boston	New York via New Haven	"	"	"	2½	"	"
Charlestown	West Acton	Fitchburg,	"	8	1, 4½	"	"
Charlestown	Charlestown	"	"	7½, 10½	5	"	"
Boston	New York, via Sound steamboat	Boston and Providence,	Tues., Thur. & Sat.,	"	4	"	"
"	"	"	Mon., Wed. & Fri.,	8	"	"	"
"	Providence	"	Daily,	8	3½	41	1 50
Providence	Boston	"	"	8	3½	41	1 50
Taunton	"	"	"	8½	3½	"	"
New Bedford	Boston	"	"	7½	2½	"	"
Boston	Dedham	"	"	9	3, 5½	"	"
Dedham	Boston	"	"	7½, 10½	4	"	"
New York	Greenport	Long Island,	"	7½	"	95	2 25
Brooklyn	Hicksville & intermediate places	"	"	9½	"	26	56½
"	Greenport	"	Tues., Thur. & Sat.,	9½	"	95	2 25
"	Hicksville, (Satur'd'y to Suffolk)	"	Daily,	"	4	26	56½
Greenport	Brooklyn, (Boston train)	"	"	"	1	95	2 25
"	"	"	Mon., Wed. & Fri.,	"	"	95	2 25
"	"	"	Daily,	7	1½	26	56½
Hicksville	"	"	"	"	"	"	"
New York	Albany & Boston via N. Haven	Steamer,	"	6½	"	"	5 00
"	Middletown	New York and Erie,	"	8, 3	"	53	"
Middletown	New York	"	"	6½	3½	53	"
Philadelphia	Pottsville	Reading,	"	9	"	94	3 50
Pottsville	Philadelphia	"	"	9	"	94	3 50
New York	Newark	N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4½, 6, 7½	9½	25
Newark	New York	[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7½, 8½, 9, 11	1½, 4, 5½, 7, 9½	9½	25
"	"	"	Sundays,	9	4½	9½	25
New York	Newark	[9 A. M. and 4½ P. M., trains connect with Somerville Railroad.]	"	11½	9½	9½	25
"	Elizabethtown	"	Daily,	9, 11	2, 3½, 4½, 6	14½	31½
Elizabethtown	New York	"	"	7, 7½, 8½, 10½, 12	3½, 5	14½	31½
New York	Rahway	N. J. railroad and trans. co.,	"	9, 11	3, 4½, 6	19½	31½
Rahway	New York	"	"	6½, 7, 8½, 12	4½, 9½	19½	31½
New York	New Brunswick	"	"	9	3, 4½	31½	50
New Brunswick	New York	"	"	6, 7½, 11½	8½	31½	50
"	"	"	Sundays,	11½	8½	31½	50
New York	New Brunswick	"	"	9	4½	31½	50
Philadelphia	New York	Camden and Amboy,	Daily,	7	"	91	3 00
New York	Philadelphia	"	"	5½	"	91	3 00
Philadelphia	Bristol	Philadelphia and Trenton,	"	9	"	30	75
Philadelphia	Philadelphia	"	"	"	4	30	75
Philadelphia	Baltimore	Philad. Wil. and Baltimore,	"	8	4	93	"
Baltimore	Philadelphia	"	"	9	5	93	"
"	Washington	Baltimore and Washington,	"	9	5, 11½	41	2 50
Washington	Baltimore	"	"	6	5½	41	2 50
Baltimore	Cumberland and inter. places.	Baltimore and Ohio,	"	7½	"	"	"
"	Frederick	"	"	"	4	"	"
Cumberland	Baltimore	"	"	8	"	"	"
Hancock	"	"	"	10½	"	"	"
Martinsburg	"	"	"	11½	"	"	"
Harper's Ferry	"	"	"	"	12½	"	"
Frederick	"	"	"	"	2	"	"
"	"	"	"	"	"	"	"
Ellicott's Mills	"	"	Sundays,	8	"	"	"
Richmond	Petersburg	Richmond and Petersburg,	Daily,	7½, 12	4	"	"
Petersburg	Richmond	"	"	10½	1½	"	"
Albany	Schenectady	Mohawk and Hudson,	"	5½	"	"	"
Schenectady	Albany	"	"	8	5½	"	"
Albany	Saratoga	"	"	9	3½	"	"
Saratoga	Albany	"	"	7½	12½, 5	"	"
Troy	Saratoga	Troy and Saratoga,	"	7	3½	"	"
Saratoga	Troy	"	"	7½	"	"	"
Auburn	Rochester	Auburn and Rochester,	"	8½	"	"	"
Rochester	Auburn	"	"	8	3	"	"
"	Buffalo	Rochester and Buffalo,	"	"	3	"	"
Buffalo	Rochester	"	"	"	"	"	"
"	Falls	Buffalo and Falls,	"	9	"	"	"
Falls	Buffalo	"	"	"	1½	"	"
Buffalo	Albany	Albany and Buffalo	"	8½	"	"	"

# American Railroad Journal, and General Advertiser

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 15]

THURSDAY, APRIL 10, 1845.

[WHOLE No. 458, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

### RATES OF ADVERTISING.

One page per annum.....	\$125 00
One column ".....	50 00
One square ".....	15 00
One page per month.....	20 00
One column ".....	8 00
One square ".....	2 50
One page, single insertion.....	8 00
One column ".....	3 00
One square ".....	1 00
Professional notices per annum.....	5 00

### ENGINEERS and MACHINISTS.

STILLMAN, ALLEN & Co. N. Y.  
JAS. P. ALLAIRE, N. Y.  
H. R. DUNHAM & Co. N. Y.  
WEST POINT FOUNDRY, N. Y.  
PHENIX FOUNDRY, N. Y.  
R. HOE & Co. N. Y.  
J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)  
TROY IRON AND NAIL FACTORY, H. Burden Agent. (See Adv.)  
ANDREW MENEELY, West Troy. (See Adv.)  
ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
NORRIS, BROTHERS, Philadelphia, Pa.  
KITE'S Patent Safety Beam. (See Adv.)  
FRENCH & BAIRD, Philadelphia, Pa. [See Adv.]  
BALDWIN & WHITNEY, Philadelphia, Pa.  
JOHN F. STARR, Philadelphia, Pa.  
MERRICK & TOWNE, do.  
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. [See Adv.]  
ROSS WINANS, Baltimore, Md.  
CYRUS ALGER & CO., South Boston Iron Company.  
SETH ADAMS, Engineer, South Boston, Mass.  
HINCKLEY & DRURY, Boston.  
C. C. ALGER, [Stockbridge Iron Works,] Stockbridge, Mass.

### IRON MERCHANTS and IMPORTERS.

DAVIS, BROOKS, & Co. N. Y. [See Adv.]  
A. & G. RALSTON & Co. Philad. Pa. [See Adv.]  
THOMAS & EDMUND GEORGE, Philadelphia. [See Adv.]

### FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

FRENCH & BAIRD.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia, Pa., April 6, 1844.

\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

A GOOD SECOND HAND LOCOMOTIVE TO RAILROAD COMPANIES AND MANUFACTURERS OF railroad Machinery. The subscriber about 10 tons, with Tender complete, made by Baldwin, for sale by A. & G. RALSTON & CO. sizes; English blister, cast, shear and spring steel; Mar. 20, 1m. 4 South Front St., Philadelphia. Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made by Messrs. Baldwin & Whitney, locomotive and engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches the latter a very superior article. The tires are in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and engine manufacturers of this city. Orders addressed wherever used, its quality has been approved of, and the establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

JOAN F. WINSLOW, Agent, ja45 Albany Iron and Nail Works, Troy, N. Y.

**RAILROAD IRON AND LOCOMOTIVE**  
 Tyres imported to order and constantly on hand  
 by **A. & G. RALSTON**  
 Mar. 20th 4 South Front St., Philadelphia.

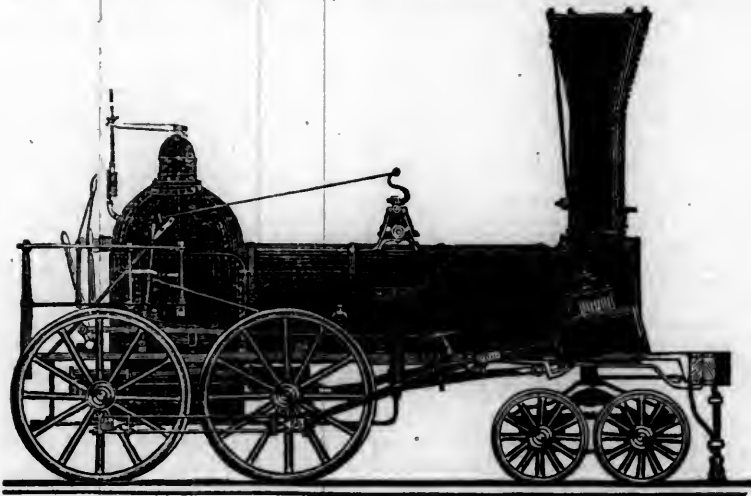
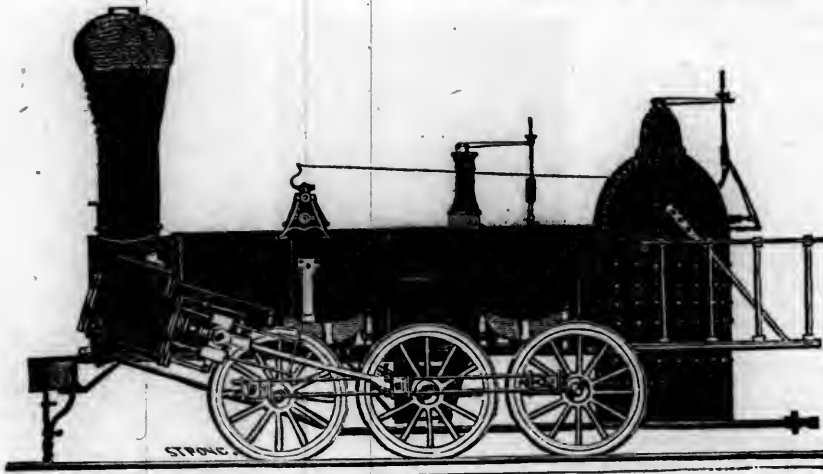
**THE NEWCASTLE MANUFACTURING**  
 Company continue to furnish at the Works,  
 situated in the town of Newcastle, Del., Locomotive  
 and other steam engines, Jack screws, Wrought iron  
 work and Brass and Iron castings, of all kinds con-  
 nected with Steamboats, Railroads, etc.; Mill Gear-  
 ing of every description; Cast wheels (chilled) of  
 any pattern and size, with Axles fitted, also with  
 wrought tires, Springs, Boxes and bolts for Cars;  
 Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders  
 will be executed with promptness and despatch.  
 Communications addressed to Mr. William H.  
 Dobbs, Superintendent, will meet with immediate  
 attention. **ANDREW C. GRAY,**  
 ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS,**  
 etc. The Subscriber having made important  
 improvements in the construction of rails, mode of  
 guarding against accidents from insecure joints, etc.  
 —respectfully offers to dispose of Company, State  
 Rights, etc., under the privileges of *letters patent* to  
 Railroad Companies, Iron Founders, and others in-  
 terested in the works to which the same relate. Com-  
 panies reconstructing their tracks now have an op-  
 portunity of *improving* their roads on terms very ad-  
 vantageous to the varied interests connected with  
 their construction and operation; roads having in  
 use flat bar rails are particularly interested, as such  
 are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
 Albany, N. Y.  
 Mr. C. also announces that Railroads, and other  
 works pertaining to the profession, may be construct-  
 ed under his advice or personal supervision. Ap-  
 plications must be post paid.

**NORRIS' LOCOMOTIVE WORKS**  
 BUSH HILL, PHILADELPHIA, Pennsylvania.



**M**ANUFACTURE their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descrip-  
 tions, viz:

Class	1,	15 inches	Diameter of	Cylinder,	× 20 inches	Stroke.
"	2,	14	"	"	× 24	" "
"	3,	14½	"	"	× 20	" "
"	4,	12½	"	"	× 20	" "
"	5,	11½	"	"	× 20	" "
"	6,	10½	"	"	× 18	" "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion.  
 Castings of all kinds made to order: and they call attention to their Chilled Wheels,  
 for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**TO IRON MANUFACTURERS. THE SUB-**  
 scribers, as Agents of Mr. George Crane, of  
 Wales, having obtained a patent in the United  
 States for his process of smelting Iron Ore with An-  
 thracite coal, and holding an assignment of the pa-  
 tent obtained by the late Rev. F. W. Geissenhainer,  
 are prepared to grant licenses for the manufacture  
 of Iron according to Mr. Crane's principle.

**A. & G. RALSTON & Co.,**  
 ja45 No. 4 South Front st., Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILD-**  
**ERS OF MARINE AND LOCOMOTIVE**  
**ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

From 4 inches to 1 in calibre and 2 to 12 feet long,  
 capable of sustaining pressure from 400 to 2500 lbs.  
 per square inch, with Stop Cocks, T, L, and  
 other fixtures to suit, fitting together, with screw  
 joints, suitable for STEAM, WATER, GAS, and for  
 LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
 Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**TO IRON MASTERS.—FOR SALE.—MILL**  
**SITES** in the immediate neighborhood of *Bi-*  
*tuminous Coal and Iron Ore*, of the first quality, at  
 Ralston, Lyoming Co., Pa. This is the nearest  
 point to tide water where such coal and ore are  
 found together, and the communication is complete  
 with Philadelphia and Baltimore by canals and  
 railways. The interest on the cost of water power  
 and lot is all that will be required for many years;  
 the coal will not cost more than \$1 to \$1 25 at the  
 mill sites, without any trouble on the part of the  
 manufacturer; rich iron ore may be laid down still  
 more cheaply at the works; and, taken together,  
 these sites offer remarkable advantages to practical  
 manufacturers with small capital. For pamphlets,  
 descriptive of the property, and further information,  
 apply to Archibald McIntyre, Albany, to Archibald  
 Robertson, Philadelphia, or to the undersigned, at  
 No. 23 Chambers street, New York, where may be  
 seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL**  
**Dam For Sale.** A lot of land on Gravelly  
 Point, so called, on the Mill Dam, in Roxbury,  
 fronting on and east of Parker street, containing  
 68,497 square feet, with the following buildings  
 thereon standing.

Main brick building, 120 feet long, by 46 ft wide,  
 two stories high. A machine shop, 47x43 feet, with  
 large engine, face, screw, and other lathes, suitable  
 to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches,  
 &c.

Work shop, 86x35 feet, on the same floor with the  
 pattern shop.

Forge shop, 118 feet long by 44 feet wide on the  
 ground floor, with two large water wheels, each 16  
 feet long, 9 ft diameter, with all the gearing, shafts,  
 drums, pulleys, &c., large and small trip hammers,  
 furnaces, forges, rolling mill, with large balance  
 wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½  
 feet two stories high, with a shed part 45½x20 feet,  
 containing a large air furnace, cupola, crane and  
 corn oven.

Store house—a range of buildings for storage, etc.,  
 200 feet long by 20 wide.

Locomotive shop, adjoining main building, front-  
 ing on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of  
 Parker st., containing 6000 feet, with the following  
 buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two sto-  
 ries.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48**  
 State st., or to **CURTIS, LEAVENS & CO., 106**  
 State st., Boston, or to **A. & G. RALSTON & Co.,**  
 Philadelphia. ja45

**REPORT OF THE LONG ISLAND RAILROAD COMPANY.**

The Long Island Railroad Company make the following report for the year ending January 1, 1845: Length of road, including Brooklyn and Jamaica Railroad, of 11 miles on lease to L. I. Railroad Company, 96 miles; length of branches, 2½ miles.

Cost of construction . . . . .	\$1,610,221 00
Income from passengers, \$143,300 99; from freight, \$10,154 84 . . . . .	153,455 83
Number of through passengers and way passengers together, about 130,00.*	
Receipts from through and way passengers* . . . . .	143,300 99
Expense of repairing and running roads and construct'n . . . . .	1,704,681 47
No dividend yet declared.	
Number of locomotives, 11; passenger cars, 22; freight cars, 63; mail cars, 2; baggage cars, 8; machine shops, 2; horses, 12.	
Average number of men in employment, 100.	
Number of miles run by passenger trains, 89,856; freight trains, 28,404.	

**REPORT OF THE NEW-YORK AND HARLEM RAILROAD COMPANY.**

The entire length of the New York and Harlem Railroad, is about 27 miles; a portion or eight miles of the same is double track, and three-fourths of it is of the best H rail, and extends from the City Hall of New York, to the village of White Plains in Westchester County.

Cost of constructing the road between the City Hall and south side of Harlem river, eight miles, including the right of way per mile . . . . .	\$104,375 00
Cost of constructing that part of the road from south side of Harlem river to Williams Bridge, six miles, including the right of way, per mile . . . . .	38,475 00
Cost of constructing that part of the road from Williams Bridge to the village of White Plains, about thirteen miles, per mile . . . . .	10,692 00
For a portion of the road graded under former contract, and not used by the present line of road, per mile . . . . .	1,384 61
Expense for repairing and running the road for 1844 . . . . .	79,286 11
Number of passengers through, number of way passengers, receipts from through passengers, receipts from way passengers, no account kept.	
Total income from passengers for all points of the road . . . . .	133,190 04
Total income from freight . . . . .	2,494 86

Total receipts . . . . .	\$140,681 90
Amount of dividends, none ever made.	
Number of engines, 7; passenger cars, 34; freight cars, 5; machine shops, 1; horses, 137.	
Average number of men daily employed by the company, 150.	
Number of miles run by passenger trains for year 1842, 123,616.	
Number of miles run by freight trains, no account kept; always run with the passenger trains, and included in the same.	

**REPORT OF THE HUDSON AND BERKSHIRE RAILROAD COMPANY.**

Number of miles partly owned by said company in Massachusetts, about 3.	
Original cost of construction of whole distance, including outfit, as reported in 1841 . . . . .	\$574,685 00
Paid towards construction in 1844 . . . . .	928 00
Expenses for repairs and running the road for 1844 . . . . .	21,000 00
Number of through passengers, 3,035.	
Do. way do. . . . .	14,367 .
Receipts from through passengers . . . . .	3,035 00
Do. way do. . . . .	6,053 00
Total income from do. . . . .	9,088 00
Income from freight and other sources . . . . .	25,941 00
Dividends . . . . .	none
Average number of men employed by company . . . . .	33

\* For the past year, and during the construction of the work, these statements have not been made with a precision that would justify an amount being returned as exact.

Number of locomotives . . . . .	4
Do. passenger cars . . . . .	4
Do. freight . . . . .	36
Do. machine shops . . . . .	1
Do. horses . . . . .	4
Number of miles run by passenger trains . . . . .	34,180

**REPORT OF THE ALBANY AND WEST STOCK-BRIDGE RAILROAD COMPANY.**

The length of the road in operation under the lease to the Western Railroad corporation, as per their last report, is 38½ miles.

The cost of construction to Dec. 31, 1844, . . . . .	\$1,768,687 95
The road having been run in connection with said Western Railroad, forming a continuous line between Greenbush and Worcester, no separate account has been kept of the number of through and way passengers on this road, and it is found impracticable to give them in season for this report.	
The expenses of road repairs in 1844, paid by lessees, and including repairs of ferry boat and docks, were \$15,431 68.	

No locomotives or cars of any kind are owned by the company, and they have employed no men or horses.

They have one machine shop at East Albany. The number of miles run by the locomotives of the lessees during the year is,—for passenger trains, 54,838; for freight trains, 69,020; for extras—road repairs, &c., 7,760. Total miles, 131,618.

Passenger and merchandize trains have been run by the lessees daily, Sundays excepted, between Greenbush and Worcester, connecting with trains of the Hudson and Berkshire Railroad at Chatham, or at the line of Massachusetts, and with those of the Housatonic Railroad at the latter place.

The sinking fund set apart by the lessees, for the payment of the bonds of the city of Albany, was, in the hands of the trustees, Dec. 31, 1843, \$127,552 52

Interest received in 1844, . . . . .	\$8,348 77
One per cent. on the loan paid annually by lessees, per contract . . . . .	10,000 00
	18,348 77

Amount in hands of trustees, Dec. 31, 1844 . . . . .	\$135,901 20
Interest due and not paid . . . . .	\$1,673 00
Interest accrued and not payable . . . . .	\$2,182 88
	3,857 88

**REPORT OF THE RENSSELAER AND SARATOGA RAILROAD COMPANY.**

The Rensselaer and Saratoga railroad, extending from the city of Troy to Ballston Spa, is 25 miles long.

Cost of construction of said road . . . . .	\$475,801 10
The receipts of the road from January 1, 1844, to December 31st, 1844, both days included, are: from passengers, on 19,871 through, are \$16,899 50; from passengers, on 18,698 way, \$6,739 11; from freight, \$6,903 13; from bridge tolls, \$8,959 85; from all other sources, \$2,430 05 . . . . .	41,931 64

The expenditures of the same period are: for repairing and running the road, \$29,530 89; for dividends, \$10 500 . . . . .

The number of locomotive engines is 2; passenger cars, 15; freight cars, 20; machine shops none; The average number of men in the employ of the company, is 29. The number of miles run by passenger trains, is 20,090. The freight is run in same train with passengers. The number of miles run by horse power between Troy, Waterford, and the borough, is 8500.

**GREAT NORTH OF ENGLAND RAILWAY, SEMI-ANNUAL REPORT.**

We find in the supplement to the Railway Times, of 22d February, a report from the directors to the proprietors—from which we

\* N. B.—This is the whole distance run by all the trains, the freight and passengers always running in connection.

make the following extracts. It will be seen in this, as in every other railway report, published this year, that there has been a large increase of business upon this road, which is only 45 miles in length; it is however connected with other roads, in a very favorable manner, which gives it a large amount of business, and enables it to make good dividends—say six per cent. Its stock is quoted in Herepath's share list, at £182, to £168, per share for 100 paid.

By their report it will be seen that the directors are making vigorous efforts for the construction of several branches, which will add still more to their business and profits. This is the true plan to make railway stocks valuable.

It appears that the attempt to furnish the locomotive power, carriages and wagons for the Newcastle and Darlington junction company, has not been successful.

This company, as well as many others, has been at 'low water' mark, and had to pay 5 pr. ct. for money, whereas now they can get any amount required to renew their old bonds as they fall due, at 3½ per cent.—making a difference of nearly £5,000 in their interest account, or ½ per cent. on their capital.

Some of the shareholders appear to favor a plan proposed for leasing the road in perpetuity, at a stipulated annual income of 10 per cent.—after the fashion of our friends of the "Brooklyn and Jamaica" railroad company—which would make their stock worth 250, instead of 183 for 100 paid in, as it now sells; while others, and it would appear a large majority, disapprove, as they very justly contend that it will eventually, when other important works and branches are completed, be worth much more than £250 per share.

**GREAT NORTH OF ENGLAND RAILWAY COMPANY—GENERAL MEETING.**

The half-yearly meeting of this company was held at the offices in Darlington, and by adjournment at the Sun Inn, on Tuesday, the 11th inst. The attendance of shareholders was unusually numerous, so much so, indeed, as to render an adjournment to a larger room necessary. It had been pretty generally rumoured that some proposition would be submitted to the meeting for leasing the line; and this, no doubt, gave rise to the more than ordinary bustle which was observable. The attendance from Thirsk, York, &c., was large (shareholders being conveyed gratuitously on these occasions); but the protracted nature of the business prevented our being able to procure a list.

The company's seal having been affixed to the register of shareholders, Major Parker, (the secretary) read the following report:

From the annexed statement of accounts,

the shareholders will perceive that the gross receipts for the half-year, ending December 31, 1844, amount to 54,048*l.* 6*s.* which, compared with the corresponding half-year, shows an increase of 15,481*l.* 7*s.* 8*d.* of which the passenger traffic has given 8,051*l.* 6*s.*, the merchandise, 1,167*l.* 6*s.* 10*d.*, the mails, 983*l.* 0*s.* 11*d.*, and the coals 2,829*l.* 14*s.* 4*d.*, &c. &c.

The balance, after defraying the expenses, amounts to 31,784*l.* 6*s.* 9*d.*, out of which the directors recommend that a dividend be declared, at the rate of 6 per cent. per annum—[that is, for the half-year, 3*l.* on every 100*l.* share, and 10*s.* on every 40*l.* share,] clear of Income Tax, and be made payable on the 4th of March. This will amount to 23,820*l.* leaving a reserve fund of 7,964*l.* 6*s.* 8*d.*

The object which the directors had in view in leasing their coal dues for three years, (of which the first year expired on the 30th November last) namely, to promote the permanent extension of that trade, seems likely to be fully realised; the number of tons of coal and coke carried up the line during the half-year being 82,469, against 41,097 tons in the corresponding period of the year before, and with every prospect of a still further increase.

The proprietors are already aware that the Great North of England directors entered into an arrangement with the Newcastle and Darlington junction company to work the line of the latter company, the Great North of England company finding locomotive power, carriages, waggons, &c. It was soon discovered that such an arrangement could not be continued, without endangering the harmony that should subsist between railway companies so intimately connected. Your directors, therefore, from a wish to promote the most cordial feeling between the two companies, on the Newcastle and Darlington company intimating their desire to withdraw from that arrangement, offered no impediment to their carrying out their wishes your directors requiring only to be reimbursed the amount actually expended by them on their coal engines, to adapt them for passenger traffic.

Since the 1st of January of the present year, the Newcastle and Darlington company have supplied their own locomotive power.

The shareholders will be glad to learn, that, in conformity with the power granted to the directors at the last general and at subsequent special general meetings, the necessary surveys of the proposed branch lines to Harrogate, Knaresborough, Ripon, and Boroughbridge, as well as to Richmond, have been made, and all the necessary steps taken, in compliance with the standing orders of both Houses of Parliament. The lines are not of an expensive character, and from the great accommodation they offer to the public, as well as from their being legitimate branches of an existing railway, the directors confidently anticipate a favourable report from the Board of Trade. Acting on this impression, the directors have thought

it advisable to enter into a contract for 5,000 tons of iron rails, at 7*l.* 15*s.* per ton, a price considerably below that at which they could now be bought.

Your directors have, in connection with the Stockton and Darlington railway company, proposed to enter into a joint guarantee of 5 per cent. on the capital required for the construction of about 8 miles of railway, from the Middlesborough to the favourite sea bathing place of Redcar. The amount of capital required is 36,000*l.*, and the terms of the guarantee are for 21 years; and should the profit exceed 5 per cent., after defraying the working expenses, one-half of such excess is to be appropriated to the shareholders of the Redcar railway company, and the remainder is to be divided between the guaranteeing companies. This small extension cannot fail to be advantageous to the Great North of England company, by the increased number of passengers it will cause to travel on the whole length of their line.

Mr. J. C. Backhouse and Mr. Thomas Smith retire from the Board by rotation, and are eligible for re-election.

In conclusion, the directors congratulate their brother shareholders on the prosperous state of their affairs at the present moment, and they would beg to call their attention to the peculiar position of the Great North of England railway, with reference to the various schemes about to be brought before Parliament for the extension of railways to the north and south of it, and to remind the proprietors that, independently of the prospect of increased receipts from the development of their own traffic, such extension of railway communication, in connection with the Great North of England railway, cannot fail, in a few years, to render the shares of this company as valuable as those of any other railway in the kingdom, provided it retains its present independent position, receiving the traffic that may flow into it from all quarters, giving to every company that may be connected with it the greatest possible facilities, and acting towards all with the greatest impartiality.

#### Revenue Account for the Half-Year ending 31st December, 1844.

INCOME.	
Balance of income and expenditure account, to 30th June, 1844.	£15,957 19 4
Less dividend	10,871 5 0
Reserve fund	£5,086 14 4
Less income tax	548 19 8
Passenger traffic	£4,537 14 8
Merchandise ditto	33,048 3 11
Coal ditto	7,837 3 6
Gross receipts of Newcastle and Darlington junction company	8,972 14 11
Deduct expenses	3,460 13 4
Couveyance of mails	2,114 17 8
Rents	1,446 0 0
	629 6 0
	58,586 0 8
EXPENDITURE.	
Engineering Department—	
Repairs of way	3,121 17 10
Ditto fences	137 6 4

Ditto roads and bridges	206 1 4
	3,465 5 6
Locomotive department—	
Coals and coke	2,291 17 8
Repairs of engines, salaries, wages of enginemen, firemen, and cleaners, oil, pumping water, &c.	4,312 10 0
	6,611 7 8
Deduct expenses on account of Newcastle and Darlington junction railway company as per the other side	3,460 13 4
	3,150 14 4
Coaching Department—	
Station clerks, guards, police, porters, gas &c.	1,523 10 8
Merchandise department	381 7 0
Coal Department—	
Depot agents, fillers salaries, &c.	678 10 8
Compensation	181 0 0
Carriage Department—Repairs of carriages and waggons	1,056 10 2
Store Department—Expenses of Management	38 4 1
Direction	300 0 0
Office Charges—including salaries of Secretary and Superintendent, clerks, Travelling charges, audit, &c.	416 2 2
Stamps and advertisements	338 11 1
Rates and taxes—including insurance	813 16 10
Government duty	1,378 2 3
	13,720 14 9
Interest—including 12,193 <i>l.</i> 15 <i>s.</i> 5 <i>d.</i> payable 15th January, 1845.	13,080 19 3
Balance	31,784 6 8
Total	£58,586 0 8

#### CAPITAL ACCOUNT.

#### General Statement of Receipts and Disbursements for the Half-year ending December 31, 1844.

RECEIPTS.	
Capital Stock account, viz., 6,690 shares, at 100 <i>l.</i> per share	669,000 0 0
Less arrears still due	30 0 0
	668,970 0 0
To Capital Stock Accounts, viz.—	
5 <i>l.</i> per share, on 7,500 40 <i>l.</i> shares	37,500 0 0
To loan on debentures and notes	601,017 0 0
Total	£1,307,487 7 7
DISBURSEMENTS.	
Construction account to June 30, 1844.	1,262,518 7 0
Law charges	214 5 11
Contracts, including balance of bridges at Darlington	3,098 16 5
Land—for paid T. Cookson, Esq.	7,000 0 0
Compensation	175 0 0
	7,175 0 0
Carriages, horse-boxes, waggons, &c.	7,264 7 11
Less received on account of materials	17,752 10 3
	194 11 4
	37,557 18 11
Balance due from the Treasurer	17,411 1 7
Total	£1,307,487 7 7

We desire to give our readers—and we wish we could reach every reading man in the Union—an idea of the spirit with which these meetings are conducted, and the estimate put upon railway property in England, and therefore give pretty full extracts from that part of the debate in relation to leasing the road—commencing with the closing remarks of the chairman of the



board of directors, Mr. G. H. Wilkinson, who said

"I need hardly tell you that reports have gone abroad, certainly unfounded, of negotiations being on foot for leasing this line to another company. There is no foundation for such reports; nor do the directors of this company contemplate any such proceeding. If they had, they would not have used the language in which you find that report couched. I may caution you, however, as to this matter of leasing our line. Of course it refers to a particular Company, who are extending in various directions their influence, and who may possibly hope to lay their hands upon this line also. I would remind you that the interests of that particular company are antagonist interests in themselves. Their interests to the north of this line are undoubtedly identical with those of the Great North of England company; because the Great North of England railway, and the railways north of it, all form a portion of that great trunk railway which will connect the metropolis with the whole of Scotland; whereas, south of York, the interests of the party in question are totally distinct. Their interests are, not to carry the line by this, the most direct, line of communication between the metropolis and Scotland, but to carry it in another and circuitous direction. As soon as Churnet Valley line is made, by which 23 miles will be saved between the metropolis and Manchester, and as soon as the Caledonian line is made, which I have no doubt it will be,—as soon as these are effected, there will be still less comparison, in point of distance, between the rival lines on the western side of the kingdom and on the eastern, with which your railway is connected. And unless one of the direct lines from London to York be made—I am not going to enter upon the polemics of the competing lines, by which there will be a saving of somewhere about forty miles between London and York—unless that be the case, the western side of the island, by Churnet Valley and the Caledonian line, will have decidedly the whip-hand of you, and we shall no longer have that which the full development of our property requires, namely,—a thoroughly direct line of communication between London and Scotland. It fortunately happens, gentlemen, that our interests are identical, in this matter, with that which is the honest policy, and the best policy, for the public, in connection with carrying forward a direct line between the metropolis and Scotland; and I trust you will never lose sight of this great advantage, because, although our line is fortunately so placed that under no circumstances can it be otherwise than profitable—for take away the line to Scotland, and still our line will be remunerative—yet in order to enjoy the full scope of our position and of our prosperity, we must have our line an integral part of the great line of communication between England and Scotland. (Applause.) There are other matters which induce us to deprecate the leasing of the line. In the first place,

the Great North of England railway is connected, or will become connected, with numerous branches, which are of sufficient importance for any one board of directors to have under their control. The directors of such a line should be locally resident—should know all the agents connected with its working. We have seen enough of remote and distant direction to know that it is most incompetent; and to know also that it is a point of the greatest importance to have a local and personal supervision, in order to reap the whole benefit derivable from a railway, and to have it under proper control and management. But the great and main consideration with respect to leasing it is, that it would be placing the undertaking in the hands of those who could not in the nature of things have your true interests at heart in the mode in which they would conduct it, (Applause, \* \* \*

Mr. Allhusen (as we understood him) made some inquiry respecting the closing of the capital account.

(To be continued in our next.)

MAGNETIC TELEGRAPH.

We are gratified to learn, as we do from the following official statement, that the Postmaster General has taken the Magnetic Telegraph into the public employ. This is as it should be. Now let him adopt a liberal policy with the railroad companies—paying them well, and requiring many of them to increase their speed; and at the same time make the necessary arrangements for carrying into successful operation the cheap postage law, and he will be sure to receive the thanks of the millions.

Official.

POST OFFICE DEPARTMENT,  
March 29, 1845.

The appropriation of \$8,000 to meet the expenses of the Magnetic Telegraph between Washington and Baltimore, being placed under the charge of the Postmaster General; and it appearing that, under a previous appropriation embracing the same object, which was made for the purpose of testing the practicability and utility of said telegraph, the Secretary of the Treasury, under the authority conferred by act of Congress, had appointed S. F. B. Morse superintendent, at a salary of \$2,000 a year, and two assistants, Messrs. Alfred Vail and Henry J. Rogers, together with keepers of laboratory and inspectors of wires, at a further allowance of at least \$3,000 a year: Ordered, That said amounts be disbursed out of said appropriations, to wit:

To said S. F. B. Morse, superintendent, at the rate of, pr year,	\$2,000
To said Alfred Vail, assistant,	1,400
Do. H. J. Rogers, do.	1,000
Do. Two keepers of laboratory and inspectors of wires, at \$300 each,	600

And that the salaries be paid the officers monthly, from the time of their qualification, by the chief clerk of the department, as the

clerks are now paid, and that said superintendent and assistants take the oath required by the act of 1825, section 2.

It is further directed that the offices of the said superintendent and assistants be kept in the post offices at Washington and Baltimore; and that the magnetic line be extended from the depot in Baltimore to the post office as early as practicable; and that it be used at its present location until that is effected; that the offices in Washington and Baltimore be kept open for the reception and transmission of despatches from eight o'clock in the morning until ten o'clock, A. M.; from one P. M. until three o'clock, P. M.; and from five till seven o'clock, P. M. each day, Sundays excepted.

For the transmission of each despatch there shall be paid, in advance, at the office from which it is sent, by the applicant, one quarter of one cent for each telegraphic character. Upon the reception of a despatch at either office, it shall be the duty of the officers to have the same translated in a fair handwriting, carefully enveloped and sealed, and the magnetic characters immediately destroyed, and to place the despatch in the hands of the penny-post for delivery, who shall be entitled to receive the same compensation therefor as for the delivery of letters transmitted now by mail.

It is further ordered that the said superintendent and assistants in no case communicate to, or permit to be seen by, any person, the contents of any despatch, except the individual or individuals to whom it may be addressed.

It is further ordered that the expenses attending the extension of the telegraphic line to the post-office in Baltimore, as well as all other contingent and incidental expenses, be paid, upon a statement of the expenses, and a certificate of the correctness thereof, by the superintendent, upon the order of the Postmaster General.

It is further ordered that the superintendent keep an accurate account of the income, as well as the expenditures, and report the same, at the end of each fiscal quarter, to the Postmaster General, to be applied to the payment of the expenses of the establishment, or so much as may be necessary; and that the superintendent pay the same, under the rules and regulations now applicable to payments by postmasters.

In consideration of the facilities allowed by the railroad company to the superintendent and his assistants in attending to the business of the telegraph, it is further ordered that the free use of the telegraph be conceded to said company for the transmission of communications relating to the business of their road. C. JOHNSON,  
Postmaster General.

Canal Board and Canal Tolls.—The Canal Board have resolved not to make any change in the rates of tolls as established for 1844, until the 1st July next, on which day the board is to meet to revise and adjust the rates of tolls on the Canals, and for the transaction of such other business as may come before it.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months, as stated in latest balance sheets.	Total earnings, in pounds, for six months, as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
							Per share.	Per cent. per annum.				
Arboath and Forfar.....	15	102,000	35,000	138,870			0 12 6	2 10 0	25 27	Aberdeen.....	1,600,000	
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1 5 0	2 10 0	100 100	Barnsley Junction.....	200,000	
Branding Junction.....	23	161,700	365,470	481,452				4 10 0	50 51	Belfast and Ballymena....	385,000	
Bristol and Gloucester.....	37½	400,000	211,600					nihil.	30 36	Blackburn and Accrington.	400,000	
Chester and Birkenhead.....	14½	750,000	143,170	518,989	5,856	13,148	0 8 6	1 14 0	50 32	Birk. and Ches. Junction..	1,000,000	
Dublin and Drogheda.....	31	450,000	150,000	500,869				nihil.	55 73	Bolt, Wigan and Liverpool	800,000	
Dublin and Kingston.....	6	200,000	152,200	359,000			6 0 0	6 0 0	100 166	Caledonian.....	1,800,000	
Dundee and Arbroath.....	16½	100,000	49,445	153,416	2,989	6,993	1 5 0	5 0 0	25 29	Cambridge and Lincoln...	1,250,000	
Durham and Sunderland.....	18½	169,350	124,055	270,392	9,889	17,702		nihil.	34 29	Chatham and Portsmouth..	5,000,000	
East County and North and East.....	86½	4,443,200	341,155	3,981,905	47,385	118,726	1 6 6		45 57	Chester and Wrexham....	120,000	
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1 2 6	4 10 0	50 57	Churnet valley.....	1,800,000	
Glasgow, Paisley and Ayr.....	51	937,500	1,066,951	12,446	12,446	36,736	1 2 6	4 10 0	50 60	Direct Northern to York...	4,000,000	
Glasgow, Paisley and Greenock.....	22½	650,000	216,666	787,884	11,572	23,177	0 5 0	2 0 0	25 12	Dublin and Belfast.....	950,000	
Grand Junction.....	104	2,478,712		2,453,169	84,309	195,080	5 0 0	10 0 0	100 210	Dunfermline and Perth....	250,000	
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1 12 6	3 5 0	100 119	Edinburg and Northern...	800,000	
Great Western.....	221	4,650,000	3,679,343	7,272,539	132,235	369,904	3 10 0	7 0 0	75 138	Ely and Bedford.....	270,000	
Hartlepool.....	15½	438,000	155,510	719,205				8 0 0	100 100	Glosgow, Dum. & Carlisle.	1,300,000	
Leicester and Swannington.....	16½	140,000		140,000	2,207	6,317	1 5 0	5 0 0	50 50	Gt. South and West Elix..	1,200,000	
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5 0 0	10 0 0	100 203	Gt. Grimsby and Sheffield.	600,000	
Llanelly.....	27	200,000	44,000	221,624			1 0 0	2 0 0	87 87	Harwich and E. coun. Jun.	160,000	
London and Birmingham.....	12½	6,874,976	1,928,845	6,393,468	92,823	405,768		10 0 0	100 218	Huddersfield & M. rl. & cl.	600,000	
London and Blackwall.....	3½	804,000	266,000	1,315,640	15,978	23,870			16 6	Kendal and Windermere..	125,000	
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0 12 0	2 8 0	50 47	Leeds and Dewbury.....	400,000	
London and Croyden.....	8½	550,000	229,000	761,885	7,583	10,545	0 5 0	2 10 0	14 17	Leeds and Thirsk.....	800,000	
London and Greenwich.....	3½	759,383	233,300	1,040,930	15,193	28,933		nihil.	13 10	Liv. Ormskirck and Preston	600,000	
London and South Western.....	92½	2,222,100	630,100	2,596,291	68,457	150,469	1 12 6	6 10 0	41 73	London and Portsmouth..	1,750,000	
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1 0 6	5 0 0	40 48	London and York.....	5,000,000	
Manchester and Bolton.....	10½	778,100	197,730	773,743	8,585	21,140	2 2 0	4 10 0	93 110	Londonderry & Enniskillen	500,000	
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761		7 1/2 & 10 1/2	60 88	Lynn and Ely.....	200,000	
Midland railway.....	178½	5,158,900	1,719,630	6,279,056	76,983	231,898			100 96	Manchester, Bury and Ross	300,000	
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,917	4 0 0	4 0 0	100 105	Manchester and Buxton...	250,000	
Newcastle and Darlington.....	23	500,000		405,728				nihil.	21 49	Mullingar and Athlone....		
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466		2 0 0	50 37	Newcastle and Berwick...	700,000	
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2 10 0	6 16 8	100 104	Richmond & W. End Jun.		
Paris and Orleans.....	82	1,600,000	400,000	1,978,415			0 16 0	8 0 0	20 39	Scottish Central.....	700,000	
Paris and Rouen.....	84	1,440,000			31,247	91,171		8 0 0	20 38	Sheffield and Lincolnshire.	650,000	
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066		nihil.	50 18	Shrewsbury and Gd. Jun.	400,000	
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876		nihil.	82 93	Shrew. Wolv. Dudly & B.	900,000	
South Eastern.....	88	2,996,000	530,277	3,464,172	40,993	81,482	0 10 6	2 2 0	50 39	Trent Valley.....	900,000	
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1 0 0	6 5 0	100 55	West London Extension...	64,000	
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0 15 0	5 1 8	29 37	West Yorkshire.....	1,000,000	
Yarmouth and Norwich.....	20½	187,500	62,500	230,250				nihil.	16 25	Whitehaven and Maryport	100,000	
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,614	27,132	55,752	2 10 0	10 0 0	50 100			

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10			15½	15½
Anti Dry Rot.....	10,000		18½		2	
Australian Trust Company	5,700	100	35		34½	
General Steam Navigation	20,000	15	14	10	27½	27
Gt Western Steam Pa.....		100			25	
Metropolitan Wood Pav..	15,000	10	6	5	6½	
Patent Elastic Pav.....	10,000	1	1	5	11	
Peninsular and Oriental..	11,493	50	50	7	64½	65
Ditto.....	3,200	50	40	7		
Polytechnic Institution				6		
Reversionary Int. Soc.....	5,320	100	100	4½	104	101
R. Mail Steam Packet.....	15,000	100	60		36½	37
South Western Steam.....	4,000	25	5			
Ship Owners' Towing.....	3,000	10	7½	10	15	
Thames Tunnel.....	4,000	50	50			
University College.....	1,500	100	100			

Canals.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.
Ashby de la Zouch.....	1,132	113	av.	4	70	70
Barnsley.....	720	100	100	11	180	180
Birmingham, 1-16 share..	3,000	118½	79	10	150	160
Do. and Liverpool Junction	4,000	160	100		13½	13½
Coventry.....	500	100	100	20	365	365
Cromford.....	460	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forest and Clyde.....	1,297	400½	40½	4	440	440
Grand Junction.....	11,600	100	100	7	162	161½
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Rerkley....	5,000	do.	do.		8	8
Grantham.....	749	150	150	8	185	185
Lancaster.....	11,699	47½	47½	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	610
Lieicester.....	545	140	140	9	139	139

NAME OF COMPANY.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.
Loughborough.....	70	142½	142½	70	1140	
Momouthseire.....	2,409	100	100	10	160	160
Melton Mowbray.....	250	100	100	10	117	117
Mersey and Irwell.....	500	100	100	10		
Macclesfield.....	3,000	100	100	2½	15	15
Neath.....	247	100	100	17	365	365
Oxford.....	1,786	100	100	30	505	505
Regents or Loncon.....	21,418	33½	33½	2½	25	25
Shropshire.....	500	125	125	6	120	120
Somerset coal.....	800	150	150	7½	123	123
Stafford and Worcester...	700	140	140	25	480	480
Shrewsbury.....	500	125	125	12	230	230
Stourbridge.....	300	145	145	14	360	360
Stroudwater.....	200	150	150	19		
Swansea.....	533	100	100	15	240	240
Severn & Why & Rail Av.	3,762	26½	26½	5½	30	30
Trent and Mersey.....	2,600	50	50	65	495	
Thames and Medway.....	8,149	19½	19½		10	10
Warwick and Birmingham.	1,000	100	100	10½	167	
Warwick and Napton.....	980	100	100	8½	122	

Water Works.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.
Birmingham.....	4,800	25	25	3½	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7½	88	90
New River L. B. Ann.....	1,500			2½		
Manchester and Salford....	6,486	av.	30	8½	57	57
Vauxhall, lt. S. London....	1,000		100	5	55	55
West Middlesex.....	8,294	av.	63½	6½	126	127

Docks.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.
Commercial Dock.....	1,065	100	100	3	80	
East and West India.....		sto.		5½	137	
London.....	3,238,310	sto.		4½	114½	115
St. Katharine.....	1,352,752	sto.		5	116	171
Southampton.....	7,000	50	50			



AMERICAN RAILROADS.												SALES.			
Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	Week ending April 3d.	
							Gross.	Nett.		Gross.	Nett.			Shares.	Price.
N. H.	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	124,497	74,841	6	113½	83	100½
	2 Concord.....	35	759,000									12	70½	26	139½
Mass.	3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	110½	5	110½
	4 Boston and Maine extension.....	17 1-4	455,703	unfin.											
	5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120½	2	120½
	6 Boston and Providence.....	41	1,886,135	none.	18,690	100	233,388	110,823	6	282,701	156,109	6	108½		
	7 Boston and Worcester.....	44	2,914,078				404,141	162,000	6	428,437	195,163	7½	116½	33	118½
	8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
	9 Charlestown branch.....		280,260						13	34,654	13,971	5½	70½	7	83
	10 Eastern.....	51	2,388,631				279,563	140,595	6	337,238	227,920	8	109½	21	109½
	11 Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,835		120	38	122
	12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	121		
	13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
	14 Northampton and Springfield.....		172,853	unfin.											
	15 Norwich and Worcester.....	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	70½	6,515	70
	16 Old Colony.....		67,820	unfin.									102	28	102
	17 Stoughton branch.....	4	63,075	unfin.											
	18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	118		
	19 Vermont and Massachusetts.....														
	20 West Stockbridge.....	3	41,516	200		100						4			
	21 Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	102½	1,032	103½
	22 Worcester branch to Milbury.....		8,431	506											
	23 Housatonic, (10 months.).....	74	1,244,123							150,000			82	86	31
Con.	24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	89		
	25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
	26 Stonington, (year ending 1st Sept.).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		41	1,975	40½
N. Y.	27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0			
	28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	106	18	106
	29 Auburn and Syracuse.....	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
	30 Buffalo and Niagara.....	92	200,000		1,500								100		
	31 Erie, (446 miles.).....		5,000,000										31½	1,083	31½
	32 Erie, opened.....	53						48,000		126,020	59,975				
	33 Harlem.....	26	1,206,231							140,685	62,309		70	825	68½
	34 Hudson and Berkshire.....	31	575,613			50				35,029	1,941	0	14		
	35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	75½	5,400	76½
	36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	64½	325	63½
	37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
	38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
	39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	115		
	40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
	41 Troy and Greenbush.....	6	180,000												
	42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
	43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	120	58	128
N. J.	44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		110½	43	110½
	45 Elizabethtown and Somerville.....	26	500,000												
	46 Morris and Essex.....														
	47 New Jersey.....	34	2,000,000										93½		
	48 Paterson.....	16	500,000									6	85		
Pa.	49 Beaver Meadow.....	26	1,000,000												
	50 Cumberland Valley.....	46	1,250,000												
	51 Harrisburg and Lancaster.....	36	860,000										30		
	52 Hazleton branch.....	10	120,000												
	53 Little Schuylkill.....	29	900,000												
	54 Blossburg and Corning.....	40	600,000												
	55 Mauch Chunk.....	9	100,000												
	56 Minehill and Schuylkill Haven.....	18	315,000										143½	10	150
	57 Norristown.....	20	800,000										6½	135	6
	58 Philadelphia and Trenton.....	30	400,000										104		
	59 Pottsville and Danville.....	29 1-2	1,500,000												
	60 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		50½	4,110	50½
	61 Schuylkill valley.....	10	1,000,000												
	62 Williamsport and Elmira.....	25	400,000				20,000								
	63 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		43½		
Del.	64 Frenchtown.....	16	600,000												
Md.	65 Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		658,620	346,946		48½		
	66 Baltimore and Susquehanna.....	58	3,000,000										5	200	6
	67 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	68 Greensville and Roanoke.....	17 1-2	260,000												
	69 Petersburg and Roanoke.....	60	969,880							122,871	72,898	3			
	70 Portsmouth and Roanoke.....	78 1-2	850,000												
	71 Richmond and Fredericksburg.....	61 1-2	1,200,000												
	72 Richmond and Petersburg.....	22 1-2	700,000												
	73 Winchester and Potomac.....	32	500,000												
N. C.	74 Raleigh and Gaston.....	84 1-2	1,360,000												
	75 Wilmington and Raleigh.....	161	1,800,000												
S. C.	76 South Carolina.....	136	5,671,452		34,410	75				532,871	140,196	5		12,853	43½
	77 Columbia.....	66					201,464	77,456		328,425	180,704				
Ga.	78 Central.....	190	2,581,723				227,532	93,190							
	79 Georgia.....	147 1-2	2,650,000				248,026	158,207		248,096	147,523				
Ky.	80 Lexington and Ohio.....	40	500,000												
Ohio	81 Little Miami.....	40	450,000												
	82 Mad river.....	40	400,000												
Ind.	83 Madison and Indianapolis.....	56	152,000												
Can.	84 Champlain and St. Lawrence.....	15	212,000					12,000		58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.

Thursday, April 10, 1845.

THE COAL TRADE.—Sent by railroad from Pottsville and Port Carbon, for the week ending on Thursday evening last, April 3d.....4,344-13  
Per last report.....25,634-04

Total.....29,978-17  
From Schuylkill Haven.....8,284-05  
Per last report.....55,619-18  
Total.....63,904-03

BY CANAL.

From Pottsville and Port Carbon.....3,655-00  
Per last report.....5,248-07

Total.....8,902-07  
From Schuylkill Haven—total up to Wednesday evening, April 2d.....825-16  
From Port Clinton—total.....967-04

Total by canal.....10,695-07  
Total by railroad.....93,883-00

Total by railroad and canal.....104,578-07  
Freights to New York, \$1-80—to Philadelphia 70 cents.—*Miners' Journal.*

✍ We are obliged to the president, Mr. Wilkinson, for enabling us to correct the errors referred to in the following communication; and we again respectfully request those who detect errors in our tables, or statements, to do us a similar favor, and enable us to correct them at the earliest possible period—as accuracy in our statements is what we aim at.

Office of the Syracuse and Utica R. R. Co. }  
Syracuse, April 7th, 1845. }

TO THE EDITOR OF THE RAILROAD JOURNAL.

DEAR SIR—I observe two errors in the statement of this company in your Railroad Journal, which I will thank you to correct—I mean in the table which is published on the 8th page usually.

You state the cost \$1,151,576. It should be \$1,115,897. The secretary of State made the error in his table by adding to the last sum \$35,678-42, which our report showed had been expended in 1844, and charged to construction. This expenditure was already included in the sum of \$1,115,897.

Another error is in stating the dividend at 7 per cent. Our capital is one million and the dividend was \$80,000, or 8 per cent. Very respectfully,

JOHN WILKINSON.

✍ We have received the "remonstrance of the several railroad companies, on the line from Albany to Attica, against the several petitions for a reduction of their fare, the appointment of a commissioner, and compelling them to run in the night, in winter," etc.

We are, not unfrequently, amused, and much more frequently vexed, at the disposition of the people, or

a few uneasy representatives of them, to apply legislation as a remedy for every supposed evil. It is well known that we are the strenuous advocates of "low rates of fare and high rates of speed, for passengers, on railroads"—yet we desire to convince by argument and example, not to compel by arbitrary, and, as we think it would be in this case, unjust legislation. There are few, comparatively, even of the most experienced business men, who have not given much attention, or devoted time to the investigation and management of the details of railroad affairs, that understand the difficulties to be overcome, and the constant efforts required from those who have the charge of even a short railroad. Hence it is that we often hear people making serious complaints of the management, and anathematizing the managers of railroads, because their views and opinions are not followed; and it seems that an effort is now being made, not only to take from the companies the right of charging what their charters allow them, but also to take from them the control of their roads, by the appointment of a commissioner.

It is not enough that passengers travel at two or three times former speed, for the same, and even a less rate per mile; or that the railroad companies are restricted, some of them, from carrying freight at all, except when the canal is closed, and even then only by paying canal tolls, but there must be more restrictions more compulsion, and, as a matter of course, less accommodation to the public.

The companies which compose this line of road have had a powerful competition on the canal—and they must soon re-lay their road with heavy iron, in order to keep pace with the requirements of the people; and therefore we are fully of the opinion that their managers should be left, without any further restrictions; and, if desirable, they should have further facilities granted, to enable them to complete the gigantic work which they have undertaken, and from which the business community have already derived so much benefit. Let the legislature sustain, rather than cripple, by unnecessary restrictions, works which add so largely to the comforts, the interests, and, may we not say, the years of those who travel. We shall probably refer to this subject again.

RAILROAD MEETING.

At an unusually large and respectable meeting of the citizens of Wood co., Va., convened at the court house pursuant to notice, on Saturday, 21st ult., Col. J. G. Springer was called to the chair, and Wm. H. Safford appointed secretary. The object of the meeting having been explained by the chair, it was successively addressed by James F. Stephenson, Esq., of Tyler, Wm. A. Harrison, Esq., of Harrison, Cabell Tavener, Esq., of Lewis, and Gen. J. J. Jackson, of Wood.

The following, among other resolutions, were passed, preceded by an indignant assertion of their rights.

We, the people of Wood county, citizens of Virginia, in full county meeting assembled; solemnly impressed with the magnitude and importance of the interests of ourselves and our posterity now at stake—asking, and having asked of our fellow citizens, represented in the general assembly, nothing which has ever been refused to others—fully convinced that the continued rejection of an application so obviously just in itself, and if granted so advantageous to us and ours and to the whole commonwealth, would be an act of most flagrant and wanton oppression, sufficient to cancel the allegiance due from us under other circumstances; but trusting that our fellow citizens of other sections will not permit their representatives to persist in such injustice; and willing, therefore, to make a further appeal to their sense of right and duty, do resolve as follows:

1. Resolved, That we are deeply impressed with a sense of the injustice done to us and our best interests, and to the State at large, by the refusal of the ge-

neral assembly, at its recent session, to permit the extension of the Baltimore and Ohio railroad through the northwest to the Ohio river, and that we entertain an equally profound conviction that such refusal did not reflect the sentiments of the people of this commonwealth.

2. Resolved, That inasmuch as it was known to the general assembly that the interests of the company, to say nothing of insuperable physical difficulties, would not permit the Baltimore and Ohio company to terminate their road at Wheeling, the granting a right of way and confining its terminus to that city was, in our deliberate opinion, on the part of many voting for it, a mere subterfuge, and a mockery of the respectful prayer of the northwest; which is was intended to deny without the manliness of a direct refusal.

3. Resolved, That a refusal, whether open or covert of a right of way to the Ohio river at any point not below the mouth of the Little Kanawha river, is a breach of the faith of the commonwealth pledged to the Baltimore and Ohio railroad company, and to the whole Union by acts of assembly passed in 1827, 1837 and 1838, in all of which years such right of way is granted or recognized, and it is well known that without such pledge the said company would not have commenced their great undertaking.

4. Resolved, That it is an undeniable right, possessed by every portion of the people in every section of the commonwealth, to associate themselves together to carry on any lawful business, or to construct any road or other improvement, not directly interfering with the vested rights of others, having for its object the transportation of the products of their labor to the best markets; and the withholding by the legislature of corporate powers, or any other ordinary facility necessary to accomplish such object, is not only without precedent in the history of this commonwealth; but considering that similar privileges have been freely bestowed on almost every other portion of the State, is, in the highest degree, partial, unequal, unjust and oppressive.

Is it not strange that the legislature of Virginia should allow this important work to be thus retarded, when so many of her own citizens are to be benefitted by its early completion? It is certainly not a very great evidence of the progress of the intelligence of the age in Virginia. Of one thing, however, those interested may rest satisfied, which is that the road will be completed, notwithstanding the opposition of interested parties. It is only a question of time. It is quite too important a measure to be suspended at Cumberland.

By a late decision of the supreme court of North Carolina, Mr. F. E. Rives of Virginia, who it will be recollected purchased at auction, under a levy made at his instance, that part of the Portsmouth and Roanoke railroad within the limits of this State, is put in possession of the property, and he has exercised the right acquired by the decision to stop the travel on that portion of the road. Consequently, the Portsmouth company has ceased its operations for the present altogether.—*Wilmington Chron.*

Eric Canal.—At a meeting of boatmen recently held at Syracuse, for the purpose of establishing the prices of freight and passage for the coming season, it was resolved that the price of passage, including board, be 1½ cent per mile, or 1 cent per mile without board, and that the price of freight be 19 cents per 100 miles for 100 lbs.—*Jour. Com.*

✍ The Reading Democratic Press says—"A statement made by the Reading railroad company sets for the fact that the locomotive engine 'Manatawnny' weighing about 13½ tons, from 1st July to 1st December, 1844, five months, made 81 trips on the road, transporting 16,120 tons of coal; the 'United States,' weighing about 18 tons, during the same time, 53 trips, with 21,205 tons of coal."

✍ A dividend of three per cent. for the last six months has been declared on the Washington branch of the Baltimore and Ohio railroad.

✍ Our Sales of Stocks are not corrected this week.

## CANADIAN TRADE, DRAWBACK, ETC.

The effects which the law just passed by congress may have on our trade with the British provinces are very generally discussed by the northern and eastern prints. In addition to the duties imposed by the British parliament to regulate the general trade of the empire—which, by the way, are very slight—there are also provincial duties, which the colonial parliament may lay on “ad libitum;” hence the ability of so poor a country to meet the interest on the debt, already \$500,000 per annum, as well as the exorbitant expenses of their government, for both duties go to the colonial treasury. There is a discrimination in favor of merchandize imported by the St. Lawrence, which we saw stated in a Canadian paper, equal to 12½ per cent. *ad valorem*. A few years since congress passed a law which put prohibitory duties on horses, cattle, etc., coming from the province, a trade of long standing and of some importance to certain districts; this, together with the heavy duties on grain (the duty on oats being 50 per cent.) which had long been felt led to retaliation on the part of the Canadians, and we do not know where it may end.

The upper province—now called Canada west—has however a vast interest in a free intercourse with New York; its population being almost entirely British and American, demands a greater amount of merchandize of every description than the, at present, more populous lower province with its French community; its inhabitants, no matter how “loyal,” infinitely prefer New York to Montreal in every respect, whether for business or pleasure, and their natural position renders it certain that this city must, before long, become the great and permanent resort of the travellers and merchants of Canada west. Again, the climate alone is sufficient to point out New York as their Atlantic port. The navigation to all the principal ports on Ontario has been open some time, and, before the 1st of May, the country merchants might have received their spring goods, and disposed of no small part of them. The canals between Ontario and Montreal open about the 1st of May, and it will be some time before the upper province receives its supplies, supposing the goods to be in Montreal all winter, or taken there in the spring from Portland, Boston or New York. But the great bulk of the merchandize is, of course, imported in the spring; the first ships reach Montreal about the 15th May, and the summer is one-third gone by the time the “spring goods” reach their destination. Ontario and the Hudson are

open about six weeks before the canals between Montreal and Kingston; the distance from Albany to Oswego is 184 miles, of which, 150 miles, by railroad, have been in operation for many years, requiring only 35 miles to complete the communication by steam, and for which a charter will be granted this session. Hence goods from New York can be delivered at the principal ports of *upper Canada* at a lower rate than from Boston or Portland at Montreal, thus saving more than half the cost of transportation from tide-water to Ontario, besides being five or six weeks earlier in the spring. Even the canals of New York can compete successfully with the Montreal railroad whether to Portland or Boston, omitting all consideration of the superior advantages to the mercantile man which this city holds out, even with reference to the *time* of reaching Ontario in the spring, and neglecting the cost of transportation, about one half of a *very* low freight from Boston or Portland to Ontario via Montreal. But, via Albany, Boston has a route to the west immeasurably superior to any which can be prosecuted; she has the advantage of New York during winter, but after the opening of the Hudson—about the 15th March—competition cannot be thought of. We base our expectations of a great trade with the west part of Canada on the deep interest which the people have in the freest possible intercourse with us; if we are correct in this assumption, time will soon do the rest.

We have more than once alluded to the extraordinary ideas entertained by civil engineers of Philadelphia, as to the cost of transportation on canals, and we are less surprised to find equally visionary notions among our friends “down east.” One of the gentlemen above alluded to, Mr. Edward Miller, actually states that coal can be brought from Pottsville to New York—after the enlargement of the Schuylkill canal—for 45 cents per ton, exclusive of tolls, but including loading and unloading. The distance is about 220 miles; so this is at the rate of very little more than two mills per ton per mile! (2·045), or 30½ cents per ton from New York to Albany, a rate at which no man would contract to carry any quantity, no matter how great, or with what regularity delivered. The lowest freight we can hear of is 50 cents per ton of coal carried 100 miles in large quantities, and under the most favorable circumstances. Steam is used to the greatest advantage, the boats being towed *close by* the steamer, in place of at the end of a long tow-line, and the speed, dimensions of the barges, in short, every-

thing connected with the business is arranged to the greatest advantage, instead of being adapted to a narrow canal. We dwell on these exaggerations because they lead to very serious consequences. For example, Judge Preble, of Portland, stated in Montreal that flour could be carried from Chicago, via the Welland canal and Montreal, to Portland for 65 cents per barrel! The present charges from Kingston to Montreal are 35 cents per barrel, and adding 5 cents for insurance and handling at Montreal, we have 40 cents as the cost on the cars opposite that city; as for 25 cents yielding a fair profit on such an article as flour to be carried above 200 miles, the idea is absurd to any man acquainted with the cost of transportation on railways, with the extent of the flour trade, or with the climate and country of the contemplated route. Even the Reading railway, which carries more *tons* than there are tons of flour, corn, wheat, pork, beef, etc., sent from the entire west to Montreal, Boston, New York, Philadelphia and Baltimore, charges 1½ cent per ton per mile, though the road is level, or descending, in the direction of the trade, and they expect to carry 800,000 tons of coal alone, before the stock can yield 6 per cent. This is equal to more than 8 millions of barrels of flour, and shows the immense trade necessary with such low tolls on the principal articles carried. The St. Lawrence offers a cheaper route from Ontario to Montreal than any canal, the colonial legislature cannot shut it up, and the Rideau canal will prevent their being able to force the trade into the St. Lawrence canals, so that the board of works will not be able to increase the cost of transportation above present rates. As for *reducing* it, by charging 16 cents toll per barrel of flour, between Ontario and Montreal at the rate of the Lachine canal *before* enlargement, the “modus operandi” must be explained by political jobbers. We believe that flour is now delivered at Boston more cheaply than it ever can be at Portland, and will go so far as to predict that that article, from the lake country, will never reach Boston or Portland so cheaply as via Albany.

In making these remarks, we must be allowed to say that we are neither influenced by deep personal interest and local attachments, nor by the discovery, during a residence of more than twenty years, of any remarkable evidence of enlightened forecast, and liberal enterprize, among the citizens of New York, in the projection and execution of great works calculated to promote the growth and prosperity of the city; but simply by a knowledge of the facts as they ex-

ist, and a desire to state them fairly for the benefit of whom it may concern.

By way of showing the other side of the question, at least as far as the St. Lawrence canal is concerned, we give a few of the remarks of Mr. Merritt, to whose indefatigable, if not disinterested, exertions, Canada is in no small degree indebted—in more senses than one—for her bombastic public works.

“The first part of Mr. Merritt’s address embraced an enlarged view of the extent of the inland coast of the valley of the St. Lawrence; he explained its advantages and disadvantages, in respect to situation and climate, and proved, from various statistical tables, its rapid annual increase in population and in extent of trade.

“He next proceeded to demonstrate that the trade of this great country must ultimately centre on the shores of lake Erie, bringing within its scope several of the neighboring States of the Union; and that on the completion of the canals now in progress an easy and direct communication would be established with that part of the country, particularly should the canals be made continuous, by the province furnishing tug boats, to tow the vessels from the debouchement of one to the entrance of another. He instituted a comparison between the length and expense of transit by the Erie canal, leading to the Hudson, and by the Welland and St. Lawrence canals, leading past Montreal and Quebec, and showed that the latter route, when completed as above, and freed from all unnecessary restrictions, will be the cheapest and best, and command in consequence the greater portion of the lake Erie trade.

“Mr. Merritt then entered on the second part of his subject, by pointing out the conduct necessary to be pursued by the imperial and provincial governments, in order to secure and retain this trade. On the one part the policy commenced by the home government ought to be carried into full effect, by the removal of all duties on the products of Canada entering the ports of Great Britain; on the other, British products and manufactures ought to be admitted into Canada duty free. That these duties could be dispensed with by the province, on the opening of the canals, now in progress of construction, was shown by Mr. M., from an examination of our present revenues and resources; the increase of revenue from these canals alone, would, he argued, from the immense increase of transit, more than counterbalance the reduction of duties from the customs now levied.

“Mr. Merritt lastly adverted to the consequences which would result from such a course as he advocated. Canada would become, in effect, one entire warehousing port; the six States and territories adjoining lake Erie would be colonies of Great Britain, as far as regards their consumption of her manufactures—a most extensive home market would be open to Canadian industry, and the bonds which unite Canada to the mother

country being thus drawn more closely and intimately together, would render British connection forever secure and permanent.”

#### BOSTON AND BURLINGTON RAILROAD.

The Rutland Herald, of 3d inst., has the following, and many other remarks in relation to this work:

“*Our Railroad.*—We are glad to see that the true New England spirit is at length arousing itself in view of the contemplated project of uniting Boston with Montreal, by a continuous line of railroad. This is as it should be. The advantages of such a communication to these cities not only, but to the entire section of country through which such a route may be established, has long been understood and fully appreciated; but it has not, until quite recently, been plainly indicated, which of the many projected routes would finally be determined upon. This question we believe now to be settled, at least if the people of western Vermont but do their duty. For ourself, we have long had but one opinion in reference to this matter. Looking to Boston for the main source of power, which must give impetus to this most desirable enterprise, we have had but little doubt as to which route would find favor with that power—the monied interest of our “New England capital.” We now feel ourself warranted in saying that this interest is decidedly in favor of the western route, via Keene, Bellows Falls, Rutland and Burlington, and at the time to have questioned this, would have been supposing our Boston friends entirely blind to their own interests, and utterly incompetent to judge of the real merits or disadvantages to them of the different routes proposed.”

The Herald need not fear that the Bostonians will, in such a matter as this, “be blind to their own interests.” Of another city—not a thousand miles from here, which claims to be the metropolis of this Union, but which looks calmly on and sees Boston wresting from her a portion, and no trifling portion either, of her trade—we cannot say as much; but Boston puts out her long arms, reaching far into those regions which New York has heretofore deemed hers of right—and draws to herself a large amount of business which New York might have had by one-half the effort. There is this difference, however, in the two cities. The capitalists of Boston encourage, foster and sustain whatever benefits Boston, but in New York it is not so—there are but few, comparatively, of her rich men who care a straw for New York—consequently they do not encourage and sustain those works important to her business operations, but rely upon what nature has done for her.

It was so in relation to the Erie and Champlain canals. New York was opposed to them. And so it is with the two great rail-

roads, the New York and Erie and the New York and Albany; they are suffered to linger; and those few who have labored in their behalf for years have become disheartened and disgusted with such apathy—while Boston enjoys the advantage of her enlightened foresight and energy, in the rapid increase of business, and greatly enhanced value of her real estate.

New York must, however, make these works in *self defence*—and had better do it by a tax on her property than not have it done speedily.

#### ACCIDENT ON THE RAILROAD.

“This morning, as the cars from Stonington were coming towards Providence, when near Wickford, going nearly at the rate of thirty miles an hour, the axletree of one of the deck cars broke, and the car was nearly destroyed—the next, being also a deck car, was thrown entirely off the track, as were the forward wheels of one of the long passenger cars. Most miraculously no one was seriously injured, although there were nearly 250 persons in the cars. Had the accident occurred further on the road, when passing through a deep rocky cut, the loss of lives would have been great. By the judicious management of the conductor, Mr. L. Tucker, with the assistance of the engineers, and a part of the passengers, the cars were replaced upon the track, after a delay of only about an hour and a half.”

We find the above paragraph in the Boston Transcript, of 1st inst.—and we ask the superintendent of the road, and others who may be able to answer the question, whether the car in which the axle broke had “Kite’s Safety Beam” attached to it? We presume not, as we do not know of a single instance of serious accident from the breaking of a car axle, where this “safety beam” was attached—while we have been informed of several instances where a car has run many miles after the breaking of an axle, without the circumstance being known to the passengers in the car. By referring to the cut in this Journal, it will be seen that, if the axle breaks in the journal, the car will not be materially affected by it, as the safety beam then comes into use, and the axle and wheel are kept in their place, and the car on the track—or, if it breaks near the centre, or between the safety beams, the wheels are kept in their place, and the car cannot well be thrown off the track, as in this case—breaking and damaging those which followed.—Breaking the cars, however, is of small moment, when taken in comparison with breaking the limbs or necks of the passengers—the escape of whom, in this instance, is deemed almost miraculous; yet, the loss of property to the company, and time to the

passengers, is a very important matter, probably fully equal to the cost of "safety beams" on all their passenger cars. If this be so, what excuse has this, or any other road to offer for neglecting to attach this simple apparatus, or a better one if they can, to all their cars?

#### WESTERN INLAND NAVIGATION.

We give place to the following from the Cincinnati Chronicle, that the extent of our inland navigation, especially in the West, may be better understood; and to ask, if such are our rivers beyond the mountains, how long will it be before the majority of our population will be found along their margin and tributaries? Not long, we predict.

"The rolling flood of waters now poured along by the Ohio, and the vast distances to which products are borne by the numerous steamers upon its bosom, remind us of the great, and, compared with any other portion of the earth, most extraordinary extent of the inland navigation of the West. Let us take some particulars. It is considered a great voyage from New York to Liverpool; yet one may take a single steamboat trip on the waters of the Mississippi equal to that. Look at this:

	Miles.
New Orleans to Natchez, . . .	294
Natchez to mouth of Ohio, . . .	718
From the mouth to St. Louis, . . .	172
St. Louis to Weston, . . .	500
Weston to Council Bluffs, . . .	300
Council Bluffs to Fort Mandan, . . .	824
Fort Mandan to the Yellow Stone, . . .	224

Total voyage, . . . . . 3032

This is the length of a voyage from New York to Liverpool—all performed inland—the point of departure being one hundred miles from the sea! Such is one of the voyages that may be performed in the great valley of the West.

But take another: suppose a boat takes in produce from Pittsburgh to New Orleans, and should there be chartered to take stores to the Fur Company's Fort, at the mouth of the Yellow Stone, and then returns to Pittsburgh, what will be her voyage?

	Miles.
Pittsburgh to Cincinnati, . . .	498
Cincinnati to Louisville, . . .	137
Louisville to mouth of Ohio, . . .	345
Mouth of Ohio to New Orleans, . . .	1012
New Orleans to St. Louis, . . .	1184
St. Louis to Weston, . . .	500
Weston to the Yellow Stone, . . .	1348
Yellow Stone to St. Louis, . . .	1848
St. Louis to the Ohio, . . .	172
The Ohio to Pittsburgh, . . .	980

Total voyage, . . . . . 8024

Eight thousand miles might a steamboat run on the waters of the West in a regular voyage, before she returned to her original port!

But there are voyages continually performed, of scarcely less magnitude than

this, in the pursuit of regular business. For example: a steamboat leaves Pittsburgh with flour and pork for New Orleans. There she takes in a cargo of sugar and coffee for St. Louis: and there, again, she loads with wheat and lead for Cincinnati. This is, or may be, a regular western voyage, not longer than many boats actually perform in one trip. Look at it:—

	Miles.
Pittsburgh to New Orleans, . . .	1992
New Orleans to St. Louis, . . .	1184
St. Louis to the Ohio, . . .	172
Cairo to Cincinnati, . . .	482

Total voyage, . . . . . 3830

Now take a common Cincinnati voyage to New Orleans, performed, including all stoppages, and loading and unloading, in about three weeks:—

	Miles.
Cincinnati to Louisville, . . .	137
Louisville to Cairo, . . .	345
Cairo to New Orleans, . . .	1012
Return voyage, . . . . .	1494

Total voyage, . . . . . 2988

Here are three voyages—the first a possible one, which in a few years will be common—the second a very probable one—and the third an every day one. These three voyages make, together as the reader sees, more than *fourteen thousand miles!*

We add to this the following table on navigation on some of our rivers:—

	Miles.
Wabash river to Logansport, . . .	454
Illinois river to Ottawa, . . .	270

This is but a part of the vast inland navigation of the West, and which explains the rapid growth of cities and towns so far from the seaboard. These inland cities, too, are destined to equal, if they do not surpass, the largest of those on the Atlantic shore."

#### LONDON AND BRIGHTON RAILWAY.

We have been often amused, when reading, in the English railway papers, reports of the proceedings of the various meetings of railway proprietors, who not unfrequently appear to be as inquisitive as though they were in *reality* managing *their own* business—and the directors make their semi-annual reports with great apparent care, giving very full details, as will be seen by the following extracts from the last semi-annual report of the directors of the London and Brighton Railway Company.

It will be seen that while the receipts of the company have increased 14 per cent. from passengers, and 9 per cent. from freights, the expenses of working have increased only 1½ per cent.

The idea of erecting cottages along the line for those employed in repairing the road is an excellent one, and may well be adopted on many of our roads in this country—as there may thus be a more efficient police, and avoidance of accidents.

There is another fact stated worthy of consideration, viz: that, by increasing the speed of one of the passenger trains, the public convenience has not only been promoted, but there is no doubt but that the profits of the company have also been increased. This is in accordance with the doctrine maintained in the Journal, that high speed and low fares for passengers, is the true policy in this country.

#### Director's Report.

"Your directors, in meeting you on the present occasion, have much satisfaction in reporting the progressive state of improvement in your affairs—the present half year presenting the following result, as compared with the corresponding period of 1843:—

Receipts for passengers, 14 per cent. more,	£14,450
" Goods, &c. 9 per cent. more,	1,423
Increased receipt,	£15,873
Expenses of working, 1½ per cent. more,	415
" Tolls, more,	1,150
" Government Duty, Rates, &c. more,	2,078
" Property Tax, &c. more,	986
Increased expenditure,	£4,629

The difference, being net increase on the half-year, is	11,244
To which, adding the deficit brought into the last Christmas Account,	4,549
As well as the reserve from Midsummer last, of	169

A larger available balance is yielded for dividend, by the sum of . . . 15,963

Your directors call the attention of the proprietors to these figures, which show that, whilst your working expenses, compared with a period when reductions had already commenced, have been increased only in the small ratio of 1½ per cent., your receipts have augmented at the rate of 14 and 9 per cent.

The road throughout is in good working order; some slips took place in the embankments and cuttings, during the rains in the fall of the year, the expense of the reparation of which will not exceed the ordinary estimate.

The Engineer's establishment, for the maintenance of the way, has been reduced, and placed on a permanent footing of economy, and we have every reason to believe, except under extraordinary circumstances, which cannot be foreseen, will never be exceeded.

In consequence of the great increase in the traffic, a further supply of engines and carriages will be required before the return of the summer season, for which purpose, the directors have availed themselves of the late advance in the price of their shares, and have sold the whole of those remaining unissued and forfeited, at an average price of 51½, including the dividend, the proceeds of which sale they hope will meet the expense thus to be incurred.

In the report of the last half year, it was proposed to erect cottages at various points on the line for the porters, platelayers, &c., who would answer the purpose of a valuable



body of police; some of these cottages have been constructed, and are now occupied, the tenants paying a rent equal to a reasonable interest for the capital expended; and it is hoped the whole will be completed in the course of the present summer.

With a view to the public convenience, your directors have increased the speed of one of the trains, accomplishing the distance between London and Brighton in one hour and a half, an improvement which they have reason to believe has given much satisfaction. The excursion trains, commenced last summer with a view to afford to the humbler classes a healthful recreation at a small expense, have proved, and continue to be, a source of profit to the company. \* \*

The directors have now to propose a dividend of thirty shillings per share, amounting to 52,734l.

Three of your directors go out of office at this meeting, namely, William Nash, Esq. Sir John Simpson, and Edward Crowley, Esq., who, being eligible, offer themselves for re-election.

REVENUE ACCOUNT, Half-year ending 31st December 1841.—DEBTOR.

Maintaining the Line and Buildings—Maintenance of Way—	
Repairing slips of earthwork, and additional works, - - - - -	£1,622 13 0
Adjusting rails, points, and crossings, repairs of sidings, switches, and turntables, - - - - -	2,267 0 1
New sleepers, - - - - -	146 10 0
Maintaining bridges, fences, drains, and culverts, - - - - -	226 18 10
Road crossings, and approaches to stations, - - - - -	69 9 3
Maintenance of Buildings—	
Repairs of stations, workshops, carriage and engine sheds, and tank house, - - - - -	246 11 3
Insurance, - - - - -	17 12 10
Gas and lighting, - - - - -	219 1 7
	£4,815 16 10
Coaching.	
Locomotive Power—	
Repairs of engines and tenders, in wages of fitters, smiths, turners, &c. - - - - -	1,097 7 11
Ditto in materials, - - - - -	1,604 7 3
Coke, 3,037 tons 8 cwt. at 26 6-100ths	3,957 1 1
Pumping and water supply, - - - - -	245 6 9
Oil, grease, tallow, cotton, waste, &c. - - - - -	347 4 0
Engine-drivers, firemen, and coke-men's wages, - - - - -	1,958 11 6
Piloting, - - - - -	540 0 0
Salaries and incidental expenses of locomotive committee, - - - - -	692 9 7
Maintenance of Carriages—	
Repairs of carriages, in wages of smiths, carriage makers, painters, and trimmers, and in materials, - - - - -	1,922 8 7
Coach Traffic charges—	
Salaries of station clerks, and their petty disbursements, - - - - -	1,016 5 8
Card tickets, ticket boxes, & printer, - - - - -	113 15 8
Police and watchmen's wages, - - - - -	1,205 0 11
Do. do. clothing, - - - - -	65 12 0
Guards' and porters' wages, - - - - -	1,793 9 0
Do. do. clothing, - - - - -	69 11 3
Carriage washing, greasing, and lamp cleaning, - - - - -	662 9 6
Oil, signal lamps, waste, &c. - - - - -	155 12 8
Pumping and water supply, - - - - -	47 5 4
Furniture and implements for stations, - - - - -	113 7 3
Compensation for loss and damage, - - - - -	14 1 9
	£17,621 17 8
Carrying.	
Locomotive Power—	
Repairs of engines and tenders, in wages of fitters, smiths, turners, &c. - - - - -	208 19 2
Ditto, in materials, - - - - -	305 9 7

Coke, 578 tons 7 cwt. at 26 6-100ths	553 8 10
Pumping and water supply, - - - - -	35 12 8
Oil, grease, tallow, cotton, waste, &c. - - - - -	66 2 3
Engine-drivers, firemen, and coke-men's wages, - - - - -	372 18 4
Piloting, - - - - -	45 0 0
Salaries and incidental expenses of locomotive committee, - - - - -	132 0 4
Maintenance of Waggon—	
Repairs of waggons, in wages of smiths, wheelwrights, &c. and materials, - - - - -	269 3 10
Merchandise Traffic Charges—	
Salaries of goods' clerks and their petty disbursements, - - - - -	214 18 0
Police and watchmen's wages, - - - - -	146 2 0
Ditto ditto clothing, - - - - -	6 13 0
Guards' and porters' wages, - - - - -	707 11 6
Ditto ditto clothing, - - - - -	16 17 4
Fixed engines, - - - - -	178 19 1
Cleaning and greasing waggons, - - - - -	34 15 6
Oil, waste, &c. - - - - -	13 8 1
Wagon sheets, tarpaulings, weighing machines, and implements, - - - - -	43 12 5
Three horses, - - - - -	137 9 10
Keep and hire of horses, - - - - -	204 2 0
Compensation for loss and damage, - - - - -	25 12 8
	£3,917 16 5
To General Charges—Superintendence.	
Directors, - - - - -	550 0 3
Secretary's, Gen'l. Superintendent's, Accountant's, Transfer and Audit Departments, - - - - -	942 0 10
Engineer and assistants, - - - - -	393 7 10
Traffic Superintendent and clerk, - - - - -	174 17 7
Sundry Expenses—	
Law, - - - - -	193 15 5
Advertising and placarding, - - - - -	469 11 5
Printing and engraving, - - - - -	752 1 8
Stationery, - - - - -	203 3 4
Loss on light gold, - - - - -	83 18 4
Petty disbursements, travelling expenses, furnishings, and sundry charges, - - - - -	372 10 11
	4,135 7 4
Working expenses, - - - - -	£30,490 18 3
Toll—	
The Greenwich Railway Company, - - - - -	3,039 4 2
The Croydon do. do. - - - - -	12,793 2 10
	15,832 7 0
Government duty, - - - - -	5,595 10 10
Parish rates, tithes and taxes, - - - - -	3,513 0 9
Property tax, - - - - -	615 4 7
	9,723 16 2
Kingston Wharf—	
Rent, - - - - -	350 0 0
Repairs, - - - - -	15 1 2
Salaries and petty disbursements, - - - - -	90 6 3
Wages, - - - - -	287 15 2
	743 2 7
Interest—	
On mortgage bonds to 30th June, - - - - -	511 13 9
Ditto 31st December, - - - - -	14,564 4 5
On loan notes ditto, - - - - -	7,500 0 0
On temporary loans ditto, - - - - -	2,137 10 3
	24,713 8 5
Bond, &c., stamps - - - - -	111 7 3
Expenses in opposing the General Railway Bill, - - - - -	25 0 0
Subscription to Brighton Race Cup, - - - - -	25 0 0
Subscription to extension of Brighton and Chichester Railway, - - - - -	100 0 0
Subscription to floating breakwater at Brighton, - - - - -	300 0 0
Donation, &c. - - - - -	9 4 2
	459 4 2
	82,074 3 10
	53,456 9 1
Balance, - - - - -	
Total, - - - - -	£135,532 12 11

		CREDITOR.	
		Coaching—Passengers.	
		1st Class, - - - - -	£54,786 18 11
		2d do. - - - - -	35,204 13 0
		3d do. - - - - -	19,327 1 7
			437972
		Less return fares and hire of omnibus, - - - - -	109,318 12 6
			75 17 6
			£109,664 15 0
		Mails, - - - - -	131 6 0
		Horses, (2635,) - - - - -	1,959 6 6
		Carriages, (1546,) - - - - -	1,590 9 6
		Dogs, (1658,) - - - - -	187 19 6
			8,869 1 0
		Parcels, - - - - -	4,838 0 10
		Less paid for collection and delivery, - - - - -	931 8 10
			3,906 12 0
			£117,440 8 6
		Carrying—	
		Merchandise (27,779 tons 3 cwt.) - - - - -	11,055 10 5
		Beasts (453,) - - - - -	171 13 8
		Cattle and smaller animals, (2607,) - - - - -	137 11 3
		Coke for use of locomotive committee, - - - - -	255 19 0
			11,620 14 4
		Less paid for collecting goods, - - - - -	429 8 5
		Surcharges on goods, - - - - -	96 4 3
			525 12 8
			11,095 1 8
		Transfer fees, - - - - -	129 15 6
		Ordinary traffic, - - - - -	£28,665 5 2
		Kingston Wharf—	
		Wharfage, - - - - -	564 7 1
		Pier dues, - - - - -	201 14 6
		Weighing, - - - - -	148 11 5
		Warehouse rent, - - - - -	101 12 10
			1,016 5 10
		Interest on investment for disputed account with the South-Eastern Company, to December 31, - - - - -	5,376 13 2
		Rents, - - - - -	594 2 2
		Less rents paid, charges for repairs and collecting, and rates, taxes, &c., thereon, - - - - -	215 7 11
			378 14 3
			95 14 6
		Total, - - - - -	£135,532 12 11
		DISCRIMINATING TOLLS.—It seems that the Ohio Legislature deem the movement in this State, on this subject, of sufficient importance to pass the following resolutions, which we take from the Sandusky Clarion, in relation to it.	
		Preamble and resolutions, relative to discriminating tolls upon the N. York canals.	
		Whereas, attempts are now making by persons residing at Buffalo and Rochester, in the state of New York, to induce the general assembly of the state of New York to impose greater tolls on merchandize and produce belonging to the citizens of Ohio, and other western states, which pass on the canals of the state of New York, between Oswego, on Lake Ontario, and Albany, than are or shall be imposed on goods and produce belonging to citizens of the state of New York, passing over the same route: Therefore, be it	
		Resolved, by the general assembly of the state of Ohio, That the imposition of greater tolls on property belonging to citizens of other states, than are chargeable on property belonging to citizens of the state of	

New York, is a measure not only grossly unjust and inequitable, and one which will have the tendency to drive the trade of Ohio into other channels, but is one which, if adapted, will warrant the state of Ohio in imposing higher charges on property coming from the state of New York than from elsewhere, and that it will be the duty of this state to take measures to protect the interests of her own citizens from this unjust aggression.

*Resolved*, That the governor be requested forthwith to forward two copies of this resolution to the governor of the state of New York, to be laid before the two branches of the general assembly of that state.

#### HARTFORD AND NEW YORK RAILROAD.

*Mr. Editor*—The project, recently started, of an inland railroad directly from Hartford to New York seems to meet with very general favor. The pass of the mountain at Farmington has been carefully surveyed, and it is found that the road can easily be carried through it. The mountain near Waterbury, the only other difficulty of a serious nature, is confidently supposed to be surmountable, and measures are now taken to determine the point beyond question—measures are also in progress to enlist the capitalists of Boston and New York in the enterprise, so soon as it shall be found to be unquestionably practicable.

This road, if constructed, will pass through Farmington, Bristol, Plymouth, Waterbury, Danbury, and other towns beyond. The great advantages resulting from it to these towns, to the city of Hartford, and to this portion of the country generally, as well as the great value of the road when made, are very obvious. It will at once become the great thoroughfare between Boston and New York, being the only unbroken and completely land route between those cities. It will also receive all the New York travel that comes down the Connecticut River Railroad, and should that road be extended, as is contemplated, far up the Connecticut valley, and perhaps ultimately to Montreal, the great tide of northern travel to and from will pass through the Hartford and New York Railroad. The way travel on the road, as well as the transportation of freight from the large manufacturing places on the route, will be very great, as the region of country through which it will pass, has no convenient water communication with any market.

Should this road be made, a branch could easily be constructed from Farmington through Unionville, Collinsville, and New Hartford to Winsted, thus opening to all the thriving manufactory region west of us, an easy communication with our city. We should also be benefitted in the reduced prices of wood, which, from the convenience of transportation, could be delivered at probably a dollar a cord less than the present prices.

The contemplated railroad from New Haven to New York will have to compete, during the greater part of the year, and through its whole length, with the steamboats on the Sound, and it is supposed will encounter, in

its construction and repairs, more serious difficulties than a road across the interior of our state, as it will be compelled to cross some rivers and many large streams at their mouths, where viaducts would be most expensive and most liable to be carried away by our annual freshets. The New Haven and New York road would be immediately abandoned if the project of a road from Hartford to New York were taken up in earnest.

Is not the project well worthy the attention of our capitalists? **ENTERPRISE.**  
*Con. Courant.*

*Portland Route.*—The reader's attention is directed to an article from the Boston Courier, reviewing some of the arguments in favor of a road from Portland to Montreal. The idea is too absurd for serious comment, and the editor has surely rendered it ridiculous enough by a mere reference to the facts relied upon by its friends. The idea of surveying a route by *guess* through a wilderness country, where the snow was some two feet deep in October—upon *this* survey basing all the necessary estimates, even to "ten cents per rod for fencing"—and then coolly suggesting that it may be expedient to verify "by the use of instruments," the grades thus established, before laying down rails! is altogether fresh and original. They are an enterprising people "down East," and John Bull is acquiring an appetite for gammon.

*The canal—opening of navigation.*—All looks well in this quarter. We hear from the western section (under charge of Mr. Sutton.) that the repairs there are in such a state of forwardness, as to insure completion before the 15th, if nothing occurs that cannot now be anticipated. The new channel, between Buffalo and Black Rock, will be finished if possible,—if not, the old channel will be used for a short period. Mr. Fay, the resident Engineer, left Albany where he was in attendance upon this Canal Board at the time of high water, and has been since at Tonawanda, superintending the repair of the injury to the Waste Gate and Dam. He informs us that all will be completed there. Upon this section Dr. McLEAN has on a large force, and the repairs are rapidly progressing. The long slide this side of Pendleton, is in a state of forwardness; and the repairs generally, through the section, promise a reasonable completion.—*Niagara Democrat.*

*Coal.*—The Schuylkill and Lehigh Canals are now open, but mining operations as yet progress but slowly, though a brisk business is anticipated for the coming season. The receipts by the Schuylkill Canal up to Thursday evening, only amount to 244 tons. Further contracts for future delivery have been made at \$3 25 a \$3 37½ for White, and \$3 37½ for Red Ash, Schuylkill, and \$3 25 a \$3 50 for Lehigh per ton, delivered on board. The large contract for Lehigh coal noted in our review of the 8th inst. was for 130,000 tons. The stocks of Anthracite both here and at the eastward, are unusually light, and in some places exhausted—the supply

brought down by the railway during the winter months being scarcely sufficient for city consumption.

*Plank Road.*—We understand that several of our most prominent citizens have taken stock in the plank road to be constructed along the Transit from this village to Williamsville. There are many considerations in favor of the construction of this road, such as will readily suggest themselves to our business men. A section of country which is now traversed by a road almost impassable for several months in the year, will thus be furnished with the means of bringing its produce to our market and purchasing its supplies of our merchants. It would increase the value of land, and promote the settlement of that part of the country. The increase of travel would, we think, be such as, in a short time, to yield a handsome revenue to the stockholder. All classes of our citizens are interested in this enterprise, but more especially our merchants, who will we hope take hold of it with a determination to carry it through. The spirit of public enterprise has slumbered here, for the last few years, but this is an object of such obvious utility that we think it will be regarded with favor by the most prudent.—*Niagara Democrat.*

**RAILROAD IRON AND FIXTURES. THE**  
Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO.,  
21 Broad st., N. York.

ja45

**NICOLL'S PATENT SAFETY SWITCH**  
for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,  
Reading, Pa.

ja45

**GEORGE VAIL & CO., SPEEDWELL IRON**  
Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1½ in. to 2½ in thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective; Iron and Brass Castings of all descriptions.

ja451y

KITE'S PATENT SAFETY BEAM.

Messrs. Editors.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

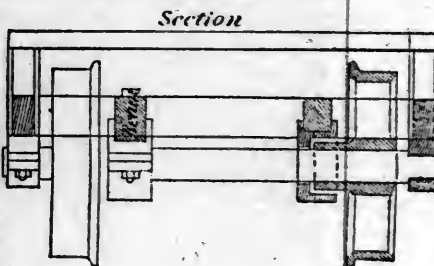
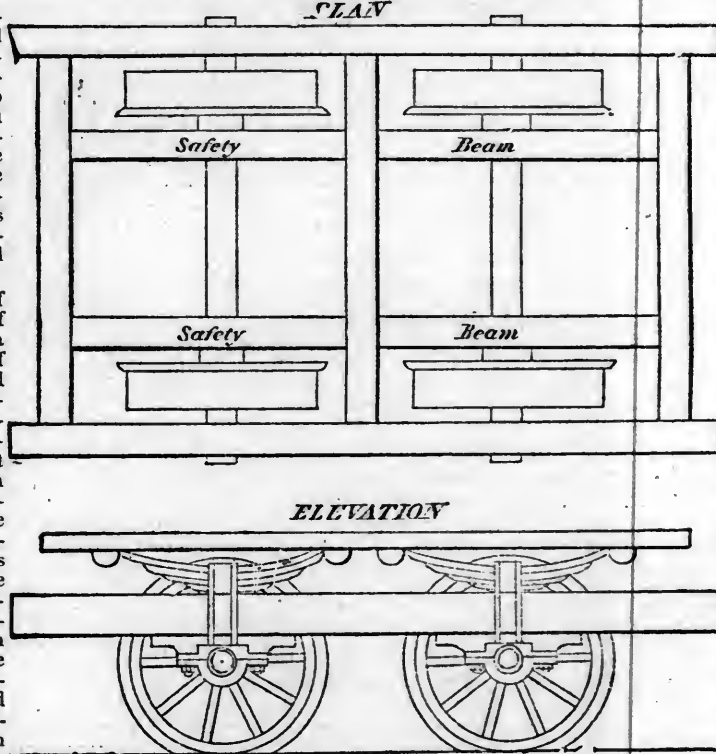
JOHN FRAZER, Agent,

GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,

W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES. —  
Boston, } Col. James F. Baldwin, Civil Engineer.  
          } Col. J. M. Fessenden, " "  
Wm. Parker, Esq., Engineer and Superintendent  
Boston and Worcester railroad. ja45

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y.  
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Euting, Philadelphia; Wm. E. Coffin & Co., Boston.

MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.  
Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.  
Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St.; New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*. Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.

ROBERT SCHUYLER, Esq., Vice President.

J. P. JACKSON, Esq., Secretary.

J. WORTHINGTON, Esq., Treasurer.

Leave New York, foot of Courtland street.	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
For Newark.....	9, 11, 12.....	2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4 3-4, 6.....				
" New Brunswick.....	9.....	3, 4 3-4.....				
Leave						
New Brunswick...	6, 7 1-2, 11 1-2.....	8 3-4.....	11 1-2	8 1-2		
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	1 1-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4		

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

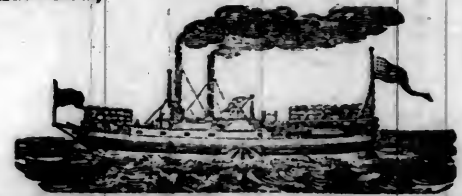
TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS.	A. M.	P. M.	MILES.	FARE.
Boston	Portland		Eastern,	Daily,	7 $\frac{1}{2}$	2 $\frac{1}{2}$	106	\$3 00
"	Portsmouth		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	54	2 00
"	Newburyport		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	35	1 25
"	Salem		"	"	7 $\frac{1}{2}$ , 9, 11 $\frac{1}{2}$	2 $\frac{1}{2}$ , 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14	50
"	Portland		Boston and Maine,	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	109	3 00
Portland	Boston		"	"	7 $\frac{1}{2}$	3	109	3 00
Boston	Lowell		Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston		"	"	7 $\frac{1}{2}$ , 11	2, 4 $\frac{1}{2}$ , 5 $\frac{1}{2}$	26	75
Boston	Concord		Concord,	"	7	3 $\frac{1}{2}$	76	2 00
Concord	Boston		"	"	7	3 $\frac{1}{2}$	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11	5	41	.....
Nashua	Boston		"	"	6 $\frac{1}{2}$	1 $\frac{1}{2}$ , 5	41	.....
Boston	Worcester		Boston and Worcester,	"	7, 9	2 $\frac{1}{2}$	44	1 25
Worcester	Boston		"	"	7, 10	6	44	1 25
Boston	Worcester		"	Sundays,	7	2	.....	.....
Boston	New York via Norwich		"	Mon., Wed. & Fri.,	7	4	.....	.....
"	" " L. Island railroad		"	Tues., Thur. & Sat.,	7	4	.....	.....
"	" " New Haven		"	Daily,	9	2 $\frac{1}{2}$	.....	.....
Albany	Albany		Western,	"	9	2 $\frac{1}{2}$	200	6 00
Boston	Boston		"	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	200	6 00
Springfield	Boston and Albany		"	"	7	3	.....	.....
Boston	New York via New Haven		"	"	7	2 $\frac{1}{2}$	.....	.....
Charlestown	West Acton		Fitchburg,	"	8	1, 4 $\frac{1}{2}$	.....	.....
West Acton	Charlestown		"	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	5	.....	.....
Boston	New York, via Sound steamboat		Boston and Providence,	Tues., Thur. & Sat.,	8	4	.....	.....
"	" " L. Island railroad		"	Mon., Wed. & Fri.,	8	4	.....	.....
Providence	Boston		"	Daily,	8	3 $\frac{1}{2}$	41	1 50
Taunton	"		"	"	8	3 $\frac{1}{2}$	41	1 50
New Bedford	Boston		"	"	8 $\frac{1}{2}$	3 $\frac{1}{2}$	.....	.....
Boston	Dedham		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	.....	.....
Dedham	Boston		"	"	9	3, 5 $\frac{1}{2}$	.....	.....
New York	Greenport		Long Island,	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	4 $\frac{1}{2}$	95	2 25
Brooklyn	Hicksville & intermediate places		"	"	7 $\frac{1}{2}$	4 $\frac{1}{2}$	26	56 $\frac{1}{2}$
"	Greenport		"	Tues., Thur. & Sat.,	9 $\frac{1}{2}$	4	95	2 25
"	Hicksville, (Satur'dy to Suffolk)		"	Daily,	9 $\frac{1}{2}$	4	26	56 $\frac{1}{2}$
Greenport	Brooklyn, (Boston train)		"	"	1	95	2 25	.....
"	" (accommodation do.)		"	Mon., Wed. & Fri.,	9	95	2 25	.....
Hicksville	" & intermediate places.		"	Daily,	7	14	26	56 $\frac{1}{2}$
New York	Albany & Boston via N. Haven		Steamer,	"	6 $\frac{1}{2}$	.....	53	5 00
"	Middletown		New York and Erie,	"	8, 3	.....	53	.....
Middletown	New York		"	"	6 $\frac{1}{2}$	3 $\frac{1}{2}$	94	3 50
Philadelphia	Pottsville		Reading,	"	9	.....	94	3 50
Pottsville	Philadelphia		"	"	9	.....	94	3 50
New York	Newark		N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4 $\frac{1}{2}$ , 6, 7 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Newark	Newark		[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 9, 11	1 $\frac{1}{2}$ , 4, 5 $\frac{1}{2}$ , 7, 9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	"		"	Sundays,	9	4 $\frac{1}{2}$	9 $\frac{1}{2}$	25
New York	Newark		[9 A. M. and 4 $\frac{1}{2}$ P. M., trains connect with Somerville Railroad.]	Daily,	11 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Elizabethtown	Elizabethtown		"	"	9, 11	2, 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New York		N. J. railroad and trans. co.,	"	7, 7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 10 $\frac{1}{2}$ , 12	3 $\frac{1}{2}$ , 5	14 $\frac{1}{2}$	31 $\frac{1}{2}$
Rahway	New York		"	"	9, 11	3, 4 $\frac{1}{2}$ , 6	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New Brunswick		"	"	6 $\frac{1}{2}$ , 7, 8 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$ , 9 $\frac{1}{2}$	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New Brunswick	New York		"	"	9	3, 4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
"	"		"	"	6, 7 $\frac{1}{2}$ , 11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New York	New Brunswick		"	Sundays,	11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
Philadelphia	New York		Camden and Amboy,	Daily,	9	4 $\frac{1}{2}$	31 $\frac{1}{2}$	.....
Philadelphia	Philadelphia		"	"	7	.....	91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	5 $\frac{1}{2}$	.....	91	3 00
Bristol	Philadelphia		"	"	9	.....	30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"	8	.....	30	75
Baltimore	Philadelphia		"	"	8	.....	93	.....
"	Washington		Baltimore and Washington,	"	9	.....	93	.....
Washington	Baltimore		"	"	9	5, 11 $\frac{1}{2}$	41	2 50
Baltimore	Cumberland and inter. places.		Baltimore and Ohio,	"	6	5 $\frac{1}{2}$	41	2 50
"	Frederick		"	"	7 $\frac{1}{2}$	.....	.....	.....
Cumberland	Baltimore		"	"	7	.....	.....	.....
Hancock	"		"	"	8	.....	.....	.....
Martinsburg	"		"	"	10 $\frac{1}{2}$	.....	.....	.....
Harper's Ferry	"		"	"	11 $\frac{1}{2}$	.....	.....	.....
Frederick	"		"	"	11 $\frac{1}{2}$	.....	.....	.....
"	"		"	"	12 $\frac{1}{2}$	.....	.....	.....
Ellicott's Mills	"		"	Sundays,	8	.....	.....	.....
Richmond	Petersburg		Richmond and Petersburg,	Daily,	7 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$	.....	.....
Petersburg	Richmond		"	"	10 $\frac{1}{2}$	1 $\frac{1}{2}$	.....	.....
Albany	Schenectady		Mohawk and Hudson,	"	5 $\frac{1}{2}$	.....	.....	.....
Schenectady	Albany		"	"	8	5 $\frac{1}{2}$	.....	.....
Albany	Saratoga		"	"	9	3 $\frac{1}{2}$	.....	.....
Saratoga	Albany		"	"	7 $\frac{1}{2}$	2	.....	.....
Troy	Saratoga		Troy and Saratoga,	"	7	12 $\frac{1}{2}$ , 5	.....	.....
Saratoga	Troy		"	"	7 $\frac{1}{2}$	3 $\frac{1}{2}$	.....	.....
Auburn	Rochester		Auburn and Rochester,	"	8	.....	.....	.....
Rochester	Auburn		"	"	8	.....	.....	.....
"	Buffalo		Rochester and Buffalo,	"	8	.....	.....	.....
Buffalo	Rochester		"	"	8	.....	.....	.....
"	Falls		Buffalo and Falls,	"	9	.....	.....	.....
Falls	Buffalo		"	"	9	.....	.....	.....
Buffalo	Albany		Albany and Buffalo	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	.....	.....

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

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\*.\*. The letters in the figures refer to the article given in the Journal of June, 1844. ja45

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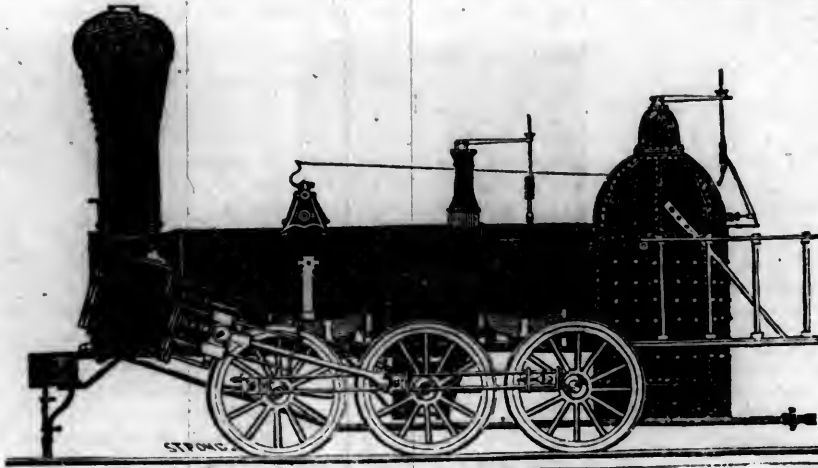
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"	4,	12½	"	"	×	20	"
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Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48** State st., or to **CURTIS, LEAVENS & CO., 106** State st., Boston, or to **A. & G. RALSTON & CO., Philadelphia.**  
ja45

## GREAT NORTH OF ENGLAND RAILWAY COMPANY—GENERAL MEETING.

(Concluded from page 229.)

Mr. Oxley said the directors had as yet found it almost impossible to close that account. As the traffic was increasing so largely, a large increase of means was required for conducting that traffic. The directors, for instance, had decided for the safety of the line that the coal traffic should be managed upon a different principle; and they had resolved to order between five and six hundred waggons of an expensive character, to hold five tons each, which when got would cost between twenty-five and thirty thousand pounds, if not more. But the company were fully aware that that outlay would yield a large interest for the future purposes of the shareholders. That expenditure must come into the capital account; and while the directors were most anxious to keep it as low as they could, it was of the utmost importance they should take such measures as would add still further to the prosperity of the company.

Mr. Allhusen should like to know the highest amount they paid in the shape of interest?

Mr. Oxley observed that gentlemen were aware that in the first beginning of the undertaking they had to borrow money at nothing like so cheap a rate as it could be borrowed now. They were at low water, and were glad to get large sums lent them at 5 per cent., and that for a good number of years. Their bonds, however, were continually running out, and the amount which they borrowed at 5 per cent. was gradually being reduced and replaced by money borrowed at 3½ per cent. He was happy in being able to tell the shareholders that when all the money now borrowed at 5, 4½, and 4 per cent. should have been paid off, and substituted by money borrowed at 3½ per cent., there would be a saving to the company of 5,000*l.* a-year—(applause)—which, they would observe, was one-half per cent. upon their shares. (Hear, hear.)

The Chairman then formally moved that the report of the directors be approved and adopted. \* \* \* \* \*

Mr. John Shield, of Newcastle, then rose and said, he should not detain the meeting with any lengthened remarks in bringing forward a motion as an amendment upon the report, for the motion would speak for itself. He might expose himself to animadversion by so doing; for his proposition was certainly not in accordance with the new system of ethics which the chairman had promulgated, and the duties which he had laid down; though from what school of morals they were derived, he was at a loss to comprehend. As he had said, he proposed to move a resolution as an amendment upon the chairman's motion that the report be adopted. And his resolution was to this effect—That the meeting was of opinion that it would be for the interest of the shareholders of the Great North of England railway company either to amalgamate with the Newcastle and Darlington railway company upon

terms of perfect equality, or to lease the Great North of England railway to some company of undoubted stability, provided not less than 10 per cent. in perpetuity upon the total cost of the line shall be guaranteed to the shareholders, such guarantee taking commencement from the 1st of January last past. He feared, from the principles already laid down, that the proposition of such a resolution would be fruitless. But the gentlemen assembled around him would see that if his motion were carried, every 100*l.* share would be worth 250*l.*; every 40*l.* share would be worth 100*l.* and every 30*l.* share would be worth 75*l.* These were weighty arguments. It was for the shareholders to balance them. All that he (Mr. S.) should further say was, that he had a perfect conviction, from his own knowledge—for he should not have brought it forward without good ground—that if the proposition should be agreed to, this railway might either be amalgamated with the Newcastle and Darlington on terms of perfect equality, or the line might be leased in perpetuity at the rate of 10 per cent. upon its total cost. A friend of his would second the motion, and if they chose to adopt it, they might afterwards accept either alternative. It was for them to choose which, and they might have it.

Mr. Allhusen, in rising to second Mr. Shield's motion, must say that he had the same high feeling for the undertaking which their worthy chairman had expressed. He believed the Great North of England line was one of the most valuable in the kingdom. (Applause.) But though he felt thus, he knew, likewise, that a price was attached to every thing; and he considered that if they could secure 10 per cent. in perpetuity, they would make a most excellent sale of the line.

Mr. Oldfield addressed the meeting at great length, contending that the Great North of England railway was a perfect line—that its prospects had greatly improved, and were now equal to those of any other railway in the kingdom.

The Chairman said, no doubt that was the main reason.

Mr. Jonassohn would not at present enter into the question whether it would be advantageous or disadvantageous to lease the line, but his present impression he had no hesitation in saying was, that it would not be advantageous. (Applause.) Nevertheless, he did think it was the duty of the directors to act solely for the interests of the company—to do that which would be most conducive to its prosperity, and he submitted to them that no damage to that prosperity would be caused by an offer being made to lease the line.

Mr. Oxley saw no more reason why because they were offered 10 per cent. in perpetuity at the present moment, when they paid only 6 per cent. they should give up that which in the end, if they were true to themselves, would, instead of being equivalent to 250*l.* per share, be a great deal more. They were well aware how that

honorable gentleman had made his own railway so extremely valuable, and so great a boon to the shareholders.

Mr. Allhusen inquired whom Mr. Oxley was alluding to?

Mr. Oxley declined to name the party, though he believed his allusion was pretty generally understood. Having got hold of a good traffic first of all, he worked steadily on until he made 10 per cent. upon the outlay; and being thus enabled to bring his judicious and energetic mind to the formation of various branches, he made them pay 10 per cent. too, either of themselves, or by the additional traffic they brought upon the main line. In this way the Great North of England company, too, would be enabled, in the course of a very few years, to pay not only 10 per cent. upon their original capital, but, before many years were over, to pay 10 per cent. upon double the amount. (Applause.) And he asked them whether they would, under such circumstances, be willing to part with a concern which he held to have within it a mine of wealth. (Hear, hear.) As a proprietor himself, feeling an interest in endeavouring to get the best return he could, he should be very sorry to accept the present offer, tempting as it might appear. There were many other reasons which operated upon his mind why they should not, particularly at this juncture, entertain such an offer. When he looked to the south, he saw great trunk railways of immense importance contending with each other, which, if they got the sanction of Parliament, could not fail to render the Great North of England railway infinitely more important than at present. If the working of the line were extravagant, and if any saving could be effected by placing the working in other hands, then there would be ground for change. If the management were bad, and if leasing the line would place it in a better position, it would be desirable to take such an offer into consideration. Or if the traffic of the railway was rendered less valuable by competition, it might be desirable that the competing lines should be brought together. But the Great North of England had no competing line; and he believed it was admitted that on no railway in the kingdom were greater facilities to be found—on which the travelling was better—where the accommodation was greater—or where civility to all parties was more complete. (Applause.) Therefore he held that upon all these points there was no reason why the railway should change hands.

Mr. Baxter said the subject had been so unexpectedly, and he might almost say, so unprecedentedly, brought before the meeting, that it was difficult to understand the grounds on which to discuss it. It appeared that the worthy proprietors wished the meeting to pledge itself to accept a lease of the railway at a certain rate of interest. Now, as the question was put, that was neither more nor less than to propose to the company, as men of business, which he presumed the company to be, that they

should advertise their property for sale, fixing the price upon it. (Laughter and much applause.) And that too, before they knew who their customer was, or whether there would be one or not. He had been accustomed to business from early years, and had seen many large transactions of sale and purchase conducted; and the plan was this. Some *bona fide* purchaser came forward, and proposed to buy—showed a disposition to buy. A price was then stated, and the parties proceeded to negotiate. But it appeared this motion was to be put without their actually knowing whether there was a purchaser in the field; or, if there was one, whether he was of quality and standing enough to guarantee the purchase money. He begged to ask the gentlemen whether they were merely proposing to the company to advertise themselves for sale? or whether they had any *bona fide* offer from any party?—and if so, he called upon them to show their authority, in order that the company might know whether it was now sought to entrap it into a proposition which would damage it in public estimation, or whether they had a *bona fide* offer to make which would at once raise the price of shares?

After a pause,

The Chairman said he thought the question well deserved an answer. As he said before, it was not an offer; and in speaking to the proposers in technical language, he would say—"I know not who you are. For whom do you appear?"

Mr. Allhusen said his friend and himself had very sufficient reason why they brought that motion before the meeting. It was not put exactly in the shape the last speaker wished to make it appear—as if advertising the company for sale: for if he (Mr. A.) were offered 9½ per cent. upon his shares he would not take it; but he would accept 10.—What they proposed was merely done by way of opening the negotiation. At present, however, there was no chance of getting up the article, which might perhaps be sold. As Mr. Baxter said in general, the purchaser and seller met, and then the bargain was closed. But in this case there was no seller. He believed the directors were not inclined to sell upon any terms. (Hear.)

The Chairman said the question was not whether the directors were inclined to sell, but whether the two gentlemen were disposed to buy? Who authorised them to bid?

Mr. Shield said it was quite unnecessary to tell them who would purchase. If it were the ethics of the worthy chairman that they ought to remain independent, and reject all offers, what would be the use of making any? The person who would purchase had no opportunity of meeting the sellers, otherwise such a course as that would not be taken. It was quite plain, from the speech of the chairman, that no offer would be accepted. (Laughter.)

Mr. Baxter asked if that was the way in which the parties who made such a proposition ought to act? Were they to have such a proposition made without being told that it was *bona fide*, from whom it emanated, and

for what purpose it was made? Were they to tie their hands behind them, and go forth crying, "I am for sale?" (Loud applause and laughter.) He said the worthy gentlemen placed themselves in a false position, when they asked the proprietors to pledge themselves, while the gentlemen were not in a condition to be pledged. If they wished to make a *bona fide* offer to lease or purchase, let them come forward like men of business, declare what they came for, and state their terms, and they would have an answer. But he took upon himself to say, that if this gentleman without a name, and without an explanation, expected the company to bind themselves while he remained unbound, he deceived himself amazingly.

Mr. Allhusen said he was ready to forfeit one half of his shares to Mr. Baxter, if, once sanctioned, the bargain was not completed.

Mr. Mauleverer then addressed the meeting in a long and animated speech, contending that Mr. Baxter had not treated the gentleman who made the proposition fairly.

The Hon. Chas. Dundas was the next speaker; his argument being to the effect that it was evident there was something peculiarly desirable about the railway, or such an offer would not be made to get it. (Laughter and applause.)

On the amendment being put, there were 9 only in its favour. The original motion was adapted by a large majority.

The dividend was declared payable on the 25th of February, instead of the 4th March, as originally intended.

As there was no "special train" for Newcastle (it was announced about this time that there would be one to York), we were obliged to leave the meeting as the chairman was reading and getting the assent of the meeting to other resolutions—the effect of which, as we understood, amidst considerable confusion, was, that the company gave the directors power to form the branch railways to Harrogate, &c., and to Richmond, and to take powers next session for forming the proposed line to Leeds: and that in order to effect these objects, a capital of 500,000*l.* should be raised by the issue of 15,000 shares, at 3*l.* 6*s.* 8*d.* each.

#### IRISH RAILWAYS.

In accordance with our promise, we return to the subject of railway communication in Ireland. In a former number we gave a sketch of the different lines projected in the North; and therefore our task is limited at present, to a description of those projects in other parts of Ireland—the majority of which have been before the Board of Trade, and been either recommended or reported against by that body. Nothing could give us greater pleasure than being able conscientiously to recommend to the notice of English capitalists, all the Irish Railway schemes now before the public; for, we are satisfied that nothing would tend more to raise Ireland, from her low estate, than opening up the country by means of railways, and thus giving our Western countrymen all the facilities of compara-

tively free international communication.—But this cannot be, so long, at least, as our present system exists; it is not merely necessary that a projected line should be beneficial to the country through which it passes, and the towns at either termini, but also as a mercantile investment, that it could be calculated on to pay. The majority of the lines, we formerly noticed, were considered as good investments; the Dublin and Cashel, so far as we can judge at present, will yield a fair return to the speculators. The Dublin and Belfast Junction promises also a good return; and the Amagh, Coleraine, and Portrush Line, we have every reason to believe, considered especially with reference to the density of the population—the richness of the soil—and the flatness of the country—will not be inferior, as a commercial speculation, to any railway in Ireland. So far, our task is pleasant; but we must now reverse the picture, and notice some railway projects, which neither considered in themselves, nor in the manner in which it is attempted to get them up, deserve support. Of those in the North Western District, the first that claims our attention is one projected from Enniskillen to Sligo—capital, 400,000*l.*—37 miles long. The prospectus states that "it will pass through a very productive and populous country, nor has there been any line projected in Ireland that will be of greater public utility"—"that the traffic immediately available on the line is very considerable, and the levels of the country are favourable to the undertaking, the line can be constructed at moderate expense, and that there can be no doubt but it will prove highly remunerative to the shareholders." Now this statement is very far from the truth; it will be of little public utility—there is no traffic on the line more than sufficient to support a common stage car—the country is exceedingly difficult, and no railway could be constructed with either favourable gradients, or at any thing approaching to reasonable expense.

If shareholders can be found, which we doubt, to invest their money in this hopeful scheme, it would remunerate *some one*, but not those who subscribe for shares. We should like to see the sections, traffic tables, and engineer's report; does he pledge himself to the truth of the statements in the prospectus, as to the favourable levels and great traffic? We hope not.

A railway in this direction is not required; the country through which it is proposed is mountainous, uncultivated, and very thinly populated. There is no trade or produce to carry, and the traffic of Enniskillen, and the lands on the borders of Lough Erin, go by the excellent water carriage on the lough Ballyshannon, or will go by rail to Derry. Any one who states that a railway is possible through the country described, at a reasonable expense, and that it would be likely to prove remunerative to the shareholders, must either be guilty of a wilful misrepresentation, or has never seen the country, and any proposition for establishing a railway here is a delusion—no merchant, either in Sligo or



Enniskillen, has allowed his name to be placed in the prospectus.

Sligo and Shannon Junction Railway. This is a short projected line, from Lough Allen to Lough Gill, eleven miles, and will make Sligo the port of that noble river, the Shannon, on which the Government have expended 700,000*l.*, in rendering it navigable for steamers of 150 horse power. There is, at present, no outlet for the trade but Limerick, distant 160 miles, from Lough Allen; it also passes through the Arigna iron and coal field, the traffic on this line will, in our opinion, be much greater than the projectors calculate. Let us now look to the western part of Ireland. The only railway approved of in this part of Ireland, is one to Galway, through Athlone, starting from the Cashel line at Portarlington. The Dublin and Mullingar line, with branches to Longford and Athlone, has been disapproved of; this we cannot understand. The Great Western is rather a round to Galway, but it takes in the important town of Athlone in its route, which is a sufficient justification for the bend to that place; but, why the other has been disapproved of, we are at a loss to conjecture. We can well understand why the branch from Mullingar to Athlone should be lopped off, but why the line to Longford should be, we cannot see the slightest reason. By rejecting this to Longford, all hope of an extension to Sligo, a far more important part than Galway, is lost, and the towns of Carrick on Shannon and Boyle, for an extension from Athlone would be a directly competing line to the Shannon, on which, as we before stated, the Government have expended a large sum in rendering navigable, and they would be bound to oppose the line thus competing.

By the present decision, if final, a district of country, from Westport to Balbriggan, the entire breadth of Ireland, and from Enniskillen to Athlone, one quarter its length, is shut out from the benefits of railway communication, and this surely should not be. We hope that Parliament will reverse the decision of the Board of Trade, and allow the Dublin and Longford line to pass—minus the branch to Athlone. Neither of those lines present any engineering difficulties, except passing the Shannon at Athlone, and the Such at Ballinasloe, and these are more expensive than difficult, both lines ought to pay, if properly and economically constructed.

The southern district now claims our attention; and the first in place, as in importance, is the extension of the Cashel from Thurles on to Cork. We have no hesitation in prophesying, that Cork will be the packet station for America—we may live to see it. Its magnificent harbour, its splendid establishments, render it peculiarly fit for this purpose, and sooner or later, the American packet station it must become: when this takes place, and it is only a question of time it will be similar in its character to the London and Holyhead, of which it would, in fact, be the extension, but not so difficult to construct, and passing through

a thickly populated and well-cultivated country, that it ought to pay them 8 per cent., does not admit of a doubt; that it will pay now a reasonable per centage is equally certain. What would add greatly to its trade and utility would be the construction of that portion of the Direct Limerick and Cork (rejected), between Limerick and Charleville; this would give a direct line between Limerick and Cork, and we believe the portion referred to would pay for itself, it runs through the richest land in Ireland, and there is no engineering difficulty.

The whigs wanted to get 2,500,000*l.* for the line from Dublin to Cork, to be constructed under the superintendence of the Irish Board of Works, (save the mark!) but Parliament very properly refused the job, and left the field open to private enterprise.

To this invaluable undertaking, the Limerick and Waterford stands next in importance, and an important line it is without doubt; the portion from Limerick to Tipperary will carry all the Dublin traffic, and there is no doubt but the produce of the interior will be brought to Limerick by it for shipment: the traffic to Waterford from Clonmel is at present very great, the land is rich, populous, and well cultivated. We look on this as a very desirable investment. The Cashel Company oppose this line strongly, or rather they wish to substitute a line of their own, going over the same ground, from Tipperary to Limerick, and leaving the other portion alone; this is not quite fair—to select the best paying portion, and leaving the country without the other part, such policy as this will not answer; fair play must be their motto, if they wish to succeed. What has become of the extraordinary pamphlet, published concerning this Limerick and Waterford line?

Limerick to Ennis has been abandoned for the present, but it is a good line and easily made.

Kilkenny and Waterford has been approved of, and justly so, the trade in coal, lime, &c., will be very great, and the carriage of agricultural produce will be a good source of revenue, as will also be the passenger traffic, the country is very favorable for a railway; the rails to be used are "wooden ones," with the "Prosser guide wheels;" this is an experiment, should it succeed, great good will be gained, and if it should fail, nothing will be lost, except to the shareholders. The Kilkenny junction has been postponed, why we cannot imagine; by this postponement, the Waterford and Kilkenny folk are deprived of a speedy communication with the metropolis, this line should, in the first instance, have been joined with the Kilkenny and Waterford, and under the one management, they would then pay well.

What in the name of all that is wonderful are the proprietors of the Waterford and Kingstown, the Wexford and Carlow, and the Wexford, Carlow and Dublin Junction Railway fighting about? It would appear that the poorer the country the greater the number of schemers. The two last-mentioned run

parallel, from Carlow (Cashel, R.), through N. T. Bung and Enniscorthy to Wexford, but what they are to carry puzzles us very much, the trade of Wexford is almost nominal, and the passenger traffic less; the country very poor, thinly populated, and difficult. The most important town in the county New Ross is not touched on by either; what the object of the companies can be we do not know, unless it be to bring down the Carlow pigs to the Wexford steamers, however somebody will benefit by it, certainly not the shareholders.

The Waterford and Kingstown begins at Waterford, passes through New Ross, Enniscorthy, the villages of Stones and Gorey, and on by the coast to Kingstown and Dublin. Bad as the others are this is worse, the country poor and difficult to a degree, it never can pay.

Cork and Bandon is a line of merely local importance, it should, however, have been carried round by Kinsale, as proposed by Vignolles; this line is difficult and cannot pay.

Two other projects have just come out—viz., from Cork to Killarney, and from Killarney to Tralee, Limerick, Nenagh, and Roscrea, where it joins the Dublin and Cashel; these are, in point of fact, but one line from Cork, through the county Kerry, Limerick, and Tipperary, winding like an enormous serpent through towns and villages without any specific object in view, but to string them on a line, and without regarding the existing railways. We are really surprised at such projects as these being brought forward, they injure legitimate enterprise, and prevent those who burn their fingers in them, from contributing to really good projects, and retard the improvement of the country in a corresponding degree.

The country is exceedingly difficult in Kerry, particularly in order to obtain a favorable gradient, some of the cuttings and embankments should be at least 200 feet high, and tunnels without end; the line as projected, or indeed any line here is, in point of fact, impracticable.

*Swatara Railroad.*—We have received the First Annual Report of the President and Managers of the Swatara Railroad Company, February, 1845. The work has been so far advanced, as to allow of the conveyance, in the past season, of 16,420 tons of anthracite coal, which paid as tolls \$3,143 17. The road extends from Broad, or Thick Mountain, six miles along the course of Good Spring Creek, to the railroad of the Union Canal Company, leading to the Canal Basin at Pine Grove. The grade is descending from the mines, so that cars run down by the force of gravity. Connections can be made between this road and one to connect with the Baltimore railroad, or with the Reading railroad, at \$10,000 a mile with good T rail. The passage of 30,000 tons of coal is the estimate for this season, yielding a revenue of \$6000, which is more than eight per cent. interest on the whole cost of the road—\$73,277.—*U. S. Gazette.*

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.		Share Capital.
							Per share.	Per cent. per annum.			Aberdeen.....	1,600,000	
Arboath and Forfar.....	15	102,000	35,000	138,870	.....	.....	0 12 6 2	10 0	25	27	Cambridge and Lincoln..	1,250,000	
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1 5 0 2	10 0	100	100	Chatham and Portsmouth...	5,000,000	
Brandling Junction.....	23	161,700	365,470	481,152	.....	.....	.....	.....	50	54	Chester and Wrexham.....	120,000	
Bristol and Gloucester.....	37 1/2	400,000	211,000	.....	.....	.....	.....	nihil.	30	36	Churnet valley.....	1,800,000	
Chester and Birkenhead.....	14 1/2	750,000	143,170	518,989	5,856	13,148	0 8 6 1	14 0	50	32	Direct Northern to York...	4,000,000	
Dublin and Drogheda.....	31	450,000	150,000	500,869	.....	.....	.....	nihil.	55	72	Dublin and Belfast.....	950,000	
Dublin and Kingston.....	6	200,000	152,200	359,000	.....	.....	6 0 0 6	0 0	100	166	Dundee and Perth.....	250,000	
Dundee and Arbroath.....	16 1/2	100,000	49,445	153,416	2,989	6,993	1 5 0 5	0 0	25	29	Edinburg and Northern...	800,000	
Durham and Sunderland.....	18 1/2	169,350	124,055	270,392	9,889	17,702	.....	nihil.	34	29	Ely and Bedford.....	270,000	
East County and North and East.....	86 1/2	4,443,200	1,341,155	3,931,905	47,385	118,726	1 6 6	.....	45	57	Glogow, Dum. & Carlisle.	1,300,000	
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	2 6 4	10 0	50	57	Gt. South and West Ext...	1,200,000	
Glasgow, Paisley and Ayr.....	51	937,500	.....	1,066,951	12,446	36,736	2 6 4	10 0	50	60	Gt. Grimsby and Sheffield.	600,000	
Glasgow, Paisley and Greenock.....	22 1/2	650,000	216,666	787,884	11,572	23,177	0 5 0 2	0 0	25	12	Harwich and E. coun. Jun.	160,000	
Grand Junction.....	104	2,478,712	.....	2,453,169	84,309	195,060	5 0 0 10	0 0	100	210	Huddersfield & M. rl. & cl.	600,000	
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1 12 6	3 5 0	100	119	Kendal and Windermere...	125,000	
Great Western.....	221 1/2	4,650,000	3,679,343	7,272,539	132,235	369,904	3 10 0	7 0 0	75	138	Leeds and Dewsbury.....	400,000	
Hartlepool.....	15 1/2	438,000	155,540	719,205	.....	.....	.....	8 0 0	100	.....	Leeds and Thirsk.....	800,000	
Leicester and Swannington.....	16 1/2	140,000	.....	140,000	2,207	6,317	1 5 0 5	0 0	50	.....	Liv. Ormskirk and Preston	600,000	
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5 0 0 10	0 0	100	203	London and Portsmouth...	1,750,000	
Llanely.....	27	200,000	44,000	221,624	.....	.....	1 0 0 2	0 0	87	.....	London and York.....	5,000,000	
London and Birmingham.....	12 1/2	6,874,976	1,928,845	6,393,468	92,823	405,768	.....	10 0 0	100	218	Londonderry & Enniskillen	500,000	
London and Blackwall.....	3 1/2	804,000	266,000	1,315,640	15,978	23,870	.....	.....	16	6	Lynn and Ely.....	200,000	
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0 12 0	2 8 0	50	47	Manchester, Bury and Ross	300,000	
London and Croyden.....	8 1/2	550,000	229,000	761,885	7,583	10,545	0 5 0	2 10 0	14	17	Manchester and Buxton...	250,000	
London and Greenwich.....	3 1/2	759,383	233,300	1,040,930	15,193	28,933	.....	nihil.	13	10	Mullingar and Athlone...	400,000	
London and South Western.....	92 1/2	2,222,100	630,100	2,596,291	68,457	150,469	1 12 6	6 10 0	41	73	Newcastle and Berwick...	700,000	
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1 0 6	5 0 0	40	48	Richmond & W. End Jun.	.....	
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2 2 0	4 10 0	93	110	Scottish Central.....	700,000	
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761	.....	7 1/2 10 1/2	60	88	Sheffield and Lincolnshire.	650,000	
Midland railway.....	178 1/2	5,158,900	1,719,630	6,279,056	76,983	281,898	.....	.....	100	96	Shrewsbury and Gd. Jun.	400,000	
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947	4 0 0	4 0 0	100	105	Shrew. Wolv. Dudley & B.	900,000	
Newcastle and Darlington.....	23	500,000	.....	405,728	.....	.....	.....	nihil.	21	49	Trent Valley.....	900,000	
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466	.....	2 0 0	50	37	West London Extension...	64,000	
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2 10 0	6 16 8	100	104	West Yorkshire.....	1,000,000	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415	.....	.....	0 16 0	8 0 0	20	39	Whitehaven and Maryport	100,000	
Paris and Rouen.....	84	1,440,000	.....	31,247	91,171	.....	.....	8 0 0	20	38	FRENCH RAILWAYS.		
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066	.....	nihil.	50	18	Boulogne and Amiens....	1,500,000	
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876	.....	nihil.	82	93	Central of France.....	1,280,000	
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0 10 6	2 2 0	50	39	Lyons and Avignon.....	2,400,000	
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1 0 0	6 5 0	100	55	Orleans, Tours & Bourdeaux	2,000,000	
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0 15 0	5 1 8	29	37	Paris and Lyons.....	2,500,000	
Yarmouth and Norwich.....	20 1/2	187,500	62,500	230,250	.....	.....	.....	nihil.	16	25	Paris and Orleans.....	1,600,000	
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2 10 0	10 0 0	50	100	Paris and Rouen.....	1,400,000	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10	.....	15 1/2	15 1/2	Loughborough.....	70	142 1/2	142 1/2	70	1140	1140
Anti Dry Rot.....	10,000	.....	18 1/2	.....	2	.....	Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35	.....	34 1/2	.....	Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27 1/2	27	Mersey and Irwell.....	500	100	100	10	.....	.....
Gt Western Steam Pa.....	.....	.....	100	.....	25	.....	Macclesfield.....	3,000	100	100	2 1/2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6 1/2	.....	Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1 1/2	.....	Oxford.....	1,786	100	100	30	505	505
Peninsular and Oriental..	11,493	50	50	7	64 1/2	65	Regents or Loncon.....	21,418	33 1/2	33 1/2	2 1/2	25	25
Ditto.....	3,200	50	40	7	.....	.....	Shropshire.....	500	125	125	6	120	120
Polytechnic Institution	.....	.....	.....	6	.....	.....	Somerset coal.....	800	150	150	7 1/2	123	123
Reversionary Int. Soc.....	5,325	100	100	4 1/2	104	104	Stafford and Worcester...	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60	.....	36 1/2	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5	.....	.....	.....	Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7 1/2	10	15	.....	Stroudwater.....	200	150	150	19	.....	.....
Thames Tunnel.....	4,000	50	50	.....	.....	.....	Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100	.....	.....	.....	Sewern & Why & Rail Av.	3,762	26 1/2	26 1/2	5 1/2	30	30

Canals.

Ashby de la Zouch.....	1,432	113	av.	4	70	70
Barnsley.....	720	100	100	14	180	180
Birmingham, 1-16 share..	3,000	118 1/2	79	10	150	160
Do. and Liverpool Junction	4,000	160	100	.....	13 1/2	13 1/2
Coventry.....	500	100	100	20	365	365
Cromford.....	460	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forth and Clyde.....	1,297	100 1/2	40 1/2	4	440	440
Grand Junction.....	11,699	100	100	7	162	161 1/2
Grand Surrey.....	1,500	do.	do.	.....	20	.....
Gloucester and Berkley...	5,000	do.	do.	.....	8	8
Grantham.....	749	150	150	8	185	185
Lancaster.....	11,699	47 1/2	47 1/2	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	640
Lieccester.....	545	140	140	9	139	139

Warwick and Birmingham...	.....	.....	.....	.....	.....	.....
Warwick and Napton.....	98	100	100	8 1/2	122	122

Water Works.

Birmingham.....	4,800	25	25	3 1/2	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7 1/2	88	90
New River L. B. Ann.....	1,500	.....	.....	2 1/2	.....	.....
Manchester and Salford...	6,486	av.	30	8 1/2	57	57
Vauxhall, lt. S. London...	1,000	100	5	5	55	55
West Middlesex.....	8,294	av.	63 1/2	6 1/2	126	127

Docks.

Commercial Dock.....	1,065	100	100	3	10	10
East and West India.....	.....	sto.	.....	5 1/2	137	137
London.....	3,238,310	sto.	.....	4 1/2	114 1/2	115
St. Katharine.....	1,352,752	sto.	.....	5	116	171
Southampton.....	7,000	50	50	.....	.....	.....



AMERICAN RAILROADS.												SALES.				
Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	Week ending April 3d.	Shares.	Price.
							Gross.	Nett.		Gross.	Nett.					
N. H.	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	124,497	74,841	6	113½	83	100½	
	2 Concord.....	35	750,000									12	70½	26	139½	
Mass.	3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	110½	5	110½	
	4 Boston and Maine extension.....	17 1-4	455,703	unfin.												
	5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120½	2	120½	
	6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	108½			
	7 Boston and Worcester.....	44	2,914,078				404,141	162,000	6	428,437	195,163	7½	116½	33	118½	
	8 Berkshire.....	21	250,000	not stated				17,500	7	17,737						
	9 Charlestown branch.....		280,260						13	34,654	13,971	5½	70½	7	83	
	10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	109½	21	109½	
	11 Fitchburg.....	50	1,150,000	just opn'd						42,759	26,835		129	38	122	
	12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	31,944	10	121			
	13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6				
	14 Northampton and Springfield.....		172,883	unfin.												
	15 Norwich and Worcester.....	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	70½	6,515	70	
	16 Old Colony.....		57,820	unfin.									102	28	192	
	17 Stoughton branch.....	4	63,075	unfin.												
	18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	118			
	19 Vermont and Massachusetts.....															
	20 West Stockbridge.....	3	41,516	200		100						4				
	21 Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	102½	1,032	103½	
	22 Worcester branch to Milbury.....		8,431	506												
	23 Housatonic, (10 months.).....	74	1,244,123							150,000			82	86	31	
Con.	24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	89			
	25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100										
	26 Stonington, (year ending 1st Sept.).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		41	1,975	40½	
N.Y.	27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0				
	28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	106	18	106	
	29 Auburn and Syracuse.....	26	766,657			133½	86,291	27,331		96,738	52,544	6	116			
	30 Buffalo and Niagara.....	22	200,000		1,500								100			
	31 Erie, (446 miles.).....		5,000,000										31½	1,083	31½	
	32 Erie, opened.....	53						48,000		126,020	59,075					
	33 Harlem.....	26	1,206,231							140,685	62,399		70	825	68½	
	34 Hudson and Berkshire.....	31	575,613			50				35,029	1,941	0	14			
	35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	75½	5,400	76½	
	36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	64½	325	63½	
	37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0				
	38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0				
	39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	115			
	40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5				
	41 Troy and Greenbush.....	6	180,000													
	42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½				
	43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	129	58	128	
N.J.	44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		110½	43	110½	
	45 Elizabethtown and Somerville.....	26	500,000													
	46 Morris and Essex.....															
	47 New Jersey.....	34	2,000,000										93½			
	48 Paterson.....	16	500,000									6	85			
Pa.	49 Beaver Meadow.....	26	1,000,000													
	50 Cumberland Valley.....	46	1,250,000													
	51 Harrisburg and Lancaster.....	36	860,000										30			
	52 Hazleton branch.....	10	120,000													
	53 Little Schuylkill.....	29	900,000													
	54 Blossburg and Corning.....	40	600,000													
	55 Mauch Chunk.....	9	100,000													
	56 Minehill and Schuylkill Haven.....	18	315,000						12				143½	10	150	
	57 Norristown.....	20	800,000										6½	135	6	
	58 Philadelphia and Trenton.....	30	400,000										104			
	59 Pottsville and Danville.....	29 1-2	1,500,000													
	60 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		50½	4,110	50½	
	61 Schuylkill valley.....	10	1,000,000													
	62 Williamsport and Elmira.....	25	400,000				20,000									
	63 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		43½			
Del.	64 Frenchtown.....	16	600,000													
Md.	65 Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		658,620	346,946		48½			
	66 Baltimore and Susquehanna.....	58	3,000,000										5	200	6	
	67 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84			
Va.	68 Greenville and Roanoke.....	17 1-2	260,000													
	69 Petersburg and Roanoke.....	60	969,880							122,871	72,898	3				
	70 Portsmouth and Roanoke.....	78 1-2	850,000													
	71 Richmond and Fredericksburg.....	61 1-2	1,200,000													
	72 Richmond and Petersburg.....	22 1-2	700,000													
	73 Winchester and Potomac.....	32	500,000													
N. C.	74 Raleigh and Gaston.....	84 1-2	1,360,000													
	75 Wilmington and Raleigh.....	161	1,800,000											12,853	43½	
S. C.	76 South Carolina.....	138			34,410	75				532,871	140,196	5				
	77 Columbia.....	66	5,671,452				201,464	77,456		328,425	180,704					
Ga.	78 Central.....	190	2,581,723				227,532	93,190		248,096	147,523					
	79 Georgia.....	147 1-2	2,650,000				248,026	158,207								
Ky.	80 Lexington and Ohio.....	40	500,000													
Ohio	81 Little Miami.....	40	450,000													
	82 Mad river.....	40	400,000													
Ind.	83 Madison and Indianapolis.....	56	152,000													
Can.	84 Champlain and St. Lawrence.....	15	212,000							58,000	24,000		110			

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.

Thursday, April 17, 1845.

WESTERN RAILROAD.—Receipts for the week ending March 29:

Passengers, - - -	1845.	1844.
Freight, etc., - - -	\$5,116	\$3,704
	6,821	5,503
Total, - - -	\$12,775	\$9,207

Week ending April 5:

Passengers, - - -	1845.	1844.
Freight, etc., - - -	\$5,338	\$4,818
	6,236	4,318
Total, - - -	\$11,574	\$9,136

MINEHILL AND SCHUYLKILL HAVEN RAILROAD.—The following is the amount of coal transported over this road, for the week ending on Wednesday evening last:

Per last report, - - -	7,613-02
Total, - - -	63,353-07
	70,966-09

LEHIGH COAL TRADE.—Despatched this season up to 4th mo. 5th, 1845, from Mauch Chunk.

Lehigh coal and navigation co.	
Summit, - - -	843
Room Run, - - -	408—1251
Beaver Meadow railroad and coal co., - - -	749
From Penn Haven.—Hazleton coal co., - - -	418
From Rock Port.—Buck Mountain coal co., - - -	179
Total shipments, 4,504 - - -	2596

THE COAL TRADE.—Sent by railroad from Pottsville and Port Carbon, for the week ending on Thursday evening last, April 10.....4,438-19

Per last report.....	29,978-17
Total.....	34,417-17
From Schuylkill Haven.....	7,064-03
Per last report.....	63,933-03
Total.....	70,998-06

BY CANAL.

From Pottsville and Port Carbon.....	5,234-00
Per last report.....	8,992-07
Total.....	14,136-07
From Schuylkill Haven—total up to Wednesday evening, April 9.....	349-12
Per last report.....	825-16
Total.....	1,175-08
From Port Clinton—per last report.....	967-04
Total by canal.....	16,278-19
Total by railroad.....	105,316-02

Total by railroad and canal.....121,595-01  
 Freights from Pottsville to Philadelphia, 70 cents, to New York, \$1 80.

The following are the rates of freight from Richmond and the Schuylkill to eastern ports:

To Salem.....	\$3 00 to 2 12 per ton
To Boston.....	1 87 to 2 00 "
To Portland.....	2 00 to "
To New Bedford.....	1 35 to 2 45 "
To Providence and Fall river.....	1 40 to 1 50 "
To New York.....	95 to 1 00 "

—Miner's Journal.

CHEAP FREIGHTS.—From Baltimore, by railroad, to Cumberland, 178 miles, 25 cents per 100 lbs. of

coffee and manufactured tobacco; and 35 cents per 100 lbs. for groceries, dry goods, and other merchandise generally.

From Cumberland, by wagons, to Wheeling, 125 miles, 75 cents; and to Brownsville 50 cents, and thence to Pittsburgh 10 cents per 100 lbs.—thus reaching the Ohio river at Pittsburg 95 cents, and Wheeling for \$1 10 per 100 lbs.

By the Baltimore and Susquehanna railroad, and the Pennsylvania canals, the charges are for dry goods, \$1 12½; groceries, 87½ cents; coffee, 75 cents; cutlery, 87½ cents; earthen and china ware the same, to Pittsburg.

ADVANCING BACKWARDS!

We find in the Baltimore American of the 11th inst, in the proceedings of the city council, the following, to wit: "Mr. Barnum submitted a resolution requiring the railroad companies to take up the different tracks leading from the outer depots into the city, on or before the 1st day of March, 1846, and making every car or steam engine passing through the city after that time liable to a fine of \$20 for each and every offence;" which reminds us much of a certain long-eared animal that is sometimes seen exhibiting his superior sagacity by resisting the most conclusive arguments, and most cogent reasoning, which can be brought to bear upon him. We know nothing of Mr. Barnum, nor the motives which led him to make such a proposition. We do, however, know that the true interests of Baltimore are to be promoted by a very different course from that proposed by Mr. Barnum; and so think the council, of which he is a member, as appears from the following notice of their proceedings, taken also from the American, of a previous day; from which it will be seen that the ordinance, allowing the engines to pass through the streets to the wharf, and thereby reducing materially the expenses of transporting heavy freight—especially coal and iron.

The time will come when legislators, both municipal and State, will learn that the lesser must yield to the greater good—that the business of a commercial city, and of a whole community, must be subject to the fewest possible restraints—and in no city of the Union, with which we are acquainted, is this freedom from vexatious restraints, of more importance than in Baltimore. It has the elements of an extensive and prosperous business; yet, as it has to compete with the larger northern cities, it should be allowed to avail of every possible advantage of a liberal municipal policy in relation to its avenues for transportation and travel.

There are few persons, probably, not familiar with such matters, who would form anything like a correct opinion of the expense of keeping up an establishment of horses, etc., for moving the cars from and to the outer depot of the Baltimore and Ohio railroad. By the last report it was stated at over \$18,000; and for the current year it would probably amount to near \$25,000—most of which would be saved if permitted to use locomotives to the termination. And we congratulate the company and the community upon this evidence that a policy more liberal than formerly has prevailed.

"The bill which passed the second branch of the city council on Monday evening, authorizing the Baltimore and Ohio railroad company to extend a branch of its road to a suitable point on the south side of the basin, and to use locomotive steam power in conveying coal and iron to tide water to said point and also by the present main stem to the city block, will, it is supposed, come before the first branch this evening on the question of concurrence in the amendments. The interests of Baltimore are directly and deeply concerned in the passage of the bill and the

important results which are likely to flow from its wise and judicious provisions, and we earnestly hope therefore that it will receive the prompt and cordial concurrence of all branches of the corporation.

"After the above paragraph was written, the bill (as will be seen by the report of proceedings of the city council, under the local head) was reconsidered in the second branch yesterday afternoon, further amended, and then passed unanimously. The bill was subsequently taken up in the first branch, and passed with the amendments of the second branch, by a vote of 20 yeas to 5 nays. The bill now only requires the signature of the mayor to become a law."

We are surprised to find that the mayor has vetoed the ordinance above referred to. We trust however that it will be adopted, notwithstanding his veto.

ACKNOWLEDGEMENT.—We have received since our last the annual report of the managers of the Delaware and Hudson canal company, which will be found entire in our columns. Also the annual report of the president of the Madison and Indianapolis railroad company—to which we shall refer more particularly in a subsequent number.

We learn from the Painesville Telegraph that the Cleveland Herald, (a paper which we never see) says the northern section of the canal has been open since the 28th ult. A letter from R. Howe, Esq., resident engineer, dated Columbus, April 1st, to the canal collector at Cleveland, says:

"The canal is now navigable as far south as Roscoe, and by the last of the week will be navigable as far as Dresden, Zanesville, etc. The lock rebuilding near Webbport, and also those on the Scioto, below Chillicothe, commonly known as Tomlinson's locks, are to be completed by the 10th of April instant, about which time navigation will be open through to Portsmouth."

The Williamsport, (Md.) Banner, says the Baltimore Sun, from an authentic source learns that Col. Cole, the president of the Chesapeake and Ohio canal company, is now in New York making arrangements for the sale of the bonds, and that Gov. Pratt has expressed his determination to use what influence he possesses for carrying out the provisions of the bill.

The New York canal board have resolved to make no change in the present rate of tolls, until the 1st of July next; on which day they will meet to adjust the tolls and transact other business.

We understand that the day line, over the Long Island railroad, is to be run until further notice on Mondays, Wednesdays and Fridays only, via Norwich and Worcester, and return from Boston to New York on alternate days, at the usual hours.

EASTERN RAILROAD.—The fares upon this road have been reduced as follows: To Lynn, 25 cents; to Salem, 40; to Marblehead and Beverly, 45; to Ipswich, 70 cents, and to Newburyport \$1. The season tickets are also proportionably reduced. To Portsmouth the fare will be \$1 75.

The Providence, the Taunton and the New Bedford have also, we understand, announced a reduction in their fares, to take effect on the 1st day of May ensuing. The Salem papers announce that the fare between Salem and Boston has been reduced. The directors of the Eastern railroad are desirous to reduce the fare through the whole route to Portsmouth, but in consequence of an obligation existing between the upper and lower routes, that the long fare on neither route shall be reduced without mutual consent, they are unable to do as they now wish. The directors of the upper route have refused to consent to a reduction, although most urgently appealed to by the directors of the lower route.

We referred in our last to the efforts of certain persons to induce the legislature of the State of New York to compel the several railway companies between Albany and Buffalo to reduce their fare, and to run night trains in winter; and also to appoint a railroad commissioner. We now give the "Remonstrance" of those companies, and renew our own remonstrance against this constant interference with railroad companies, which have, by great exertions, completed their roads to an extent which enables them to accommodate the public—yet have by no means completed them.

**REMONSTRANCE** of the several railroad companies, on the line of railway from Albany to Attica, against the several petitions for a reduction of their fare, the appointment of a commissioner, and compelling them to run in the night in the winter, etc.

*To the Honorable the Legislature of the State of New York, in Senate and Assembly convened.*

The memorial of the several railroad companies on the line of railway from Albany to Attica, respectfully represents that their attention has been given to the several applications that have been made to your honorable body, asking for various legislative provisions, to regulate their operations; to reduce their fare; to appoint a commissioner; to compel them to run their trains in the night at all seasons, etc.

When we consider the amount of capital invested in this line; the intimate connection that exists between a proper administration of its business, and the present and prospective interests and comforts of those who travel upon it; and the indispensable requisites to such management; we trust that we shall be allowed to say, that there are very many considerations of much weight, that have not been duly estimated by the persons who have petitioned for legislative action in this matter.

Almost the whole civilized world is now actively engaged in the construction and planning of railways. They are destined to occupy most of the important avenues of travel through all countries. The influence which they exercise is much wider than a superficial glance would suggest. They exert an immense moral influence, and extend our acquaintance, our means of information and improvement, and our sympathies, with every step which they advance. No other mode of land transportation has yet been devised, combining speed, safety and capacity, bearing any comparison with the railway.

Very large capital is required for their construction; constant care for their successful operation; and as permanent a character in their structure as is attainable.

They must long outlast their projectors. A corporation is therefore indispensable to

their construction and management. Whether that corporation shall be the State, or an association of individuals, depends upon our ideas of general policy, and the nature of our government; and of the facility with which either could conduct the business.

Any feeling of hostility, or of jealousy towards the railway, because it is owned and conducted by a corporation, will therefore be found to be an objection to the *improvement* itself, and not to the *form* of management. We make these suggestions because the railway is so frequently objected to, on account of its *corporate* ownership and management and of its *monopoly* character.

An open railway upon which each could manage and conduct as he pleased, would be a very unsatisfactory means of transit. Exclusive right of use in the owners is indispensable; but the use is valueless, unless the largest convenience is afforded to the public.

Upon this line of railway, by reason of the several corporations, the management is distributed along the line among the towns and villages which are interested in the successful operation of the system. It is frequently objected, that here are too many companies to manage the business well; that there are divided councils and clashing interests. While it is quite possible that there may be some weight in these objections, yet we apprehend that there is another view of the question; and that the petitioners may not fully have considered this if they urge them. These companies are each managed by a board of directors, the number of which is generally thirteen. They are distributed along the line of the respective sections, under their charge. They are engaged in business, are interested in the prosperity, and will, from the nature of their charge, be watchful of the interests and demands of the public. The mode of conducting their business is calculated to bring together the opinions of the little communities in which they reside, and in their selections of representatives to a general convention of their line, they delegate their several views; and such a convention acting like any representative legislature, embodies all information necessary to the most judicious management. We think we may appeal with great confidence to the inhabitants of the several towns along the line, and ask whether it would be better to have a single board of direction, which must of necessity be more foreign to the country along the line, than the present organizations. Such a single board would be gradually concentrated in the large cities, (perhaps in a single one,) and be practically strangers to the multiplied interest of the various sections through which the line extends. We think that the public opinion, is now much quicker heard, and better fulfilled and obeyed, than it would be, were there but one board of direction, and but one individual controlling. There is another view of it, which will be proper to allude to; and that is the economy of management. Upon the long line of railway in this vicinity, (from this city to

Worcester) the road is practically divided into sections; as the line from here west is, by the various corporations. One locomotive engine runs to Pittsfield, (50 miles) another to Springfield, (another 50 miles) and a third to Worcester. This is found to be economical. Many have the mistaken idea that an engine might be staid at Buffalo, and run through to this city, continuously, and that from this arrangement great benefits would follow.

Experiment has shown that about 100 miles of daily service, is a fair use of an engine and of men; and such use is more discreetly and properly derived, if it is not made continuous. Both the engine, and the men, can more profitably perform the service if there can be a rest at the end of 50 or 80 miles, to examine the engine, allow it to cool for such purpose, and thus have the requisite time for repair, and to guard against accident. A comparison of the cost of maintaining this line with others, will show that our expenses are not increased by reason of the number of companies. On the other hand, we apprehend that the track of the railway, and the machinery for its use, are kept in better order, by reason of the various sections being under the several charge of the respective companies. Upon this part of the subject, we will say in conclusion, that the several boards of direction devoting much of their time to the business of management, without compensation, do not control for the purposes of caprice, but in the exercise of their best discretion, they seek to afford the largest accommodation to the public, and thus secure the most certain and regular remuneration to their stockholders.

The whole line of railway from Buffalo to the Hudson river, has cost about nine millions of dollars. This includes the Schenectady and Troy railroad. This large sum of money has been gradually advanced by the great number of shareholders, in such proportions and at such times, as they have acquired confidence in the respective sections of the line, and as the legislative action has induced them. To four of the companies the credit of the State to the aggregate amount of \$600,000 has been furnished in order to aid in the completion of the line. It has required much legislation so to arrange the terms upon which the offer has been made to capitalists to induce them to invest their money, before all the sections of the line were subscribed for and put in operation. The capital stocks of these companies are scattered widely through our own and the adjoining States; and within their numbers are a very large proportion of shares held in trust by executors, guardians, etc.

The very nature of the property, and the character of a large proportion of the holders, is such as of necessity to induce a watchful care on the part of the directors.

The want of capital in our State, induced the necessity of a perishable form of structure, upon this line of railway. We have for the whole distance west of Schenectady a wood track. The want of strength in this structure; the constantly decaying na-

ture of its material, the manifest advantages of the iron tracks in New England, and the strong impulse that is accumulating in the public mind to compel us to higher speed; shows that we must calculate also upon an iron track upon this line; and that it must be laid down as quick as practicable. We believe that the true interests of the public are in this direction, and seek this end; rather than to embarrass and delay it, by the various propositions made by the petitioners. This line of railway is unfinished, and not equal to the public exigency, until such a structure shall be laid, and in use upon it, as will admit of greater speed, less hazard and less expense. A wood structure will endure but about six years, when the process of renewal must commence. We cannot suspend the use of the railway, until the new track shall be laid; hence when decay commences, it is from that moment forward, as long as a wood structure is maintained, a constant breaking up and renewal of some part of the track. This business is to go on while the road is in use for travel, and thus a perpetual succession of interruptions will occur.

Under this conviction, we believe that we ought to arrange for a permanent structure, at as early a period as practicable; that in so doing, we shall best consult the public interests, and those of the stockholders, and shall thus soonest be able to test the question, at how low rates persons and property can be transported upon the railway.

It is found that an increase of business upon the road greatly increases our expenses. Upon those parts of the line where the companies were engaged in the transportation of heavy materials to renew or improve the track, the structure so yields under the use as to require a double force of men, and increased material, to keep up the road fit for use. The roads, by reason of their wood structure are entirely incompetent to sustain the business; (if it were capable of increase) which at reduced rates of fare would be necessary to remunerate the stockholders. If allowed to go into detail upon this branch of the case, we could show such an array of facts, as would convince the most doubting, that the present track has few of the elements of firmness or stability. To re-lay this line with a permanent rail, would at the present cost of iron, require about three millions of dollars. If we have learned correctly to estimate and to comprehend the business, the capacity, the utility of the railway, to the public and to the stockholders, we shall be credited in saying that it is of all things most desirable that such an iron track be expedited upon this line of railway. From the facts that we have stated it will be perceived that a large amount of capital is required for this object. Where is it to come from? Who is to advance it? What is the guaranty that it will not be rendered valueless? We believe that the petitioners for a reduction of our fare have not well considered the proposition and are not well advised of the consequences.

In most of these charters, or propositions,

on the part of the legislature, to those who choose to accept them, and hazard their property in the undertaking, there is a provision that those who make the roads upon the terms of the proposition, may receive four cents per mile for the transportation of a passenger and his baggage. That after the road has been ten years in use, the State, (that is the people) may take it from its owners, on paying them the whole cost of construction of the road, with all moneys expended for permanent fixtures, with interest on such sums, at the rate of 10 per cent. per annum, together with all moneys expended for repairs or otherwise, deducting the tolls received. These laws, or charters, are on the part of the people of the State, a naked offer of these advantages to those who will, with their capital, build these roads for the benefit of the people, upon the guaranty contained in them. We admit that there is a right reserved to alter, modify or repeal the act, but we do most respectfully, but earnestly insist that this reserved power will not allow the legislature to destroy the guaranty upon which the investment was made, and the work accomplished. If the companies shall abuse their privileges or violate any provisions of law, then we admit that the power of alteration or repeal may be exercised. In the case of the Auburn and Rochester railroad company, the act authorizing its construction was passed in 1836, and the amount of fare was limited at three cents per mile for each passenger. Men refused to invest their money upon such a proposition. The legislature found that the railway could not, and would not be made. Capitalists practically said, that your rate of fare is too low. It will not remunerate us. We dare not hazard our property. The legislature of 1837, passed a law offering four cents per mile and reserved no right to alter this; showing clearly, as we hold, that it was not deemed a matter in which an alteration would be tolerated.

Under this last law, the necessary capital was subscribed, and the road was made.—The simple statement of the case seems to carry with it the honest explanation of it. Capitalists said we will not build the road under the restriction of three cents per mile—the legislature then say we will guaranty to you four cents, which offer is accepted, and the road made. In the laws respecting the Auburn and Syracuse railroad, it was found difficult to construct this section at the price per mile limited, and in the session of 1839, a law was passed offering them five cents per mile for three years.

In the case of the Tonawanda railroad company, the structure had become so decayed and the track poor, that under the then embarrassed state of the company, it could not be renewed without further means derived from additional capital or loan. A law was passed at the last session providing for such increased means, and fixing a fare of four cents per mile. If the legislature should reduce our fare to three cents per mile this year, next year it may be reduced to two cents, or to such rate as will make

the road worthless to the stockholders, and thus produce their practical abandonment by the owners. This reduction is professedly to be made for the benefit of the people, and might result in their taking from the stockholders the roads, notwithstanding the act authorizing the construction declares that on taking them, at the expiration of ten years, full payment of their investment, and ten per cent. interest shall be paid to them. We do therefore beg leave to say that it would be so clear a violation of the rights of the stockholders to attempt to reduce their fare and thus destroy or impair the value of their property, that we are sure the petitioners have not well considered their proposition. We are aware that many are of opinion that it would not affect our business unfavorably if the fare was reduced to three cents per mile. Upon this subject we have to say that we have learned to the contrary. That our population is not sufficiently dense to justify a low fare; and if our views of the nature of the guaranty contained in the charters are correct, such a measure ought not to be forced upon the companies against their wishes.

We claim that four cents per mile is a reasonable fare. That the speed, comfort and safety with which passengers are carried upon the railway makes this a lower fare than any other means of conveyance affords. The several companies have heretofore reduced their fares to about three cents per mile, and for a while to less. It was found that there was no increase of passengers, but that the receipts of the companies were so reduced as to make it practicable for them to go on at such low rates. The same experience was had between this city and Boston, and after becoming convinced that their rates were too low, the fares were raised upon their through passengers to three cents per mile, and upon their way passengers, which is a large proportion of their business, to nearly the same rate as is charged upon this line.

The situation of this line of railway is not properly considered by the petitioners in another respect. The aggregate receipts per mile are small, compared with those of railways in Massachusetts. The following table shows the comparative business of a number of companies in that State as compared with this line; and it will readily be seen, that restricted as we are in carrying of freight, that this is by no means the great thoroughfare that we might otherwise imagine.

Receipts compiled from Legislative reports of several railroads in Massachusetts, for the year 1844.

NAME OF ROAD.	Length in miles.	Rec'd per mile fm freight.	Rec'd per mile fm passengers.	Gross receipts per mile.
Boston and Lowell....	26	\$5,612	\$6,357	\$11,969
Boston and Maine.....	60	1,178	2,582	3,760
Boston and Providence..	41	2,139	4,626	6,765
Boston and Worcester..	44	4,000	5,332	9,332
Eastern.....	54	615	5,440	6,055
Nashua and Lowell....	15	2,983	3,141	6,124
Western.....	156	2,380	2,299	4,679

Receipts compiled from Legislative reports of several railroad companies in New York for 1844.

NAME OF ROAD.	Length in miles.	Rec'd per mile from freight.	Rec'd pr mile fm pass-engers.	Gross receipts per mile.
Utica and Schenectady.	78	\$120	\$3,927	\$4,047
Syracuse and Utica...	53	65	3,427	3,492
Auburn and Syracuse.	26	423	3,098	3,521
Auburn and Rochester.	78	100	2,760	2,860
Tonawanda.....	43	366	2,154	2,520
Attica and Buffalo....	31	180	2,075	2,255

We are practically prohibited from carrying freight except in the winter, which is the most difficult part of the year in which to perform our business. While in all other instances except upon this line the privilege of carrying freight is not restricted, which forms an important element in railway profits, we are in that respect concluded.

We have the active and strong competition of the canal upon the whole line, and in addition that of the lake Ontario and Oswego route upon the western half of it. The very small amount of capital that is required to establish a business upon the canal, enables the owners of boats to fix a low price of fare, and accordingly a large proportion of those to whom time is not valuable, travel upon the canal.

It has been found useless to reduce our fare with the view to draw business from the canal, for the price is instantly reduced in a corresponding ratio there, and thus the large capital upon the railway is rendered unproductive, while a line of boats carrying freight with their passengers at low fare can do a successful business.

In winter the number of persons travelling by the railway is reduced to about one-fourth of the number in midsummer, notwithstanding which, by reason of the severity of our climate, and our heavy snows, our expenses are then equal to any other part of the year.

It will be found that none of the companies east of Attica have been able to divide over 8 per cent. for the last year. The Attica and Buffalo railroad company have made about 14 per cent., which results from the very small cost of that road. It was almost graded by nature; is free from bridges or any expensive structure, and upon less business affords more profit than any other part of the line. The experience and business of that company therefore form no criterion for the others upon the route. It has cost but about \$10,000 per mile, while all the others, except the Tonawanda considerably exceed \$20,000 per mile.

We have found that in order to keep the railways in suitable repair, the expenses are steadily increasing; that all the receipts over 8 per cent. are required for such expenses and necessary improvements. A proper management will always appropriate the receipts beyond a reasonable remuneration to the stockholders, to the improvement of the road; and an accumulation of a pecuniary surplus is out of the question.—Every company upon this line east of Attica is compelled to expend its whole receipt over 8 per cent. in the repairs and improvement of its road and property.

It is a matter which we deem proper to suggest, that in the State of Massachusetts, where the railway system is the most extensive and perfect of any in the Union, the rate of fare is not limited. The profits of the corporations are restricted to 10 per ct. They have the best railways in the country, and perhaps their substantial character has resulted from the legislation in respect to them, and from the fact that the proprietors are assured of stability in their business limited only to a pecuniary profit of 10 per ct.

In all the railroads in New Jersey, Pennsylvania and the southern States, the rates of fare are believed to be fully equal to this line, and generally higher.

The tolls or receipts upon the railway, is all that is valuable to the owner. If these are inadequate the capital cannot be withdrawn, because it is then practically lost. If therefore the receipts are impaired, the property is so far destroyed.

The following table compiled from the reports of the present session, will show that it is the fourth cent per mile that mainly pays the stockholders, and this cannot be taken from them without prostrating the value of their property now, and rendering its necessary improvement remote and uncertain.

Abstract from the reports made by several railroad companies to the legislature 1844, of the business of 1844.

NAME OF COMPANY.	Length.	Cost per mile.	Expense in 1844.	Passage fare received.
Attica & Buffalo....	31	\$10,845-52	\$25,215	\$64,339
Tonawanda.....	43	16,914-70	33,312	92,639
Auburn & Rochester	78	23,030-02	85,660	215,247
Auburn & Syracuse.	26	28,715-58	48,193	80,553
Syracuse & Utica...	53	21,054-66	71,069	181,646
Utica & Schenectady	78	27,803-40	132,838	306,278

NAME OF COMPANY.	Passengers through and way made equal to through.	Required per mile of each passenger to pay expenses and 7 per cent on cost.	Average receipts of each passenger per mile.	Required the net per cent. on cost at 3 cts per mile per passenger.
Attica & Buffalo....	68,796	2-28 cts	3-00 cts	11 1/2
Tonawanda.....	66,635	3-04 "	3-16 "	7
Auburn & Rochester	77,985	3-45 "	3-53 "	5 1/2
Auburn & Syracuse.	83,553	4-44 "	3-71 "	3 3/4
Syracuse & Utica...	95,194	2-96 "	3-60 "	7
Utica & Schenectady	122,519	2-98 "	3-20 "	7

NOTE.—These estimates include low priced as well as first class passengers.

Under a full consideration of the matter, we respectfully remonstrate against a reduction of the passage fare upon the railways, because the stockholders have relied upon the guaranty contained in our respective charters, because it will be disastrous to our business, because it will render us unable to keep our railways up to the condition necessary to do the business in safety, and with the expedition required; and because it will deter us from attempting to make an iron track, and capitalists from furnishing the means necessary for that object.

We trust that we have already shown that a uniform rate of fare from Buffalo to the Hudson river, will not be just.

In regard to the bill pending in the assembly for that object, we beg leave to say, that we have for two years past carried emigrants

from Albany to Buffalo at a low rate of fare. The accommodations which they require, and the rate of speed at which we have carried them, has been such that we have fixed a lower rate than to other passengers. We do not suppose that the legislature would desire to restrain this business. The terms of the bill presented, would however interfere with our arrangements, and prevent our continuing to carry them. It would change the practice of any difference in fare that there may be between through and way passengers. Indeed the effect of the bill could not be otherwise than embarrassing to us, and as we suppose that the object of the petitioners is to produce a uniform rate of three cents per mile, if we have satisfactorily shown such a rate would be unjust and unfavorable to us, we suppose that there will be little object in the bill which requires the fares for the year to be annually fixed on the 1st of February.

Another matter asked for by the petitioners is the appointment of a commissioner to direct the operations of the line. We do not perceive what possible benefit could ensue to the public by such an appointment. What is such an officer to do? can he better control the operations of the companies than the directors, who have had experience, and who are interested in their success? Can he better direct as to the manner of running the roads, their repairs, the kind or capacity of engines, or how to overcome the many embarrassments incident to our business? Should his directions be contrary to the opinions of the directors, it would by no means be certain that he was right, or that his suggestions were prudent. Unless such an officer is sought for to advance the interest of some locality, we can see no reason for asking his appointment, and if that is the reason, we feel assured that the measure is wrong.

It has been objected that we stop over night in the winter, that we thus delay passengers and the mails. This again we feel assured is matter with which the petitioners are not fully acquainted and have not considered in all respects. So far as regards the mails, the arrangement is made with the full approbation of the postmaster general. He understands the severity of our winters, and he has said to us that it was better for the public to fix such an arrangement in winter as we could most probably perform; rather than to undertake to do that in which we might fail.

We have considered this to be in all respects the most proper course; and we submit that the manner in which the line is operated in winter through snow and storm, has been such as to entitle it to commendation rather than opprobrium. The travel is very limited in winter; so much so that a single car daily each way upon a part of the line is sufficient. There is not travel enough for more than one line. The route is so long that it cannot be run through continuously in the day time.

We consider that it is at all times more hazardous to run in the night than in the day time. In the night the engineer cannot



so well detect any failure in his machine as in the day time. Generally in winter it requires two or more engines to overcome the snow. These cannot so well be worked in unison in the night as in day time. In winter by reason of the cold, the liability of the engine of the axles and wheels to break is much greater than in summer. All these considerations make it very certain, we believe, that our course in not running in the night in the winter best consults the safety and comfort of passengers. We think that the great majority of travellers approve of it—and should it be found that a limited number residing a few miles beyond the point where the train stops, do feel inconvenience, and would prefer to go on, they should reflect, that an equal number may be put to the same, or indeed more difficulty, by being compelled to get up and travel in the night, because such persons desire to reach home before morning. We should very often run the hazard of being stopped in the night by snow, and it may well be questioned whether it would not be such an act of indiscretion to attempt to run all night in the winter, as to subject us to serious liabilities. As soon as the conditions of the tracks will justify us in running in the night, we uniformly commence in the spring. Under a full review of our course in this respect, we feel the clearest confidence, that it is judicious, and will be sustained by a reflecting and intelligent public.

We have presented in as brief terms as possible some of the very numerous objections which may be made to the several propositions in relation to this line of railway, which are pending before your honorable body. We feel confidence in thus presenting our views, and we trust that they will be found to be in harmony with those which may be entertained by the legislature.

Dated at Albany, March 28th 1845.

Isaac Newton—pres't Mohawk and Hudson railroad co.; Erastus Corning—pres't Utica and Sch'y railroad co.; John Wilkinson—pres't Syracuse and Utica railroad co.; Thos. Y. How, Jr.—Treas'r Auburn and Syracuse railroad co.; Henry B. Gibson—pres't Auburn and Rochester railroad co.; Heman J. Redfield—pres't Tonawanda railroad co.

DELAWARE AND HUDSON CANAL REPORT.

We have received the following statement and report in relation to the operations and conditions of this company, which we cheerfully give to the readers of the Journal. It affords us pleasure to publish such reports. They show what can be accomplished by enterprize and perseverance—even when serious obstacles are to be overcome, as in this case. There are many who recollect the period when this company had its dark days—but they are we feel assured, not again to be encountered while such men manage as we find in the annexed list.

Could our State works have been managed by such men from their commencement,

instead of politicians by trade, we should have seen a different state of things.

TO THE EDITOR OF THE RAILR. JOURNAL:  
SIR: Enclosed is a report of the Delaware and Hudson canal company, with a statement of the business for the year ending March 1, 1845.

The capital of the Delaware and Hudson canal co. consists of 20,000 shares, of \$100 each \$2,000,000  
Amount of debt guaranteed by the State of New York, 800,000

\$2,800,000

The amount of profits for the year ending March 1, 1845, were \$250,948 36—equal to 13 per cent on the capital stock.

Amount of dividends declared during the year 1844—10 per cent. Yours, April 11, 1845. J. J. D.

REPORT, ETC.

In again meeting the stockholders, the managers are much gratified to be able to submit a statement of another year's business, showing continued and increased prosperity on the part of the company.

On reference to it, it will be found that the nett profits of the past year amount to \$258,948 36. Comment is unnecessary, further than to say, that during the year, coal was sold at unparalleled low prices, and that the demand greatly exceeded the ability of the company to supply.

The canal, railroad and mines are all in excellent order for the prosecution of another year's business, and it will be resumed at the proper time with energy and spirit. The banking privileges granted to the company by special act, expired on the 19th of November last. For several years past it has not been deemed expedient or profitable to make any other use of them than to circulate the company's own bank paper, in its canal and coal payments. The board has not, therefore, thought it advisable to ask for a renewal of the privilege. The circulation is in the course of redemption, and the business is now simply that of a canal and coal company.

Although the price of coal still remains very low, the managers have entire confidence in the continued prosperity of the company; and as a special report in relation to its affairs is to be submitted to this meeting, they deem it unnecessary to enter into further details. By order of the board of managers, JOHN WURTS, President.

Statement of articles transported on the Delaware and Hudson canal during 1844.

Merchandize	8,414
Plaster	922
Cement	5,835
Tanners' bark	311
Leather	1,250
Stone, brick and lime	1,425
Millstones	447
Staves, hoop-poles and lath	442
Manufactures of wood	1,373
Glass and glass ware	751
Coal screened, etc., up the canal	392
Charcoal	299
Sundries, posts, rails, etc	681
Tons	22,547

Cords of wood	2,718
Number of shingles, pine	25,400
" " hemlock	129,000
Ship timber, in cubic feet	35,440
Hardwood lumber, in board measure	1,984,311
Pine, " " "	2,228,832
Hemlock, " " "	3,196,769

Statement of the business of the Delaware and Hudson canal company for the year ending March 1, 1845.

To coal on hand March 1, 1844	\$ 71,054 25
" Mining coal	132,364 13
" Railroad transportation and repairs	117,543 90
" Freight of coal to Rondout	242,872 70
" Canal repairs and superintendence	77,756 18
" Labor and expenses at Rondout	22,417 77
" Interest on State stocks	38,325 00
" Rents, salaries, current expenses, etc.	
New York	25,262 09
Balance	258,948 36

\$986,544 38

By sales of coal	\$864,107 31
" Canal and railroad tolls	33,525 61
" Interest received	15,458 91
" Coal on hand	73,452 55

\$986,544 38

By balance \$258,948 36

Cost of the works and property of the Delaware and Hudson canal company, and available funds, on the 1st March, 1845.

108 miles of canal	\$2,406,977 89
16 miles of railroad	503,579 95
Canal boat, barges and steamboat	125,060 05
Real estate	120,911 39
Coal on hand and cash funds, etc.	307,157 06

\$3,463,686 34

Statement of tolls received on the Delaware and Hudson canal and railroad in each year since the completion of the work.

1830	16,422 44	271,610 21
1831	20,554 64	40,328 38
1832	28,717 51	40,095 26
1833	37,004 58	35,450 46
1834	36,946 07	39,388 19
1835	41,976 82	33,894 93
1836	45,154 73	30,996 53
1837	44,832 42	33,525 61
	\$271,610 21	\$525,289 57

OFFICERS OF THE DELAWARE AND HUDSON CANAL COMPANY, FOR 1845.

Managers—John Wurts, Philip Hone, Wm. M. Halsted, Isaac L. Platt, Alison Post, Silas Holmes, Aquila G. Stout, Henry Young, Jacob R. Le Roy, Irad Hawley, Wm. S. Heriman, Cyrus Hitchcock, Charles N. Talbot.  
President—John Wurts.  
Vice President—Isaac L. Platt.  
Treas. and Sec'y—Isaac N. Seymour.

WABASH AND ERIE CANAL.

We find in the Cincinnati Gazette of 3d inst. the following remarks in relation to the grant made by Congress of the public lands, for the purpose of completing this important canal. We join earnestly in the sound advice given, by the editor of the Gazette, to the people of Indiana; let them proceed cautiously, devise the right plan, and then select honest men to carry it into successful operation.

"The appropriation of one half the unsold lands in the Vincennes District, Ia. by Congress to complete this Canal excites a

Good deal of attention at home and abroad. And well it may, for the grant is a large one, and the work in itself grand. The first gives no less than half a million of acres; the second connects the Lake at Toledo with the Ohio River at Evansville.

"That our neighbours like this congressional grant, is not strange. It is right that they should rejoice over it, and that we should sympathise with them. For that grant if, *rightly used* may be made the means, in part, of reviving State credit, as it should be made a means unquestionably of State wealth. We say, if *rightly used*. And surely there cannot be much doubt as to this. Indiana has suffered enough, we all know, from improvident public managers to make her prudent on this subject; to convince her that her public works should be entrusted to honest, business men; to declare the law of the public mind to be that this grant should be used diligently and faithfully to the accomplishment, by the best mode, of the great national object for which it was bestowed.

"If reasons need be multiplied, when simple obligations of *duty* would seem to include all, one might be referred to, of so general a nature as to demand from Indiana more than ordinary attention. The grant by Congress of this land makes her in fact the Trustee of the nation. The national legislature says in effect to the State, "You wish to complete this great public work. It is no less magnificent than useful. It is a national work. For this purpose we, as the Agents of the nation, bestow on you, half of all the unsold land belonging to the nation in the Vincennes District. *Use it faithfully*. Allow no speculation in those who manage it; put aside in this matter self-aggrandizing men; and be, as Trustees should be, honest, wise, above the suspicion even of having abused in any way the high trust reposed in you." And for the sake of the good character of the State—we desire that Indiana may meet her obligations as one who cannot err under these circumstances—and that in due time, her response to the nation will be "We have wisely used your generosity to the national and State good. We have so disposed of the public land you granted us as to finish this great work, and have made you richer thereby in greatly enhancing the value of your land yet unsold in the same District. We have been honest stewards of a generous benefactor."

"We are glad to find that this subject attracts attention in Indiana. That's right. Let it be kept before the public mind. Discuss it well. Watch every movement, and know every step taken in it; and above all be sure that no false step either as regards measures or men, selected to carry out plans for selling the land, or completing the Canal, is taken. Hear all plans; but decide not upon any of them until it is pretty certain you have hit upon the best. We give below one of these plans suggested by the very sensible Editor of the Journal and Free Press, Lafayette, Indiana. He says:

"The lands granted by Congress for the

extension of the Canal, are estimated to amount to about *half a million of acres*. These, if properly husbanded, would furnish a fund, it is thought, amply sufficient to complete the enterprise. In order to do this, however, great prudence should be observed. Instead of throwing the land into market *immediately*, as those appropriated for the building of the Canal from Lafayette to Terre Haute have been, and issuing *Scrip* upon them, we should be in favor of *borrowing enough money*, (if it can be obtained,) to complete the work; pledging not only the lands but the tolls and water rents upon the Canal, and even the Canal itself, if necessary, for its repayment—and then push the work to completion with all possible despatch.—The value of the lands would be more than doubled, the moment the Canal should be completed, and thus would the means of repayment be at once easy and certain. But aside from the enhancement of the value of the lands, and the rapid improvement of the country, which would follow as a matter of course, the revenue derivable from the Canal itself, in the increased amount of tolls, would in a few years be so great, as to place it within the power and ability of the State to commence the wiping out of her heavy indebtedness.

When the whole line of this Canal is opened, from the Ohio River to Lake Erie, (as soon it must be,) it will be one of the most magnificent works of the kind in the world. It will be the best and most direct route by water, between the two great Emporiums of the North and South—and cannot fail to become at once an immense channel of commerce. Its effects upon the fertile valleys and beautiful plains through which it passes and by which it is skirted, will be so vast and astonishing, as to fully justify the application of the beautiful language of prophecy—"The solitary place shall be made glad—and the wilderness shall bud and blossom as the rose."

*The Railroad*.—By reference to our advertising columns, it will be seen that the Commissioners named in the act to incorporate the Columbus and Sandusky Railroad Company, have given notice of the opening of books for the purpose of receiving subscriptions to the stock of the company.

We see that books are also about to be opened at Columbus and other points on the route, for taking stock in the Columbus and Xenia Railroad. The Little Miami Railroad is or soon will be finished from Cincinnati to Xenia, from which place it is to be continued to Columbus, and from thence by some route as yet not decided upon to the Lake. Should Cleveland be the northern termination of the road, to reach that place from Columbus, Delaware must, we think necessarily, from her position and the nature of the ground, be embraced in the route.—*Olentangy (Ohio) Gazette*.

*The Magnetic Telegraph—American and British*.—A comparison of the two systems

of the Magnetic Telegraph, as in operation in this country and Great Britain respectively, leaves no room for doubt as to the great superiority of our own. We have seen a series of plates representing the British system, and the mode of working it. It is complicated in its structure, and less efficient than Mr. Morse's. The operator stands with an index before him, by which he is to guide his movements; and by means of a corresponding index at the other end of the line, the characters or symbols are pointed out as the magnetic influence operates. It is thus requisite that observers be always present at both ends of the line, and if the observer is not watchful, he may miss some of the information indicated by the telegraph.

The system of Prof. MORSE is more simple in its construction. It works with facility and certainty, and inscribes the information it communicates in permanent characters upon paper, so that if no one is watching at the moment, the record of every word transmitted by it is to be found faithfully preserved. The operation of this system along the line between Washington and this city has proved its wonderful powers to the astonishment of every beholder.—*Baltimore American*.

**RAILROAD IRON AND FIXTURES.** THE Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO.,  
21 Broad st., N. York.

ja45

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,  
Reading, Pa.

ja45

**GEORGE VAIL & CO., SPEEDWELL IRON** Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1½ in. to 2½ in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective; Iron and Brass Castings of all descriptions.

ja45ly

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.  
J. P. JACKSON, Esq., Secretary.

ROBERT SCHUYLER, Esq., Vice President.  
J. WORTHINGTON, Esq., Treasurer.

	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
Leave New York, foot of Courtland street.						
For Newark.....	9, 11, 12.....		2, 3, 4 3-4, 6, 7 1-2		9.....	4 3-4
" Elizabethtown.....	9, 11.....		2, 3, 4 3-4, 6.....			
" Rahway.....	9, 11.....		3, 4 3-4, 6.....			
" New Brunswick.....	9.....		3, 4 3-4.....			
Leave						
New Brunswick.....	6, 7 1-2, 11 1-2.....		8 3-4.....		11 1-2	8 1-2
Rahway.....	6 3-4, 7, 8 1-4, 12.....		4 3-4, 9 1-4.....			
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12		3 1-2, 5.....			
Newark.....	7 1-2, 8 1-4, 9, 11.....		11 1-2, 4, 5 1-2, 7, 9 3-4		11 3-4	9 3-4
For New York.						

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

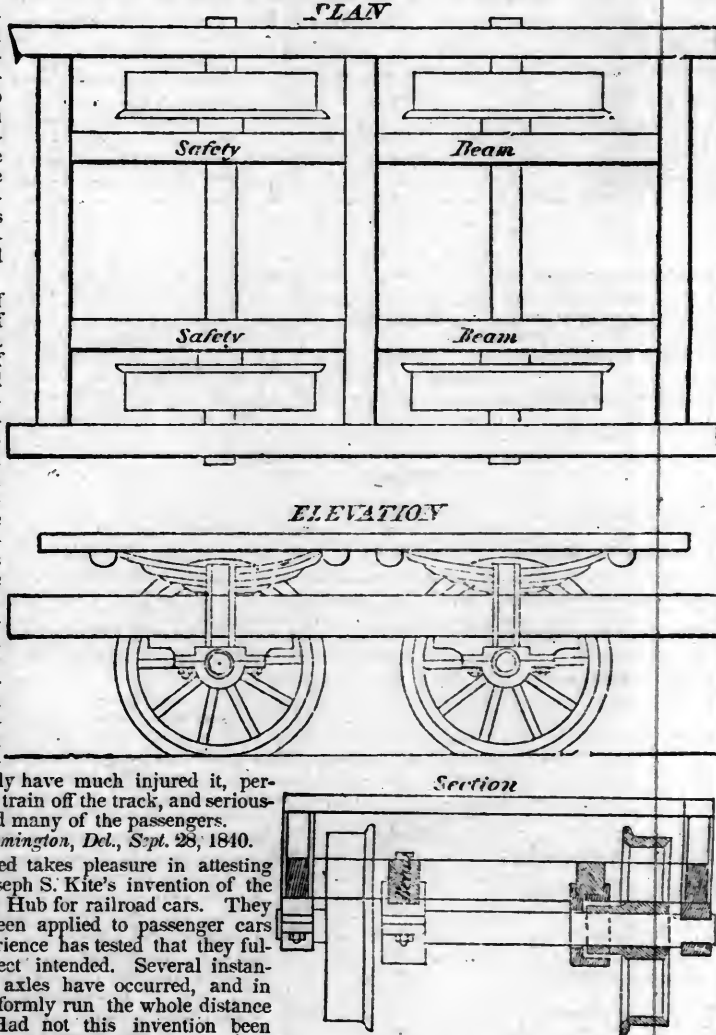
The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

REFERENCES.—Col. James F. Baldwin, Civil Engineer. Col. J. M. Fessenden, " Wm. Parker, Esq., Engineer and Superintendent Boston and Worcester railroad. ja45

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work. Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs, & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship. Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

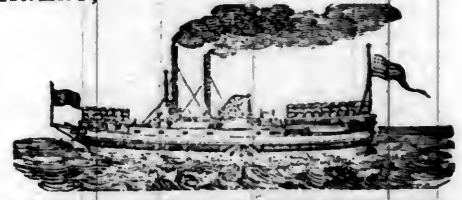
HENRY BURDEN, Agent. Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. a45

TRAINS LEAVE	FOR	BY RAILROAD	DAYS	A. M.	P. M.	MILES.	FARE.
Boston	Portland	Eastern,	Daily,	7 $\frac{1}{2}$	2 $\frac{1}{2}$	106	\$3 00
"	Portsmouth	"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	54	2 00
"	Newburyport	"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	35	1 25
"	Salem	"	"	7 $\frac{1}{2}$ , 9, 11 $\frac{1}{2}$	2 $\frac{1}{2}$ , 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14	50
Portland	Portland	Boston and Maine,	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	109	3 00
Boston	Boston	"	"	7 $\frac{1}{2}$	3	109	3 00
Boston	Lowell	Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston	"	"	7 $\frac{1}{2}$ , 11	2, 4 $\frac{1}{2}$ , 5 $\frac{1}{2}$	26	75
Boston	Concord	Concord,	"	"	3 $\frac{1}{2}$	76	2 00
Concord	Boston	"	"	"	3 $\frac{1}{2}$	76	2 00
Boston	Nashua	Nashua and Lowell,	"	7, 11	5	41	
Nashua	Boston	"	"	6 $\frac{1}{2}$	1 $\frac{1}{2}$ , 5	41	
Boston	Worcester	Boston and Worcester,	"	7, 9	2 $\frac{1}{2}$	44	1 25
Worcester	Boston	"	"	7, 10	6	44	1 25
"	"	"	Sundays,	7	"	"	"
Boston	Worcester	"	"	"	2	"	"
Boston	New York via Norwich	"	Mon., Wed. & Fri.,	"	4	"	"
"	" " L. Island railroad	"	Tues., Thur. & Sat.,	"	"	"	"
"	" " New Haven	"	Daily,	9	2 $\frac{1}{2}$	"	"
"	Albany	Western,	"	9	2 $\frac{1}{2}$	200	6 00
Albany	Boston	"	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	200	6 00
Springfield	Boston and Albany	"	"	7	3	"	"
Boston	New York via New Haven	"	"	7	2 $\frac{1}{2}$	"	"
Charlestown	West Acton	Fitchburg,	"	8	1, 4 $\frac{1}{2}$	"	"
West Acton	Charlestown	"	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	5	"	"
Boston	New York, via Steamboat trains	Boston and Stonington,	Tues., Thur. & Sat.,	"	4 $\frac{1}{2}$	"	"
"	"	Boston and Newport,	Mon., Wed. & Fri.,	"	4 $\frac{1}{2}$	"	"
"	Providence	"	Daily,	7 $\frac{1}{2}$	4	41	1 50
Providence	Boston	"	"	"	On arrival of the mail.	41	1 50
Taunton	"	"	"	8	4	"	"
New Bedford	Boston	"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	"	"
Boston	Dedham	"	"	8 $\frac{1}{2}$	3, 6 $\frac{1}{2}$	"	"
Dedham	Boston	"	"	7, 10	5 $\frac{1}{2}$	"	"
New York	Greenport	Long Island,	"	7 $\frac{1}{2}$	"	95	2 25
Brooklyn	Hicksville & intermediate places	"	"	9 $\frac{1}{2}$	"	26	56 $\frac{1}{2}$
"	Greenport	"	"	9 $\frac{1}{2}$	"	95	2 25
"	Hicksville, (Satur'dy to Suffolk)	"	Tues., Thur. & Sat.,	9 $\frac{1}{2}$	4	26	56 $\frac{1}{2}$
Greenport	Brooklyn, (Boston train)	"	Daily,	"	1	95	2 25
"	" (accommodation do.)	"	"	"	"	95	2 25
Hicksville	" & intermediate places	"	Mon., Wed. & Fri.,	7	1 $\frac{1}{2}$	26	56 $\frac{1}{2}$
New York	Albany & Boston via N. Haven	Steamer,	Daily,	6 $\frac{1}{2}$	"	"	5 00
"	Middletown	New York and Erie,	"	8, 3	"	53	"
Middletown	New York	"	"	6 $\frac{1}{2}$	3 $\frac{1}{2}$	53	"
Philadelphia	Pottsville	Reading,	"	9	"	94	3 50
Pottsville	Philadelphia	"	"	9	"	94	3 50
New York	Newark	N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4 $\frac{1}{2}$ , 6, 7 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Newark	New York	[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 9, 11	1 $\frac{1}{2}$ , 4, 5 $\frac{1}{2}$ , 7, 9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	"	[9 A. M. and 4 $\frac{1}{2}$ P. M., trains, connect with Somerville Railroad.]	Sundays,	9	4 $\frac{1}{2}$	9 $\frac{1}{2}$	25
New York	Newark	"	"	11 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	Elizabethtown	"	Daily,	9, 11	2, 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14 $\frac{1}{2}$	31 $\frac{1}{2}$
Elizabethtown	New York	"	"	7, 7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 10 $\frac{1}{2}$ , 12	3 $\frac{1}{2}$ , 5	14 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	Rahway	N. J. railroad and trans. co.,	"	9, 11	3, 4 $\frac{1}{2}$ , 6	19 $\frac{1}{2}$	31 $\frac{1}{2}$
Rahway	New York	"	"	6 $\frac{1}{2}$ , 7, 8 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$ , 9 $\frac{1}{2}$	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New Brunswick	"	"	9	3, 4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New Brunswick	New York	"	"	6, 7 $\frac{1}{2}$ , 11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
"	"	"	Sundays,	11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New York	New Brunswick	"	"	9	4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
Philadelphia	New York	Camden and Amboy,	Daily,	7	"	91	3 00
New York	Philadelphia	"	"	5 $\frac{1}{2}$	"	91	3 00
Philadelphia	Bristol	Philadelphia and Trenton,	"	9	"	30	75
Bristol	Philadelphia	"	"	"	4	30	75
Philadelphia	Baltimore	Philad. Wil. and Baltimore,	"	8	4	93	"
Baltimore	Philadelphia	"	"	9	8	93	"
"	Washington	Baltimore and Washington,	"	9	5, 11 $\frac{1}{2}$	41	2 50
Washington	Baltimore	"	"	6	5 $\frac{1}{2}$	41	2 50
Baltimore	Cumberland and inter. places	Baltimore and Ohio,	"	7 $\frac{1}{2}$	"	"	"
"	Frederick	"	"	"	4	"	"
Cumberland	Baltimore	"	"	8	"	"	"
Hancock	"	"	"	10 $\frac{1}{2}$	"	"	"
Martinsburg	"	"	"	11 $\frac{1}{2}$	"	"	"
Harper's Ferry	"	"	"	"	12 $\frac{1}{2}$	"	"
Frederick	"	"	"	"	2	"	"
"	"	"	Sundays,	8	"	"	"
Ellicott's Mills	"	"	Daily,	7 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$	"	"
Richmond	Petersburg	Richmond and Petersburg,	"	10 $\frac{1}{2}$	"	"	"
Petersburg	Richmond	"	"	5 $\frac{1}{2}$	"	"	"
Albany	Schenectady	Mohawk and Hudson,	"	8	5 $\frac{1}{2}$	"	"
Schenectady	Albany	"	"	9	3 $\frac{1}{2}$	"	"
Albany	Saratoga	"	"	7 $\frac{1}{2}$	2	"	"
Saratoga	Albany	"	"	7	12 $\frac{1}{2}$ , 5	"	"
Troy	Saratoga	Troy and Saratoga,	"	"	3 $\frac{1}{2}$	"	"
Saratoga	Troy	"	"	7 $\frac{1}{2}$	"	"	"
Auburn	Rochester	Auburn and Rochester,	"	8 $\frac{1}{2}$	"	"	"
Rochester	Auburn	"	"	8	3	"	"
"	Buffalo	Rochester and Buffalo,	"	"	3	"	"
Buffalo	Rochester	"	"	"	"	"	"
"	Falls	Buffalo and Falls,	"	9	"	"	"
Falls	Buffalo	"	"	"	1 $\frac{1}{2}$	"	"
Buffalo	Albany	Albany and Buffalo	"	8 $\frac{1}{2}$	"	"	"

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

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[WHOLE No. 460, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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## FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. Philadelphia, Pa., April 6, 1845.

\*\* The letters in the figures refer to the article given in the Journal of June, 1844.

A GOOD SECOND HAND LOCOMOTIVE TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Junia rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tics for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed. When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out in-side. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

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Tyres imported to order and constantly on hand  
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**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

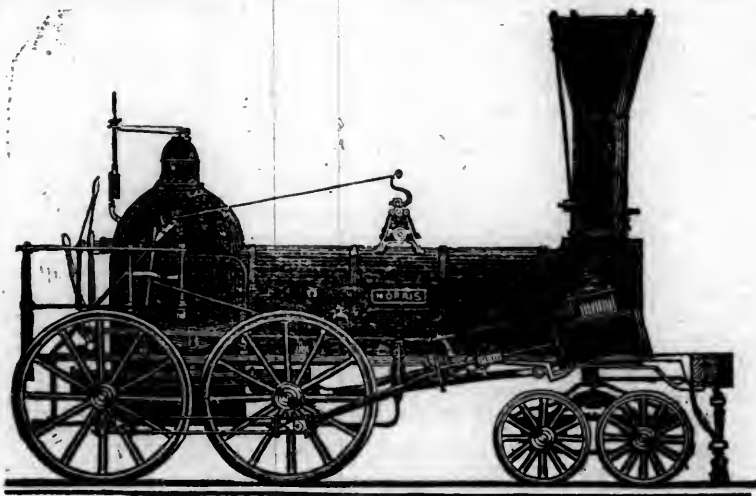
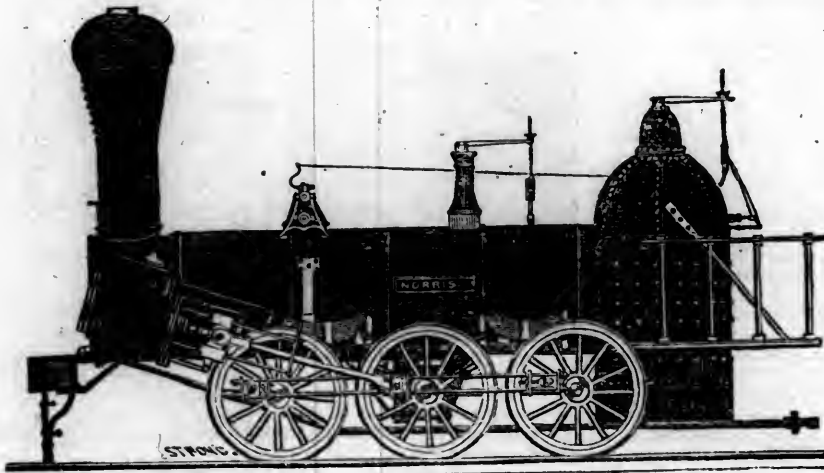
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**W. Mc. C. CUSHMAN, Civil Engineer,**  
Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NORRIS' LOCOMOTIVE WORKS**

BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches	Diameter of	Cylinder,	× 20 inches	Stroke.
"	2,	14	"	"	× 21	" "
"	3,	14½	"	"	× 20	" "
"	4,	12½	"	"	× 20	" "
"	5,	11½	"	"	× 20	" "
"	6,	10½	"	"	× 18	" "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

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**TO IRON MANUFACTURERS.** THE SUBscribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

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From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



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**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bimuncious Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,197 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS**, 48 State st., or to **CURTIS, LEAVENS & CO.**, 106 State st., Boston, or to **A. & G. RALSTON & CO.**, Philadelphia. ja45

## FIRST ANNUAL REPORT OF THE SOUTH-CAROLINA RAILROAD COMPANY.

The statements from the Auditor which accompany this report, will exhibit a satisfactory account of the property, the liabilities, and the available assets of the S. C. R. R. company as now consolidated. To the Tabular statement No. 6, the attention of the stockholders is particularly invited, as exhibiting, on one sheet, a perfect synopsis of the business transactions of the South Carolina canal and railroad company for each half year from the commencement of operations in the year 1830, to the 1st of January, 1845, including the year 1844, of consolidation with the L. C. & C. R. R. company.

This is an interesting paper, exhibiting the number of Locomotives in service; the trips and number of miles performed: the income received, and the fluctuations in the trade and travel on the road, and developing results instructive to those charged with the direction and management of railways; where *economy of expenditure* and *cheapness of transportation* are so dependent on the proper construction and judicious application of the powers of the Locomotive. This is the great desideratum to be attained in all operations where machinery is used, and of vast importance to railroads, as the element on which their triumph over all other conveyances, and success, must finally rest. These views cannot be stronger illustrated than by comparing from the table, the operations of the *first* with the last half years of the years 1843 and 1844. In the first half years, 15 Locomotives in service, made 2,036 arrivals and departures; ran over 319,968 miles; transported 130,366 bales of cotton and 48,722 passengers, and realized in money, including the freight on merchandize and the mails, \$460,057 35. In the last halves of the same years, 16 Locomotives in service, making 1,904 arrivals and departures, and running 304,752 miles; 132 arrivals and departures, and 14,216 miles less than in the first halves the same years; transported 184,319 bales of cotton, 43,164 passengers, and realized for the road \$515,743 85 in money; shewing that with but one additional engine, and less miles and trips performed, an increase of 53,953 bales of cotton, a decrease of 5,558 in the number of passengers, and an augmentation in the moneyed receipts of \$55,686 50. The decrease in the passengers is explained by the facts of two Methodist Camp Meetings in the spring of 1844, at Ladson's Station and the Cypress, and at which it was estimated there were between 5 and 6,000 attendants. Another comparison between the years 1842 and 1844, will serve to illustrate the powers and advantages of the larger class of Locomotives, six (6) of which have been added the last two years, to the 2d and 3d class engines previously used on the road. In the year 1842, the year previous to the consolidation of the two roads, 14 engines in service, made 1,809 arrivals and departures; performed 286,995 miles; transported 92,336 bales of cotton and 33,925

passengers, and realized in money for the road \$408,704 87.

In 1844, 17 Locomotives are returned as having made 1,934 arrivals and departures, run over 310,812 miles, and transported 186,638 bales of cotton and 54,146 passengers—and realized on the whole, including freight on merchandise and the mail \$532,869 85, shewing with but 3 additional engines, an increase of 91,302 bales of cotton, 20,221 of passengers, and \$124,164 98 on the gross income, being at the rate of 100 per ct. on produce, 60 per ct. on the number of passengers, and 31 per ct. on the moneyed receipts. The increase on the moneyed receipts does not bear the same proportion to the increase on the quantity of the freight and number of passengers, and which is to be explained by the modification and reduction made on the rates of freight and passage in 1844. In 1842, the fare for passengers was 18 per ct.; on merchandize from 12½ to 15 per ct., and on cotton and weight freight, from 30 to 40 per ct. higher than it was in 1844. At the same rate of freights, provided the same amount of business could have been commanded, the increase on the moneyed receipts, on the transportation performed, would have been full 25 per ct. greater.

The subject of the rates for freight and passage on railroads, must be relative, and be governed by the quantity of business and number of passengers offering, and the competition with other common carriers. To meet a competition which is daily increasing from the number of new roads in the United States, which have been constructed, and from the improvements in and new application of machinery, to steam navigation, it will be necessary to be governed in some degree by the fares established by other common carriers, contending for the same business; or forfeit the claim on the South Carolina road to a fair participation in it. By this policy, in regulating a Tariff for freight and passengers, your directors have been governed: and they will continue in the future, as they have in the past, to bestow on this, as on all other subjects, affecting the interests of this company, the consideration of their most matured judgments.

With these Tables, is one shewing the number of grades, and their lengths; with the lengths of the different curves and straight lines; the distance between the different stations and depots, and their relative elevations; with the elevations of each point above tide water; on the road between Branchville and Columbia. A similar table, we have in preparation for the Charleston and Hamburg road; which has not yet been perfected, for the want of the necessary documents.

The Report of Mr. G. B. Lythgoe, the Superintendent of the road, shews that under his vigilant supervision, the track and embankments have been preserved in the same good condition, represented to be in the previous year. He states, however, what has been long since apprehended, that the heads

of the piles, sustaining the cross ties and superstructure, on the Hamburg road, are beginning to exhibit decay, and to obviate this defect, it will become necessary to lay mud sills on the tops of the piles. That, if this work is commenced immediately, its expense may be distributed through consecutive years; and therefore, recommends that 20 miles of the road, for the next four years, be so improved, which will probably involve an increased expense for timber and labor, of \$300 per month.

On the Columbia road, which is generally in good order, it was found indispensable to renew some of the cross ties, between Orangeburg and Branchville, the last spring and summer. As it is but 4 years and 6 months since that section of the road was finished, that fact goes to confirm past convictions that the durability of pine timber at the South, exposed as the cross ties are on the Columbia road, on the surface and but half covered with earth, cannot be depended on to exceed an average of 5 years; and that all timbered superstructures of roads in Southern latitudes, will require renewal within that period, or one-fifth each year for the whole extent. By way of experiment, 6 miles of the Columbia road was constructed of cypress ties; but sufficient time has not yet elapsed to test their superior durability over pine, or their greater economy in the higher price. The durability of timber is a subject of deep interest to railroad companies: particularly as timber superstructures are beginning to claim a preference to those made of materials of a less yielding or elastic character; and has engaged the attention for many years of the successive Board of Directors of the S. C. C. and R. R. company. The process of kyanizing, which was tested to a small extent, seemed to act favorably on the fibres of the wood to which applied; but the problem yet remains unsolved, whether the additional durability imparted, is compensated by the extra expense incurred. The experiment with the mineral process recommended by Dr. Earl, and for which an appropriation was made by the S. C. C. and R. R. Company, Mr. Lythgoe, thus remarks:—"I regret to say, the process of Earling sap timber, will not answer the purpose intended: as we are now compelled to take all we have used, out of the road, as soon as we possibly can, in consequence of its having become so soft and decayed, as to allow the iron to imbed into it, thereby injuring the iron to a considerable extent." The report of Mr. Lythgoe represents that the expense of the maintenance of way on the Hamburg road the last year, has been \$293 per mile; which, including the sum of \$828 expended in ditching and on embankment, equal to an average of \$6 per mile, makes the whole sum \$299 per mile. The expense of maintenance of way on the Columbia branch was but \$138 per mile, including \$424 incurred in ditching and embankments, makes \$144 28.100 per mile. The difference in the expense per mile on the two roads, is explained by the different plan

of construction, and the different ages of the roads; the timber, with the exception of one short section on the Columbia road, not having had time yet to manifest decay or require renewal. The expense of maintenance of way on the Hamburg road, if preserved at the above standard, \$299 per mile, is as low, probably as it can be reduced to; while some addition to the amount incurred for the same objects on the Columbia branch, will become necessary as the age of the road and the business on it increases.

The report of Mr. Darrel, master of the workshops, presents the state and condition of the motive power owned by the company; and a favorable statement of the quantity of work done in the finishing and smithshops and foundry, and on the locomotives rebuilding and repairing, the last year. From his report, it appears he received from his predecessor as master of the shops, 23 locomotives of the 2d and 3d class; enumerating all which bore the name in the yard, and one new boiler finished. Of these locomotives, many of which, had been in the service of the South-Carolina canal and railroad company from its commencement of business in the years '31 and '32. Four are stated to have been in good order; 7 defective, and somewhat disabled, but performing road service; 6 repairing, and rebuilding, and 3 condemned; since which, 3 of those disabled, have run their career and been condemned; or laid up in ordinary for summer examination, and see to what profitable purposes they, or parts of them, can be applied. To the above locomotives, have been added the last two years, 6 of Balwin and Whitney's; 6 wheel connected locomotives of the 2d class. Deducting the 6 which have been condemned, or laid up in ordinary—and one (1) that is rebuilding, 22 may be considered as in a condition to be made fit for road duty, under occasional repairs; from 16 to 17 of which, have been kept in active service during the year ending 31st December, 1844: which is a very large proportion. It has been considered good policy, and particularly by those well acquainted with the delicate mechanism of the locomotive, so easily deranged, that companies should own double the number that they can keep constantly and profitably employed: and the best regulated English and American roads preserve very nearly this proportion. Where the opposite policy is pursued, locomotives often suffer; are soon destroyed, and rendered worthless from the want of timely and effectual reparation. When the business of the road presses, and in no modes of transportation, are the alternations from one extreme to the other, so frequent as on railways, temporary expedients, where there is a deficiency for the time of power, must be resorted to; and engines, though slightly disabled and easily repaired, are too frequently forced from necessity, on another trip to their more permanent injury, if not ruin; or taken in shop late at night, hastily overhauled, and rudely repaired by the light of the torch, so as to be replaced on road, for service, in time next morning. It is difficult, under such ar-

rangements, to preserve the locomotives in the best condition for profitable use; or to conduct the operations at the workshops, and regulate the transportation on the road with economy and satisfaction.

The Joint report of the general Agent, Mr. King, and the agent of transportation, Mr. Hacker, show that this company now have in service, for the very large and increased business which has devolved on it, but 18 passenger and baggage cars; and 233 freight cars; 147 of which, are of 4 wheels with canvass sides, and of considerable burden: the whole of them, not more than equal to accommodate the loads for 2 engines. Of these, one 8 wheel Passenger, one 8 wheel Baggage, thirty-two 8 wheel Box, and fourteen 8 wheel Platform Cars have been added during the year 1844, and at a cost to the Company for wood-work of \$7020, and for wheels and axles—as reported by Master of workshops, \$10,478, making for the whole \$17,498. Both of these officers, and whose duties and responsibilities afford them the best opportunity of forming correct opinions, concur in the necessity of an additional number of Passenger, Baggage and Burden Cars, to do the business of the road to the best advantage, with punctuality, and to the satisfaction of travellers and shippers. The want of more suitable and more enlarged accommodations at the depots at Charleston, Hamburg and Columbia, is the more strongly enforced by their testimony; and while these subjects have engaged the attention of the Board of Directors, whose term of service now expire; they cannot too strongly impress its importance on those who, by your selection, may be their successors in office for the present year. It may involve considerable expenditure in the first instance; but the interests of the Company, and its security and protection from probable heavy loss; and its ability, through active agents, to discharge with exactness and despatch its varied responsibilities as a common carrier, to all who travel and transport on the road, strongly recommend the necessity of more suitable, more commodious, and more permanent buildings at the workshops, and the three important depots at Charleston, Hamburg and Columbia, than at present exist.

At the last session of the Legislature, application was made by many of the citizens of Sumter and Kershaw, for aid in the form of a subscription, to assist in extending the S. C. R. Road, under a provision in its charter, to Camden. That body declined participating in the enterprise as a stockholder, but responded favorably to the application, so far as to authorize this Company to become joint stockholders with the citizens of that section of country through which the Road to Camden was to pass, and as a motive for this Company so to cooperate in the work, an act was passed authorizing the funding at 5 per cent. interest, and on time, of a debt which accrued under the law reducing the stock in the L. C. & C. R. R. Company, and which now stands to the credit of the State in the books of said

Company. A reference to the act will explain more satisfactorily its provisions. To enable the stockholders to act more advisedly on the subject, and at the particular solicitation of many of the citizens of Sumter and Kershaw, who had expressed an interest in the enterprise, a preliminary survey was ordered by the Board of Directors: Mr. Mac Rae, favorably known to the stockholders, was charged with the service, and his report and approximate estimate of the probable cost of the work, is herewith respectfully submitted. His estimate is based on two plans of superstructure. In the one, where a wooden stringer and light iron rail is used, the cost is estimated at \$450,000. In the other, where a heavier T rail is used, and the plan is made to conform to that of the Columbia Road, the cost is put down at \$540,696. In both estimates the present specific duty on rail iron at \$25 a ton is included—amounting to \$60,000 on the first, and \$90,000 on the last estimate. If the tax is remitted, or reduced to a revenue standard, there will be a corresponding decrease in the probable cost of the Road.

The Board of Directors, with much satisfaction, now report to the stockholders, the extension of the Georgia Railroad to Covington, 25 miles beyond its late terminus at Madison; and that the reported progress in the section above, removes all doubts as to the road being completed to Whitehall, the point of junction with the Western and Atlantic Railroad, by September or October next, and in time for the opening of the fall business. At the same period, such is the progress now making with the work on the Western and Atlantic Railroad, that that road will be completed and in operation to the Oostanaully, 84 miles beyond Whitehall and within 56 of the Tennessee River at Chatanouga, and 17 of the Coosa at Rome.

Within the last twelve months the condition of the West Point and Montgomery Railroad has been greatly improved, and active measures taken to extend it some five or six miles east of Chehaw. At the late session of the Legislature of Alabama, the 2 per cent. land fund, and amounting to about \$240,000, was appropriated in equal proportions, and on most favorable terms, to the completion of the West Point and Montgomery Road to the Chattahoochee, and to that of a newly projected road connecting the Coosa, by Will's Creek Valley and the Sand Mountain, with Guntar's Landing on the Tennessee. All these events go to approve the late action and policy of a majority of your Board of Directors in cooperating to the extent of their ability with the Georgia Railroad and Banking Company, and the West Point and Montgomery Railroad Company, for the completion of their respective enterprises, estimating them as important links, in common with that of the South Carolina, in that great chain of railroad intercommunication connecting the extreme eastern with the most south-western extremities of the Union—an enterprise in which not only this Company, but the city of Charleston and State of South Carolina, cannot but feel the deepest interest, and ac-



knowledge the important influence its completion must have on the prosperity of each.

All of which is respectfully submitted by  
JAMES GADSDEN, President.

*Schuylkill Navigation.*—We hope the anticipations of the editor of the U. S. Gazette may be more than realized in the results of this work.

It will be seen by an advertisement in our paper of this morning, that the company are prepared to receive proposals for the enlargement of their work. We congratulate our friends upon their success in obtaining the necessary funds to carry out this interesting improvement. The amount required for present operations has been promptly furnished by our own fellow citizens, who understand the subject, appreciate the importance of the Navigation, and have confidence in its success. We may now look forward to a bright day again in our City Finances, which are so intimately connected with the prosperity of this great work: its completion may also be expected to exercise the happiest influence upon our commerce and manufactures. The Engineers who have furnished the plans and estimates, are well known to us: they are entitled to and enjoy the fullest confidence of this community. According to their reports, an expenditure of one-fourth the present cost of the works, will increase their capacity three-fold. It is estimated by the highest authority, that the cost of transportation will thus be reduced one-third to one-half. There is no longer the slightest reason to doubt that the enlargement and improvement will be vigorously prosecuted to completion. We understand that proposals have already been made on a large portion of the heaviest work, at rates within the estimates of the Engineer, by competent contractors.

*Increase of Railway Traffic.*—Wills' Liverpool share circular gives a list of 25 Railways which shows an increase of receipts, during the first eight weeks of this year, as compared with the corresponding period of last year, of £100,612. which will give, should the same ratio of increase continue through the year, an increase of £653,678 or over three millions of dollars.

Birmingham and Gloucester, 2,677l.; Chester and Birkenhead, 514l.; Eastern Counties, 2,173l.; Edinburgh and Glasgow, 1,934l.; Glasgow, Paisley, and Greenock, 1,611l.; Glasgow, and Ayr, 1,597l.; Grand Junction, 5164l.; Great North of England, 1,932l.; Great Western, 16,117l.; Liverpool and Manchester, 3,245l.; London and Birmingham, 5,411l.; London and Brighton, 2,618l.; London and South Western, 2,315l.; London and Croydon, 1,214l.; Manchester and Birmingham, 3,413l.; Manchester, Bolton, and Bury, 636l.; Manchester and Leeds, 5,043l.; Midland Railway, 10,314l.; Newcastle and Carlisle, 1,633l.; North Union, 2,839l.; Preston and Wyre, 899l.; Sheffield and Manchester,

1,126l.; South Eastern and Dover, 15,143l.; Ulster, 124l.; York and North Midland, 1,070l.—From Mr. J. Will's Liverpool Share Circular.

#### INSTITUTION OF CIVIL ENGINEERS.

The paper read was "a description of the Great Britain steam ship, with an account of the trial voyages," by Mr. T. R. Guppy, Assoc. Inst. C. E., under whose superintendance the vessel and engines were constructed. The paper first gave an account of the origin of the Great Western Steam Ship Company, by a few of the proprietors of the Great Western Railway, who thought that, when their railway was completed, Bristol would become the natural port for a direct line of communication with New York—hence the building of the Great Western steamer, which succeeded beyond the expectation of the proprietors, with the single exception, that, like many other steamers, the machinery and fuel occupied so great a space, comparatively with that devoted to passengers and goods, as to operate prejudicially in a pecuniary point of view. The company then projected a second ship, and, after much consideration, decided upon building it of iron, with peculiar direct acting engines; and, in consequence of the apparent success of the experimental Archimedes, they determined upon using the screw propeller. The details of the construction, with the dimensions, were then given: of the latter, as they have so repeatedly been published, it will suffice to mention only a few. The length of keel, 289 feet—length aloft, 322 feet; main breadth, 50 feet 6 inches; depth of hold, 32 feet 6 inches; tonnage, 3,444 tons. The weight of iron used in the hull is 1,040 tons; the weight of wood work, in decks, &c., is 370 tons; weight of the engines and boilers, without water, is 520 tons; the total weight is, therefore 1,930 tons. She will take 1000 tons of coal, and 1000 tons of measurement goods, at a draft of 17 ft. water forward, and 17 ft. 6 in. aft. Our limits will not permit us to enter into the details of the construction, which were fully given in the paper, and amply illustrated by numerous drawings and models to a large scale, covering the walls and table. The advantages of the water-tight bulkheads in preventing dangers from a leak in any one compartment, in case of fire, and for tying and stiffening the vessel, were strongly insisted upon. The action of the screw propeller was then fully treated, and from the tabulated result of the experiments, on several kinds of screws, it appeared, that, with the Archimedes the greatest velocity of the vessel (which was 8.375 knots) was attained with a screw 5 feet 9 inches in diameter, the angle of which was 19½ degrees. The slip was 21 per cent., and the ratio of speed of the vessel to that of the screw, was as .787 to 1. Subsequent alterations in form gave improved results, and governed the form of the screw made for the Great Britain. It was of wrought iron, with six arms, 15 feet 6 inches in diameter, with a pitch, or helix, of 25 feet to one revolution, which equals an angle of 28 degrees; the

area of the six palms was 56½ feet, and its weight was 77 cwt. The engines employed to drive this screw consisted of four cylinders, each 88 inches in diameter, with six feet stroke, working with steam at 4½ lbs. pressure, and cutting it off at one-sixth—the length of the stroke. The connecting rods act directly in pairs upon crank pins, at either end of the main shaft, 17 feet long by 28 inches in diameter. Upon the main shaft is a toothed drum, 16 feet diameter, around which work four pitched chains, encircling also a lower drum, 6 feet in diameter, upon the propeller shaft. The chains work quietly and smoothly; and, when the engines are making 18 revolutions per minute, the speed being nearly 2.95 to 1, the screw makes about 53 revolutions per minute. A considerable portion of this shafting was 30 inches diameter, hollow, and formed of two courses of plates, three-fourths of an inch thick, rivetted together.

The slip of the screw was also discussed at length, and it appeared that in one trial (the engines making 18½ revolution, the speed of the vessel being 12½ knots) the speed of the vessel was as .907 to one of the screw. The details of the dimensions of the boilers were given, but owing to the sea-sickness of the stokers on the voyage, no account of the consumption of fuel could be given. The account of the trial trips in the British Channel, and of the voyage from Bristol to London, abounded in curious facts. It appeared that with the engines making 18½ revolutions, the speed of the vessel would be 11½ knots, and the slip of the screw 13 per cent.; even during the voyage round, with a heavy gale dead against her, she made upwards of 9½ knots. The ship behaved remarkably well, steered well, and, although disadvantageously loaded, with no weight in her bottom, she rolled easily. In the heaviest weather the engines worked uniformly, and never made those variations in speed, which are observed in steamboats when the paddle-wheels are alternately plunged deeply and then nearly out of the water.

In the conversation which ensued, and in which Sir Charles Napier, Captain Hosken, and several naval men, as well as the engineers, took part, the principles and the comparative advantages of the paddles and the screw were discussed. It was allowed, that for sea-going steamers, the screw possessed great advantages, and particularly for war steamers, the present construction of which Sir Charles Napier condemned in toto. Few men have had more opportunities of forming a more accurate opinion, as he has directed his attention to the subject for upwards of twenty years, having been interested in, and commanded in her first voyage, in 1821, the Aaron Manby, which was the first iron steam vessel that ever went to sea, and which conveyed a cargo from London to Paris direct, without transhipment. Capt. Hosken gave an unqualified approval of the Great Britain as a weatherly ship, and of the screw as a means of propulsion at sea. The discussion was adjourned until next Tuesday, (March 11).—Mining Journal.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
							Per share.	Per cent. per annum.				
Arboath and Forfar.....	15	102,000	35,000	138,870	.....	.....	0	12 6 2	10 0	25	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5 0 2	10 0	100	Barnsley Junction.....	200,000
Branding Junction.....	23	161,700	365,470	481,452	.....	.....	.....	4	10 0	50	Belfast and Ballymena....	385,000
Bristol and Gloucester.....	37½	400,000	211,000	.....	.....	.....	.....	.....	.....	54	Blackburn and Accrington..	400,000
Chester and Birkenhead.....	14½	750,000	143,170	518,989	5,856	13,148	0	8 6 1	14 0	50	Birk. and Ches. Junction..	1,000,000
Dublin and Drogheda.....	31	450,000	150,000	500,869	.....	.....	.....	.....	.....	52	Bolt., Wigan and Liverpool	800,000
Dublin and Kingston.....	6	200,000	152,200	359,000	.....	.....	6	0 0 6	0 0	100	Caledonian.....	1,800,000
Dundee and Arbroath.....	16½	100,000	49,445	153,416	2,989	6,993	1	5 0 5	0 0	25	Cambridge and Lincoln...	1,250,000
Durham and Sunderland.....	18½	169,350	124,055	270,392	9,889	17,702	.....	.....	.....	55	Chatham and Portsmouth..	5,000,000
East County and North and East..	86½	4,443,200	3,411,555	3,931,905	47,385	118,726	.....	6 6	.....	45	Chester and Wrexham....	120,000
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1	2 6 4	10 0	50	Churnet valley.....	1,800,000
Glasgow, Paisley and Ayr.....	51	937,500	.....	1,066,951	12,416	36,736	1	2 6 4	10 0	50	Direct Northern to York...	4,000,000
Glasgow, Paisley and Greenock...	22½	650,000	216,666	787,884	11,572	23,177	0	5 0 2	0 0	25	Dublin and Belfast.....	950,000
Grand Junction.....	10½	2,478,712	.....	2,453,169	84,309	195,080	5	0 10 0	0 0	100	Dundee and Perth.....	250,000
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1	12 6 3	5 0	100	Edinburg and Northern...	800,000
Great Western.....	221½	4,650,000	3,079,343	7,272,539	132,235	369,904	3	10 0 7	0 0	75	Ely and Bedford.....	270,000
Hartlepool.....	15½	438,000	155,540	719,305	.....	.....	.....	8	0 0 0	100	Glasgow, Dum. & Carlisle.	1,300,000
Leicester and Swannington.....	16½	140,000	140,000	.....	2,207	6,317	1	5 0 5	0 0	50	Gt. South and West Ext....	1,200,000
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5	0 0 10	0 0	100	Gt. Grimby and Sheffield..	600,000
Llanelly.....	27	200,000	44,000	221,624	.....	.....	1	0 0 2	0 0	87	Harwich and E. coun. Jun.	160,000
London and Birmingham.....	12½	6,874,976	9,288,845	6,393,468	92,823	405,768	.....	10	0 0 0	100	Huddersfield & M. rl. & cl.	600,000
London and Blackwall.....	3½	804,000	266,000	1,315,640	15,978	23,878	.....	.....	.....	16	Kendal and Windermere...	125,000
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0	12 0 2	2 8 0	50	Leeds and Dewsbury.....	400,000
London and Croyden.....	8½	550,000	229,000	761,885	7,583	10,545	0	5 0 2	10 0	14	Leeds and Thirsk.....	800,000
London and Greenwich.....	3½	759,383	233,300	1,040,930	15,193	28,933	.....	.....	.....	13	Liv. Ormskirk and Preston	600,000
London and South Western.....	92½	2,222,100	630,100	2,596,291	68,457	150,469	1	12 6 6	10 0	41	London and Portsmouth..	1,750,000
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1	0 6 5	0 0	40	London and York.....	5,000,000
Manchester and Bolton.....	10	778,100	197,730	773,743	8,565	21,140	2	4 10 0	.....	93	Londonderry & Enniskillen	500,000
Manchester and Leeds and Hull...	81	2,937,500	1,943,932	3,921,593	46,653	156,761	.....	7 1/2 & 10 1/2	.....	60	Lynn and Ely.....	200,000
Midland railway.....	178½	5,158,900	1,719,630	6,279,056	76,983	281,898	.....	.....	.....	100	Manchester, Bury and Ross	300,000
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947	4	0 0 4	0 0 0	100	Manchester and Buxton...	250,000
Newcastle and Darlington.....	23	500,000	.....	405,728	.....	.....	.....	.....	.....	21	Mullingar and Athlone....	.....
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466	.....	2 0 0	.....	50	Newcastle and Berwick...	700,000
North Union.....	39	739,201	308,306	1,015,417	9,071	37,794	2	10 0 6	16 8	100	Richmond & W. End Junc.	.....
Paris and Orleans.....	82	1,600,000	400,000	1,978,415	.....	.....	.....	0 16 0	8 0 0	20	Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000	.....	.....	31,247	91,171	.....	.....	8 0 0	20	Sheffield and Lincolnshire.	650,000
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066	.....	.....	.....	50	Shrewsbury and Gd. Junc.	400,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876	.....	.....	.....	82	Shrew. Wolv. Dudley & B..	900,000
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0	10 6 2	2 2 0	50	Trent Valley.....	900,000
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1	0 0 6	5 0 0	100	West London Extension...	64,000
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0	15 0 5	1 8	29	West Yorkshire.....	1,000,000
Yarmouth and Norwich.....	20½	187,500	62,500	230,250	.....	.....	.....	.....	.....	16	Whitehaven and Maryport	100,000
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,732	2	10 0 10	0 0 0	50	FRENCH RAILWAYS.	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10	.....	15½	15½	Loughborough.....	70	142½	142½	70	1140	.....
Anti Dry Rot.....	10,000	10	18½	.....	2	.....	Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35	.....	34½	.....	Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27½	27	Mersey and Irwell.....	500	100	100	10	.....	.....
Gt Western Steam Pa.....	.....	.....	100	.....	25	.....	Macclesfield.....	3,000	100	100	2½	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6½	.....	Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1½	.....	Oxford.....	1,786	100	100	30	505	.....
Peninsular and Oriental..	11,493	50	50	7	64½	65	Regents or Loncon.....	21,418	33½	33½	2½	25	25
Ditto.....	3,200	50	40	7	.....	.....	Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....	.....	.....	6	.....	.....	.....	Somerset coal.....	800	150	150	7½	123	123
Reversionary Int. Soc.....	53 2/3	100	100	4½	104	104	Stafford and Worcester...	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60	.....	36½	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5	.....	.....	.....	Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7½	10	15	.....	Stroudwater.....	200	150	150	19	.....	.....
Thames Tunnel.....	4,000	50	50	.....	.....	.....	Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100	.....	.....	.....	Severn & Why & Rail Av.	3,762	26½	26½	5½	30	30
Ashby de la Zouch.....	1,432	113	av.	4	70	70	Trent and Mersey.....	2,600	50	50	65	495	.....
Barnsley.....	720	100	100	14	180	180	Thames and Medway.....	8,149	19½	19½	.....	10	10
Birmingham, 1-16 share..	3,000	118½	79	10	150	160	Warwick and Birmingham.	7,000	100	100	10½	167	.....
Do. and Liverpool Junction	4,000	160	100	.....	13½	13½	Warwick and Napton.....	986	100	100	8½	122	.....
Coventry.....	500	100	100	20	365	365	Water Works.						
Cromford.....	460	do.	do.	24	250	250	Birmingham.....	4,800	25	25	3½	28	28
Derby.....	600	do.	do.	9	105	105	East London.....	4,433	100	100	8	223	225
Erewash.....	231	do.	do.	32	440	440	Grand Junction.....	5,500	av.	41 2-3	7½	88	90
Forth and Clyde.....	1,297	400½	40½	4	440	440	New River L. B. Ann.....	1,500	.....	.....	2½	.....	.....
Grand Junction.....	11,600	100	100	7	162	161½	Manchester and Salford	6,486	av.	30	8½	57	57
Grand Surrey.....	1,500	do.	do.	.....	20	.....	Vauxhall, lt. S. London...	1,000	.....	100	5	55	55
Gloucester and Rerkley...	5,000	do.	do.	.....	8	8	West Middlesex.....	8,294	av.	63½	6½	126	127
Grantham.....	749	150	150	8	185	185	Docks.						
Lancaster.....	11,699	47½	47½	3	40	40	Commercial Dock.....	1,065	100	100	3	80	.....
Leeds and Liverpool.....	2,897	100	100	34	640	640	East and West India.....	.....	sto.	.....	5½	137	.....
Lieicester.....	545	140	140	9	139	139	London.....	3,238,310	sto.	.....	4½	114½	115
.....	.....	.....	.....	.....	.....	.....	St. Katharine.....	1,352,752	sto.	.....	5	116	171
.....	.....	.....	.....	.....	.....	.....	Southampton.....	7,000	50	50	.....	.....	.....



AMERICAN RAILROADS.

RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843. Income.		Div. per cent.	1844. Income.		Div. per cent.	Previous prices.	SALES.		
						Gross.	Nett.		Gross.	Nett.			Week ending April 23d.	Price	
Me. 1 Portland, Saco and Portsmouth.....	50	1,200,000	.....	.....	.....	89,997	47,166	7	124,497	74,841	6	113½	102		
N. H. 2 Concord.....	35	750,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	70½	130½	
Mass. 3 Boston and Maine.....	56	1,485,461	.....	.....	.....	178,745	68,499	6	233,101	86,401	6½	110½	112½		
" 4 Boston and Maine extension.....	17 1-4	455,703	unfin.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 5 Boston and Lowell.....	26	1,863,746	.....	.....	.....	277,315	144,000	8	316,909	147,615	8	120½	120		
" 6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	108½	109½		
" 7 Boston and Worcester.....	44	2,914,078	.....	.....	.....	4 0,141	162,000	6	428,437	195,163	7½	116½	117½		
" 8 Berkshire.....	21	250,000	not stated	.....	.....	.....	.....	7	17,737	.....	.....	.....	.....	.....	
" 9 Charlestown branch.....	.....	280,260	.....	.....	.....	.....	.....	13	34,654	13,971	5½	70½	82½		
" 10 Eastern.....	54	2,388,631	.....	.....	.....	279,563	140,595	6	337,238	227,920	8	109½	109		
" 11 Fitchburg.....	50	1,150,000	just op'n'd	.....	.....	.....	.....	.....	42,759	26,835	.....	120	124		
" 12 Nashua and Lowell.....	14 1-2	380,000	.....	.....	.....	84,079	.....	8	94,588	34,944	10	121	126½		
" 13 New Bedford and Taunton.....	20	430,962	.....	.....	.....	50,671	24,000	6	64,998	24,000	6	.....	.....		
" 14 Northampton and Springfield.....	.....	172,883	unfin.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 15 Norwich and Worcester.....	59	2,170,366	900,000	16,535	100	162,336	24,871	.....	230,674	99,464	3	70½	72		
" 16 Old Colony.....	.....	87,820	unfin.	.....	.....	.....	.....	.....	.....	.....	.....	102	104		
" 17 Stoughton branch.....	4	63,075	unfin.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 18 Taunton branch.....	11	250,000	.....	.....	.....	.....	20,000	8	96,687	20,000	8	118	.....		
" 19 Vermont and Massachusetts.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 20 West Stockbridge.....	3	41,516	200	.....	100	.....	.....	.....	.....	.....	.....	4	.....	.....	
" 21 Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000	.....	573,882	284,432	.....	753,753	439,679	3	102½	101½		
" 22 Worcester branch to Milbury.....	.....	8,431	506	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 23 Housatonic, (10 months,).....	74	1,244,123	.....	.....	.....	.....	.....	.....	150,000	.....	.....	82	.....	.....	
Con. 24 Hartford and New Haven.....	33	1,100,000	100,000	10,000	100	.....	.....	.....	.....	.....	6	89	94½		
" 25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 26 Stonington; (year ending 1st Sept.).....	48	2,600,000	650,000	13,000	100	113,889	.....	.....	154,724	79,845	.....	41	39½		
N. Y. 27 Attica and Buffalo.....	31	336,211	.....	.....	.....	45,896	7,522	.....	73,248	48,033	0	.....	.....	.....	
" 28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000	.....	237,667	152,007	6	106	.....	.....	
" 29 Auburn and Syracuse.....	26	766,657	.....	.....	133½	86,291	27,334	.....	96,738	52,544	6	116	.....	.....	
" 30 Buffalo and Niagara.....	22	200,000	.....	1,500	.....	.....	.....	.....	.....	.....	.....	100	.....	.....	
" 31 Erie, (446 miles,).....	.....	5,000,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	31½	29		
" 32 Erie, opened.....	53	.....	.....	.....	.....	.....	48,000	.....	126,020	59,075	.....	.....	.....	.....	
" 33 Harlem.....	26	1,206,231	.....	.....	.....	.....	.....	.....	140,085	62,399	.....	70	72		
" 34 Hudson and Berkshire.....	31	575,613	.....	.....	50	.....	.....	.....	35,029	1,941	0	14	.....	.....	
" 35 Long-Island.....	96	1,610,221	392,340	29,846	.....	.....	.....	.....	153,456	58,996	0	75½	76		
" 36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780	.....	79,804	45,763	0	64½	61		
" 37 Saratoga and Schenectady.....	22	303,658	.....	.....	.....	42,242	3,000	1	34,666	8,455	0	.....	.....	.....	
" 38 Schenectady and Troy.....	20 1-2	640,800	.....	.....	.....	28,043	.....	.....	32,646	6,365	0	.....	.....	.....	
" 39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000	.....	192,061	120,992	8	115	.....	.....	
" 40 Tonawanda.....	43	727,332	.....	.....	.....	76,227	.....	.....	114,177	75,865	5	.....	.....	.....	
" 41 Troy and Greenbush.....	6	180,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 42 Troy and Saratoga.....	25	475,801	.....	.....	.....	44,325	21,000	.....	38,502	9,971	2½	.....	.....	.....	
" 43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,091	8	129	.....	.....	
N. J. 44 Camden and Amboy.....	61	3,200,000	.....	.....	.....	682,332	383,880	.....	784,191	404,956	.....	110½	111		
" 45 Elizabethtown and Somerville.....	26	500,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 46 Morris and Essex.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 47 New Jersey.....	34	2,000,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	93½	.....	.....	
" 48 Paterson.....	16	500,000	.....	.....	.....	.....	.....	.....	.....	.....	6	85	.....	.....	
Pa. 49 Beaver Meadow.....	26	1,000,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 50 Cumberland Valley.....	46	1,250,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 51 Harrisburg and Lancaster.....	36	860,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	30	.....	.....	
" 52 Hazleton branch.....	10	120,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 53 Little Schuylkill.....	29	900,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 54 Blossburg and Corning.....	40	600,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 55 Mauch Chunk.....	9	100,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 56 Minchill and Schuylkill Haven.....	18	315,000	.....	.....	.....	.....	.....	12	.....	.....	.....	143½	.....	.....	
" 57 Norristown.....	20	800,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	6½	7		
" 58 Philadelphia and Trenton.....	30	400,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	104	.....	.....	
" 59 Pottsville and Danville.....	23 1-2	1,500,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 60 Reading.....	91	9,457,570	7,447,570	40,290	50	.....	.....	.....	597,613	343,511	.....	50½	49		
" 61 Schuylkill valley.....	10	1,000,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 62 Williamsport and Elmira.....	25	400,000	.....	.....	.....	20,000	.....	.....	.....	.....	.....	.....	.....	.....	
" 63 Philadelphia and Baltimore.....	93	4,400,000	.....	.....	.....	43,043	200,000	.....	.....	210,000	.....	43½	42		
Del. 64 Frenchtown.....	16	600,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Md. 65 Baltimore and Ohio, (1st Oct.).....	188	7,623,600	.....	.....	.....	575,235	279,402	.....	658,620	346,946	.....	48½	50½		
" 66 Baltimore and Susquehanna.....	58	3,000,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	6		
" 67 Baltimore and Washington.....	38	1,800,000	.....	.....	.....	177,227	71,691	.....	212,129	104,529	.....	84	.....	.....	
Va. 68 Greensville and Roanoke.....	17 12	260,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 69 Petersburg and Roanoke.....	60	969,880	.....	.....	.....	.....	.....	.....	122,871	72,898	3	.....	.....	.....	
" 70 Portsmouth and Roanoke.....	78 1-2	850,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 71 Richmond and Fredericksburg.....	61 1-2	1,200,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 72 Richmond and Petersburg.....	22 1-2	700,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 73 Winchester and Potomac.....	32	500,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
N. C. 74 Raleigh and Gaston.....	84 1-2	1,360,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 75 Wilmington and Raleigh.....	161	1,800,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
S. C. 76 South Carolina.....	136	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 77 Columbia.....	66	5,671,452	.....	34,410	75	201,464	77,456	.....	532,871	140,196	5	.....	.....	.....	
Ga. 78 Central.....	190	2,581,723	.....	.....	.....	227,532	93,190	.....	328,425	180,704	.....	.....	.....	.....	
" 79 Georgia.....	147 1-2	2,650,000	.....	.....	.....	248,026	158,207	.....	248,096	147,523	.....	.....	.....	.....	
Ky. 80 Lexington and Ohio.....	40	500,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ohio 81 Little Miami.....	40	450,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
" 82 Mad river.....	40	400,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ind. 83 Madison and Indianapolis.....	56	152,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Can. 84 Champlain and St. Lawrence.....	15	212,000	.....	.....	.....	.....	12,000	.....	58,000	24,000	110	.....	.....	.....	

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Thursday, April 24, 1845.

NEW YORK AND ALBANY RAILROAD.

The passage of the following very important resolution would seem to render the construction of a railroad hence to Albany almost certain. The complete failure of the Hudson and Mohawk railroad prevented the citizens of Albany from embarking in similar projects for some years, but the success of their efforts to aid the Western railroad has fortunately shown them that skill and character can succeed in undertakings far less promising than those which have turned out worthless where these attributes existed only in minute quantities. We have nothing definite as to the charters which are asked for by the rival companies.

At a meeting of the common council of the city of Albany, held at the city hall in said city, on the 13th day of April, 1845: present the mayor and recorder, aldermen Archer, Bleeker, Coley, Goold, Haswell, Hanson, McCollom, McKnight, Penury, Phelps, Pruyn, Ramsey, Spears and Wescott.

His hon. the recorder offered the following resolution, which was unanimously adopted:

Whereas, an application is now pending before the legislature for an act to provide for the construction of a railroad from the city of New York to the city of Albany, on the east side of the Hudson river,

And, whereas the establishment of such a communication with the commercial metropolis of the State is, in the opinion of the board, highly desirable, and would tend greatly to promote the interests and prosperity of Albany,

Resolved, therefore, that the common council of this city, in case of the passage of the act aforesaid, will afford all the facilities and assistance in their power towards the construction of said road, and for that purpose consent and agree to take on their part the like action, to extend aid to the same, by the loan of the credit of the city, in the same manner, and to the like extent and amount, as was heretofore done in relation to the Albany and West Stockbridge railroad. A true extract from the minutes.

J. H. H. PARSONS, Clerk Com. Coun.

RAILROAD IRON.

The Portland Advertiser shrewdly observes that, by the time they want their iron, say a year or two hence, the price will be considerably lower than at present. We perceive by our late railway journals, that purchases and orders are to the smallest possible extent in England, and, when we consider that the average price two years ago was £8, and that it is now reported at £14 per ton, it is pretty clear that competition in England will remove this veto on the railway system in the United States. We are sorry to say that we rely on competition in England; for the American iron-masters appear to consider railroad iron as unworthy their notice. We have understood from pretty good authority that not a bar of

T rail has yet been rolled in the three great anthracite and iron districts of Pennsylvania! Indeed our informant could not ascertain that even flat bars had been rolled in the "iron region" of the United States! The exorbitant price at this moment effectually deters any new undertakings, as a reaction is naturally expected; but those works which for the last year or two have been holding out such large promises, might have shown us something, for we have not heard of a single mile of railway of American T rail which is traversed by the locomotive. In judging of the price hereafter, it must be remembered, that the consumption of iron is increasing from a variety of causes, and that the extreme low prices of 1844 are almost as unlikely as they are certainly undesirable. In the course of twelve months we hope that rails may be quoted at £8 per ton, a fair price in 1835, and a profitable one now. As we observed some time since, the high price of railroad iron will be severely felt by our western friends in Ohio, Michigan, and Indiana, and by the agricultural interest generally, for that first of all pursuits has more to expect from the extension of the railway system than from any other course, to raise it from the depressed condition in which it lies.

ZINC MINES OF NEW JERSEY.

Mr. Francis Alger, of South Boston, a gentleman well known for his devotion to the study of mineralogy, has published a small pamphlet on the zinc mines of Franklin, Sussex county, N. Jersey. This district has long been famous among geologists, and now bids fair to become as interesting to the manufacturer. These beds extend about four miles, and are supposed to contain "the only deposit of oxide of zinc at present known to mineralogists."

"Taking the specific gravity of the red oxide at 5.420, we have 340 lbs., (very nearly) the weight of each cubic foot. One-half of this is 170 lbs., or the quantity of red oxide in each cubic foot of the ore, as it averages. Oxide of zinc contains 81 per cent. of pure metal; consequently 170 lbs. of the ore contain 137 lbs. pure metallic zinc. The length of the bed visibly exposed at Sterling is more than 600 ft.; its depth we will assume to be 100 ft., which will be as deep as it can be conveniently drained. Its average width cannot be less than 4 ft. Now, 600 x 4 x 100 = 240,000 cubic feet of ore, each of which contains 170 lbs. of red oxide. Again, 240,000 x 170 = 40,800,000 lbs. of red oxide, which, yielding 81 per cent. of pure metal, gives of it, 33,048,000 lbs. This, multiplied by 6 cents, the average market value of zinc, will give \$1,982,880—the value of zinc within the limits mentioned. Nature has provided every local advantage that could be wished for the easy exploration of the mines; and embracing every expense preparatory to the reduction of the ore, including its reduction also, it is pretty well ascertained that the metal may be obtained in the large way at a cost not exceeding three cents per pound. Here, then, there would be a clear profit, deducting the cost of buildings, and the expenses of transportation to market, of nearly \$1,000,000. If we suppose the quantity of ore consumed daily to be ten tons, (a small estimate) only five years will be required to work up the ore contained in the space mentioned."

"CANADIAN RAILROAD.

"We are happy to learn by a correspondence in the "Chatham Gleaner," that the subject of constructing a railroad from Windsor, opposite this city, to the Niagara river, is again being agitated in the province. There can be no doubt that this work—making a connecting link between our Central railroad and the New York and Massachusetts roads, and thus forming an almost unbroken chain from Boston to Chicago—would yield a profitable and increasing revenue.

"It appears that two charters have been obtained for a railroad from Niagara river to a point nearly opposite Detroit. One is to keep the lake shore, through Talbot street, Long Point and Fort Erie; while the other will pass through the chief towns,

viz: Chatham and London on the Thames, Woodstock, Oxford, Brantford, Hamilton and St. Catharine's to Queenston."—[Detroit Journal.]

Here we have two charters, where one road is almost too much to be expected, even with perfect harmony and unity of action in the leading men of that entire section of the province.

The following acts were passed during the late session of the Canadian legislature:

An act to incorporate the St. Lawrence and Atlantic railroad company.

An act to revive certain provisions of the act incorporating the Great Western railway company, and to enable them to carry on that work.

An act to amend an act passed in the sixth year of the reign of his late majesty king William the fourth, entitled, An act to incorporate the city of Toronto and lake Huron railroad company.

We are under obligation to J. E. Bloomfield, Esq., for Mr. Morrison's report on "a reduction of fare and the appointment of a railroad commissioner."

The report takes decided ground against both, and from many of the remarks we are glad to perceive that our legislators are becoming better acquainted with the subject of public works, properly so called, and begin to comprehend the vast difference between works to facilitate the intercommunication of our citizens and works to extort money in the shape of taxes, or by other equally disagreeable means—as the state monopoly of western freight.

We are obliged to defer our remarks on the Central railroad, but will endeavor to give them and the report of the president in the next number. In this number we give the report of the engineer nearly entire.

We tender our thanks to the Hon. John A. Dix, of the U. S. senate, for valuable congressional documents.

The bill releasing the Erie railroad company from the State lien of three millions, on certain conditions, has just passed.

The legislature of Pennsylvania has refused to admit the Erie railroad within the borders of that State.

The mayor of Baltimore has signed the amended bill to forward the iron and coal trade of that city.

The price of iron in England is still advancing; sales of Welsh pig at £7 10s. Scotch, £6.

Freights from Cleveland to New York, via Buffalo, 70 cts. per bbl; via Oswego, 2 cts. less.

We understand that on Thursday last, the Eastern railroad company unanimously accepted the charter recently granted for a branch railroad to Gloucester, Mass., and will proceed to construct it as soon as practicable.

The Fitchburg railroad company have purchased the property owned and occupied by the hon. Benjamin Thompson, in Charlestown, near the depot, for \$24,000. The same property, we understand, was offered some time since to the Charlestown branch railroad company, for \$8,000.

It is said that the subscriptions to the stock of the Providence and Worcester railroad company have advanced so far as to leave but little doubt that the project will succeed. More than \$400,000 have been subscribed; and at a meeting in Uxbridge, on Friday, which was addressed by hon. Linus Child, committees were appointed to obtain further subscriptions.

## RATES OF FREIGHT.

The forwarders on the Erie canal have opened the campaign with lower rates of freight than ever before known. They advertise to carry flour from Buffalo to Albany for 55 cents per barrel; and as 35 cents of this amount goes to the State for toll, they receive only 22 cents for carrying a barrel of flour 363 miles. At the rate of the Western railroad they would receive only 45 cts., including tolls. On the Hudson, also, the rates are reduced 20 per cent. Last year they carried flour for 10 cents per barrel; now they charge only 8 cents. There was a combination among the forwarders in '44, to keep up the price; now they combine to reduce it. The charge, during the past season, was 67½ cents per barrel of flour from Buffalo to New York; now it is 63 cents, (55 + 8) or 24½ cents per barrel less. The profits of the past season must have been great, or they are now engaged in a ruinous business. At these rates there will be little inducement to use the Welland canal, and discriminating tolls will be as unnecessary as they appear to be, and, we hope, are likely to continue, impracticable. Had the enlargement not been commenced, the tolls might have been reduced to 20 cents per barrel of flour; when the total charge would have been 42 cents—little more than the rates from Kingston to Montreal. Still we do not believe even this advantage would have diminished the trade via the St. Lawrence. The flour which goes that way *must* take that route, or remain in the west; it is not, as we have often explained, *diverted* from the Erie canal, but it is so much additional purchased from the western farmer, who would gladly furnish them ten times as much, without in any way diminishing the quantity sent to the New York market, or even increasing the price.

Many will imagine that the Western railroad carries at less than cost, but it must be remembered that they charge the same for flour delivered on the line, that they have large quantities of return freight, and that, as a certain number of freight trains must be run per day, they may as well be filled, even at a low charge. There are also a variety of local inducements, which have their influence, and very properly too. Lastly a railway doing a large business in passengers and light freight can afford to carry coarse articles in large quantities at very low rates, and this is in fact the secret of the success of our northern roads. They accommodate themselves to the wants and wishes of the community, both as to travelling and the transportation of freight: on the same road

a passenger train may run 25 miles per hour, and a freight train 6 miles per hour. Neither a canal nor a common road can do one or the other, and north of Pennsylvania, the former mode of communication is liable to the insuperable disadvantage of being closed nearly half the year, including that most important period before winter shuts up the rivers and lakes, when the products of the husbandman's toil are ready for market.

We perceive that coal freights from Philadelphia are one dollar per ton to this city, and \$1 45 to Albany, and that there is a great want of vessels to load with coal at Baltimore. In our last and previous numbers we have given statements of the charges on many of the principal lines of the country, and at this season of the year, there are few more important topics.

We find the following in the *Burlington Free Press*, the only paper—American or Canadian—in which we have seen any notice of the extension of the St. John's railroad.

"We took occasion, yesterday, to call the attention of our readers to this subject—and the more we reflect upon it the more thoroughly do the magnitude and importance of the work become impressed upon our minds. The great engrossing topic of this community, at the present time, should be the completion of this road. Every man who regards the welfare and prosperity of New England—and especially of the capital of New England—should engage himself in this work. The railroad from Boston to Montreal must be built; and the sooner it is commenced, the better it will be for the people of Boston.

"On the subject of the construction of this road, we publish the following extract of a letter from a highly respectable gentleman, of Burlington, Vt., who is probably better acquainted with the business of Canada east than any other man in New England.

"The project of connecting Montreal by railroad, with the seaboard, either at Portland or Boston, via Stanstead, appears to me one of those wild schemes which sometimes gain favor for the moment, but which when examined, suddenly vanish into thin air. I have never felt a moment's hesitation on this subject. I have had considerable acquaintance with Canada, residing at Montreal from 1834 to 1841, and my business led me frequently into the country. I do not believe that all the business on the road, during the winter months, would keep the track clear of ice and snow, and, during the remainder of the season, that part of the old road leading through the French settlements, though densely populated and over a good soil, would receive little or no patronage from the inhabitants along the line. The Canadian French patronize nothing but a

cart and poney. The friends of that road cannot now expect to build it with English funds; for the provincial parliament, in granting the charter, omitted to guarantee any dividends on its stock, and this has been considered an essential feature in commending the project to capitalists. Canadians, off the route, will be very slow in taking its stock. Their subscriptions when made, will be for the extension of the St. Johns road to the province line, to connect with our road to Boston.

"The route from Burlington to Canada presents no obstacles, more difficult to overcome, than the same distance east or south. The statement, of late so industriously circulated to the contrary, was the offspring of ignorance or malice, and gains no credit with even the Canadians who favored the Stanstead route. I presume measures will be taken, north of us, to cause a survey during the approaching summer.

"The bill chartering a railroad from Ogdensburgh to lake Champlain has passed the N. York house of assembly, and a favorable report has been made upon it to the senate. This will soon become a law; and, when that road is completed, together with ours—making a continuous line from lake Ontario to Boston—imagine, if you can, the enormous extent of its business. The contemplation of such an event fills one with astonishment and wonder. A great revolution is at hand, and prompts us to take an active, zealous and energetic part in hastening its glories to a consummation."

## RAILROAD MEETING.

A meeting of many of the citizens of this town was held at the town hall on Tuesday evening of last week, to take into consideration the construction of a railroad from Worcester to Nashua. A delegation of 50 or 60 gentlemen was also present from Norwich, Ct., who came up in an extra train, and returned home after the close of the meeting.

Gov. Lincoln was called to the chair, and John Milton Earle, Esq., was appointed secretary. On taking the chair, Mr. Lincoln made a few brief but pertinent remarks on the importance of the contemplated road to the prosperity of the town of Worcester, and also to the section of country through which it will pass, if built.

Gov. Davis then presented the whole subject to the consideration of the meeting, in a speech at once forcible in manner, and replete with facts and arguments, showing the necessity for the road, its tendency to increase and facilitate the business of this town, its importance to the northern section of Worcester and Middlesex counties and the important towns in the valley of the Merrimac, and the reasonable certainty that the road can be built at a low rate of expenditure, and will be profitable to the stockholders.

The meeting was further addressed by the Hon. John A. Rockwell, of Norwich, Col. A. H. Bullock, and Judge Merrick, of Worcester. At the conclusion of his re-

marks, Judge Merrick introduced a series of resolutions in favor of the road, which were adopted by the meeting and ordered to be published. It was near ten o'clock when the meeting was dissolved.—*Wor. Pal.*

#### THE EXTENSION OF OUR RAILROAD TO THE OHIO.

There has been no instance, we believe, in the progress of the internal improvements of the country in which so many difficulties were thrown in the way of a great work, as have been made to obstruct the path of the Baltimore and Ohio Railroad Company. Virginia and Pennsylvania have contributed their opposition; and as though this were not enough to embarrass a work which must go through the territory of one or the other of these States, or of both, the Commonwealth of Maryland has joined in the business of delaying and retarding the enterprise.

Through all these difficulties, however, the work is destined to advance. Under circumstances less promising than those which now surround the company, the activity and sagacious management of the able President of the Board accomplished the construction of the line from Harper's Ferry to Cumberland.

The chief obstacle which now prevents the continuance of the road, is the unwillingness of Virginia to grant a right of way through her territory upon terms at all practicable, without great sacrifice. This refusal, however, is so unjurious and unjust to a large portion of her own citizens, that it can hardly be persisted in. We publish in this morning's paper, the proceedings of a meeting at Parkersburg on this subject. The whole of Northern and North-Western Virginia is outraged at the course of the Legislature in driving from them so important a work, which would form their avenue to market, and afford the means of communication East and West.

In the Legislature of Pennsylvania, where a similar application for the privilege of way is pending, there are many interests at work to defeat it. The Philadelphia papers are calling for a continuous railroad from Pittsburgh to Philadelphia; they do not like the idea that Pittsburgh and Baltimore are to be connected in that way. The Philadelphia North American, after expressing the hope that the Baltimore and Ohio road will not be allowed to go into the territory of the State, says:—

"It is now conceded on all sides, that it is indispensable that Pennsylvania should construct a continuous railroad from our city to Pittsburgh; it must be done ultimately, though we are not prepared to say that the present is the proper time. We must follow the example of New York, and have one great thoroughfare—a back-bone for our travel continuous and direct. If the State does not feel enabled to incur the responsibility, let individual corporations be allowed to parcel it out, as has been previously done from Lancaster to Harrisburg, and from Columbia to Carlisle."

The affinities of Pittsburgh are with Baltimore; and the probability is, that our road eventually will strike the Ohio, both in Virginia and in Pennsylvania. The opposition in both States is at variance with the interests of large portions of their people respectively.—*Baltimore American.*

#### THE ATMOSPHERIC SYSTEM.

The interest in the issue of this discovery is gaining ground daily, and we anticipate that before long its merits will be satisfactorily tested and decided. The mention made of it by the board of trade in two separate notifications, has attracted the attention of the public and parliament. The first allusion was in the report on the Newcastle and Berwick railways, when the board stated—"It was impossible not to feel the highest interest in the progress of an experiment, where success has hitherto been sufficient to induce eminent authorities to entertain strong hopes that the result may be an acceleration of speed in travelling, combined with the general introduction of a system of very frequent trains and low fares." In the same report they said, that in a mechanical point of view, the experiment at Dalkey might be considered as "conclusive of the success of the atmospheric system," and that it demonstrated "that trains may be propelled by means of it at high velocities, with safety and convenience to the public," and that "the same result may be obtained when the separate consecutive portions of line are multiplied indefinitely." But then, they added, that "in a practical and commercial point of view," viz: that of expense, "they cannot yet assume, in forming a judgment upon competing schemes, the success of the atmospheric system, and they, therefore, come to the conclusion, that they must compare competing lines apart from all considerations as to the atmospheric system." The patentees, feeling aggrieved at this qualified approbation, and foreseeing that faint praise might prove as injurious as more decided hostility, petitioned parliament for the appointment of a select committee to enquire into the merits of the system. The discussion that was elicited by this application must have been important and highly gratifying to the inventors. Lord Howick stated that he believed the atmospheric system as superior to the existing railroad, as those railroads were to the old turnpike roads. This language is strong; but scarcely more so than the subsequent avowal of the Premier—"Let it be understood (said Sir R. Peel) that my impressions are strongly in favor of the atmospheric system." This coming from such an influential source will not be without its effect; and should the experiments now in anticipation succeed, the principle, supported as it will be by government, will remain no longer in abeyance. Those practical experiments, too, are first progressing to completion. The works on the Croydon and Epsom line are in a considerable state of advance, and it is anticipated that operations will be commenced on the 1st of May. It is intended in the first in-

stance, to open only five miles of the railway, commencing at the Darmouth Arms, and terminating at Croydon; although the whole length of the line, when completed, will be eighteen miles and a half. The chief reason for opening this section of the line is, so that the government and the public may have as early an opportunity as possible of judging the efficiency of the system. At other sections of the line, the greater portion of the works is completed, including the preparations for the electric telegraph. The results of this trial are looked forward to with intense anxiety, not only as effecting the feasibility of the system, but the resumption of many operations suspended in the interim. It was only on Saturday last that the board of trade, in the course of an elaborate report on the construction of various lines, in connection with the metropolis, recommended the postponement, till the experiment of the atmospheric railway from London to Epsom shall have been put in execution, of the Epsom and Dorking—London and Croydon (Dorking branch)—London and Brighton (Dorking branch)—and South Eastern (Reigate and Dorking branch)—adding, "if the atmospheric system of propulsion should prove successful and deserving of further adoption, it would seem to be better suited than the locomotive system of traction to the nature of this section of country. The whole question of railway communication with Dorking may be temporarily postponed without any inconvenience, and if hereafter the atmospheric system should prove available, the line from Epsom to Dorking, projected upon that principle, would appear to be the best adapted for supplying the wants of Dorking and its vicinity, without incurring the expense of making so many additional miles of railway." The issue, therefore, of the approaching trial, coupled with the report of the select committee, which was granted by the house of commons, will be decisive at the same time of great private claims, vast corporate interests, and national considerations of no insignificant importance.—*Mining Journal.*

#### ON IRON SHIPS.

In a late number of the *Mining Journal* (page 80) we referred to the preference given in Liverpool to iron vessels, and the great likelihood of their more general adoption prior to the end of the present year; since then, we are informed that at Walker, near Newcastle-upon-Tyne, Mr. Coult's has now in hand fifteen iron sailing vessels; that is certainly a wholesale way of introducing this material for ship building, and is strong presumptive evidence of the justness of our anticipations; our only surprise is, that iron ships have so long remained in almost *statu quo* since their first introduction—possessing as they do so many incontrovertable advantages over wood. We may briefly state a few of them.

1. There being no limits to the size of iron vessels, as there is to wooden ones, on account of the want of sufficient size of timber to construct the latter.

2. They draw and displace less water, on account of the difference of weight—iron ships being, on an average, only about 7.16, or less than half the weight of wooden ones.

3. They have much more stability than wooden vessels of the same model, on account of the cargo, or ballast, getting much nearer the water, or further below the centre of gravity and motion, in iron vessels; the difference of thickness of the materials between the water and cargo being, in iron vessels, about one-tenth the dimensions necessary for wooden ones.

4. They sail much faster, as it is well ascertained that flexible and slight wooden vessels sail fastest, and vice versa regarding strong and stiff ones. Now, iron ships have the properties of being more flexible than slight wooden ships, and stronger than stiff ones.

5. They are safer than wooden vessels, as they are fire-proof, and, when properly constructed, with water tight bulkheads and air tight decks, are perfect life boats.

6. They can be more easily repaired, as the only damage they can receive must be local, and, from the manner of their construction, the injury can always be seen, and of course remedied.

7. They will last for a much longer period, if we may judge from examples now afloat, that have been for years in the water in all climates, and not the least decay being visible.

8. They carry a much larger cargo, according to their tonnage, than wooden vessels, as the difference of the timbers and the two skins of a wooden vessel, on the sides and bottom, is rendered available for cargo; hence the saving in original cost, by having, say a nominal 300 tons ship, to carry 500, which is about the difference between iron and wooden vessels, of the same builders dimensions; and a great saving is likewise effected as regards expense of working the vessel, harbor dues and lights.

9. Iron vessels have the property of decreasing in price per ton as they increase in dimensions, whereas wooden ships increase in exactly the opposite ratio. A twelve-years A 1 ship, of 200 tons, builders' measurement, would be about the same expense as an iron vessel of like dimensions; only the iron vessel would carry one-third more cargo at the same draught of water; but an iron vessel, of 1000 tons o. m., would only cost one-half the price of a like wooden one, besides the additional stowage, and easy draught of water.

10. They are, when properly constructed, much stronger, and can be grounded, or beached, in any quarter, with perfect safety.

11. Insurance can be effected upon either ship or cargo at as low a figure (if not in many cases lower) than can be done upon a first class wooden vessel under like circumstances.

12. They require no coppering or protection from the worm or dry rot—those two dangerous diseases incidental to wooden vessels; and, by attention, the bottoms of iron ships can be kept perfectly clean.

From these qualities becoming daily better known, the unfounded prejudice against iron vessels must soon fall to the ground, and even when the present unprecedented stimulus in the iron market, from railway speculations, shall have ceased, the ironmaster may then look forward to a very fertile demand for his manufacture from the marine of the country.

In wooden built vessels the principal cost lies in the material alone—the labor being but a small part of the expense; but in iron built vessels the labor constitutes nearly the whole of the outly, for from the first mining of the ore and fuel, to the finishing of the last rivet in the fabric, it is but a succession of manual labor, which is represented by the payment of wages, through its many and varied phases.—*Mining Journal*.

#### FRENCH RAILWAYS.

A vast amount of speculation is going on in French projects. The public snatch at anything having the name of French attached to it with ravenous eagerness. We are not at all surprised at this. The guarantee system is of itself a sufficient cause. The fact that the deposit money is guaranteed to be returned in full, tempts the public to sign for shares in an undertaking, in which, in case of failure, no deduction whatever is made for expenses. Nor do we think that herein the public taste is misdirected. For if there be a respectable Committee to deal with, it is a great safeguard for the public, to be certain that they will not suffer by the misfortune of misconduct of the promoters. The guarantee is further, a most efficient means of ensuring the best exertions of the promoters to obtain success, as well as to exercise due economy; as in the event of failure, they are aware that they, and not the shareholders will be the sufferers for want of management, or extravagance. This arrangement, to our minds, is much more equitable and salutary than the system in England. For here, the greater the extravagance, usually, the better for the pockets of the promoters, who are held free from participation in their own mismanagement or extravagance; the shareholders are left to pay the piper. Now, is it not by far more just that those who incur and have the control of expense should be responsible for it? In general, there is not a more extravagant set of fellows on earth than projectors. What can be more wholesome than to place some kind of restraint upon them? It is a benefit to themselves. We have no doubt that if the same guarantee system had been adopted here in a case or two that occurred last session, wherein enormous sums were spent in "preliminary expenses" for abortive schemes, which the shareholders had to pay, and had not the power to say a word against it, that many thousands of pounds would have been saved.

We confess, for these reasons, we rather prefer the French guarantee system to the unlimited one adopted in England. Of course, the value of a guarantee depends upon the respectability of the committee, or body of promoters. Of the numerous

Companies set on foot for French lines, we believe the generality of them are sufficiently respectable to be enabled to meet the guarantee, in case of need. Some of the Companies are composed of men of the highest respectability both in England and France; true, there may be a few "black sheep." Amongst others, we notice that there are no less than four companies for the line from Paris to Lyons. No doubt the prize is well worth the competition. Of these four, Lafitte's and Gauneron's stand first in respectability and influence; the other two, the Great Paris and Lyons, and and Calon's, are not in such estimation. It is well known that in France, as was in a measure the case in England, when railways first appeared, everything goes by interest and influence.

Another reason that leads us to approve of the public judgment in embarking in French railways is, that there nearly all the schemes are for important main trunk lines, equivalent to our Birmingham, Great Western, Grand Junction, etc.—*Herapath*.

#### CENTRAL RAILROAD.—ENGINEER'S REPORT.

The period of another annual convention of the stockholders of this company being at hand, I submit to you the following report of the operations of the road for the last year, and its condition at this time.

The fiscal year of the company terminates with the month of November, but it was deemed proper to delay the report to the present time, that a supplementary statement may be appended, showing the operations of the company, as nearly up to the period of the convention of the stockholders as possible.

Total number of bales of cotton transported during the year, 77,437.

The expenses of working the road for the above period have been as follows:

Maintenance of way—including all repairs and materials for repairs of road, depots, turn outs, wells, cisterns, bridges, etc.,	\$66,273 04
Maintenance of motive power and cars—including all materials used in repairs of engines and cars, all labor for the same, wages of engine-men, firemen, oil, tallow, fuel, water, etc.,	35,344 43
Transportation expenses—including depot expenses, wages of conductors and train hands, salaries of agents and clerks, insurance on cotton, damage, etc.,	44,554 44
Incidental expenses—printing and stationery,	1,557 61
<b>Total,</b>	<b>\$147,719 52</b>

#### RECAPITULATION.

Earnings of the road for the year ending Nov. 30, 1844,	\$328,424 01
Expenses for the same period,	147,719 52
<b>Profits,</b>	<b>\$180,704 49</b>



The earnings for the four months ending April 1st, 1845, have been \$142,337 92.

The distance run by the trains during the year, is as follows :

Passenger trains, . . . . . 119,556 miles.  
Freight " . . . . . 91,298 "

Total, . . . . . 210,854 "

In performing this distance, 3,605 cords of wood have been consumed, which is one cord for every 50 miles run.

The amount of tonnage transported during the year is equal to 1,056,128 tons hauled one mile.

It must be borne in mind, that for a considerable part of the year, the trains go very light in one direction. In the fall, when the up-freight greatly exceeds the downward, and before the cotton crop begins to come to market, the down-trains run nearly empty. The reverse is the case a few months later, when the up-freight falls off, and cotton presses forward; and there is a short period in the summer that there is very little freight in either direction. It is presumed that this irregularity will gradually cease, and that the freighting business will, after a time, be more equally distributed throughout the year. Other articles of transportation, such as lumber, staves, fuel, etc., will seek this channel, and afford freight for the down trains in the summer and fall, when other freight is dull.

The cost of working the road and maintaining it during the last year, including all expenses, has been as follows :

	Cents.
For maintenance of way per mile run,	31.4
For maintenance of mo. power and cars,	16.7
For transportation expenses,	21.1
For contingencies,	0.8

Total, . . . . . 70.0

The depot grounds at either end of the road, were considered amply sufficient for any business that might offer, but the experience of the past year has shown that they must be extended—particularly the cotton yards. It is in contemplation to make additions to them during the present year, and a purchase of ground for this purpose has already been made. The want of a suitable passenger house at the Savannah depot has long been felt; a plan has been prepared and it is proposed to erect the building during the approaching summer.

A small engine house is also required at the centre of the road, at which a spare passenger and freight engine may be kept to supply the place of any engine that may be disabled on the road.

Our motive power now consists of 16 engines, all in working order, except the "Georgia," which we are re-modelling. She will be fitted up as a freight engine, with 8 wheels.

An order has been given for four more; our number will then be twenty. Eleven for freight and nine for passengers.

We now have one hundred and fifty, eight wheel freight cars, and intend increasing the number to two hundred for the next season's business.

We have all of our wheels cast at a foundry in this city, and fit them up in our own shops; by this course we get a more perfect article, and at no greater cost than to order from the north. We have not had an instance of the failure of the wheels and axles fitted up by our own workmen.

The condition of the road is much improved since my last report, and is as good now as at any former period.

The good policy of keeping an efficient force on the repairs, is more and more manifest, in the regularity with which the trains perform their trips.

We have now had sufficient experience to enable us to make a fair estimate of the annual cost of keeping up the road. I find the average duration of pine string pieces is six years; of pine cross ties, eight years; and of ribbon, four years.

There is in the whole road about 130,000 cross ties: 12,300,000 feet (board measure) of string pieces, and 600,000 feet (board measure) of ribbon. We now renew the cross ties with cypress, which, I think, will last at least ten years.

Then $\frac{1}{4}$ , or 16,250 cross ties per annum, at 25 cents, . . . . .	\$4,062 50
$\frac{1}{6}$ , or 2,050,000 feet (b.m.) string pieces, at \$6 per M, . . . . .	12,300 00
$\frac{1}{4}$ , or 150,000 feet (b.m.) ribbon, at \$12 per M, . . . . .	1,800 00
Repairs of trestle work and bridges, . . . . .	8,000 00
Spikes, . . . . .	2,000 00
Deterioration of iron . . . . .	22,500 00
Repairs of wells, pumps, cisterns, turnouts, depots, turn tables, and contingencies, say . . . . .	7,987 50
Thirty gangs of laborers, of six each gang, including overseers and supervisors, at \$110 per gang per month . . . . .	39,600 00
Salaries of superintendent and assistant, . . . . .	1,750 00

Total, . . . . . \$100,000 00

An average of about \$526 per mile per annum. The expense during the past year has been \$348—about two-thirds of the above sum. As the cross ties and string pieces of the western part of the road, are as yet not much decayed, and most of the bridges are sound, it will be some years before the cost of repairs will reach the maximum; but I am confident that with the amount of business that may reasonably be expected, the cost of maintaining the road will not fall much short of one hundred thousand dollars per annum.

It is not so easy to make an estimate of the other annual expenses attending the operations of the road, as the maintenance of the machinery and the transportation expenses, are governed in a great degree, by the amount of business done. I am confident, however, that with a business that would yield an income of \$450,000 per annum, the whole expense of operating the road would not exceed \$200,000; and I am equally confident the receipts of the road will at no distant period, exceed that amount.

The opinions of engineers on the subject of the duration of railroad iron, are extremely variant, and the system has not been in operation a sufficient time in this country, to afford data for an exact estimate.

There are about 8,000 tons of iron on our road, which has been laid down an average of five years. On the eastern part of the road, near this city, several miles have been in use eight years; and during the first year and a half of the time, bore the transit of twelve trains per day in each direction, transporting material for the heavy embankment adjoining the city, and I cannot perceive any difference in the condition of this, and other portions of the iron, which have not borne half the amount of tonnage.

I have set down the annual deterioration at five per cent., and I am satisfied that will be found sufficient. The cost, thus far, has not been one-tenth of that sum.

I intimated in my last report the intention of substituting embankments for a considerable portion of the trestle bridging on the line. We have commenced this operation at the long trestle work near the 100 mile station, and it will be continued on a moderate scale during the year.

I am, very respectfully, your ob't serv't.  
L. O. REYNOLDS, Chief Engineer.

**Railroad Meeting.**—A meeting of the citizens of Sullivan county, New-Hampshire, and of Windham and Windsor in Vermont, friendly to the extension of the Cheshire Railroad, from Bellows Falls up the valley of the Connecticut, as far as Charlestown, and thence to the mouth of White River, if deemed expedient, to be holden at Charlestown, N. H., is called on Saturday next. —*Boston Courier.*

**Hampshire and Franklin Railroad.**—A meeting of the friends of a railroad on the east side of the Connecticut River, south of Miller's River, met at Amherst on the first inst. It was voted to organize a company under the charter just obtained, and committees were chosen to procure subscriptions to the stock. The following resolution was passed :

Resolved, as the opinion of this convention, That the accommodation and general good of the Connecticut Valley, and of other portions of the Commonwealth, require the construction of the Hampshire and Franklin Railroad, and that, by the united energy and action of the people generally upon the east side of the Connecticut River, the project can and will be successfully accomplished.

**The Canal.**—From all accounts that we receive we cannot much doubt that the security for the requisite tonnage on the Chesapeake and Ohio Canal will be procured, and the prosecution of the work ensured. To effect this purpose, every exertion is being made, and Col. Coal is now on at the north to make the necessary investigations relative to the disposition of the bonds, &c. When the tonnage is ensured, of course there can be no loss to the State. —*Fred. Herald.*

THE IRON TRADE.

There never was, perhaps, a period, since the manufacture of iron assumed any degree of importance in this country, in which the prospects of long continued prosperity in this great branch of our staple trade, are based on such certain anticipations as at the present moment. The years of high prices, and consequent prosperity were 1817, 1818, 1825 and 1836, in which the prices of pig iron were upon an average 9*l.* 13*s.* and 7*l.* 10*s.*, respectively; but the uses to which iron was put at those periods, do not appear to have borne out a sufficient cause for the great advances in price which were then obtained. Until 1836, railways, for which so many thousands of tons are required, were almost unknown in this or any other country, and the many uses to which it is applied, were either little understood or very sparingly adopted. Thus fire proof buildings, and the general introduction of iron into both public edifices and private houses and mansions, which carry off so large a quantity of our present supply, were little known a few years ago; but the great feature at present is the employment of iron in ship building—that is, constructing both steam and sailing vessels entirely of iron. On a careful examination, the building of iron vessels does not appear likely to be a temporary nature, from the following facts which came under the writer's own observation. Seven years ago, four sailing vessels were built for the company trading from an out port to London. Three of them were built of wood, and one was constructed of iron. At the dissolution of the company last year, these vessels were sold—the three wooden ones bringing one-half of their original cost, while the iron one was found to have suffered so little, and to have cost so small a sum in repairs, that she was sold for very nearly the precise sum of her first cost. These facts, among many others of a similar character, give such a character to iron vessels, and are beginning to be so well understood and appreciated, that there is hardly an iron ship building yard in the kingdom that is not fully employed, and where inquiries for iron vessels are not daily being made, and they justify our opinion, that within a few years there will be no vessels constructed of any other material. Government seems so fully convinced of their superiority over timber frigates, that many are now being constructed of iron in London, Liverpool, Birkenhead, and Glasgow, for public service, and the late increase in the navy estimates, seems to point out still further additions to our war steam vessels. The cotton trade, under ordinary circumstances, takes about one-sixth of the iron made in this country annually in machinery, arising from the ordinary wear and tear of steam engines, boilers, new mills, and the substitution of new and improved looms, etc., for the old. But the number of new mills at present in course of erection exceeds any former period; and of course, must increase the average quantity of iron to be consumed in this branch of our trade. Agriculture

also requires considerable supplies, which must this year, and for many succeeding ones, be greatly increased, from the improvements that are taking place in agricultural machinery. If to these circumstances be added the extra demands for an increasing population, not only in point of numbers, but in wealth and general prosperity, it must be admitted, that a greater amount of iron will be required, both in this and other countries, than has ever yet been known.

It has been urged, that high prices of any article will soon have the effect of increasing the production of that commodity. This in most cases is true; but it will not fully, and at all events, will not immediately apply to iron, for the erection of new furnaces and machinery, the sinking of new coal mines, and the forming of railways to bring the minerals to the point at which they are required, involve so large a quantity of iron, as to render it even scarcer for the time. Another cause which tends to diminish the production of iron while high prices prevail, is the advance of wages to workmen always incident to prosperous times, for a miner will work six days a week when he earns only 2*s.* a day; but only three or four days when he gets 4*s.* or 5*s.* a day. The great demand for labor in the forming of the new lines of railway, in tunnelling and embanking, will also draw from the iron districts a large amount of population, which would otherwise have been employed in the kindred branch of mining.

It may be a matter of some interest in the present state of the iron trade, to attempt to reduce to figures the amount of iron likely to be made and consumed in the present year; and with some labor, assisted by practical men, the following table has been drawn up:

Pig iron produced in England and Wales in 1844,	856,000
Iron produced in Scotland in 1844,	354,000
<b>Total tons for Gt. Britain, 1844,</b>	<b>1,210,000</b>
<i>Estimated consumption for 1845.</i>	
2000 miles of railways to be made in 1845 and 1846—say half in 1845 contracted for—	
1000 miles of railway, 250 tons per mile for rails,	250,000
Add for loss of one-fifth, in converting pig iron to rails,	50,000
1000 miles of railway require for chairs,	70,000
Add loss in manufacture, 5 pr et.,	3,500
Iron required for railways in progress, and passed in 1844,	150,000
Iron for wagons, stations, engines, tanks, etc., computed from inspection of railway companies accounts, that each mile of railway requires 300 tons per mile above the weight of permanent rails and chairs—1000 miles will then give,	300,000
Export in 1844, 460,000 tons—say, from the increase of railways abroad, and the remission	

of duties on iron by some of the continental states, it will be 500,000  
 General consumption of iron in Great Britain (exclusive of railways,) in bar iron, castings, water and gas pipes, in steam-engines, and the whole hardware of the country, - 480,000

Total tons, - - - 1,803,500

If this statement, in any way, is near the truth, we shall have a deficiency of nearly 500,000 tons of iron, which must cause the suspension of many great public works. It is possible that from the exertions of our iron masters, a greater quantity may be produced than 1,330,000 tons, but it cannot be materially greater than what has been computed. Under any circumstances however, it cannot be denied that the iron trade is more prosperous, and that its present flourishing state is not only certain of being permanent for some years, but more likely to increase than at any former period.—*Mining Journal.*

The rail chairs for the Newcastle and Berwick Railway, amounting to 27,000 tons, have been contracted for at 12*l.* per ton the former and 7*l.* the latter.

**RAILROAD IRON AND FIXTURES.** THE Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

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 21 Broad st., N. York.

ja45

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,  
 Reading, Pa.

ja45

**GEORGE VAIL & CO., SPEEDWELL IRON** Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1½ in. to 2½ in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions.

ja451y

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 9/10 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.

ROBERT SCHUYLER, Esq., Vice President.

J. P. JACKSON, Esq., Secretary.

J. WORTHINGTON, Esq., Treasurer.

Leave New York, foot of Courtland street.	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
For Newark.....	9, 11, 12.....	2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4 3-4, 6.....				
" New Brunswick.....	9.....	3, 4 3-4.....				
Leave New Brunswick.....	6, 7 1-2, 11 1-2.....	8 3-4.....	11 1-2	8 1-2		
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	1 1-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4		
For New York.						

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance; which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

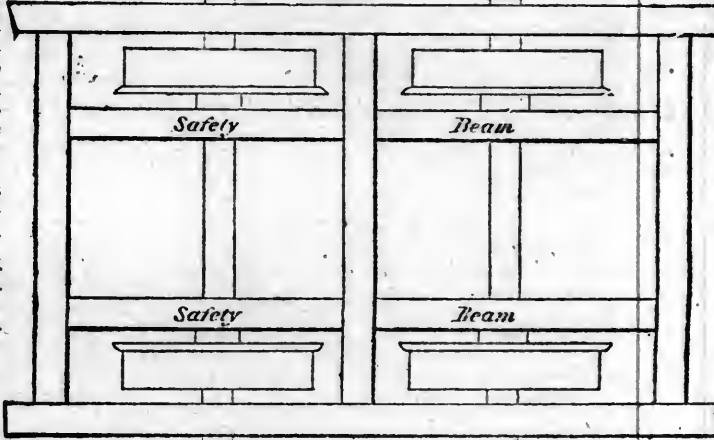
In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,

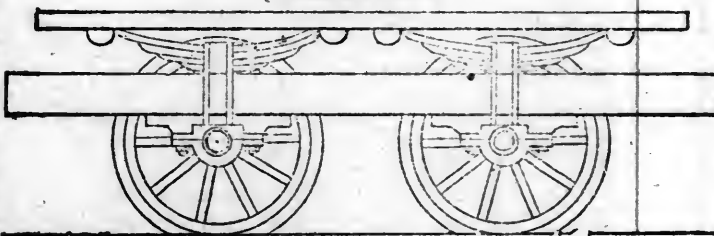
GEORGE CRAIG, Superintendent,

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.

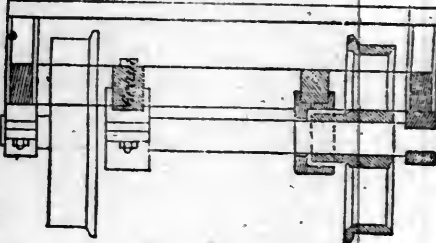
PLAN



ELEVATION



Section



W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

REFERENCES.

Boston, { Col. James F. Baldwin, Civil Engineer.  
          { Col. J. M. Fessenden, " "  
Wm. Parker, Esq., Engineer and Superintendent Boston and Worcester railroad. ja45

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

MACHINE WORKS OF ROGERS, KETCHUM & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery

of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.

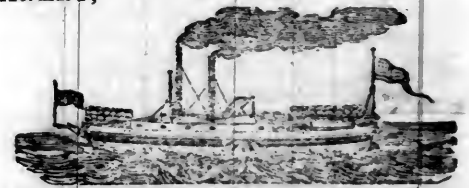
Spikes are kept for sale, at Factory Prices, by J. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Jarviers, Baltimore; Degrand & Smith, Boston.

\* \* \* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS	A. M.	P. M.	MILES.	FARE.
Boston	Portland	Eastern,	Daily,	7 $\frac{1}{2}$	2 $\frac{1}{2}$	106	\$3 00	
"	Portsmouth	"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	54	2 00	
"	Newburyport	"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	35	1 25	
"	Salem	"	"	7 $\frac{1}{2}$ , 9, 11 $\frac{1}{2}$	2 $\frac{1}{2}$ , 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	11	59	
Portland	Portland	Boston and Maine,	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	109	3 00	
Boston	Boston	"	"	7 $\frac{1}{2}$ , 11	3	109	3 00	
Lowell	Lowell	Boston and Lowell,	"	7, 11	2, 5	26	75	
Boston	Boston	"	"	7 $\frac{1}{2}$ , 11	2, 4 $\frac{1}{2}$ , 5 $\frac{1}{2}$	26	75	
Boston	Concord	Concord,	"	7	3 $\frac{1}{2}$	76	2 00	
Concord	Boston	"	"	7	3 $\frac{1}{2}$	76	2 00	
Boston	Nashua	Nashua and Lowell,	"	7, 11	5	41	.....	
Nashua	Boston	"	"	6 $\frac{1}{2}$	1 $\frac{1}{2}$ , 5	41	.....	
Boston	Worcester	Boston and Worcester,	"	7, 9	2 $\frac{1}{2}$	44	1 25	
Worcester	Boston	"	"	7, 10	6	44	1 25	
Boston	Worcester	"	Sundays,	7	2	.....	.....	
Boston	New York via Norwich	"	Mon., Wed. & Fri.,	7	4	.....	.....	
"	" " L. Island railroad	"	Tues., Thur. & Sat.,	7	.....	.....	.....	
"	" " New Haven	"	Daily,	9	2 $\frac{1}{2}$	.....	.....	
Albany	Albany	Western,	"	9	2 $\frac{1}{2}$	200	6 00	
Boston	Boston	"	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	200	6 00	
Springfield	Boston and Albany	"	"	7	3	.....	.....	
Boston	New York via New Haven	"	"	7	2 $\frac{1}{2}$	.....	.....	
Charlestown	West Acton	Fitchburg,	"	8	1, 4 $\frac{1}{2}$	.....	.....	
West Acton	Charlestown	"	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	5	.....	.....	
Boston	New York, via Steamboat trains	Boston and Stonington,	Tues., Thur. & Sat.,	4 $\frac{1}{2}$	4 $\frac{1}{2}$	.....	.....	
"	" " " "	Boston and Newport,	Mon., Wed. & Fri.,	4 $\frac{1}{2}$	4 $\frac{1}{2}$	.....	.....	
Providence	Providence	"	Daily,	7 $\frac{1}{2}$	4	41	1 50	
Boston	Boston	"	"	On arrival of the	mail	41	1 50	
Taunton	"	"	"	8	4	.....	.....	
New Bedford	Boston	"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	.....	.....	
Boston	Dedham	"	"	8 $\frac{1}{2}$	3, 6 $\frac{1}{2}$	.....	.....	
Dedham	Boston	"	"	7, 10	5 $\frac{1}{2}$	.....	.....	
New York	Greenport	Long Island,	"	7 $\frac{1}{2}$	.....	95	2 25	
Brooklyn	Hicksville & intermediate places	"	"	9 $\frac{1}{2}$	.....	26	56 $\frac{1}{2}$	
"	Greenport	"	Tues., Thur. & Sat.,	9 $\frac{1}{2}$	.....	95	2 25	
"	Hicksville, (Saturday to Suffolk)	"	Daily,	.....	4	26	56 $\frac{1}{2}$	
Greenport	Brooklyn, (Boston train)	"	"	.....	1	95	2 25	
"	" (accommodation do.)	"	Mon., Wed. & Fri.,	.....	2 $\frac{1}{2}$	95	2 25	
Hicksville	" & intermediate places.	"	Daily,	7	1 $\frac{1}{2}$	26	56 $\frac{1}{2}$	
New York	Albany & Boston via N. Haven	Steamer,	"	6 $\frac{1}{2}$	.....	.....	5 00	
"	Middletown	New York and Erie,	"	8, 3	.....	53	.....	
Middletown	New York	"	"	6 $\frac{1}{2}$	3 $\frac{1}{2}$	53	.....	
Philadelphia	Pottsville	Reading,	"	9	.....	94	3 50	
Pottsville	Philadelphia	"	"	9	.....	94	3 50	
New York	Newark	N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4 $\frac{1}{2}$ , 6, 7 $\frac{1}{2}$	9 $\frac{1}{2}$	25	
Newark	New York	[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 9, 11	1 $\frac{1}{2}$ , 4, 5 $\frac{1}{2}$ , 7, 9 $\frac{1}{2}$	9 $\frac{1}{2}$	25	
"	"	[9 A. M. and 4 $\frac{1}{2}$ P. M., trains connect with Smerville Railroad.]	Sundays,	9	4 $\frac{1}{2}$	9 $\frac{1}{2}$	25	
New York	Newark	"	Daily,	11 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	25	
"	Elizabethtown	"	"	9, 11	2, 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14 $\frac{1}{2}$	31 $\frac{1}{2}$	
Elizabethtown	New York	"	"	7, 7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 10 $\frac{1}{2}$ , 12	3 $\frac{1}{2}$ , 5	14 $\frac{1}{2}$	31 $\frac{1}{2}$	
New York	Rahway	N. J. railroad and trans. co.,	"	9, 11	3, 4 $\frac{1}{2}$ , 6	19 $\frac{1}{2}$	31 $\frac{1}{2}$	
Rahway	New York	"	"	6 $\frac{1}{2}$ , 7, 8 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$ , 9 $\frac{1}{2}$	19 $\frac{1}{2}$	31 $\frac{1}{2}$	
New York	New Brunswick	"	"	9	3, 4 $\frac{1}{2}$	31 $\frac{1}{2}$	50	
New Brunswick	New York	"	"	6, 7 $\frac{1}{2}$ , 11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50	
"	"	"	Sundays,	11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50	
New York	New Brunswick	"	"	9	4 $\frac{1}{2}$	31 $\frac{1}{2}$	50	
Philadelphia	New York	Camden and Amboy,	Daily,	7	.....	91	3 00	
New York	Philadelphia	"	"	5 $\frac{1}{2}$	.....	91	3 00	
Philadelphia	Bristol	Philadelphia and Trenton,	"	9	.....	30	75	
Bristol	Philadelphia	"	"	.....	4	30	75	
Philadelphia	Baltimore	Philad. Wil. and Baltimore,	"	8	.....	93	.....	
Baltimore	Philadelphia	"	"	9	.....	93	.....	
Washington	Washington	Baltimore and Washington,	"	9	5, 11 $\frac{1}{2}$	41	2 50	
Baltimore	Baltimore	"	"	6	5 $\frac{1}{2}$	41	2 50	
Cumberland	Cumberland and inter. places.	Baltimore and Ohio,	"	7 $\frac{1}{2}$	.....	.....	.....	
Hancock	Frederick	"	"	8	4	.....	.....	
Martinsburg	Baltimore	"	"	10 $\frac{1}{2}$	.....	.....	.....	
Harper's Ferry	"	"	"	11 $\frac{1}{2}$	.....	.....	.....	
Frederick	"	"	"	.....	12 $\frac{1}{2}$	.....	.....	
Ellicott's Mills	"	"	Sundays,	8	2	.....	.....	
Richmond	"	"	Daily,	7 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$	.....	.....	
Petersburg	Petersburg	Richmond and Petersburg,	"	10 $\frac{1}{2}$	1 $\frac{1}{2}$	.....	.....	
Albany	Richmond	"	"	5 $\frac{1}{2}$	.....	.....	.....	
Schenectady	Schenectady	Mohawk and Hudson,	"	8	5 $\frac{1}{2}$	.....	.....	
Albany	Albany	"	"	9	3 $\frac{1}{2}$	.....	.....	
Saratoga	Saratoga	"	"	7 $\frac{1}{2}$	2	.....	.....	
Troy	Albany	"	"	7	12 $\frac{1}{2}$ , 5	.....	.....	
Saratoga	Saratoga	Troy and Saratoga,	"	.....	3 $\frac{1}{2}$	.....	.....	
Auburn	Troy	"	"	7 $\frac{1}{2}$	.....	.....	.....	
Rochester	Rochester	Auburn and Rochester,	"	8 $\frac{1}{2}$	.....	.....	.....	
"	Auburn	"	"	8	3	.....	.....	
Buffalo	Buffalo	Rochester and Buffalo,	"	.....	3	.....	.....	
"	Rochester	"	"	.....	.....	.....	.....	
Falls	Falls	Buffalo and Falls,	"	9	.....	.....	.....	
Buffalo	Buffalo	"	"	.....	1 $\frac{1}{2}$	.....	.....	
Buffalo	Albany	Albany and Buffalo	"	8 $\frac{1}{2}$	.....	.....	.....	

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I, No. 18]

THURSDAY, MAY 1, 1845.

[WHOLE No. 461, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)  
TROY IRON AND NAIL FACTORY, H. Burden Agent. (See Adv.)  
ANDREW MENEELY, West Troy. (See Adv.)  
ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
NORRIS, BROTHERS, Philadelphia, Pa.  
KITE'S Patent Safety Beam. (See Adv.)  
FRENCH & BAIRD, Philadelphia, Pa. [See Adv.]  
BALDWIN & WHITNEY, Philadelphia, Pa.  
JOHN F. STARR, Philadelphia, Pa.  
MERRICK & TOWNE, do.  
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. [See Adv.]  
ROSS WINANS, Baltimore, Md.  
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## FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Supt Hartford and New Haven Railroad; W. R. M'Kee, Supt Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Supt New Jersey Railroad Trans. Co.; J. Elliott, Supt Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Supt Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Supt Mason Railroad, Maccn, Ga.; J. H. Cleveland, Supt Southern Railroad, Monroe, Mich.; M. F. Chittenden, Supt M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\*\* The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45

**A GOOD SECOND HAND LOCOMOTIVE** Engine, 6 wheels, weighing with wood and water about 10 tons, with Tender complete, made by Baldwin, for sale by A. & G. RALSTON & CO. Mar. 20, 1m. 4 South Front St., Philadelphia.

**SPRING STEEL FOR LOCOMOTIVES.** Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/4 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,  
ja53 Albany Iron and Nail Works, Troy, N. Y.

**TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY.** The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, N. E. cor. 12th and Market sts., Philad., Pa. ja45

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. **William H. Dobbs**, Superintendent, will meet with immediate attention. **ANDREW C. GRAY**, President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS**  
etc. The Subscriber having made important improvements in the construction of rails, mode n guarding against accidents from insecure joints, etc. —respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN**, Civil Engineer, Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO IRON MANUFACTURERS.** THE SUBSCRIBERS, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

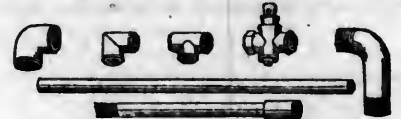
**A. & G. RALSTON & CO.**,  
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**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

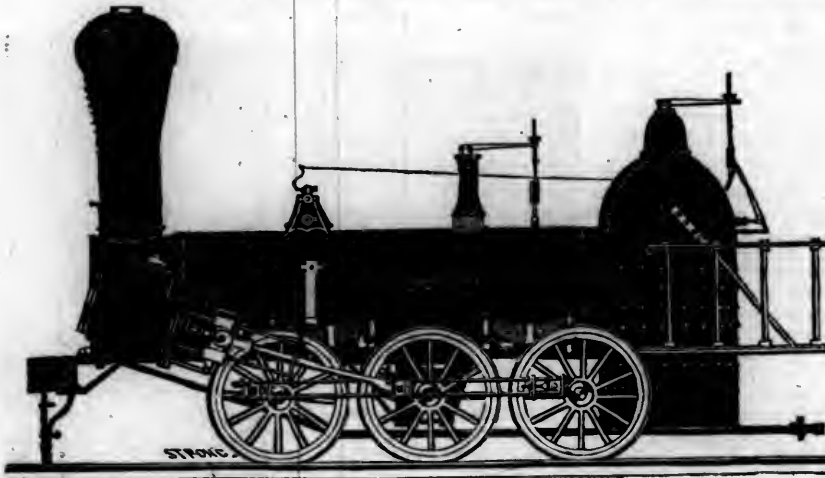
**WELDED WROUGHT IRON TUBES**

From 4 inches to 4 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



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**NORRIS' LOCOMOTIVE WORKS**  
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**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Biluminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY**, Civil Engineer,

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS**, 48 State st., or to **CURTIS, LEAVENS & CO.**, 106 State st., Boston, or to **A. & G. RALSTON & Co.**, Philadelphia. ja45

**MANUFACTURE** their Patent 6 Wheel Cōmlined and 8 Wheel Locomotives of the following descriptions, viz:

Class	Diameter of Cylinder	Stroke
1, 15 inches	20 inches	
2, 14	24	
3, 14 1/2	20	
4, 12 1/2	20	
5, 11 1/2	20	
6, 10 1/2	18	

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion.

Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

## PORTLAND AND MONTREAL RAILROAD.

We noticed, in a late number of the *Herald*, what appeared to us the somewhat singular advertisement of certain Boston capitalists, in which the people of Canada are informed that "for various reasons"—upon the nature of which the advertisers were mysteriously silent—"the Portland, (St. Lawrence and Atlantic Railroad) route, so called, is not the one calculated to promote the interests of the Canadas." After stating a few of the "various reasons," why we begged humbly to differ from our disinterested advisers, and held that the "Portland route, so called," was the identical line of road best calculated to promote Canadian interest, we added, that, we were, nevertheless, perfectly open to conviction, and that whatever the opponents of that route would condescend to mention the nature of their "various reasons," we, on our part, were ready to give them every attentive and respectful consideration. Whether in consequence of our certainly not unreasonable request or not, we cannot say, but we find in the last *Montreal Gazette* a long letter, dated St. Johnsbury, Vt., and signed "Erastus Fairbanks," in which the writer comes to the assistance of the Boston advertisers, and states his "various reasons" in favor of the route via Concord and Fitchburgh, and against that via Portland. This letter will be found in another column, and to it we would beg to direct the attention of the reader; for, while we consider Mr. Fairbanks' arguments extremely inconclusive, we do not mean to say that they are unworthy of consideration.

Having, then, perused Mr. Fairbanks' "reasons," we think the reader will grant that they are based upon two positions, and two only. First, that the country through which the Concord and Fitchburgh line will pass, is more wealthy and more densely inhabited than the district of Maine, which the Portland route will traverse; and, consequently, that the mere local traffic will be greater and more profitable by the first than by the second route. And, secondly, that as that portion of the route now constructed from Boston to Concord has paid so well, there is every prospect that its extension to the province line would be proportionately profitable, from the internal trade of the country through which it passes alone, without reference to what may be called the Foreign traffic, that "the stock will consequently be all taken," and the work will be constructed without delay.

Now, if Mr. Fairbanks' positions be correct, they certainly go to prove that a gradual extension of the Boston and Concord Railroad would be a wise and profitable undertaking; but they fail entirely in satisfying us that the construction of a railroad from Portland to our Province line, there to be connected with one from Montreal, would not be equally so to the stockholders, and infinitely more advantageous to the commerce of Canada. It may be as Mr. Fairbanks states, that the country traversed by the line of road he advocates is comparative-

ly wealthier and more fertile than that between Portland and the Canadian frontier—although this point is disputed by Judge Preble and Mr. Poor—at least as good authorities as Mr. Fairbanks—but is it not much more mountainous, and will it not, consequently, require a much larger capital to construct a railroad through the former than through the latter? There is no doubt that it is so, and that the geological features of the Maine route are as peculiarly favorable as those by Concord are the reverse. But when we consider that Portland is little over 100 miles from our frontier, while Boston is more than double that distance, and that, consequently, our share of the traffic must, before reaching the Atlantic seaboard by the latter route, traverse upwards of 100 miles further than by the former, we ask, even Mr. Fairbanks, whether he means to say, that the mere local traffic upon the route he advocates will, without the assistance of any foreign travel or freight, pay the interest upon the capital expended in constructing upwards of 100 miles of railroad, (certainly not less than £600,000,) through a comparatively speaking, difficult and mountainous country? If it will not, our Canadian traffic must help in doing so; in short, unless there be a reasonable prospect that the rates to be charged on the route by Concord to Boston, will be less than one half those to be charged on that through Maine to Portland, it must be evident, that, for this "reason" alone, "the Portland route so called," is the one calculated to promote the interests of the Canadas. We, of course, argue in the belief that the one line of railroad is just as certain to be constructed as the other. These remarks, however, apply merely to the question of the relative advantages which Canadian travel and traffic would derive from the existence of a railroad connecting the St. Lawrence with the Atlantic seaboard, supposing it to be a matter of no consequence whether the southern terminus of the line was at Boston or at Portland; but this is by no means the case, for, independent of the shortness of the line, and the geological advantages which it offers, we hold that "various" and good "reasons" may be adduced to prove that a direct communication with Portland would be more advantageous to Canada than with Boston. A few of these reasons we will now state. It must be remembered, that, although our share of the proposed railroad will open up a very valuable and fertile section of our country, the eastern townships, and a considerable and paying local traffic will be thus secured, still no one contemplates that this alone would sustain the work, but that its success must mainly depend upon the extent of foreign trade and travel using the line. It is, and most justly calculated, that by the construction of a railroad connecting the waters of the St. Lawrence with those of the Atlantic, Canada would not only be enabled to retain that portion of the trade in the products of the great western country, which she now possesses, but that

her carrying trade would, in consequence, be incalculably increased, and Montreal would become the great intermediate depot for this gigantic trade. Now, where is it that the agricultural products of Western America find their market?—where are the great staples of flour and provisions consumed? The answer is, that they are either shipped for foreign markets at some Atlantic port or are bought up for the consumption of the United States and British American fishing and lumbering establishments. Now, a glance at the map will at once satisfy the most careless observer that Portland possesses a combination of advantages which render it peculiarly adapted to the prosecution of the trade in question, and infinitely superior to those offered by Boston or any other of the Atlantic ports.

The first and most striking natural advantage which Portland possesses over Boston, in so far as Canadian commerce is concerned, is its proximity to the St. Lawrence—it being little over 100 miles from our frontier line, while Boston is nearly 230 miles from it. This advantage is further increased by the nature of the country between that line and Portland, it having been ascertained to be singularly well adapted for a railroad, and offering, from the head waters of the Connecticut river, an easy course to the Atlantic, uninterrupted by highlands, and consequently, requiring a comparatively small expenditure upon its construction, and proportionately moderate rates of charge for its use when completed. Then, Portland is the very heart and centre of the United States fisheries and lumbering establishments, among which an enormous amount of western produce is annually consumed, and which they have hitherto received via the Erie Canal and New-York. It also possesses the very best harbor on the American Atlantic seaboard—so easy of access that pilots are not required, perfectly safe and sheltered when attained, and rarely if ever obstructed by ice in the winter. Its geographical position is also most favorable for British trade, and, the railroad connecting it with Montreal once made, Portland would, undoubtedly be the port used by the British Royal Mail Steam Packets, its harbor being, as we have said, infinitely superior to that of Boston, and it being, in the actual distance of the voyage, some 30 or 40 leagues nearer the British Islands than that city. It is also nearer our own British fisheries and lumbering establishments in New Brunswick and Nova Scotia, by which a large amount of western produce is also annually consumed; and is, moreover, connected by railroad with Boston, which city, via Portland, is some few miles nearer Montreal than via Concord, and, therefore, "the Portland route, so called" will as effectually connect us with it as could the Concord and Fitchburgh route.

Lastly, the State of Maine, through which the Portland route runs, is one of the most rising and flourishing States in the Union, having no public debt, containing a population equal to that of Vermont and New

Hampshire combined, with a territory equal in extent to that of the above named States, together with Massachusetts, Connecticut and Rhode Island, and unquestionably of equal value in an agricultural point of view, having by far the most extensive lumbering trade of any State in the Union, and ranking as the third in the extent of its shipping tonnage. Now, the people of the State of Maine have, in so far as they can do, pledged themselves to construct, and as speedily as possible, their portion of the work; we are satisfied they are able and willing to fulfil that pledge, more especially as they must be blind indeed if they fail to see the great advantages its completion must confer upon them—advantages altogether independent of the mere profit received upon the capital invested in the work, although that, we doubt not, will be fairly remunerative.

These are a few of our reasons for presuming to differ from Mr. Fairbanks and those who insist that, "the Portland route, so called, is not the one calculated to promote the interests of the Canadas." On the contrary, we think it eminently calculated to promote our interests: 1st, on account of its comparative shortness; 2d, on account of the natural facilities existing for its construction; 3d, on account of its terminating in the very centre of the most extensive market for the produce of the west; and, lastly, on account of Portland being the most favorable port for British shipping in general, and the Royal Mail Steam Packets in particular. In conclusion, we would beg the attention of the friends and opponents of the Portland line to the following extract from the Buffalo Commercial Advertiser.—*Fas est et ab hoste doceri*—let us not despise the opinions of our rivals.

"It will be seen by the following that the project of constructing a railroad from the St. Lawrence, at Montreal, to the Atlantic, at Portland, goes on swimmingly. The route is so feasible, and the road will so certainly pay, that, notwithstanding the magnitude of the undertaking, we have no doubt it will be rapidly pushed on to completion. For all articles of western product, whether exportable or consumed in the New England States—as ashes, beef, pork, lard and lard oil, flour, &c., this route will prove a more formidable competitor to the Erie Canal than any other yet opened or proposed; and when completed, nothing, except a large reduction of our tolls, can prevent Montreal becoming the depot of western trade."

All, then, we can concede to Mr. Fairbanks and his friends is, not that the route via Concord and Fitchburgh could possibly "promote the interests of the Canadas" so effectually as that to Portland, but that, should the people of Maine fail in constructing the "so called" route, those interests would, doubtless, although to a minor extent, be promoted by uniting with any line of railroad which would give us a direct communication with the Atlantic. We cannot, however, permit ourselves to doubt either the power or the will of the people

of Maine successfully to carry out an undertaking, which, if completed, cannot fail to confer incalculable and lasting advantages upon them and their children—not only opening up their country and facilitating their internal communications, but in every human probability, rendering their city of Portland one of the greatest commercial emporia in North America. Whenever we are satisfied that, from whatever causes, the line by the "Portland route, so called," cannot be constructed, we shall be ready to advocate uniting our line with that by Concord and Fitchburgh, but certainly not until then.—*Montreal Herald.*

*Vermont and Canada Railroad.*—We have to congratulate all those who feel friendly to the interests of our city, and N. England generally, upon the prospect of a speedy movement in the continuation of the Fitchburg Railroad, so as to connect our city with the neighboring States of New Hampshire and Vermont, and with the British Canadian Provinces. It is the intention of the Massachusetts and Vermont Railroad Company to proceed immediately in the construction of a Railroad from Fitchburg to Winchendon, one of the border towns of this State, on the New Hampshire line. The Cheshire Railroad Company have recently opened their subscription book, and \$900,000 of the stock has already been taken. This sum fully authorizes the Directors to go on with the road, and preparations are now making for its early commencement. This Company will construct the road from Winchendon, at the Massachusetts line, through Keene, in N. Hampshire, to Bellows Falls, in Vermont. From thence it will be taken by the Massachusetts and Vermont Company, on some one of the routes that have been suggested, to Burlington, upon Lake Champlain.—*Boston Atlas.*

#### PRESENT STATE OF THE BOSTON AND CANADA RAILROAD.

The condition of the parties interested in this all important railroad, seems to be this: The people of Canada are convinced, that the proposed route from Montreal to Boston is decidedly the very best route for the inhabitants of Canada, Vermont and Massachusetts; inasmuch as it is chiefly through a populous, rich and prosperous region, and makes its depot in the heart of the great capital of the northern and eastern States; and whence direct intercommunication by steam and otherwise is now had, and must always obtain between Europe and the United States; and that consequently the stock of the road on this route, will be entitled to large annual dividends, and command a high price in the markets. Under this conviction, we understand the Canadians are ready to furnish the funds necessary to build the road through their own territory from Montreal to the American line. From that point the people of Vermont are prepared to go to the extent of their means, and proceed with the structure as far as the line of Massachusetts. And hence, it only remains for the

people of Massachusetts to determine whether they will subscribe for the remainder of the work, and see it completed into the city of Boston. Of this we entertain not the slightest doubt—particularly when we consider the vast and enduring advantages this grand avenue of iron will confer upon our own city and every mechanical, commercial and other branch of business connected with it, and its environs. This question, which is attracting so much attention among the community at large, will be decided in a few days. The people of the interior are only awaiting the action of a few of our eminent merchants, manufacturers and capitalists. The whole matter is left for them to decide. If they say they will take an interest in the enterprise—the work is done; and the London bankers, and all the principal men and industrial classes here, are ready to come forward at once. But should the leading capitalists, in consequence of their extensive private business, neglect the present opportunity, it may be lost, and lost to Boston forever. We repeat, the Bostonians have a few, and but a few days to make up their minds. Should they delay too long in coming to a conclusion, this extended and most promising line will have its depot in the city of Portland; and many of the innumerable gains derivable from it will be diverted from the capital of our State, in an instant, as it were, and for all time. It is true, as we have been informed, the Eastern railroad company and the Maine extension company are opposed to the Canada road having a terminus in Boston—flattering themselves, that if the terminus be in Portland, those companies may, forsooth, get some additional business on their own railways. But in this, it is said, they deceive themselves; inasmuch as in case the terminus be fixed in Portland, a party stands ready to propose a new railroad from a certain point near the Portland terminus, by which the freight and passengers from and to Canada, may reach or leave Boston without being obliged to pass over either the Eastern or the Maine extension railways. It is hoped, however, that no such other Eastern railway may be undertaken; and that the public wish and the public good may be alike accomplished, by an immediate action on the part of our capitalists and enterprising men in favor of the Vermont and Massachusetts line for the Montreal and Boston railroad.—*Bost. Trav.*

#### ANNUAL REPORT OF THE PRESIDENT OF THE MADISON AND INDIANAPOLIS RAILROAD CO.

The Report of the late President, N. B. PALMER, Esq., made on the 22d February, 1844, stated amongst other things, that one year had then elapsed, since the Company took possession of the 28 miles of road finished by the State; that in June, 1843, it had been extended 3 miles to Scipio; in September, 7 miles further to Elizabeth Town; and February 1, 1844, 4½ miles to Clifty: that the receipts from tolls, from February 20th, 1843, to February 3d, 1844, were \$23,110 33, the expenses \$12,072 53, leaving a balance laid out in the construction of the road of \$10,037 80. A dividend



was then made of 8 per cent. by adding to each person's stock, paid up for a year in that proportion. The surplus, supposed to be left, has been required to pay the rent, then due State and expenses previously incurred.

This railroad, it will be recollected, was commenced eight years ago, by the State, and over \$1,600,000 expended. Of the distance to Edinburgh, 56 miles, one-half was finished with a good T rail, and about one-half the grading was done on the other 28 miles. Though, there was very great waste, in the expenditures of the State, especially on the inclined plane, and the bridges south of Vernon, yet the work done ought, even now, to be worth half the original cost. The State being without funds and the road unprofitable, as it yielded only \$1,152 04, over the expenses in 1841; it was proposed by the Legislature of 1842, to be surrendered to the Company, on condition of keeping it in repair, finishing ten additional miles of road every two years, and paying a rent equal to the profits of 1841, until 1846, and afterwards the profits were to be divided between the State and the Company, according to the length of road finished, by each respectively.

The stock subscribed and paid, with the profits realized up to this time, being about 17½ per cent. on the two years' operations, and the allowances on contracts for stock to be made this session, will make the whole stock, that is, or should be, on the books of the Company, amount to \$120,274 45.

On the first of July, 1844, the road was extended 2½ miles from Clifty to Columbus. The grading has been completed to Edinburgh, 11 miles further; about 4 miles of this distance is ready for the iron, and the balance is expected to be made so within sixty days: 330 tons of iron, heavy flat bar, have been contracted for, of which 60 tons have been received, and without any unexpected occurrence, the cars will run to Edinburgh by the first of June. The Company is now in debt in the bank, \$16,000, it must pay this spring for the new locomotive \$6,500; for the first instalment on the iron, \$5,000; and about \$9,500, for the bridge over Flat Rock, the wood work to Edinburgh, the depot at that place, and for laying down the iron. The whole cost of the iron will be about \$16,000 more, which is to be paid in six instalments, running from three to thirteen months, from the average time of the delivery of the iron. There will be about \$50,000 of debts, principal and interest to be paid within a year, for a portion of which, temporary loans must be made. But if nothing shall occur out of the usual course of things, the indebtedness of the Company for completing the road to Edinburgh, will, with all expenses, be paid by the first of September, 1846, from the receipts for tolls alone.

Of the 11 miles about being finished, 10½ miles are perfectly straight, nearly level, and without any considerable cut or embankment, and the remaining part of the route to Indianapolis, will be almost as favorably

located. By the engineer's survey and estimate, the excavation for the whole distance, 30 miles, amounts only to 185,276 yards, the embankments 286,739 yards, and the cost of grubbing, grading, and bridging, \$96,627 24. The superstructure complete, if a ½ by 2½ inch flat bar be used, will cost the further sum of \$96,786 96, or \$150,000 for a good T rail.

It has been a subject of deep regret to the Company, that on the 28th of March, last, by the misconduct of a person in their employ, two passengers and three others, lost their lives, and two others were much injured on the inclined plane near Madison. The rails being slippery, the conductor gave positive orders, that until the passenger car reached the bottom, no other should be started on the plane. But, in violation of these orders, a heavy wood car was almost immediately sent down, and the breaks being insufficient in the then state of the road, the passenger car was overtaken, thrown partially from the track and crushed. Three-fourths of the persons on the cars were not hurt. Though the Company has always been embarrassed for funds, the directors cheerfully donated \$650 to the widows of the deceased, and a compromise has been made with the persons injured, so that there will be no recourse to litigation. No passenger has ever been injured on any other occasion, and at this time, those, who manage the business both on the plane and the line are confident that it is as free from danger, as any other mode of conveyance.

The expenses of the road for repairs, the last year, have been large beyond expectations. To clear out the cuts, raise the embankments, and remove and level the track on the plane, have cost about \$3,700. The cross ties and ditches have required an expense of \$3,000, and the bridges, of \$2,300. Much of the work was commenced late in the season; suitable contractors were not always to be had, and as the dilapidations tended to increase rapidly by delay, the repairs were, occasionally, so much hurried, that the Company did not always receive a fair equivalent for the money paid. These matters are submitted to the directors, with the hope that where errors have been committed, their recurrence will be prevented. It is very desirable that better timber should be procured for repairs. Oak ties sawn from thrifty trees, seasoned and bedded in clay, will last ten or twelve years; but when ties or strings are sawn from old trees and laid at once in close contact with loose loamy soil, they commence decaying rapidly in four or five years. It is said that cedar can be had, both from Kentucky and Tennessee, and negotiations are in progress to obtain it. The locust grows rapidly, and no time should be lost in commencing its cultivation along the route. If properly attended to, it may be ready to replace the first set of ties, as they decay, on the north part of the road.

The five bridges between Madison and Vernon, in all over 1,600 feet in length, where a span, of fifty feet for each, would

have been sufficient, ought as soon as possible to be shortened or changed into culverts. In their present condition they are never entirely free from hazard, and the constant repairs required, will probably in ten years cost as much as the proposed change.

The business of the road, for the last year, has been more regular, through every part of it, than ever heretofore. In July, when the receipts were lowest, they averaged \$82 per day; in November and December, for near seven weeks, they rose to \$200, but for a large portion of the year, they have ranged from \$100 to \$130 per day.

Exclusive of the road repairs, done by contract, for which a preference is given, where practicable, the other expenses for officers, clerks, machinists, mechanics, borers, &c.; for transportation, repairs, and wear of machinery, amount to about \$50 per day for running one engine all the time, and another one half the time. Near forty persons are constantly employed. As a good deal of valuable work is continually being added to the machinery, cars, buildings, &c., it is not easy to state the precise amount, which should be charged to the expenditures. The horse power used on the plane and the transhipment of all freights at the hill depot, must make the expenditures appear large for the business done. An efficient change in this respect will, it is hoped, in time be effected. By the tabular statement annexed, it will be seen that the way passengers during the year amounted to 8,359, the through passengers 6,236, receipts from them \$14,910 80. The freight transported was about 11,486 tons; the charges for freight \$25,362 68, being an increase over last year, of 3,149 passengers, 3,556 tons of freight, and \$18,211 67 in tolls. As the average extension of the road the ensuing year, will rather exceed that of the last, the receipts will probably not fall short of \$30,000.

That until July last, the road did not reach a convenient point for taking freight, that the mode of transportation is new and has not yet superseded other modes along the line, that the motive power of the Company did not permit them to take all the freight offered, and that they cannot yet afford to reduce the rates as they will, when they have more facilities for doing business, are sufficient reasons for the present limited business and receipts. When the road reaches Indianapolis, which contains near 5,000 inhabitants, and is the centre of a region not surpassed in the Union for combined agricultural and manufacturing advantages, the business transacted will be ten times its present amount, and the tolls, at reduced rates, will at once be near one hundred thousand dollars a year.

Respectfully submitted,

S. MERRILL, Pres't and Sup't.

R. R. Office, Madison, Feb. 26, 1845.

*Providence and Worcester Railroad.*—The capital of this road is to be \$1,000,000. We learn from several sources that \$700,000 has been subscribed, and that the friends of the road consider its construction a matter of certainty.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds, for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
							Per share.	Per cent. per annum.				
Arboath and Forfar.....	15	102,000	35,000	138,870			0	12 6 2	10 0	25 27	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5 0 2	10 0	100 100	Barnsley Junction.....	200,000
Brandling Junction.....	23	161,700	365,470	481,452						50 54	Belfast and Ballymena.....	385,000
Bristol and Gloucester.....	37½	400,000	211,000							30 36	Blackburn and Accrington.....	400,000
Chester and Birkenhead.....	14½	750,000	143,170	518,989	5,856	13,148	0	8 6 1	14 0	50 32	Birk. and Ches. Junction.....	1,000,000
Dublin and Drogheda.....	31	450,000	150,000	500,869						55 72	Bolt., Wigan and Liverpool.....	800,000
Dublin and Kingston.....	6	200,000	152,200	359,000			6	0 0 6	0 0	100 166	Caledonian.....	1,800,000
Dundee and Arbroath.....	16½	100,000	49,445	153,416	2,989	6,993	1	5 0 5	0 0	25 29	Cambridge and Lincoln.....	1,250,000
Durham and Sunderland.....	18½	169,350	124,055	270,392	9,889	17,702				34 29	Chatham and Portsmouth.....	5,000,000
East County and North and East.....	86½	4,443,200	1,341,155	3,931,905	47,385	118,726	1	6 6		45 57	Chester and Wrexham.....	120,000
Edinburgh and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1	2 6 4	10 0	50 57	Churnet valley.....	1,800,000
Glasgow, Paisley and Ayr.....	51	937,500	1,066,951	12,446	36,736	1	2 6 4	10 0	50 60	30 36	Direct Northern to York.....	4,000,000
Glasgow, Paisley and Greenock.....	22½	650,000	216,666	787,884	11,572	23,177	0	5 0 2	0 0	25 12	Dublin and Belfast.....	950,000
Grand Junction.....	104	2,478,712	2,453,169	84,309	195,080	5	0 10 0	0 0	100 210	100 119	Dundee and Perth.....	250,000
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1	12 6 3	5 0	75 138	Edinburg and Northern.....	800,000
Great Western.....	221½	4,650,000	3,679,343	7,272,539	132,235	369,904	3	10 0 7	0 0	100 100	Ely and Bedford.....	270,000
Hartlepool.....	15½	438,000	155,540	719,205						34 29	Glasgow, Dum. & Carlisle.....	1,300,000
Leicester and Swannington.....	16½	140,000		140,000	2,207	6,317	1	5 0	5 0 0	50 50	Gt. South and West Ext.....	1,200,000
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5	0 0	10 0	100 203	Gt. Grimby and Sheffield.....	600,000
Llanelly.....	27	200,000	44,000	221,624			1	0 0	2 0 0	87 87	Harwich and E. coun. Jun.....	160,000
London and Birmingham.....	12½	6,874,976	9,288,845	6,393,468	92,823	405,768				100 218	Huddersfield & M. rl. & cl.....	600,000
London and Blackwall.....	3½	804,000	266,000	1,315,640	15,978	28,870				16 6	Kendal and Windermere.....	125,000
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0	12 0	2 8 0	50 47	Leeds and Dewsbury.....	400,000
London and Croyden.....	8½	550,000	229,000	761,885	7,583	10,545	0	5 0	2 10 0	14 17	Leeds and Thirsk.....	800,000
London and Greenwich.....	31	759,383	233,300	1,040,930	15,193	28,933				13 10	Liv. Ormskirk and Preston.....	600,000
London and South Western.....	92½	2,222,100	630,100	2,596,291	68,457	150,469	1	12 6	6 10 0	41 73	London and Portsmouth.....	1,750,000
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1	0 6	5 0 0	40 48	London and York.....	5,000,000
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2	2 0	4 10 0	93 110	Londonderry & Enniskillen.....	500,000
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761				71. & 101.	Lynn and Ely.....	200,000
Midland railway.....	178½	5,158,900	1,719,630	6,279,056	76,983	281,898				100 96	Manchester, Bury and Ross.....	300,000
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947	4	0 0	4 0 0	100 105	Manchester and Buxton.....	250,000
Newcastle and Darlington.....	23	500,000		405,728						21 49	Mullingar and Athlone.....	
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466				2 0 0	Newcastle and Berwick.....	700,000
North Union.....	39	739,201	308,306	1,015,417	9,071	37,794	2	10 0	6 16 8	100 104	Richmond & W. End Junc.....	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415						0 16 0	Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000			31,247	91,171				8 0 0	Sheffield and Lincolnshire.....	650,000
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066				nihil.	Shrewsbury and Gd. Junc.....	400,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876				nihil.	Shrew. Wolv. Dudly & B.....	900,000
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0	10 6	2 2 0	50 39	Trent Valley.....	900,000
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1	0 0	6 5 0	100 55	West London Extension.....	64,000
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0	15 0	5 1 8	29 37	West Yorkshire.....	1,000,000
armouth and Norwich.....	20½	187,500	62,500	230,250						nihil.	Whitehaven and Maryport.....	100,000
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2	10 0	10 0 0	50 100	FRENCH RAILWAYS.	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15½	15½	Loughborough.....	70	142½	142½	70	1140	
Anti Dry Rot.....	10,000	18½	18½		2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35		34½		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27½	27	Mersey and Irwell.....	500	100	100	10		
Gt Western Steam Pa.....		100			25		Macclesfield.....	3,000	100	100	2½	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6½		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1½		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental.....	11,493	50	50	7	64½	65	Regents or Loncon.....	21,418	33½	33½	2½	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....				6			Somerset coal.....	800	150	150	7½	123	123
Reverstonary Int. Soc.....	5,325	100	100	4½	104	104	Stafford and Worcester.....	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36½	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7½	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Sewern & Why & Rail Av.....	3,762	26½	26½	5½	30	30

Canals.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Ashby de la Zouch.....	1,432	113	av.	4	70	70	Trent and Mersey.....	2,600	50	50	65	495	
Barnsley.....	720	100	100	14	180	180	Thames and Medway.....	8,149	19½	19½		10	10
Birmingham, 1-16 share ..	3,000	118½	79	10	150	160	Warwick and Birmingham.....	7,000	100	100	10½	167	
Do. and Liverpool Junction	4,000	160	100		13½	13½	Warwick and Napton.....	980	100	100	8½	122	
Coventry.....	500	100	100		20	365							
Cromford.....	460	do.	do.	24	250	250							
Derby.....	600	do.	do.	9	105	105							
Erewash.....	231	do.	do.	32	440	440							
Forth and Clyde.....	1,297	400½	40½	4	440	440							
Grand Junction.....	11,600	100	100	7	162	161½							
Grand Surrey.....	1,500	do.	do.		20								
Gloucester and Rerkley.....	5,000	do.	do.		8	8							
Grantham.....	749	150	150	8	185	185							
Lancaster.....	11,699	47½	47½	3	40	40							
Leeds and Liverpool.....	2,897	100	100	34	640	640							
Liccester.....	545	140	140	9	139	139							

Water Works.

Birmingham.....	4,800	25	25	3½	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7½	88	90
New River L. B. Ann.....	1,500			2½		
Manchester and Salford.....	6,486	av.	30	8½	57	57
Vauxhall, lt. S. London.....	1,000		100	5	55	55
West Middlesex.....	8,294	av.	63½	6½	126	127

Docks.

Commercial Dock.....	1,065	100	100	3	80	
East and West India.....		sto.		5½	137	
London.....	3,238,310	sto.		4½	114½	115
St. Katharine.....	1,352,752	sto.		5	116	171
Southampton.....	7,000	50	50			



RAILROADS.		Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	SALES.	
							Gross.	Nett.		Gross.	Nett.			April Shares.	Price.
Me.	1 Portland, Saco and Portsmouth.	50	1,200,000				89,997	47,166	7	124,497	74,841	6	113½	102	
N. H.	2 Concord.	35	200,000									12	70½	139½	
Mass.	3 Boston and Maine.	56	1,400,000				178,745	68,499	6	233,101	86,401	6½	110½	112½	
"	4 Boston and Maine extension.	17 1-4	1,000,000	unfin.											
"	5 Boston and Lowell.	26	1,500,000				277,315	144,000	8	316,909	147,615	8	120½	120	
"	6 Boston and Providence.	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	108½	109½	
"	7 Boston and Worcester.	44	2,914,076				4 0,141	162,000	6	428,437	195,163	7½	116½	117½	
"	8 Berkshire.	21		not stated				17,500	7	17,737					
"	9 Charlestown branch.		280,260						13	34,654	13,971	5½	70½	82½	
"	10 Eastern.	51	2,388,631				279,563	140,595	6	337,238	227,920	8	109½	109	
"	11 Fitchburg.	50	1,150,000	just opn'd									120	124	
"	12 Nashua and Lowell.	14 1-2	380,000				81,079		8	94,588	34,944	10	121	126½	
"	13 New Bedford and Taunton.	20	430,962				50,671	24,000	6	64,998	24,000	6			
"	14 Northampton and Springfield.		172,883	unfin.											
"	15 Norwich and Worcester.	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	70½	72	
"	16 Old Colony.		87,820	unfin.									102	104	
"	17 Stoughton branch.	4	63,075	unfin.											
"	18 Taunton branch.	11	250,000					20,000	8	96,687	20,000	8	118		
"	19 Vermont and Massachusetts.														
"	20 West Stockbridge.	3	41,516	200		100						4			
"	21 Western, (117 miles in Mass.).	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	102½	101½	
"	22 Worcester branch to Milbury.		8,431	506											
"	23 Housatonic, (10 months.)	74	1,244,123							150,000			82		
Con.	24 Hartford and New Haven.	38	1,100,000	100,000	10,000	100						6	89	94½	
"	25 Hartford and Springfield.	25 1-2	600,000	400,000	2,000	100									
"	26 Stonington, (year ending 1st Sept.).	43	2,600,000	650,000	13,000	100	113,889			154,724	79,845		41	39½	
N. Y.	27 Attica and Buffalo.	31	336,211				45,896	7,522		73,248	48,033	0			
"	28 Auburn and Rochester.	78	1,796,342	200,000	14,000	100	189,693	112,000		237,607	152,007	6	106		
"	29 Auburn and Syracuse.	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
"	30 Buffalo and Niagara.	22	200,000		1,500								100		
"	31 Erie, (416 miles).		5,000,000										31½	29	
"	32 Erie, opened.	53						48,000		126,020	59,075				
"	33 Harlem.	26	1,206,231							140,685	62,399		70	72	
"	34 Hudson and Berkshire.	31	575,613		50					35,029	1,941	0	14		
"	35 Long Island.	96	1,610,221	392,310	29,846					153,456	58,996	0	75½	76	
"	36 Mohawk and Hudson.	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	64½	61	
"	37 Saratoga and Schenectady.	22	303,658				42,242	3,000	1	34,666	8,455	0			
"	38 Schenectady and Troy.	20 1-2	640,800				28,043			32,646	6,365	0			
"	39 Syracuse and Utica.	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	115		
"	40 Tonawanda.	43	727,332				76,227			114,177	75,865	5			
"	41 Troy and Greenbush.	6	180,000												
"	42 Troy and Saratoga.	25	475,801				44,325	21,000		38,502	9,971	2½			
"	43 Utica and Schenectady.	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	129		
N. J.	44 Camden and Amboy.	61	3,200,000				632,832	383,880		784,191	404,956		110½	111	
"	45 Elizabethtown and Somerville.	26	500,000												
"	46 Morris and Essex.														
"	47 New Jersey.	34	2,000,000												
"	48 Paterson.	16	500,000									6	85		
Pa.	49 Beaver Meadow.	26	1,000,000												
"	50 Cumberland Valley.	46	1,250,000												
"	51 Harrisburg and Lancaster.	36	860,000										30		
"	52 Hazleton branch.	10	120,000												
"	53 Little Schuylkill.	29	900,000												
"	54 Blossburg and Corning.	40	600,000												
"	55 Mauch Chunk.	9	100,000												
"	56 Minehill and Schuylkill Haven.	18	315,000						12				143½		
"	57 Norristown.	20	800,000										6½	7	
"	58 Philadelphia and Trenton.	30	400,000										104		
"	59 Pottsville and Danville.	29 1-2	1,500,000												
"	60 Reading.	94	9,457,570	7,447,570	40,200	50				597,613	343,511		50½	49	
"	61 Schuylkill valley.	10	1,000,000												
"	62 Williamsport and Elmira.	25	400,000				20,000								
"	63 Philadelphia and Baltimore.	93	4,400,000				43,043	200,000			210,000		43½	42	
Del.	64 Frenchtown.	16	600,000												
Md.	65 Baltimore and Ohio, (1st Oct.)	188	7,623,600				575,235	279,402		658,620	346,946		48½	50½	
"	66 Baltimore and Susquehanna.	58	3,000,000										5	6	
"	67 Baltimore and Washington.	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	68 Greenville and Roanoke.	17 1-2	260,000												
"	69 Petersburg and Roanoke.	60	969,880							122,871	72,898	3			
"	70 Portsmouth and Roanoke.	78 1-2	850,000												
"	71 Richmond and Fredericksburg.	61 1-2	1,200,000												
"	72 Richmond and Petersburg.	22 1-2	700,000												
"	73 Winchester and Potomac.	32	500,000												
N. C.	74 Raleigh and Gaston.	84 1-2	1,360,000												
"	75 Wilmington and Raleigh.	161	1,800,000												
S. C.	76 South Carolina.	136			34,410	75				532,871	140,196	5			
"	77 Columbia.	66	5,671,452				201,464	77,456		328,425	180,701				
Ga.	78 Central.	190	2,581,723				227,532	93,190							
"	79 Georgia.	147 1-2	2,650,000				248,026	158,207		248,096	147,523				
Ky.	80 Lexington and Ohio.	40	500,000												
Ohio	81 Little Miami.	40	450,000												
"	82 Mad-river.	40	400,000												
Ind.	83 Madison and Indianapolis.	56	152,000												
Can.	84 Champlain and St. Lawrence.	15	212,000					12,000		58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.  
 Thursday, May 1, 1845.

In our last we gave the remaining portion of Col. Gadsden's report on the South Carolina company. It contains a variety of details, and of practical information, which will be perused with interest.

The article at the beginning of this number from the Montreal Herald, puts the railroad thence to Portland in more favorable light than any article which has fallen under our notice. We found it in the Portland Advertiser, which paper very properly gave it without comment. Even the engineering advantages are given better than in any of the numerous documents we have seen, not excepting the report of the engineers. We observed in the Journal of the 27th March, "the first question is, which route is best for Montreal?" and it will be seen that view pervades the Herald's remarks. The construction of a railroad from Saratoga to Whitehall will give a communication by steam between Montreal and New York and Boston during the season of business, and as the Portland route must compete with these formidable rivals, it cannot afford to lose any advantage it possesses—the saving in distance being immensely the greatest. This advantage is of course appreciated to some extent by all, but it would occupy some space, and require some days' unremitting attention to discuss it thoroughly. If the through business be very great, it will be difficult to overrate its effects in competing with the route via Boston or the St. Lawrence.

Our Vermont exchanges generally are full of railroad matters, and we hope the Green Mountain State will not much longer form one of the two or three States without a single railroad—an unenviable distinction in our eyes.

The Newburyport Herald well remarks that the Bostonians seem to be stretching their arms all over the country. A year ago or more they obtained control of the Reading railroad, one of the most costly and unprofitable, but at the same time useful roads in the country. It cost, if we remember rightly, not far from ten millions of dollars, runs directly to the coal mines of Pennsylvania, and by the facility of transportation which it offers, has cheapened the price of coal nearly two dollars per ton, from what it would have cost without this road. Yet the stockholders of the road have never received any dividend, owing to the heavy debt incurred, and the stock had sunk to about nineteen dollars per share. The Bostonians have not yet got a dividend; but they will a year or two hence, as the receipts are continually increasing. Now the capitalists and brokers of Boston have taken hold of another of the bankrupt southern railroads—that from Wilmington to Weldon. This

road is on the great southern route, and 162 miles long. There is not a rock over the whole line, nor a cutting over eight feet deep, and 47 miles of it is perfectly straight, yet it has been so miserably managed that, though the receipts are \$300,000 a year, it has never paid a dividend—the expenses swallowing up the receipts. This is the case with all the roads in the southern country: for, although they are cheaply constructed, and the travel is great, they are badly managed, and the transportation is not sufficient to indemnify their proprietors. The Bostonians have now taken hold of the stock, and have sent on a committee to investigate matters, so that probably in a few years they will make it a profitable road.

WESTERN AND WORCESTER RAILROAD.—In the supreme judicial court, on Monday, a petition was presented by R. Fletcher, Esq., on behalf of the Western railroad, praying the court to appoint three commissioners to settle the rate of fare for passengers and freight, to be paid by the Western road to the Worcester, in accordance with the act of the legislature, passed in March last.

An order of notice was directed to be issued, to be served on the president of the Worcester road—and publication to be made in the Daily Advertiser, returnable in thirty days.

It is understood that the prayer of this petition is to be opposed by the Worcester road, in every possible shape, and by all legal means. The rates of fare fixed by the commissioners, and agreed upon by the two companies last year, expired on the 13th instant, nor can any compromise be agreed upon by the two corporations. The law passed at the last session of the legislature, authorizes the supreme court, in case of the non-agreement of the two roads as to the rates to be paid by the Western railroad, to appoint three commissioners, who, after a hearing of the parties, should fix a tariff of prices.

The right of the legislature to pass the act in question, and several grave and serious questions of law involving the rights of the Worcester corporation, will be raised, which bid fair to keep the matter from final action for some time.—[Atlas.]

THE COAL TRADE.—Sent by railroad from Pottsville and Port Carbon, for the week ending on Thursday evening last, April 24.....5,612-10  
 Per last report.....39,107-23

Total.....44,719-38  
 From Schuylkill Haven.....7,823-17  
 Per last report.....77,098-90

Total.....84,921-17

BY CANAL.

From Pottsville and Port Carbon.....3,618-16  
 Per last report.....17,691-05

Total.....21,310-01

From Schuylkill Haven—total up to Thursday evening, April 17.....600-16  
 Per last report.....1,739-09

Total.....2,340-05

From Port Clinton.....1,476-18  
 Per last report.....3,518-19

Total.....4,995-17

Total by canal.....28,646-03  
 Total by railroad.....129,640-55

Total by railroad and canal.....153,153-61  
 Freights from Pottsville to Philadelphia, 70 cents, to New York, \$1 80.

The following are the rates of freight from Richmond and the Schuylkill to eastern ports:

To Salem.....\$2 00 to 2 12 per ton  
 To Boston.....2 18 to 2 00 "  
 To Portland.....2 25 to " "  
 To New Bedford.....1 45 to 2 50 "  
 To Providence and Fall river.....1 40 to 1 50 "  
 To New York.....1 00 to " "

The Commercial List states that the demand is brisk for the supply of other markets and prices are very firm. Cargo sales of white ash Schuylkill

lump, at \$3 25, and broken at \$3 37½ a \$3 50; red ash lump, \$3 50 a \$3 62½, and broken, \$3 75 per ton, cash. Lehigh lump, \$3 37½, a 3 50 and broke, 3 62½.—Miners' Journal.

LEHIGH COAL TRADE.—Despatched this season up to 4th mo. 26th, 1845, from Mauch Chunk.  
 Lehigh coal and navigation co.

Summit,.....4352  
 Room Run,.....873-5225  
 Beaver Meadow railroad and coal co.,.....3669  
 From Penn Haven.—Hazleton coal co.,.....3123  
 From Rock Port.—Buck Mountain coal co.,.....519

9 33

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines,.....8795  
 Room run do.,.....1861-10656  
 Beaver Meadow railroad and coal co.,.....1494  
 From Penn Haven.—Hazleton coal co.,.....1895  
 From Rock Port.—Buck Mountain coal co.,.....724

18 402

MOUNT CARBON RAILROAD.—The amount of coal transported over this road for the week ending on Thursday evening last, is

Per last report,.....5783

Per last report,.....35,050

Total,.....40,833

PINE GROVE COAL TRADE.—Transportation on Union canal railroad for this season, up to April 1.

Tons cwt. qr.  
 January,.....271 1 1  
 Feb. and March,.....1259 18 3-1531 00

Amount transported on Swatara railroad, during March, 1845.....548 16 0

Transportation on Union canal railroad from 1st to 15th April, inclusive, 2136 1 2  
 Per last report,.....1531 0 0-3,667 1 2

Transportation on Swatara railroad, from 1st to 15th April, inclusive, -1,077 0 0  
 Per last report,.....548 16 0-1625 16 0

MINEHILL AND SCHUYLKILL HAVEN RAILROAD.—The following is the amount of coal transported over this road, for the week ending on Wednesday evening last:

Per last report,.....8,284-19

Per last report,.....78,044-00

Total,.....86,329-07

TOLLS.—Tolls on the Susquehanna and Tide Water canals to the 19th April, 1845, \$13,363 86  
 Do. to the same date last year,.....10,045 35

Increase in 1845,.....\$3,318 51

PROGRESS OF RAILWAYS.—The increase in the traffic receipts of the undermentioned twenty-five railways for the first eleven weeks of this year, as compared with the corresponding period of last year, amounts to £158,641—viz:

Birmingham and Gloucester.....£6,545  
 Chester and Birkenhead.....743  
 Eastern counties.....3,371  
 Edinburg and Glasgow.....3,728  
 Glasgow and Greenock.....189  
 Glasgow, Paisley and Ayr.....2,609  
 Grand Junction.....7,859  
 Great North of England.....2,808  
 Great Western.....19,847  
 Liverpool and Manchester.....5,687  
 London and Birmingham.....9,494  
 London and Brighton.....4,032  
 London and South-western.....2,108  
 London and Croydon.....1,761  
 Manchester and Birmingham.....5,048  
 Manchester, Bolton and Bury.....1,061  
 Manchester and Leeds.....8,932  
 Midland company.....15,909  
 Newcastle and Carlisle.....2,078  
 North Union.....3,414  
 Preston and Wyre.....1,319  
 Sheffield and Manchester.....1,545  
 South-eastern and Dover.....28,497  
 Ulster.....194  
 York and North Midland.....19,777  
 Total.....158,641

## CENTRAL RAILROAD.

The reports of the president and engineer of the Central railroad, published in the Savannah papers, give a very full and satisfactory exposition of the affairs of the company, so much so, that had we space and time, we should be glad to publish them entire.—We were prepared for a very favorable account of the business of the last season, as the results of our own observation, for we have frequently had occasion to notice the system and regularity with which the extensive and increasing business of the road has been conducted, and the ability and faithfulness exhibited by each and all of its officers. But we have been most agreeably surprised with the very favorable results which these two reports of the president and engineer have developed. We were not prepared for the very prosperous state of affairs that has been exhibited to us, and it must be gratifying not merely to stockholders, but to the public at large, to learn that the revenue of the company has exceeded the expectations of the most sanguine friends, and its expenses fallen short of the very liberal estimate made by the engineer.

We are constrained to curtail these very interesting but elaborate reports, and condense them into synopsis, which we will endeavor to make as intelligible to our readers as possible, with a regard to succinctness.

The earnings of the road in cash, ending the 3d December, 1844, was \$337,857 79. The whole expense of repairs of road and machinery, etc., for the same period, was \$147,719 52, leaving the net receipts, \$180,138 27. The amount received from other sources during the same period, was \$127,354 59—making a total of receipts from all sources, for the year ending 3d December, 1844, of \$455,212 38. The whole expenditures for the same period, comprising road expenses, bank expenses, deposits, law expenses, road bonds, etc., amount to \$415,658 15—leaving a balance on hand 3d December, 1844, of \$39,554 23.

The condition of the company on the 7th of April, was as follows: Total liabilities, including those of the bank and road of every kind, \$696,948 91. Resources, independent of the road, depots, machinery and appurtenances, \$270,168 18—of which \$58,339 45 is allowed for depreciation and bad debts, leaving a total of assets of \$205,386 45. The road with its fixtures, are estimated at cost, viz: \$2,653,202 01. The business of the road is progressing beyond all expectations. The earnings of the months of December, January, February and March, amount to \$142,337 92, exceeding the earnings of the same months last year, \$29,753 53. Placing the net receipts of the road at \$200,000 per annum, for the next three years following December, 1845, which is a low estimate, the president calculates that by the 1st of December, 1848, the company will be free of debt, and the stockholders will own a road unencumbered, and which will yield them at least 10 per ct. per annum.

During the past year, the stock of the

company has risen in market, from twenty dollars per share to fifty, and the bonds from seventy-five cents on the dollar, to par.—The bank notes are promptly redeemed on presentation, and are bankable in all the banks of the city.

The condition of the road is much improved, and is as good now as ever it was.

For a business of \$450,000 per annum, which the engineer considers a reasonable estimate, the whole expense of operating the road, would not exceed \$200,000.

The annual deterioration of the railroad iron is fixed at 5 per cent.

The above is a very imperfect synopsis of these very interesting reports. The operations of the company have in every respect exceeded expectation, and must be very satisfactory to the stockholders, affording them a positive assurance of the ultimate (and at no distant day) profitability of the work, and that although for a time their investments have been unproductive, they will very soon realize a remunerating return.

It is a proper occasion to speak of the claims of the managers and officers of this road to public favor and confidence. We have no hesitancy in saying that their duty has been discharged with fidelity, and with an eye single to the interest of the company and stockholders. All the money has been made that could have been, and none has been expended uselessly or unnecessarily. Very few accidents have occurred, the property of the road has not been injured by the carelessness or ignorance of its servants; the transits of the passenger and freight trains have been regular and uninterrupted, and a system of method and order has prevailed in every department. The president, R. R. Cuyler, Esq., has proved himself a capable and efficient officer. His position at first was an embarrassing one, for he was elected to succeed a master spirit, one whose place it was difficult to fill in any community. But he has sustained himself most worthily—agreeably disappointing those who were disposed to disparage him, and fully realizing the expectations of those who knew and could appreciate his merits. The engineer, L. O. Reynolds, Esq., is identical with the entire work, as a faithful, vigilant and competent officer; and the agents generally, (and we believe we know them all,) for their application to business, and accommodating and gentlemanly deportment, are deserving of the support of their employers, and the favor of the public. This much we are bound to say, as the sentiments of those who are interested in the Central railroad at this end of the route.

We take the above from the Macon (Ga.) Messenger. The success of the Massachusetts railways is pretty well known, but few here are aware that next in order come South Carolina and Georgia. In judging of the merit to which any work is entitled, we must take all the circumstances of the case into consideration—the objects aimed at, and the

means of the projectors. It is very easy with unlimited means, to build a railroad which shall carry passengers comfortably, but when capital is scarce, and the total trade of the country by no means great, it becomes very difficult to decide, firstly, whether the trade will warrant a railway, and, secondly, whether the means can be procured. After these two questions are answered in the affirmative, there are other considerations, secondary, it is true, but still very important, as the kind of road, the precise nature and extent of the accommodation required, etc. Nothing appears more simple and natural than this view of the case, yet, it is very certain that it was never thought of in the majority of works in the Union. But in the "Central railroad," it has been kept constantly in view, and this work furnishes an excellent illustration of what a correspondent, a few years since called the "adaptation of expenditure to income," "that great principle without which engineering is unworthy to rank as a liberal profession." No less than 190 miles have been put in successful operation by the expenditure of \$2,591,723; and making all reasonable allowances for the easy nature of the ground, it must be admitted that it forms a striking, if not mortifying contrast, with many of our works, both public and private. For example, the Chenango canal, the Mohawk and Hudson railroad, the Genesee valley canal, the Long Island and Harlem railroads, in which the great principle above alluded to has been wholly overlooked. The entire road is in excellent order, as we learn from a friend who lately passed over it, and who was particularly struck with that quiet order and regularity which result from the calm enforcement of a correct system of discipline. The width of track is five feet on all the southern roads. We believe this gauge was introduced there by our townsman, Horatio Allen, Esq., C. E., now of the firm of Stillman, Allen & Co., of the Novelty Works, one of our largest engineering establishments. Many of our machinists think this the best width, and it certainly appears to have been much liked in the south, where, all things considered, the railway is pretty well established in the public favor, and where it has succeeded under circumstances more difficult than those before which similar works in N. York and Pennsylvania have quailed.

The public mind in France is easily excited—all is done hastily; and it ceases to be a matter of surprise that railway investment, as a branch of national industry, having been at first rejected in that country,

should have been recently resorted to with such eagerness as an object of speculation. The success of the companies by whom the Paris and Rouen and Paris and Orleans lines were made, all at once demonstrated that there was everything to gain and nothing to risk, in investing money in these enterprises as a permanent security; and as the number of schemes extended, the purchase of shares even at a premium, having yielded a satisfactory profit, the spirit of speculation once started has proceeded onwards without check or reaction. Thus we have seen, in the course of a few years, the cautious reserve which limited the proposals for the early lines to a single tender, give way to a powerful rivalry in the fact of several companies competing at once for the same lines. The principle being once understood, and the French government preserving good faith, there was a constant co-operation between native and foreign capitalists, for the important object of giving to France the full benefits of railway communication.

In endeavoring to arrive at a true appreciation of the railway policy of France, we must take into prominent consideration a peculiar feature in the position of its monetary resources. In that country there are still living a large class, who were not only eye witnesses of the revolutions by which its social elements have been so unhappily convulsed, but who have also suffered from the shock. Men who have been the victims of a national bankruptcy, and who, with its horrors still before their eyes, retain an invincible repugnance against investing their money in the securities of the State; and from this feeling a mode of proceeding has resulted, which, in our own country, will appear almost incredible. The precious metals have been hoarded in unproductive secrecy, to an extent of many millions. In the ancient chateaux of France, more especially in the remote districts—whose inhabitants have been all at once disturbed from their rural state and social tranquillity, by the full tide of anarchy and ruin bursting in upon them—are to be found vast hoards of coin and plate, which have been deposited by the provident care of their owners, whose only confidence existed in the possession of that which is independent of the faith of their rulers. The evil of such a system is apparent; not only is the possessor of property deprived of its legitimate increase, but the national resources are fettered for want of production.

With this distrust, then, of the security of the State, and with a natural desire to remedy the evil of an unproductive capital, it is not to be wondered at that, so soon as the indications of success in railway investments were sufficient to overcome existing fears, there should have been a general disposition to bring to light the accumulation of time and caution; and to convert them from a state of unprofitable idleness to one of beneficial activity. On all sides the strong box has been opened in order to subscribe to railway enterprise.

This movement, which the French govern-

ment ought to have regarded with satisfaction—inasmuch as it led to the result that, ultimately, railways would be made without having recourse to the public treasury—has produced a contrary effect. The government is seized with alarm at finding the “monopoly” of entirely making the lines, which they affect not to desire, likely to meet with ready assumption on the part of the companies. The evils of stock jobbing have formed the subject on which that alarm has been ostensibly based—the real foundation may be looked for in the dreaded loss of their own position, as controllers of the whole railway movement.

There is no possible way in which the rapidly progressing spirit of speculation in France could have met with a more effectual check, than by raising an outcry, on the part of the government, against the danger and evil—real as well as imaginary—arising out of stock jobbing; and for this end, all kinds of underhand schemes have been resorted to. It has been whispered into the ears of the peers and deputies of France, that even their domestics were laying out their money in railway speculation, as was formerly the case with lotteries whose consequences are still fresh in their memory; and even the public journals have admitted into their columns the most exaggerated reports, respecting the crowds of speculators who were described as obstructing the public ways, and blocking up the cafes when stock jobbing was known to be carried on.

By this means has the cry of “scandal and immorality” been raised against the proceedings of the railway projectors, in language most readily calculated to arouse the susceptibility of French honor! The ministry have commenced it; their own journals have re-echoed; and even the opposition press, glad of a subject on which to vent the tones of high flown declamation, have swelled the ranks of the alarmists. But against whom does the outcry point? Who are the originators and promoters of railways in France? On all sides we find peers, deputies, counsellors of state, mayors, and other functionaries. And yet such men are not to be considered capable of becoming the trustees of the deposits, without the interference of the “Caisse des Depots des Consignations.”

We have already shown the gross absurdity, not to say the utter impracticability of the chief features of this new “Projet de Loi;” but it may be interesting to our readers to know the exact nature of the “Caisse des Consignations.” In this public establishment, which is to supersede the Rothschilds, the Lafittes, the Gannerons, and other eminent bankers of the day, as the depositories of subscriptions in railway projects the money once lodged becomes absolutely under the control of the government. The amount of interest allowed is 2 per cent per annum, with a deduction of 105 days; and the lodgement and withdrawal can only be effected through a series of wearisome formalities, and subject to many official charges. What would be the position of an English

shareholder, with his deposits absolutely subject to the grasp of a foreign power at the least outbreak of political excitement—and even supposing them untouched, only returnable in Paris and subject to an undefined scale of charges? The whole affair is monstrous—and its own absurdity is already working an efficient remedy. The impossibility of carrying such a law is manifest, and public confidence has been restored to a great extent in the French railway market.

While it is greatly to be regretted, on the one hand, that such a disposition to rush into crude and uncalled for legislation should prevail in France, we must not, on the other, forget the readiness with which the legislature of that country is open to the convictions of reasoning. The proceedings of last year, in the chamber of deputies on the subject of the amendment of Mons. Cremieux, are sufficiently indicative of this—and from a calm retrospect of the course adopted on that memorable occasion, we come to this conclusion, that, however the chivalric notions of our high minded neighbors, may lead them to attempt an absurd mode of legislation as a remedy for evils supposed to affect their honor and morality, they are no less ready to listen to the temperate suggestions of calm discussion. And with this conviction, we look with confidence to the permanent removal of the temporary depression which has recently prevailed—and the substitution of a sound practical piece of legislation in place of the crude absurdity which has been already published.—*Railway Times.*

According to documents furnished by the minister of public works in France, there appears to exist on the Orleans and Vierzon line an annual traffic of 119,476 passengers, 63,130 tons of goods, and 457,000 head of cattle.

Comparing this with the tariff, allowed to the company to whom the lease was granted under the law of 26th July, 1844, the annual money returns will produce a total of 1,729,723 francs, and this without taking into consideration the carriage of fish, carriages, and small parcels.

The outlay of the company consists in laying the rails, chairs, etc., and in keeping up the carrying stock. The cost of rails and ballast for a double line amounts to 100,000 francs the kilometer (5-8ths of a mile). The carrying stock absorbs an outlay of 50,000 francs the kilometre—in all 150,000 francs the kilometre for the cost of laying down.

Allowing, then, the sum of 814,000 francs from the cost of working, and the gross receipts being 1,729,723 francs, there will be an available remainder of 915,723 francs for a dividend on the capital required—that is to say, on a capital of about ten millions the company will derive a net profit of more than 9 per cent. on the existing traffic.

It is an admitted fact, that the establishment of a railway produces an increase of traffic at least twofold at the expiration of less than two years. This result, founded

on experience, will take place on the line from Orleans to Vierzon in a far higher degree; for it must be borne in mind, that this line will become in a few years the common trunk for the south-eastern lines in communication with Clermont and with the Mediterranean by way of Roanne and Lyons, and for the south-west with Toulouse and Bordeaux by Chateauroux and Limoges; it will, in fact, be available for sea borne traffic from Nantes to the Mediterranean, by way of Tours, Orleans and Vierzon. With such prospects in view, instead of a net profit of 10 per cent. there is good reason to anticipate a speedy rise to something like double that amount.—*Railway Times.*

#### SOUTH CAROLINA RAILROAD.

The road was not opened the entire length until 1st November, 1843, and was not then entirely finished. The quantity of locomotive engines and cars was wholly inadequate to the business which was presented.—Throughout the entire year 1844, although the motive power was, from time to time, increased, the company suffered for want of engines and cars to a great extent. The business offered to the company exceeded the calculations of the president, directors and officers. This want of motive power is still felt. The board has bent every effort and spent every dollar which could be spared to stock the road properly. A large sum has been expended for this purpose, and, moreover, four more engines, and wheels, and materials for 60 burthen cars have been ordered. The engines are to be delivered under a suitable penalty—two in June, and two in July next, and the 60 new cars will be on the road before the opening of the next cotton season.

Without an adequate number of engines and cars, the company must lose much business. The road should be equipped in such manner, as to do all the business which offers—and it will be borne in mind by you, that the transportation cannot, at the pleasure of the company, be distributed throughout the year, but must be done in a few months of the year. The bulk of our business is between the 1st of November and the 1st of April—and this must continue to be the case in reference to the cotton crop. The increased business of the road involves the necessity, not only for additional machinery, but for many new wells, cisterns and turnouts—for more yard room and for additional buildings. These indispensable improvements are pointed out in the engineer's report.

Since your last meeting, the stock of the company has risen in the market, from 20 dollars per share to 50, and the road bonds have risen from 75 cents in the dollar to par. The bank notes of the company were in June last, brought to par, and since then have been, and are now, bankable for every purpose in all the banks of the city, and they are promptly redeemed on presentation.—The stock of the company, so manifestly valuable, cannot long remain below par.

I cannot suffer the opportunity to pass

without the expression of my own sincere thanks, and those of the board of directors to the several banks of the city, and to the trust company for their aid—and especially for their confidence in our day of need, nor will I attempt to conceal the gratification we experience in seeing those institutions safe, beyond question, in their operations with us, and profiting in their punctual receipt of interest. The obligations of the company are promptly met, and will continue to be so.

It has been considered important to provide the means for carriage of passengers, for the westward, beyond Macon. The establishment of a proper stage line by private enterprise, was hopeless, and it was quite apparent that without a daily conveyance on the route to New Orleans, the company could never expect any fair portion of the through travel. The stage line has been accordingly provided at a considerable expense. To render the line valuable and to increase the travel on the road, arrangements have been made to run in connection with Brooks' & Barden's line of steamers as rapidly from Charleston by the way of Savannah, Macon and Columbus, to Montgomery, as the great mail goes to the same point, by way of Augusta and Covington. In a short time this stage line can be sold out without much loss and thus kept up without trouble to the company. Applications for the purchase of it have already been made from several quarters. We expect by this course, to receive a share of the New Orleans travel, and to bring our road—its power and facilities more directly to the view of the public.

We trust, too, that the great facility of intercourse will unite us more closely to the flourishing city of Columbus, which has been for years in a great measure cut off from Savannah, by the want of proper means of travel. Its merchants have for the past two seasons given liberally of their freights to the road, and there is reason to believe that hereafter the travel of the city and neighborhood will pass this way. Union in feeling and interest between the three cities of Savannah, Macon and Columbus, cannot fail to produce lasting advantages to a large portion of the State.

The bonds given to the United States, on the importation of railroad iron, prior to 3d March, 1843, remain in the state mentioned in my last report. I do not doubt the delivery of these bonds cancelled; and there is good hope that the sum paid for duties on iron imported a few days after 3d March, will be refunded. The claims of railroad companies, especially in the southern section of the Union, on government for an extension of the provisions of the act of June, 1842, are too strong to be resisted. The refusal by congress to extend that act would amount to positive injustice, for as yet none of the iron manufacturers of the United States can furnish, on short notice, heavy rail to lay ten-miles of road.

The duty of \$25 per ton, imposed by the act of 1842, has brought but little for revenue, and given no protection, or even activi-

ty to the home manufacture, while it has tended to depress and retard works which, duly fostered by the government, might, at this day, be difusing blessings to the people.

I adverted, at your last meeting, to a responsibility on the part of the company, as guarantor of a small sum of interest due by the city of Macon. I have the pleasure to say that the amount will, in a short time, be fully paid. The mayor and council of that city have, for the past year, been making strenuous and most honorable exertions to place their finances in good condition. Their efforts deserve to be crowned with success.

Very respectfully, your ob't serv't,  
R. R. CUYLER, President.

#### DISCRIMINATING TOLLS.

Chancellor Kent has given an opinion which we find in the Albany Atlas, that a law imposing higher tolls on articles transported on the Oswego Canal, which have been imported from, or are intended to be exported to, other States, than on similar articles transported on the same canal, which have not been so imported, and are not destined for exportation, would be repugnant to the constitution of the United States, which prohibits the States "without the consent of Congress from laying any imposts or duties on imports or exports except what may be absolutely necessary for executing their inspection laws," and which gives to Congress the power "to regulate commerce with foreign nations and among the several States."

We commend the above to the attention of the Board of Public Works, while engaged in fixing the rate of tolls upon the Ohio Canal. The discriminating duty upon salt has operated hardly upon the Virginia, New York and Pennsylvania manufacture, and has given rise to some dissatisfaction. The effect has undoubtedly been beneficial to the Ohio establishments, but the principle is an exclusive and selfish one, and tends to the injury of commerce between the States, and the ultimate injury of the State and people. Very little salt made out of Ohio finds access into this valley in consequence of the rates of toll heretofore established. The New York salt gets as far South as Newark, while the Virginia, though made in our own neighborhood, is met at its entrance into the canal with a rate of toll almost prohibitive. The State of New York pays a bounty upon all salt made in that State and exported west beyond the State. On salt shipped down the Susquehannah river, three cents per bushel, at Beaver, Pa., four cents per bushel, and at Columbus or Portsmouth, Ohio, five cents per bushel. They allow a drawback of 81 per cent. on the amount of canal tolls paid in that State upon salt delivered at Beaver or Portsmouth, and pay back all tolls paid on salt to West Troy or Albany. A similar bounty is paid on other articles, such as coal, lead, gypsum, empty casks, &c., amounting to 73 per cent. of tolls. Under this law, \$1,262 25 of this bounty was paid last year for salt delivered at Newark, and none was claimed for the year previous. None was claimed from Portsmouth,



because it could not be brought through. None was claimed from Beaver, we suppose for the same reason.

If the above opinion be stated correctly, it seems that the New York regulations not only encourage their own productions in this way, but go beyond into an exclusive policy, relative to commodities imported from other States, similar to our salt tolls.

An excellent article, from which we derive these facts, is in the Merchant's Magazine for April, on the "Production of Salt in the State of New York."—*Portsmouth Tribune.*

WELLAND CANAL TOLLS.

The following, from the Kingston Chronicle, is an extract Schedule of tolls proposed to be levied on the Welland St. and Lawrence Canals by the New Board of Works Act:

Vessels, &c.	Welland Canal. Whole route up or down.	St. Lawrence Canals. Kingston to Montreal, down.	St. Lawrence Canals. Montreal to Kingston, up.
On steamboats and vessels, under 50 tons burthen.....	£0 5 0	0 7 7	0 17 6
From 50 to 75 do.....	0 10 0	0 13 9	1 10 0
From 75 to 100 do.....	0 15 9	1 0 0	2 2 6
From 100 to 150 do.....	0 17 5	1 5 0	2 10 0
From 150 to 200 do.....	1 0 0	1 5 0	2 10 0
From 200 to 250 do.....	1 2 6	1 5 0	2 10 0
Upwards of 250 do.....	1 5 0	1 5 0	2 10 0
Canal boats under 50 tons, for passengers chiefly.....	0 5 0	0 7 6	0 17 6
Canal boats, scows, &c., for freight chiefly.....	0 2 6	0 7 6	0 17 6
On Cargo.			
Flour per barrel.....	0 0 5	0 0 5	0 0 10
Pork and Beef do.....	0 0 7	0 0 7	0 0 11
Wheat, Indian Corn, Barley and Rye, per bushel.....	0 0 1	0 0 1	0 0 2

There will be a great reduction from the total amount of the above rates on the class of barges and small steamboats which now pass through the rapids of the St. Lawrence, as they will be subject to the tolls on the Lachine Canal only on the downward trip—as follows:

Steamboats and Vessels under 50 tons burthen,	£0 5 0
From 50 to 75 do,	0 10 0
From 75 to 100 do,	0 15 0
From 100 to 150 do,	0 17 6
From 150 to 200 do,	1 0 0
From 200 to 250 do,	1 0 0
Upwards of 250 do,	1 0 0
Boats under 50 tons for passengers chiefly,	0 5 0
Boats, scows, &c., for freight chiefly,	0 2 6
Flour per barrel,	0 0 2
Pork and beef do,	0 0 3
Wheat, Indian Corn, Barley and Rye, per bushel,	0 0 0

The reduced rate of insurance on the larger class of vessels and their cargoes, which will necessarily pass through the Cornwall and Beauharnois as well as the Lachine Canal—downward—and thereby avoid all risk from the rapids—will no doubt very nearly counterbalance the advantages possessed by the smaller craft.

**Connecticut Valley Railroad.**—It will be strange if, among all the plans which have been suggested, there should not soon be a railroad from the Atlantic to Montreal.—One route suggested is to extend the Springfield and Northampton road up the Connecticut Valley to the Canada line. The Windsor, Vt., papers state that efforts are making in that quarter to carry out this project, and meetings have lately been held in Charlestown, N. H., and other places on the route, with a view of promoting the enterprise.

**Hartford and New Haven Railroad.**—The business of this railroad has received a new impulse since its extension from Hartford to Springfield, and its connection with the Western Railroad. The receipts upon it during the past month of March amounted to \$16,675, against \$7,340 in March 1844. Increase 127 per cent.—*Daily Advertiser.*

**Memoranda.**—On the 31st January, the Lake was first closed by ice off this place; on the 15th February, the ice broke up, and from the 22d vessels might have arrived and departed at any time from this port westwardly; on the 9th March, the S. B. St. Clair, from Cleveland, first boat down, came into this port, thence to Cattaraugus; on the 12th, the S. B. United States, first boat out of Buffalo, pushed out through the ice on the Canada shore, and since that date no boat has been able to leave Buffalo until this morning, April 3d, when the Lexington with much difficulty succeeded in crowding through several miles of ice, and reached this place at 4 this afternoon.

It may now be said that navigation is open to Buffalo for steamboats. Sail vessels will be compelled to hold on a few days longer.—*Dunkirk Beacon.*

We learn from the Keene Sentinel that strong expectations are entertained that the Fitchburg Railroad will be carried through New Hampshire. The subscription in the town of Keene had reached \$158,000, and \$300,000 of the 600,000 required, the Sentinel affirms, would be secured last week.

**Worcester and Nashua Railroad.**—This contemplated road extends from Nashua, through Groton and Lancaster, to Worcester. The advantages anticipated from it are, that it will form a shorter communication from the terminus of the Western Railroad, and also of the Norwich Railroad at Worcester, to the great manufacturing towns on the Merrimac; that nearly all the interior of New Hampshire will more readily receive by it their flour, and such other articles as are obtained by the way of the Western road; and that manufactured goods from the Merrimac will more easily find their way by it to New York, Albany, &c. Its friends are confident that it will be good stock. It is not, however, eagerly subscribed for. We have already stated the Norwich road had concluded to take \$100,000 of the stock, which they are authorized to do. We believe such is the case; but we have no positive information in regard to it. In Worcester only \$75,000 have been subscribed, and in Lancaster and Groton, about \$100,000 more. The subscriptions in the latter place, however, as we have already stated, are on condition that the road is constructed through that village.

**Success of Northern Railroads.**—When the Eastern Railroad was open, the average daily business of the stages, between Portland and Portsmouth, N. H., according to the estimate of Mr. Paine, for a long time

the agent, and always largely interested in the business, and well acquainted with its whole history, was from fifteen to twenty per day, including way passengers. It is now 145,000 a year—equal to 464 per day. And this, be it remembered, was one of the best known, best managed, and longest established stage routes of the whole country.—*Ploughman.*

**Railroad in the Valley of the Connecticut.** It appears by the Windsor, Vt., papers that a determined effort is now making to extend the Valley Railroad northerly, as far as White River, in Hartford, Vt., immediately, with a view of stretching northward to the Canada line, and Montreal, at no distant day. Meetings have been lately held at Charlestown, N. H. and Windsor, Vt., and other places, to take the usual preliminary measures to move along with this great and important enterprise.

**Plank Roads.**—A very successful report on Plank Roads has been made by Mr. Whittlesey, agent for the citizens of Ohio, on the utility and feasibility of Plank Roads from an inspection of those already established in Canada. In that territory they have in successful operation a road from Port Stanley to London, 26 miles, which has been built one or two years. A road from Hamilton to Port Dover, on Lake Erie, 37½ miles of which are in operation. East from Toronto there is a road of 10 miles, planked, which has been 11 years in use. Roads are already graded, and a number are about being made, all leading directly towards our Lakes, the country being generally level. The cost of grading, ditching, and timber for these plank roads averages about \$3500 per mile.

As to durability, it was ascertained that the plank, after two years wear with sand, had worn only one quarter of an inch; the grit sand penetrates the wood and forms a hard coating; the surface wear is not as great as the wear by rot. About twenty dollars per mile will be required the first year in repairs. The motion is very easy, and eight miles an hour is a fair average with a light buggy. In heavily timbered countries these roads can be cheaply made, and will last for many years, until the increase of travel and population will authorize the erection of iron railroads. It is only a temporary and economical substitute—for the true and permanent method, it is not to be denied, is the iron one; but it is very costly, and where there is little toll, the road will not pay the interest.

**NATIVE SAFETY FUSE.**—The white fungus found in such large masses in the stringy bark forest has lately been used by the miners as a sort of safety fuse: and when cut into slips of one quarter of an inch square, is found to answer admirably, affording the miner sufficient time to get out of harm's way. The explosion may be retarded at will, by giving additional length to the native safety fuse.—*Mining Journal.*

## OHIO COAL TRACK.

Office of the Board of Public Works,  
Columbus, O., April 12, 1845.

GENTLEMEN:—The Board has received, and had under consideration, a petition signed by many of the most respectable business men and citizens of Cleveland, praying for a reduction of the present Tolls on mineral coal, and on boats used in transporting the same. The principal reasons urged in said petition, appears to be that coal cannot be brought to Cleveland at sufficiently low rates to compete, in the Lake market, with coal delivered at Erie by the Pennsylvania Erie Canal, unless the toll on the Ohio Canal is reduced, the toll on the Erie Canal being merely nominal. From the best information at hand, it appears that the coal field of the Penn. Erie Canal may be considered as lying between Greenville and Sharon, the former being 62½ miles, and the latter 88½ miles from Erie, giving an average distance of 76 miles from Erie to coal of good quality. The toll on the Penn. Erie Canal is 1½ mills per 1,000 lbs. per mile; on the Ohio Canal it is 3 mills per 1,000 lbs. per mile for the first twenty miles, and then one mill per mile;—on both the canals the toll on boats is 2 cents per mile. By reference to the Collectors returns, it will be found that of the 540,000 bushels of coal received at Cleveland during the past year, 510,000 bushels were cleared at Akron, showing that it came from the mines near Tallmadge and Clinton; and the remaining 30,000 bushels came from the Trenton mines and was cleared at Dover. A short computation will show that the toll on a cargo of 1,000 bushels coal from Greenville to Erie, a distance of 62½ miles, will be \$9.19, and from Sharon to Erie, 88½ miles, \$12.85.—On the Ohio Canal the toll on a like cargo of 1,000 bushels from Clinton to Cleveland, a distance of 52 miles, will be found to be \$8.52; showing a difference in favor of Clinton over Greenville of 67 cents per 1,000 bushels. Now, it is true that all the coal delivered at Cleveland is not shipped at Clinton, yet it is true that seventeen-eighteenths of the receipts of last year were from points paying no more toll than Clinton, and some of them much less. If we make the calculation for Trenton; we shall find that the toll on a similar cargo from that point to Cleveland, a distance of 103 miles, is \$14.13. This, it must be admitted, shows a difference of \$1.28 per 1,000 bushels in favor of Sharon over Trenton: yet the Board are of opinion that this small difference of but little more than a cent for every 10 bushels, is more than counterbalanced by the increased facilities for navigation offered by the Ohio Canal. It is believed that the depth of water afforded by the Penn. Erie Canal, will be no more than sufficient to float a cargo of 1,000 bushels coal, while it is well known that boats on the Ohio Canal are in the habit of carrying much heavier cargoes.

Another consideration urged upon the Board in favor of a reduction of the toll on coal, is the belief that a former

reduction, made in the spring of 1844, has been the chief inducement to the largely increased shipments, perceivable in the reports of the canal collectors at the close of 1844, which increase in shipments has been so great that, notwithstanding said reduction of tolls, the revenue from that item has been materially increased. In answer to this, the Board would remark, that, although it may be true that such additional shipments have been induced by a former reduction of tolls, as to increase the revenue, yet it does not follow as a matter of course that a still further reduction will yet more increase the aggregate of tolls; on the contrary, it is easy to perceive that a point may be reached, below which any further reduction of tolls would be highly impolitic.

Upon a careful consideration of the subject, and in view of the known advantages which Cleveland possesses over Erie in point of location and facility of approach for vessels and steamboats, the Board are inclined to think that a further reduction of the toll on coal is not necessary to enable Cleveland to compete with Erie in this trade, and they would therefore respectfully decline making any modification of the rates of toll on coal at this time. By the Board,

J. BLICKENSDEFFER, Jr.,

Acting Com. Eastern Div. Public Works.

To Messrs J. BLAIR, EDW. CLARK, }  
and others, CLEVELAND.

*Business in Pennsylvania.*—The coal and iron companies are preparing to enter into extensive business in Alleghany county.—The Mount Savage Company is pushing her improvements onward, adding new machinery and taking large contracts for ore with a view of starting another furnace. The Baxton and New York Canal and Iron Company are preparing to expend a million of dollars in the country, in order to carry on a large business in the coal and iron trade. The Mineral Mining Company are organizing, and are prepared to expend a quarter of a million of dollars in building furnaces, &c. The improvements in and about Cumberland are likewise becoming more extensive, and are referred to with pride.—*Alleghanian.*

Extract of a letter from S. H. Kneass, Esq., dated Carthage, March 26, 1845.

"The party from your city which contracted with George M. Totten to make the Canal from Carthage to the Magdalena river, are quite dissatisfied with their contract. They complain that they are placed in a false position, in consequence of misrepresentations as to the character of the soil to be excavated, as well as of the laborers they would have to employ on the work. After a close application of their powers to the work for five months, and suffering severe pecuniary loss, they are about to abandon the enterprise, not without strong complaints of the manner in which they have been deceived by the misrepresentations of those with whom they agreed in the U. S. Indeed, it was impossible for the party to

proceed, unless a largely increased price were given. This was not agreed to, and an abandonment of the work on their part must take place.—*Pennsylvanian.*

*Annual Productions of Iron in the World.*

—Statistical tables published in Prussia and in the United States, give the following as the annual product of iron in the world:—

Great Britain, 1,481,600 tons; United States, 443,100 tons; France, 338,150; Russian and Ural Provinces, 119,000; Belgium, 145,867; Germanie, Customs Union, 127,538; Sweden, 72,772; Austrian Monarchy, 59,100; Spain, 12,500; Sardinia, 12,250; Poland, 9,200; Germany, not in Customs Union, 7,175; Tuscany, Norway, 5,371; Saxembourg, 3,000; Parma, 1,400; Modena and Naples, 750; Switzerland, 700; Portugal, 420. Total number of tons, 2,917,363.

Great Britain produces about half of the iron in the civilized world; the United States stands next to Great Britain, and France next. The United States produce about half as much as is produced on the continent of Europe. About two-thirds of all the iron trade in the United States is smelted from the ore in Pennsylvania.—*Phila. Ledger.*

**RAILROAD IRON AND FIXTURES. THE** Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO.,  
21 Broad st., N. York.

ja45

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,  
Reading, Pa.

ja45

**GEORGE VAIL & CO., SPEEDWELL IRON** Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1½ in. to 2½ in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions.

ja45ly

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.  
J. P. JACKSON, Esq., Secretary.

ROBERT SCHUYLER, Esq., Vice President.  
J. WORTHINGTON, Esq., Treasurer.

	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
Leave New York, foot of Courtland street.						
For Newark.....	9, 11, 12.....		2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4	
" Elizabethtown.....	9, 11.....		2, 3, 4 3-4, 6.....			
" Rahway.....	9, 11.....		3, 4 3-4, 6.....			
" New Brunswick.....	9.....		3, 4 3-4.....			
Leave						
New Brunswick.....	6, 7 1-2, 11 1-2.....		8 3-4.....	11 1-2	8 1-2	
Rahway.....	6 3-4, 7, 8 1-4, 12.....		4 3-4, 9 1-4.....			
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12.....		3 1-2, 5.....			
Newark.....	7 1-2, 8 1-4, 9, 11.....		1 1-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4	
For New York.						

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

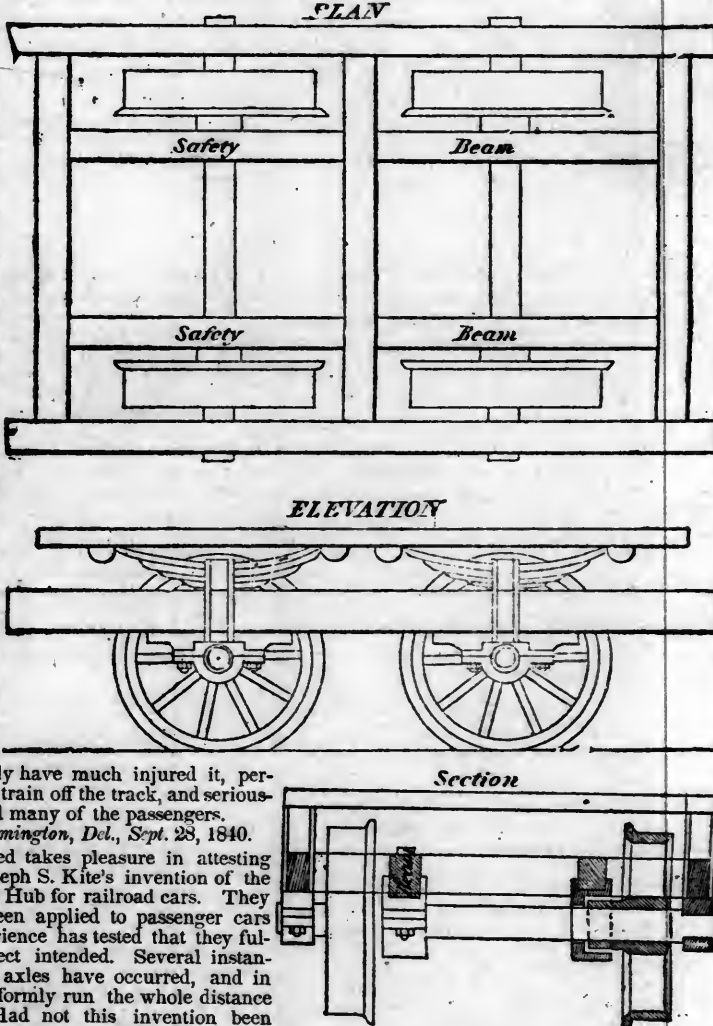
The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

REFERENCES.— Col. James F. Baldwin, Civil Engineer. Boston, Col. J. M. Fessenden, " Wm. Parker, Esq., Engineer and Superintendent Boston and Worcester railroad. ja45

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co., Boston.

MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work. Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars. Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship. Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

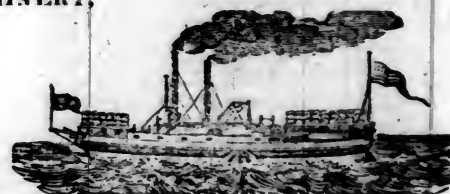
HENRY BURDEN, Agent. Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\* \* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS.	A. M.	P. M.	MILES.	FARE.
Boston	Portland		Eastern,	Daily,	7 $\frac{1}{2}$	2 $\frac{1}{2}$	106	\$3 00
"	Portsmouth		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	54	2 00
"	Newburyport		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	35	1 25
"	Salem		"	"	7 $\frac{1}{2}$ , 9, 11 $\frac{1}{2}$	2 $\frac{1}{2}$ , 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14	50
Portland	Portland		Boston and Maine,	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	109	3 00
Boston	Boston		"	"	7 $\frac{1}{2}$	3	109	3 00
Boston	Lowell		Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston		"	"	7 $\frac{1}{2}$ , 11	2, 4 $\frac{1}{2}$ , 5 $\frac{1}{2}$	26	75
Boston	Concord		Concord,	"	"	3 $\frac{1}{2}$	76	2 00
Concord	Boston		"	"	"	3 $\frac{1}{2}$	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11	5	41	.....
Nashua	Boston		"	"	6 $\frac{1}{2}$	1 $\frac{1}{2}$ , 5	41	.....
Boston	Worcester		Boston and Worcester,	"	7, 9	2 $\frac{1}{2}$	44	1 25
Worcester	Boston		"	"	7, 10	6	44	1 25
"	"		"	Sundays,	7	"	"	"
Boston	Worcester		"	"	"	2	"	"
Boston	New York via Norwich		"	Mon., Wed. & Fri.,	"	4	"	"
"	" " L. Island railroad		"	Tues., Thur. & Sat.,	7	"	"	"
"	" " New Haven		"	Daily,	9	2 $\frac{1}{2}$	"	"
"	Albany		Western,	"	9	2 $\frac{1}{2}$	200	6 00
Albany	Boston		"	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	200	6 00
Springfield	Boston and Albany		"	"	7	3	"	"
Boston	New York via New Haven		"	"	"	2 $\frac{1}{2}$	"	"
Charlestown	West Acton		Fitchburg,	"	8	1, 4 $\frac{1}{2}$	"	"
West Acton	Charlestown		"	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	5	"	"
Boston	New York, via Steamboat trains		Boston and Stonington,	Tues., Thur. & Sat.,	"	4 $\frac{1}{2}$	"	"
"	"		Boston and Newport,	Mon., Wed. & Fri.,	"	4 $\frac{1}{2}$	"	"
"	Providence		"	Daily,	7 $\frac{1}{2}$	4	41	1 50
Providence	Boston		"	"	"	On arrival of the mail	41	1 50
Taunton	"		"	"	8	"	"	"
New Bedford	Boston		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	"	"
Boston	Dedham		"	"	8 $\frac{1}{2}$	3, 6 $\frac{1}{2}$	"	"
Dedham	Boston		"	"	7, 10	5 $\frac{1}{2}$	"	"
New York	Greenport		Long Island,	"	7 $\frac{1}{2}$	"	95	2 25
Brooklyn	Hicksville & intermediate places		"	"	9 $\frac{1}{2}$	"	26	56 $\frac{1}{2}$
"	Greenport		"	Tues., Thur. & Sat.,	9 $\frac{1}{2}$	"	95	2 25
"	Hicksville, (Satur'd'y to Suffolk)		"	Daily,	"	4	26	56 $\frac{1}{2}$
Greenport	Brooklyn, (Boston train)		"	"	"	1	95	2 25
"	" (accommodation do.)		"	Mon., Wed. & Fri.,	"	"	95	2 25
"	" & intermediate places		"	Daily,	7	1 $\frac{1}{2}$	26	56 $\frac{1}{2}$
Hicksville	"		"	"	6 $\frac{1}{2}$	"	"	"
New York	Albany & Boston via N. Haven		Steamer,	"	8, 3	"	53	.....
"	Middletown		New York and Erie,	"	6 $\frac{1}{2}$	3 $\frac{1}{2}$	53	.....
Middletown	New York		"	"	9	"	94	3 50
Philadelphia	Pottsville		Reading,	"	9	"	94	3 50
Pottsville	Philadelphia		"	"	9	"	94	3 50
New York	Newark		N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4 $\frac{1}{2}$ , 6, 7 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Newark	New York		[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 9, 11	1 $\frac{1}{2}$ , 4, 5 $\frac{1}{2}$ , 7, 9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	"		[9 A. M. and 4 $\frac{1}{2}$ P. M., trains, connect with Somerville Railroad.]	Sundays,	9	"	9 $\frac{1}{2}$	25
New York	Newark		"	Daily,	11 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	Elizabethtown		"	"	9, 11	2, 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14 $\frac{1}{2}$	31 $\frac{1}{2}$
Elizabethtown	New York		"	"	7, 7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 10 $\frac{1}{2}$ , 12	3 $\frac{1}{2}$ , 5	14 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	Rahway		N. J. railroad and trans. co.,	"	9, 11	3, 4 $\frac{1}{2}$ , 6	19 $\frac{1}{2}$	31 $\frac{1}{2}$
Rahway	New York		"	"	6 $\frac{1}{2}$ , 7, 8 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$ , 9 $\frac{1}{2}$	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New Brunswick		"	"	9	3, 4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New Brunswick	New York		"	"	6, 7 $\frac{1}{2}$ , 11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
"	"		"	Sundays,	11 $\frac{1}{2}$	"	31 $\frac{1}{2}$	50
New York	New Brunswick		Camden and Amboy,	Daily,	9	4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
Philadelphia	New York		"	"	7	"	91	3 00
New York	Philadelphia		"	"	5 $\frac{1}{2}$	"	91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	9	"	30	75
Bristol	Philadelphia		"	"	"	4	30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"	8	"	93	.....
Baltimore	Philadelphia		"	"	9	"	93	.....
"	Washington		Baltimore and Washington,	"	9	5, 11 $\frac{1}{2}$	41	2 50
Washington	Baltimore		"	"	6	5 $\frac{1}{2}$	41	2 50
Baltimore	Cumberland and inter. places.		Baltimore and Ohio,	"	7 $\frac{1}{2}$	"	"	"
"	Frederick		"	"	"	4	"	"
Cumberland	Baltimore		"	"	8	"	"	"
Hancock	"		"	"	10 $\frac{1}{2}$	"	"	"
Martinsburg	"		"	"	11 $\frac{1}{2}$	"	"	"
Harper's Ferry	"		"	"	"	12 $\frac{1}{2}$	"	"
Frederick	"		"	"	"	2	"	"
"	"		"	Sundays,	8	"	"	"
Ellicott's Mills	"		"	Daily,	7 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$	"	"
Richmond	Petersburg		Richmond and Petersburg,	"	10 $\frac{1}{2}$	1 $\frac{1}{2}$	"	"
Petersburg	Richmond		"	"	5 $\frac{1}{2}$	"	"	"
Albany	Schenectady		Mohawk and Hudson,	"	8	"	"	"
Schenectady	Albany		"	"	9	3 $\frac{1}{2}$	"	"
Albany	Saratoga		"	"	7 $\frac{1}{2}$	2	"	"
Saratoga	Albany		"	"	7	12 $\frac{1}{2}$ , 5	"	"
Troy	Saratoga		Troy and Saratoga,	"	7 $\frac{1}{2}$	3 $\frac{1}{2}$	"	"
Saratoga	Troy		"	"	8 $\frac{1}{2}$	"	"	"
Auburn	Rochester		Auburn and Rochester,	"	8 $\frac{1}{2}$	"	"	"
Rochester	Auburn		"	"	8	3	"	"
"	Buffalo		Rochester and Buffalo,	"	"	3	"	"
Buffalo	Rochester		"	"	"	"	"	"
"	Falls		Buffalo and Falls,	"	9	"	"	"
Falls	Buffalo		"	"	"	1 $\frac{1}{2}$	"	"
Buffalo	Albany		Albany and Buffalo	"	8 $\frac{1}{2}$	"	"	"

# A MERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

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THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, &c. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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### FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

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Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney of this city, will be promptly executed.

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\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

A GOOD SECOND HAND LOCOMOTIVE TO RAILROAD COMPANIES AND MANUFACTURERS OF railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined L. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed. When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, N. E. cor. 12th and Market sts., Philad., Pa.

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JOAN F. WINSLOW, Agent,  
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ja45 THOMAS & EDMUND GEORGE,  
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**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS**  
etc. The Subscriber having made important improvements in the construction of rails, mode n guarding against accidents from insecure joints, etc. —respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. CUSHMAN, Civil Engineer,**  
Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO IRON MANUFACTURERS. THE SUB-**  
scribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

**A. & G. RALSTON & CO.,**  
ja45 No. 4 Sout Fronth st., Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILD-**  
ERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

**PASCAL IRON WORKS.**

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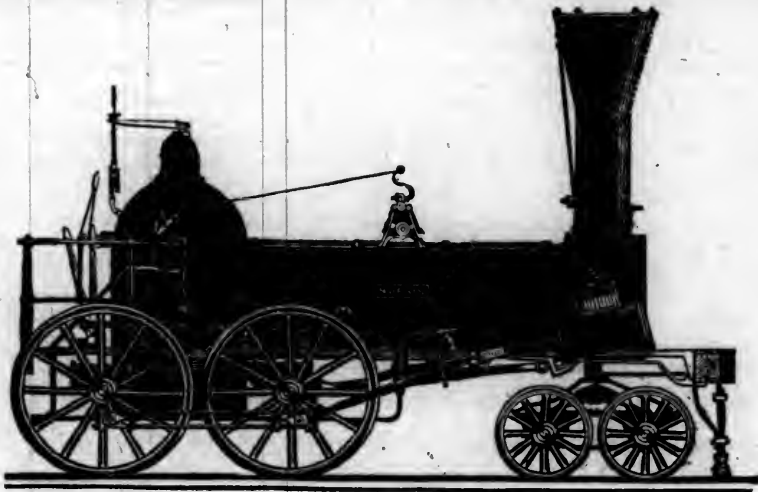
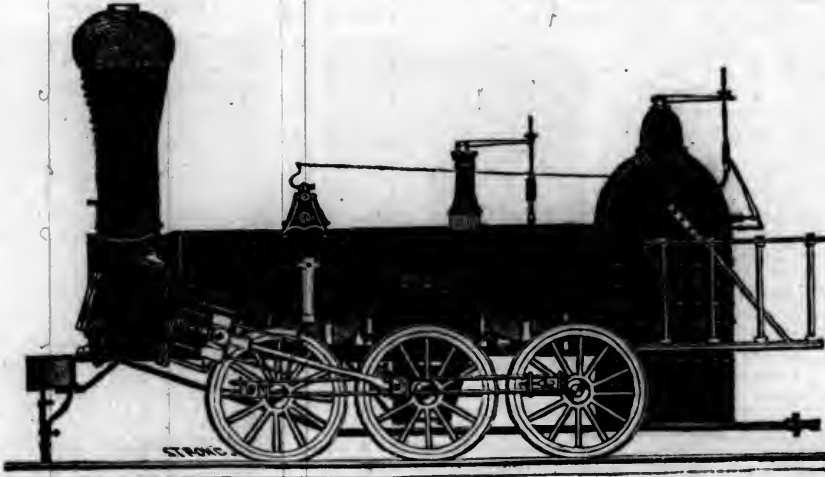
From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



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**TO IRON MASTERS.—FOR SALE.—MILL**  
SITES in the immediate neighborhood of *Biluminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL**  
Dam For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48** State st., or to **CURTIS, LEAVENS & CO., 106** State st., Boston, or to **A. & G. RALSTON & Co., Philadelphia.** ja45

**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches	Diameter of Cylinder,	×	20 inches	Stroke.
"	2,	14	"	"	× 24	" "
"	3,	14 1/2	"	"	× 20	" "
"	4,	12 1/2	"	"	× 20	" "
"	5,	11 1/2	"	"	× 20	" "
"	6,	10 1/2	"	"	× 18	" "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

CHESAPEAKE AND OHIO CANAL.

There has recently been a general meeting of the stockholders of this company, for the purpose of accepting or rejecting the amendment to its charter, and the law recently passed by the Legislature of Maryland, "to provide for the completion of the canal to Cumberland, and for other purposes." Both were unanimously accepted—therefore we now hope to see the canal speedily completed to the coal regions, that it may be used to some purpose, and thus aid in removing the load which it has been largely, if not mainly, instrumental in fastening upon the shoulders of the people of Maryland. Open wide the avenues between the treasures of the mountains and tide-water, and we shall soon see vast amounts of capital invested, and ample supplies of bituminous coal, and iron of the best quality, produced by our own labor, and from our own materials.

We make the following extracts in relation to the character of the work from the communication of the President, James M. Coale, Esq., to the stockholders, by way of refreshing the memory of those of our readers who may have forgotten its dimensions and estimated capacity:—

"It may be proper, in this connection, to give a brief description of the Chesapeake and Ohio canal, its dimensions, present cost, capacity, and the sources of its expected trade, in order that the strength of the security upon which the bonds are to be based, may be justly appreciated.

THE CANAL.

The Chesapeake and Ohio Canal, with the terminus at present contemplated, extends from Georgetown, in the District of Columbia, to the town of Cumberland, in Alleghany county, Maryland, a distance of 184½ miles. About 5 miles of the canal is within the District; the entire residue of the line is within the State of Maryland. Of the entire line 134½ miles, extending from Georgetown to Dam No. 6, are finished and navigable, and the trade thereon is steadily increasing. Thirty-one and seven-tenths of the work of the remaining fifty miles have already been executed, at a cost of \$2,892,000, and there only remains eighteen and three-tenths miles of the work to be done to complete the canal and open a thorough navigation from the tide-water of the Potomac to Cumberland. The amount required to finish these eighteen and three-tenth miles, according to a detailed estimate made by the chief engineer, in 1842, was \$1,545,000. That estimate was made in reference to the cost of the work which had been done, at a time when provisions were high and labor scarce. Now, however, provisions are low and labor is abundant, and these advantages must necessarily enure to the benefit of the company.

DIMENSIONS AND COST.

The depth of the Chesapeake and Ohio canal is six feet throughout, but its transverse sections vary. From Georgetown to Harper's Ferry, a distance of sixty miles, it is 60 feet wide at the top, and forty-two feet at the bottom. From Harper's Ferry to Dam No. 5, (47 miles,) the top width is 50 ft. and bottom width 32 ft. From Dam No. 5 to Cumberland, (77½ miles,) the top width is 50 ft. and bottom width 32 ft. The basin of the canal at Cumberland is 609 feet above the level of tide-water at Georgetown. This ascent is overcome by one tide and seventy-five lift locks, averaging about eight feet lift. The locks, so far as the work has been finished, are constructed in the most durable manner, of solid masonry, and each has a chamber of 100 feet long, and 15 feet wide in the clear. They are constructed with a view to a double lockage, whenever the exigencies of the company may require it; but, as we shall presently show, the capacity of the canal, with single locks, as at present, is fully equal to the accommodation of a trade sufficient to gratify the most extravagant desires of its supporters. The sheer cost of the canal up to this time is as follows:—

For the acquisition of lands,	\$402,913 94
For the engineer department,	338,951 04
For construction,	9,013,837 56
<b>Total,</b>	<b>\$9,775,702 54</b>

CAPACITY.

When the canal shall be finished and filled to its capacity, boats carrying 100 tons of tonnage may navigate its entire length with ease. In consequence of the mildness of the latitude in which it is located, it has heretofore seldom been closed by ice for more than six weeks in the year, which generally happens in January and February; and, in this respect, it consequently possesses great advantages over the northern canals, whose navigation is usually suspended for four or five months annually. It is scarcely necessary to go into an estimate of the annual amount of tonnage that might be transported on a work of this description; but, as the calculation is before us, we will here transcribe its results.

Several years ago the chief engineer of this company made two estimates, founded upon data furnished by the experience of 14 years on the Erie canal, in New York. The one was based on the greatest month's work, and the other on the number of boats which, in the opinion of several of the officers of that canal, could conveniently be passed each day. Assuming the capacity of boats on the Chesapeake and Ohio canal at only 80 tons, according to the first calculation, the amount of tonnage capable of being transported on it during a navigable year was shown to be, in both directions, with single locks, as at present, 3,264,000 tons, and with double locks, 5,440,000 tons; and, on the second basis, the amount presented was, with single locks, 6,000,000 of tons, and with double locks, 10,000,000 of tons per annum. With a large allowance, there-

fore, for the usual discrepancy between theoretical calculations and practical results, it is very manifest that many years must elapse before the full capacity of the Chesapeake and Ohio canal, with single locks, can be tested by actual experience.

SOURCES OF TRADE AND REVENUE.

The canal, running nearly parallel with the river through its entire length, necessarily passes through the centre of the fertile grain-growing valley of the Potomac, whose agricultural and manufacturing productions will, in a great measure, be borne upon it to market. Along its line may be created "a water-power surpassed in extent only by that which England and the United States enjoy in common, near the western extreme of the Erie canal, in the Falls of the Niagara." When it is finished to Cumberland, it will be put in direct communication with the trade of the west, and will afford the most eligible and cheapest route to the seaboard, from the vast and populous regions beyond the Allegheny mountains. With a portage, by wagons, of only 73 miles on the great national Macadamized road, between Cumberland and Brownsville, on the Monongahela, to which steamboats of the largest class now come, the facilities of water communication for freight of every description will be afforded to the States bordering on the Ohio river, and those of the far west who may navigate its waters in conveying their productions to the cities of the Atlantic, or receiving from thence their supplies. From the county of Alleghany also a considerable amount of tonnage will be supplied in iron, fire-bricks, cement, lumber, etc.; but by far the most important source of trade relied on, and to grasp which has been the primary and controlling motive in prosecuting the work to its present destination, is the boundless and inappreciable coal fields of that country. Within a range of from six to twelve miles from the basin of the canal at Cumberland the deposits of bituminous coal of a superior quality are numerous, and, morally speaking, inexhaustible. Those that have been already opened consist of horizontal strata, slightly elevated, and declining towards the valleys, so as to be situated in the best possible manner for self-drainage. According to Professor Silliman, the quantity of coal in that region that is thus situated "is so abundant that it will not be exhausted for centuries. It will be the province of a distant posterity to drain the lower beds by tunnelling, or by the unlimited and untiring energy of the steam engine." But the boundless extent of the Alleghany coal fields, as well as the superior quality of the Cumberland coal, are matters so well established now as to render a parade of authorities on the subject in this place superfluous. Such as may desire to pursue the inquiry will find a mass of testimony collected together in the appendix to our special report of the 16th of November, 1843, and new illustrations of its value will be seen by reference to the voluminous and very learned report of Professor Johnson, "on American coals applicable to steam na-

vigation and other purposes," made to the Navy Department, in June, 1844, and recently published under an order of the U. S. Senate. In this last mentioned document, which contains the results of a long series of scientific experiments, it will be found that "in the order of evaporative power under equal weights," "of evaporative power under equal bulks," which is deemed of the highest importance for the purposes of steam navigation, and of the "evaporative power of combustible matter," the Cumberland coal takes rank as number one in a list of thirty-seven different varieties of coal, obtained from various regions in the United States and Great Britain, including the Newcastle, Sidney, Pictou, Liverpool, and Scotch coals.

"As a fuel for domestic purposes (according to the report alluded to) it possesses on the one hand, a flame abundantly sufficient to give cheerfulness to the aspect of a parlor fire, and on the other, a durability approximating that of some of the lighter anthracites; and, as a furnace coal for the manufacture of iron, it will be found among the best of the bituminous class, since, either with or without previous coking, it may be very advantageously employed in the blast furnace.

"Three different sizes of chain were in progress of manufacture at the different periods at which these experiments were made. They can, however, be all reduced to the same size, by a comparison with a common standard sample of coal, which was used on two sizes of chain. Thus Atkinson and Templeman's (Cumberland coal) made 18 links of a chain one and three-eighth inches in diameter, and eight links of another chain one and fifteen-sixteenth inches in diameter, by the use, in each case, of sixty lbs. of coal. Midlothian (new shaft) coal of equal quantity was found adequate to the making of fourteen links of one and three-eighth inch chain; and three Virginia coals (viz. Crouch & Snead's, Creek Company's, and Chesterfield Mining Company's,) having a mean evaporating power almost identical with the Midlothian 'new shaft,' put in nine links of one and three-eighth inch chain."

The following table will exhibit "the relative heating powers of the Cumberland and foreign coals, as tested in making chain-able, compared with their evaporative powers:"

Designation of Coals.	Pounds of steam, at 212°, produced by 1 lb. of coal.	Size of links, diameter in inches.	No. of links made by 60 lbs. of coal.	Deducted No. of links of 1 1/8 inches in diameter by 60 lbs.
Cumberland, Atkinson & Templeman.	10.699	1 3/8	18	18
Do. Maryland & New York Mining Company,	10.259	1 3/8	20	20
Foreign, Scotch,	6.946	1 1/8	10	10
Do. Pictou,	8.412	1 1/8	11	11
Do. Liverpool,	7.842	1 1/8	13	13
Do. Newcastle;	8.656	1 1/8	15	15

Possessing these advantages, and others that might be enumerated, it is scarcely possible, without incurring a charge of extravagance, to estimate the amount of Cumberland coal that would be annually consumed, if a full and regular supply were furnished to, and at all times kept on hand in the markets of the country. We have before us, however, abundant evidence to show that the most energetic efforts will be made to keep pace with the demand, to whatever magnitude it may increase, as soon as the proper facilities of conveyance are afforded. During the past year, new life and enterprise appear to have manifested themselves in the Cumberland region. Within the range of which we have before spoken, numerous mines have already been opened by incorporated companies of large capital, private partnership, and individuals, all of whom are now preparing for vigorous operations. The railroad which is to connect the mines with the basin of the canal at Cumberland has already been completed; another is under contract, and two more in contemplation, which will be finished next year. These roads, the longest of which will not exceed ten miles, will bring the products of the various mines to the basin of the canal at Cumberland, and from thence they will be transported on its smooth surface to market. According to the present tariff, the toll on the transportation of coal from Cumberland to Georgetown is one dollar per ton. It will be perceived that in the foregoing enumeration we have mainly confined ourselves to a consideration of the descending trade of the canal. The ascending will of course consist of those ordinary supplies which pass from the seaboard to the interior.

We have thus presented a brief outline of the canal, and indicated some of the most prominent sources of its expected trade. Having done this, we think we have given good reasons for the assertion made in an early part of this communication, that the bonds that are to be issued under the recent law, being preferred and absolute liens upon the entire revenues of the Company, will be one of the best and safest investments of the day.

LEHIGH CANAL AND LEHIGH AND SUSQUEHANNA RAILROAD TRANSPORTATION.

We have been informed that much difficulty has arisen for want of a connection between the transportation lines upon the Lehigh canal and those upon the Lehigh and Susquehanna railroad. And that goods destined for Mauch Chunk from Wilkesbarre must be accompanied by an agent to insure their delivery at this place, otherwise they are left at White Haven without being forwarded. This line is becoming of much importance, much of the produce used here and in the vicinity, being brought from the valley of the Susquehanna. If we have been correctly informed the present arrangement cannot be too severely condemned; if our informant is mistaken we hope those interested will correct us. If the transportation companies think an advertisement in

the Gazette is unnecessary, or that they are unable to pay for it, we will publish their arrangements, terms, etc., gratis, for the information of our readers, who every day make inquiries of us in relation to their lines.

We find the above in the Carbon County Gazette. It shows how little some people understand their true interest, and the value of advertising. We admire the liberality of the editor, who offers to advertise "gratis," but are inclined to believe that he is driven to this course, in self-defence, to avoid being himself made what is sometimes called a "standing advertisement." It reminds us of the modest and reasonable requests, not unfrequently made of us, to furnish a written description, giving the length, grades, curves, cost, etc., etc., of all the railroads in the United States—or that we will furnish the inquirer with a single number of the Journal containing all this information for six cents! and it has occurred that we have received such a request from an entire stranger, by mail, when the letter was charged with postage!! Perhaps the editor of the Gazette will also pay postage on the advertisements rather than not oblige them!

IMPROVED TRUCK FRAME FOR RAILROAD CARS.

We find in the Journal of the Franklin Institute, for April, the following specification in relation to the Iron Truck Frame of Messrs. Davenport & Bridges. It reads thus, viz:—

The connections between the pedestals of this truck frame, instead of being made by means of solid pieces of timber extending from one pedestal to another on each side, are, by means of two tie plates of iron bolted together through the pedestals, one being above and the other below; above the upper tie plate, and extending from one pedestal to the other, there is an arch plate connected with the pedestals by the same bolts that secure the tie plates. The two truss frames are connected together by means of diagonal iron plates bolted to the pedestals, and so twisted and connected in the middle as to form the opening for the king-bolt that secures the truck and car together.

Claim—"I do not claim making the truck frame of a railroad carriage with side truss frames united with diagonal braces, as this has been known before, nor do I claim making these frames of iron, or other metal; but what I do claim as my invention, is making the trusses of the truck frame that are united and braced together by means of twisted diagonal plates, of arch plates, and tie bars, so arranged and bolted together as to embrace and secure the pedestals as described, by which arrangement I obtain the necessary strength with greatly reduced weight, and employ the pedestals for the double purpose of holding the boxes of the wheel axles, and connecting the tie bars of the trusses."



## MAGNETIC TELEGRAPH ACROSS THE ATLANTIC.

A writer in the New York Tribune suggests a plan for bringing Old England within speaking distance of us, by means of Morse's telegraph. By the way, as often as we see those words, Morse's telegraph, we ask ourselves whether the magnetic telegraph, which is justly exciting so much admiration, really is Morse's telegraph, or whether it is the invention of some other individual; our impression is, that a scientific gentleman of this city, not Prof. Morse, is entitled to the credit of first developing that wonderful power of magnetism; but we cannot speak from actual knowledge, and should be glad of information on the subject. The plan suggested for establishing telegraphic communication across the Atlantic is, to run a copper wire, well covered, and as large as a pipe stem, from Nova Scotia to the coast of Ireland. This, as is thought, may be accomplished by winding the wire upon reels, and arranging it on board a steamer so as to be reeled off as fast as the boat goes, and dropped the whole width of the Atlantic. The writer says:

"Its gravity would sink it to the depth where water was so dense as to be of equal gravity, and of course beyond the reach of any kind of collision. Beginning and ending upon a bold shore, beyond the reach of anchors, it would be out of harm's way, and exposed to but two kinds of accidents, viz: from separation by its own weight, and the loss of the coating with which the metal must be protected. The steamer *Gt. Britain* would carry more wire of this size than would extend to Europe, and its cost I think would be less than a million of dollars."

Surprising as it may seem, when its results are considered, this is not a chimerical idea. It may be realized at no distant day. And then we shall receive news from Europe in a breath of time, and as fresh as the lightning's flash. We may stop our press to announce an event which occurred but a few seconds before on the other side of the water. Nor will this be much more marvellous than the changes which have been wrought by the aid of science, within the past century, as well in the transmission of intelligence from the other continent, as in the facilities for spreading it through the cities and villages of our own country. Now we are impatient if the steamer is delayed beyond twelve or thirteen days on the voyage from Liverpool; and in four and twenty hours after her arrival the intelligence she brings has become old news in every village within a hundred miles of Boston.

A little more than a hundred years ago, the *Boston News Letter*, the first newspaper published in Boston, was printed on a half sheet of pot paper, once a week. In August, 1719, the publisher of the *News Letter* gave the following notice:

"The undertaker of this *News Letter* in January last gave information that after fourteen years' experience, it was impossible with half a sheet a week to carry on all the public occurrences of Europe, to made up

which deficiency, and to render the news newer and more acceptable, he has since printed every other week a whole sheet;—whereby that which seemed old in the former half sheet, becomes new now by the sheet, which is easy to be seen by any one who will be at the pains to trace back former years, and even this time twelve months—we were then thirteen months behind with the foreign news, and now we are less than five months; so that by the sheet we have retrieved about eight months since January last, and any one that has the *News Letter* to January next (life permitted) will be accommodated with all the news from Europe needful to be known in these parts."

Afterwards the publisher gave notice that if he did not print a sheet every other week during the winter, he would make it up in the spring, "when ships do arrive from Great Britain."

"Thirteen months behind with the foreign news!" What would the news mongers of 1845 say to such a catastrophe?

We copy the above article from the *Traveller*. We have more than once been asked how long it will be before there will be a telegraphic communication with Europe—a difficult question, truly, to answer—not more difficult enterprize, however, than many which have been accomplished within the past half century.

For the Railroad Journal.

## TELEGRAPHS.

The recent improvements in the construction of Telescopes will render more perfect the system of visual telegraphs, and may lessen perhaps materially the superiority of the magnetic telegraph. The improvements to which we particularly allude are those made by the Earl of Rosse, as described in the *North British Review*, and other scientific journals. The article in the *Review* contains a very full account of the labors of the Earl, in his efforts to improve the reflecting telescope, and by which it appears that an immense magnifying power may be obtained at a comparatively small expense.

His improvements consist principally in the composition of the speculum metal, the mode of casting, of giving the exact parabolic forms, and of polishing.

A speculum of three feet diameter is found to possess a greater magnifying power than the four feet speculum of Herschel. One of six feet diameter has just been completed, and others are in progress, of 8 and 10 feet diameter! To show to what degree the process of constructing has been simplified and cheapened, it is only necessary to state that in casting sixteen plates for three feet speculums "not one was defective." The grinding and polishing is all done by machinery moved by steam power, (a small en-

gine of two horse-power,) with a precision unattainable by hand. The speculum of six feet diameter, just completed, was "polished in six hours," and with "the same facility as a smaller speculum;" and, what is altogether new, the polishing was effected by "placing the speculum in a cistern of water, and using for the polishing material, simply "the peroxide of iron, at about the consistence of thin cream."

The great cost of reflecting telescopes of a high magnifying form has heretofore consisted in the great expense and difficulty of forming the speculum, and as this appears now to be overcome, it is reasonable to infer that a very great improvement may result in the system of visual telescopes. The magnifying power of Herschel's great telescope has been estimated at 6,000. The three feet speculums of Rosse have an equal or greater power. With telescopes like these, the telegraphic stations may be so far removed from each other as to lessen very materially the expense of conveying intelligence; and if combined with the Drummond light, which is not costly to produce, the telegraphic signs may be read distinctly by night as well as by day, and at all times when the atmosphere is not obscured by fogs, rain or snow.

While the Earl of Rosse has been thus successful in improving the reflecting telescope, it appears by recent accounts that another gentleman, M. Jaunitz, in France, has been nearly equally successful in improving the achromatic, or refracting telescope—having been able to form lenses of much larger dimensions than any heretofore constructed.

From the preceding, it will be perceived that the system of visual telegraphs will, in all probability, be very greatly improved, and that shortly, and that any comparison instituted between it and the magnetic telegraph, in the present state of the former, would not show the actual relative merits of the two systems.

In concluding our remarks upon this subject, we will state, that a method for the quick transmission of intelligence has been proposed, differing entirely from the two modes above referred to. This latter mode consists in placing the intelligence or article to be conveyed in a hollow cylinder, which is impelled with great velocity through a tube of a suitable size, by atmospheric pressure, upon the same principle that motion is effected upon the atmospheric railway. This last mode has merits which seem not to be as yet fully appreciated, and should be fairly tested before any measures are taken to establish a general system of telegraphic communication.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital
						Per share.	Per cent. per annum.				
Arboath and Forfar.....	15	102,000	35,000	138,870		0	12 6 2	10 0	25 27	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1 5 0	2 10 0	100 100	Barnsley Junction.....	200,000
Branding Junction.....	23	161,700	365,470	481,452				4 10 0	50 54	Belfast and Ballymena.....	385,000
Bristol and Gloucester.....	37 1/2	400,000	211,000					nihil.	30 36	Blackburn and Accrington.....	400,000
Chester and Birkenhead.....	14 1/2	750,000	143,170	518,989	5,856	13,148	0 8 6	1 14 0	50 32	Birk. and Ches. Junction.....	1,000,000
Dublin and Drogheda.....	31	450,000	150,000	500,869				nihil.	55 72	Bolt., Wigan and Liverpool	800,000
Dublin and Kingston.....	6	200,000	152,200	359,000			6 0 0	0 0 0	100 166	Caledonian.....	1,800,000
Dundee and Arbroath.....	16 3/4	100,000	49,445	153,416	2,989	6,993	1 5 0	5 0 0	25 29	Cambridge and Lincoln...	1,250,000
Durham and Sunderland.....	18 3/4	169,350	124,055	270,392	9,889	17,702		nihil.	34 29	Chatham and Portsmouth..	5,000,000
East County and North and East.....	86 1/2	4,443,200	1,341,155	3,931,905	47,385	118,726	1 6 6		45 57	Chester and Wrexham.....	120,000
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	2 6 4	10 0 0	50 57	Churnet valley.....	1,800,000
Glasgow, Paisley and Ayr.....	51	937,500		1,066,951	12,446	36,736	1 2 6	4 10 0	50 60	Direct Northern to York...	4,000,000
Glasgow, Paisley and Greenock.....	22 1/2	650,000	216,666	787,884	11,572	23,177	0 5 0	2 0 0	25 12	Dublin and Belfast.....	950,000
Grand Junction.....	104	2,478,712		2,453,169	84,309	195,080	5 0 10	0 0 0	100 210	Dundee and Perth.....	250,000
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1 12 6	3 5 0	100 119	Edinburg and Northern....	800,000
Great Western.....	221 1/2	4,650,000	3,679,343	7,272,539	132,235	369,904	3 10 0	7 0 0	75 138	Ely and Bedford.....	270,000
Hartlepool.....	15 1/2	438,000	159,540	719,205				8 0 0	100 100	Glogow, Dum. & Carlisle.	1,300,000
Leicester and Swannington.....	16 1/2	140,000		140,000	2,207	6,317	1 5 0	5 0 0	50 50	Gt. South and West Ext...	1,200,000
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5 0 10	0 0 0	100 203	Gt. Grimsby and Sheffield.	600,000
Llanelly.....	27	200,000	44,000	221,624			1 0 0	2 0 0	87 87	Harwich and E. coun. Jun.	160,000
London and Birmingham.....	12 1/2	6,874,976	1,928,845	6,393,468	92,823	405,768		10 0 0	100 218	Huddersfield & M. rl. & cl.	600,000
London and Blackwall.....	3 1/2	804,000	266,000	1,315,640	15,978	23,870			16 6	Kendal and Windermere..	125,000
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,379	84,880	0 12 0	2 8 0	50 47	Leeds and Dewsbury.....	400,000
London and Croyden.....	8 1/2	550,000	229,000	761,885	5,582	10,545	0 5 0	2 10 0	14 17	Leeds and Thirsk.....	800,000
London and Greenwich.....	3 1/2	759,383	233,300	1,040,930	15,193	28,933		nihil.	13 10	Liv. Ormskirck and Preston	600,000
London and South Western.....	92 1/2	2,222,100	630,100	2,596,291	68,457	150,469	1 12 6	6 10 0	41 73	London and Portsmouth... 1,750,000	
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1 0 6	5 0 0	40 48	London and York.....	5,000,000
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2 2 0	4 10 0	93 110	Londonderry & Enniskillen	500,000
Manchester and Leeds and Hull.....	81	2,937,500	943,932	3,921,593	46,653	156,761	7 1/2 10 1/2		60 88	Lynn and Ely.....	200,000
Midland railway.....	178 1/2	5,158,900	1,719,630	6,279,056	76,983	281,898			100 96	Manchester, Bury and Ross	300,000
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947	4 0 0	4 0 0	100 105	Manchester and Buxton...	250,000
Newcastle and Darlington.....	23	500,000		405,728				nihil.	21 49	Mullingar and Athlone...	
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466	2 0 0	0 0 0	50 37	Newcastle and Berwick...	700,000
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2 10 0	6 16 8	100 104	Richmond & W. End Jun.	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415			0 16 0	8 0 0	20 39	Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000			31,247	91,171		8 0 0	20 38	Sheffield and Lincolnshire.	650,000
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066		nihil.	50 18	Shrewsbury and Gd. Junc.	400,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876		nihil.	82 93	Shrew. Wolv. Dudley & B..	900,000
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0 10 6	2 2 0	50 39	Trent Valley.....	900,000
Taff Vale.....	30	465,000	154,785	590,006	8,569	18,414	1 0 0	6 5 0	100 55	West London Extension...	64,000
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0 15 0	5 1 8	29 37	West Yorkshire.....	1,000,000
Yarmouth and Norwich.....	20 1/2	187,500	62,500	230,250				nihil.	16 25	Whitehaven and Maryport	100,000
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2 10 0	10 0 0	50 100	FRENCH RAILWAYS.	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10			15 1/2	15 1/2	Loughborough.....	70	142 1/2	142 1/2	7 0	1140	
Anti Dry Rot.....	10,000		18 1/2		2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35		34 1/2		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27 1/2	27	Mersey and Irwell.....	500	100	100	10		
Gt Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2 1/2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6 1/2		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1 1/2		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental..	11,493	50	50	7	64 1/2	65	Regents or London.....	21,418	33 1/2	33 1/2	2 1/2	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....				6			Somerset coal.....	800	150	150	7 1/2	123	123
Reversionary Int. Soc.....	5,325	100	100	4 1/2	104	104	Stafford and Worcester...	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36 1/2	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7 1/2	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Severn & Why & Rail Av.	3,762	26 1/2	26 1/2	5 1/2	30	30

Canals.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Ashby de la Zouch.....	1,432	113		4	70	70	Trent and Mersey.....	2,600	50	50	65	495	
Barnsley.....	720	100	100	14	180	180	Thames and Medway.....	8,149	19 1/2	19 1/2		10	10
Birmingham, 1-16 share ..	3,000	118 1/2	79	10	150	160	Warwick and Birmingham.	1,000	100	100	10 1/2	167	
Do. and Liverpool Junction	4,000	160	100		13 1/2	13 1/2	Warwick and Napton.....	980	100	100	8 1/2	122	
Covestry.....	500	100	100	20	365	365	Water Works.						
Cromford.....	460	do.	do.	24	250	250	Birmingham.....	4,800	25	25	3 1/2	28	28
Derby.....	600	do.	do.	9	105	105	East London.....	4,433	100	100	8	223	225
Erewash.....	231	do.	do.	32	440	440	Grand Junction.....	5,500	av.	41 2-3	7 1/2	88	90
Forth and Clyde.....	1,297	400 1/2	40 1/2	4	440	440	New River L. B. Ann.....	1,500			2 1/2		
Grand Junction.....	11,600	100	100	7	162	161 1/2	Manchester and Salford...	6,486	av.	30	8 1/2	57	57
Grand Surrey.....	1,500	do.	do.		20		Vauxhall, lt. S. London...	1,000		100	5	55	55
Gloucester and Rerkley.....	5,000	do.	do.		8	8	West Middlesex.....	8,294	av.	63 1/2	6 1/2	126	127
Grantham.....	749	150	150	8	185	185	Docks.						
Lancaster.....	11,699	47 1/2	47 1/2	3	40	40	Commercial Dock.....	1,065	100	100	3	10	
Leeds and Liverpool.....	2,897	100	100	34	640	640	East and West India.....		sto.		5 1/2	137	
Leicester.....	545	140	140	9	139	139	London.....	3,238,310	sto.		4 1/2	114 1/2	115
							St. Katharine.....	1,352,752	sto.		5	116	171
							Southampton.....	7,000	50	50			



AMERICAN RAILROADS.													SALES.	
Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	Week ending April 30. Shares. Price
							Gross.	Nett.		Gross.	Nett.			
	1 Portland, Saco and Portsmouth.	50	1,200,000				89,997	47,166	7	124,497	74,841	6	113½	102
N. H.	2 Concord.	35	750,000									12	70½	139½
Mass.	3 Boston and Maine.	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	110½	112½
"	4 Boston and Maine extension.	17 1-4	455,703	unfin.										
"	5 Boston and Lowell.	26	1,863,746				277,315	144,000	8	316,969	147,615	8	120½	120
"	6 Boston and Providence.	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	108½	109½
"	7 Boston and Worcester.	44	2,914,078				4 0,141	162,000	6	428,437	195,163	7½	116½	117½
"	8 Berkshire.	21	280,260	not stated				17,500	7	17,737				
"	9 Charlestown branch.		2,388,631						13	34,654	13,971	5½	70½	82½
"	10 Eastern.	54	1,150,000				279,563	140,595	6	337,238	227,920	8	109½	109
"	11 Fitchburg.	50	380,000	just op'n'd						42,759	26,835		120	124
"	12 Nashua and Lowell.	14 1-2	430,962				84,079		8	94,588	34,944	10	121	126½
"	13 New Bedford and Taunton.	20	172,883				50,671	24,000	6	64,998	24,000	6		
"	14 Northampton and Springfield.		2,170,366	unfin.										
"	15 Norwich and Worcester.	59	87,820	900,000	16,535	100	162,336	24,871		230,674	99,464	3	70½	72
"	16 Old Colony.		63,075	unfin.									102	104
"	17 Stoughton branch.	4	250,000	unfin.										
"	18 Taunton branch.	11						20,000	8	96,687	20,000	8	118	
"	19 Vermont and Massachusetts.		41,516											
"	20 West Stockbridge.	3	7,686,202	200		100						4		
"	21 Western, (117 miles in Mass.)	156	8,431	1,686,202	30,000		573,882	284,432		753,753	439,679	3	102½	101½
"	22 Worcester branch to Milbury.		1,244,123	506										
"	23 Housatonic, (10 months.)	74	1,100,000							150,000			82	
Con.	24 Hartford and New Haven.	38	600,000	100,000	10,000	100						6	89	94½
"	25 Hartford and Springfield.	25 1-2	2,600,000	400,000	2,000	100								
"	26 Stonington, (year ending 1st Sept.)	48	336,211	650,000	13,000	100	113,889			154,724	79,845		41	39½
N. Y.	27 Attica and Buffalo.	31	1,796,342				45,896	7,522		73,248	48,033	0		
"	28 Auburn and Rochester.	78	766,657	200,000	14,000	100	189,693	112,000		237,667	152,007	6	106	
"	29 Auburn and Syracuse.	26	200,000			133½	86,291	27,334		96,738	52,544	6	116	
"	30 Buffalo and Niagara.	22	5,000,000		1,500								100	
"	31 Erie, (446 miles.)												31½	29
"	32 Erie, opened.	53	1,206,231					48,000		126,020	59,075			
"	33 Harlem.	26	575,613							140,685	62,399		70	72
"	34 Hudson and Berkshire.	31	1,610,221			50				35,029	1,94	0	14	
"	35 Long Island.	96	1,317,893	392,340	29,846					153,456	58,996	0	75½	76
"	36 Mohawk and Hudson.	17	303,658	400,000	10,000	100	69,948	58,780		79,804	45,763	0	64½	61
"	37 Saratoga and Schenectady.	22	640,800				42,242	3,000	1	34,666	8,455	0		
"	38 Schenectady and Troy.	20 1-2	1,115,897				28,043			32,646	6,365	0		
"	39 Syracuse and Utica.	53	727,332	none.	16,000	62½	163,701	72,000		192,061	120,992	8	115	
"	40 Tonawanda.	43	180,000					76,227		114,177	75,865	5		
"	41 Troy and Greenbush.	6	475,801											
"	42 Troy and Saratoga.	25	2,168,165				44,325	21,000		38,502	9,971	2½		
"	43 Utica and Schenectady.	78	3,200,000	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	129	
N. J.	44 Camden and Amboy.	61	500,000				682,832	383,880		784,191	404,956		110½	111
"	45 Elizabethtown and Somerville.	26												
"	46 New Jersey.	34	2,000,000										93½	
"	47 Paterson.	16	500,000									6	85	
Pa.	48 Beaver Meadow.	26	1,000,000											
"	49 Cumberland Valley.	46	1,250,000											
"	50 Harrisburg and Lancaster.	36	860,000										30	
"	51 Hazleton branch.	10	120,000											
"	52 Little Schuylkill.	29	900,000											
"	53 Blossburg and Corning.	40	600,000											
"	54 Mauch Chunk.	9	100,000											
"	55 Minehill and Schuylkill Haven.	18	315,000						12				143½	
"	56 Norristown.	20	800,000										6½	7
"	57 Philadelphia and Trenton.	30	400,000										104	
"	58 Pottsville and Danville.	29 1-2	1,500,000											
"	59 Reading.	94	9,457,570	7,447,570	40,200	50				597,613	343,511		50½	49
"	60 Schuylkill valley.	10	1,000,000											
"	61 Williamsport and Elmira.	25	400,000				20,000							
"	62 Philadelphia and Baltimore.	93	4,400,000				43,043	200,000			210,000		43½	42
Del.	63 Frenchtown.	16	600,000											
Md.	64 Baltimore and Ohio, (1st Oct.)	188	7,623,600				575,235	279,402		58,620	346,946		48½	50½
"	65 Baltimore and Susquehanna.	58	3,000,000										5	6
"	66 Baltimore and Washington.	38	1,800,000				177,227	71,691		212,129	104,529		84	
Va.	67 Greensville and Roanoke.	17 1/2	260,000											
"	68 Petersburg and Roanoke.	60	969,880							122,871	72,898	3		
"	69 Portsmouth and Roanoke.	78 1-2	850,000											
"	70 Richmond and Fredericksburg.	61 1-2	1,200,000											
"	71 Richmond and Petersburg.	22 1-2	700,000											
"	72 Winchester and Potomac.	32	500,000											
N. C.	73 Raleigh and Gaston.	84 1-2	1,360,000											
"	74 Wilmington and Raleigh.	161	1,800,000											
S. C.	75 South Carolina.	136	5,671,452		34,410	75				532,871	140,196	5		
"	76 Columbia.	66					201,464	77,456		323,425	180,704			
Ga.	77 Central.	190	2,581,723				227,532	93,190						
"	78 Georgia.	147 1-2	2,650,000				248,026	158,207		248,096	147,523			
"	79 Montgomery and West Point.	89		170,000		100				35,000	15,000			
Ky.	80 Lexington and Ohio.	40	500,000											
Ohio	81 Little Miami.	40	450,000											
"	82 Mad river.	40	400,000											
Ind.	83 Madison and Indianapolis.	56	152,000											
Can.	84 Champlain and St. Lawrence.	15	212,000					12,000		53,000	24,000		110	

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.  
 Thursday, May 8, 1845.

This number of the Journal has been delayed somewhat in consequence of the prevailing moving mania of our city—but as "moving day" does not usually come but once a year, we hope not to be thus delayed again.

The Hon. John A. Dix will please accept our thanks for valuable public documents.

ELECTRO MAGNETIC TELEGRAPH.

We are indebted to FRANCIS O. G. SMITH, Esq., the author, for a copy of the Vocabulary for Secret Correspondence, by means of the Electro Magnetic Telegraph, for which he will please accept our thanks. We hope soon to see the wires extended from Baltimore to Boston, that its utility may be better appreciated, and more widely enjoyed. We also trust that it may not be made subservient to the few, but enjoyed by all alike—first come first served.

The Pennsylvania Inquirer says that "the railway between Paris and Orleans pays well. In one week the receipts were nearly \$1,000, and the total receipts since the opening of the present year, have been nearly a million of dollars. In one week they carried 35,497 passengers. It is valuable stock."

"Nearly \$1,000" a week, and "nearly a million of dollars" since the opening of the present year," do not correspond—which is correct?

A suit for damages was tried last week in Norristown, brought by James Jones against the Philadelphia and Reading railroad company, for the recovery of damages for the destruction by fire of the plaintiff's mills, in Upper Merion township, caused by sparks from the locomotive.

The defendants contended that the increased risk of the destruction of the plaintiff's mill by fire, was a part of the damage he had sustained by the location of the road so near his mill, and that the contingency of its destruction by fire communicated from the defendants' locomotives, in their ordinary use, was a part of the damages which he must have considered he might sustain at the time he gave the release for all such damages, and that he was, therefore, already paid for this damage, if it occurred without any default of the defendants or their agents. The court concurred in this view of the case.

The jury returned a verdict for plaintiff of \$3,658.—[Ledger.]

The destruction of property by fire from locomotives is becoming oppressive to the people—and it is high time that measures were adopted to prevent so frequent a repetition of them. We find in the Evening Post a letter dated Brookhaven, L. I., May 5th, giving an account of a destructive fire in the woods, near the Medford depot, on the 14th of April, which destroyed timber, fences, cord wood, a house and two barns; and since that date, the same letter states, there has been three other fires from the same cause along the same road, viz: 29th April, near the same

place, May 2d, east of Carmans river, and May 3d, near Suffolk station—by which large amounts of property have been destroyed, and many poor people made to suffer. This should not be, if there is a possibility of avoiding it, which we believe may be done at trifling expense to each engine, viz: by use of the improved smoke stack, of French & Baird, of Philadelphia—as it is not uncommon at the south, we are informed, to carry cotton bales in open cars, attached to a locomotive having one of these stacks.

RAILROAD ACCIDENTS.

It is but a day or two since we were congratulating ourselves to a friend, the superintendent of an eastern railroad, that there had been very few serious accidents for some time past, on our railroads—but on opening the Traveller we find that "a man was killed on the track of the Lowell railroad Friday morning, about two miles from the city, having been run over by the 11 o'clock train, going up.—The man was walking towards Lowell on the left hand track, and seeing a merchandize train coming down, stepped on to the other track, not perceiving that the passenger train was immediately behind him going up, and supposing, as is presumed, that the bell and noise of both engines proceeded from the merchandize train. The passenger train struck him, knocked him across the rails, and ran over him, cutting his arm nearly off and his body almost in two, and of course killing him instantly. His name was Valentine Gay, a respectable citizen of Lyman, Me."

An accident may occur in this way without blame to those who manage the engine—yet it should incite them to double diligence, as it is known to us all that people will walk on the track and expose their own lives, while others are so criminally careless, that they allow their cattle to run on the track, and thus expose the lives of the hundreds who are obliged to travel—indeed we have been told of instances in which cattle have been *salled* on the track, and when killed by the locomotive, the company prosecuted and put to heavy costs.

Such *baseness* can hardly be credited in a christian community. When detected, it should be visited with the severest punishment—as should also all carelessness in those who manage railroads.

Railroad companies should be fully protected in their rights, and allowed liberal profits and privileges; and then the rights, safety and lives of their passengers should be rigidly and unceasingly guarded in return.

MONTGOMERY AND WEST POINT RAILROAD—GEORGIA.

This, together with several other railroads, has not been found in our list of *American Railroads*, for the reason that we could not obtain what we supposed to be an accurate account of it. We have just received from an unknown hand the following statement, which enables us to place it in the list, as we desire to, and shall always do, when we receive the necessary facts in relation to other railroads.

The Montgomery and West Point railroad will be, when completed, 89 miles long—of which is now finished 40 miles, graded only 23 miles, not yet commenced, 26 miles. The cost thus far has been \$520,000—of which, \$350,000 has been raised by sale of stock, and \$170,000 by loans and debts incurred. They have 4 locomotives, 3 passenger and 20 freight cars. The gross earnings for 1844 were \$35,000, and its expenses \$20,000. The original price of shares was \$100—yet, like many other, important, but unfinished works, there are few or no sales by which its present value can be arrived at. It will, however, we think, eventually be completed, and give a good return upon the investment—and it behoves those engaged in its management, and inter-

ested in its completion, to make vigorous and constant efforts to effect so desirable an object.

THE COAL TRADE.—Sent by railroad from Pottsville and Port Carbon, for the week ending on Thursday evening last.....5,562-11  
 Per last report.....44,721-15

Total.....50,284-06  
 From Schuylkill Haven.....7,436-08  
 Per last report.....84,921-17

Total.....92,358-05

BY CANAL.

From Pottsville and Port Carbon.....3,535-01  
 Per last report.....21,310-01

Total.....24,845-02

From Schuylkill Haven—total up to Thursday evening.....775-01  
 Per last report.....2,340-05

Total.....3,115-06

From Port Clinton.....1,635-12  
 Per last report.....4,995-17

Total by canal.....6,631-09

Total by railroad.....142,642-11

Total by railroad and canal.....177,234-08  
 Freight from Pottsville to Philadelphia, 70 cents, to New York, \$1 80.

The following are the rates of freight from Richmond and the Schuylkill to eastern ports:  
 To Salem.....\$2 00 to 2 12 per ton  
 To Boston.....2 18 to 2 00 "  
 To Portland.....2 25 to "  
 To New Bedford.....1 45 to 2 50 "  
 To Providence and Fall river. 1 40 to 1 50 "  
 To New York.....1 00 to "

PINE GROVE COAL TRADE.—Transportation on Union canal railroad for this season, up to April 1.

Tons cwt. qr.  
 January.....271 1 1  
 Feb. and March.....1259 18 3—1531 0 0  
 Amount transported on Swatara railroad, during March, 1845.....548 16 0

Transportation on Union canal railroad from 1st to 15th April, inclusive, 2136 1 2  
 Per last report.....1531 0 0—3,667 1 2

Transportation on Swatara railroad, from 1st to 15th April, inclusive, - 1,077 0 0  
 Per last report,.....548 16 0—1625 16 0

LEHIGH COAL TRADE.—Despatched this season up to 4th mo. 26th, 1845, from Mauch Chunk.

Lehigh coal and navigation co.  
 Summit.....4415  
 Room Run.....1275—5690  
 Beaver Meadow railroad and coal co.,.....1874  
 From Penn Haven.—Hazleton coal co.,.....2010  
 From Rock Port.—Buck Mountain coal co.,.....654  
 10228

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines.....13210  
 Room run do.,.....3136—16356  
 Beaver Meadow railroad and coal co.,.....5743  
 From Penn Haven.—Hazleton coal co.,.....5133  
 From Rock Port.—Buck Mountain coal co.,.....1408  
 28,630

WYOMING COAL TRADE.—Total to April 26th,.....5758

MINEHILL AND SCHUYLKILL HAVEN RAILROAD.—

The following is the amount of coal transported over this road, for the week ending on Wednesday evening last:  
 8,623-16  
 Per last report,.....86,329-07  
 Total,.....94,953-03

MOUNT CARBON RAILROAD.—The amount of coal transported over this road for the week ending on Thursday evening last, is.....5468

Per last report,.....46,356

Total,.....51,824

ATLANTIC AND PACIFIC, OR OREGON  
RAILROAD.

We find the following communication from Mr. Whitney, the bold projector of the railroad to Oregon, in the National Intelligencer. Mr. W. proposes to make an excursion, or reconnoissance, during the ensuing summer, of a *part*, say *seven* or *eight* hundred miles of the contemplated railroad to the Pacific ocean. He says that several young gentlemen will accompany him, and he invites others to do so. The editor of the National Intelligencer says, that "such a trip will not only offer all the pleasures of a journey over a wide, a various, an important and but little traversed region, but couple with it an object worthy of the attention, and probably the advantage, of an intelligent company, able by their diversity of knowledge, to assist and inform each other as to everything that may present itself along their route, in geology, and other parts of natural history and science."

We fully coincide with the editor of the Intelligencer, and would go much further and say that such an excursion would be an *hundred* times more *healthful*, and a *thousand* times more useful, to the educated and wealthy young men of our country, than an excursion to *Saratoga*, or *Cape May*, or even to Europe. By adopting this course, they would not only improve their health, but also learn the *extent*, the *fertility* and the *resources* of their native land, which they may be soon called to aid in governing, and what is more important still, in *defending* from foreign aggression—instead of learning the follies and vices of fashionable resorts, and foreign countries. The one will make intelligent, healthy and useful men, instead of, as is often the case, idle, dissipated and vicious fops.

"*Interesting Excursion.*—The expedition promised in the subjoined note from the gentleman who has conceived the great project of what may be called the continental railway, is certainly a very inviting one to such as propose to themselves a summer's travel. Such a trip will not only offer all the usual pleasures of a journey over a wide, a various, an important and little traversed region, but couple with it an object worthy of the attention, and probably the advantage, of an intelligent company, able by their diversity of knowledge, to assist and inform each other as to everything that may present itself along their route, in geology and other parts of natural history and science.

"Without pretending as yet to offer any decided opinion as to the feasibility of Mr. Whitney's bold idea, we confess that its mere vastness, though suggesting to many the notion of its being visionary, by no means implies, of itself, to us such a con-

clusion; and anything but forbids, therefore, the prosecution of a careful examination of the possibilities of his plan. We know that many much more competent than we to judge of the scheme, are already convinced of its reasonableness.

"Certainly, then, since the proposed means of effecting the object may prove adequate, and, if adequate, dispense with the raising of capital either abroad, or at home, by moneyed subscription; since the line of lands to be granted by our government will derive its value from the execution of the work itself; since the gift will, if the thing succeeds, add a worth to the contiguous territory which will more than replace to our public domain the price of what is to be parted with; since if the plan fail the grant is to revert; and since, on the other hand, if it succeeds, the national and commercial benefits attained must be very great, we must avow ourselves persuaded that the scheme deserves to be very seriously examined, and by no means rejected as extravagant.

"Nor is it to be overlooked that at least the first step in the proposed line of communication seems quite practicable—the road from lake Michigan to the Mississippi—an object highly worthy of being realized, and for which the face of the country to be traversed offers unusual facilities. We are disposed at present to think that this part of the project may readily be accomplished by the proposed means; and that probably a surplus of resources might be left that would go far towards the remainder of the work."

"Washington, April 23, 1845.

"MESSRS. GALES & SEATON: It is my intention to pass over, examine, and partially survey seven or eight hundred miles of the proposed route for the railroad from lake Michigan to the Pacific.

"I shall leave New York about the 20th May for Green Bay, follow the lake down to Milwaukee, thence west to the Missouri river, and return by St. Louis.

"Several young gentlemen of high respectability and education will accompany me, and it will please me to have our number increased.

"The excursion will be pleasant, beneficial to health, and useful in the knowledge to be gained of that vast country; and should the project for the railroad succeed, those who now accompany me can be usefully and advantageously employed in the great work.

"It will please me to have some young gentlemen of the south to join us: and I shall be happy to communicate with any so disposed. Truly yours, A. WHITNEY.

"41 William St., New York."

## STEAMBOAT DISASTERS.

We fully concur in the following remarks from the *Traveller*. It is high time that measures were taken to avoid the numerous accidents which occur on board American steamboats.

"The recent appalling disaster on the

Hudson has aroused public attention to the necessity of legislative interference in regulating steamboat navigation. Shall the proprietors and officers of these public conveyances be suffered to sacrifice at their pleasure, the lives of our citizens? In this form of the question, the answer is unanimous—something must be done. But what?

"It is proposed among other things, that the legislatures of the several States require all steamboats which navigate their waters, to be supplied with life boats and life preservers, sufficient for the largest number of passengers which such boats can accommodate. To all this we give our cordial assent. It ought to be done forthwith. We go yet further; and say, that in our opinion the officers and directors of all passenger-carrying boats should be held liable for all loss of life resulting from disasters on board their boats; and should be required to show that such disasters and deaths were not the result of bad management or carelessness on their part, or else be subject to indictment for manslaughter. We aver that such a requisition would be perfectly right and just. These men are "common carriers;" and as such, are now held responsible by law for all property entrusted to their care; and on the same principle, and for the same sufficient reason, they should be held liable for all disasters resulting in the injury or death of our persons or our friends.

"But, after all, we have little hope of any effectual reform in the management of our passenger boats, until the press and the public themselves are reformed on this subject. What can our legislators do effectually, or what will they attempt to do, so long as the rage for rapid travelling and cheap travelling continues? What is human life, compared with the saving of a picayune, or of an hour's time? A boat that will make a quick passage, though it be to the straining of every joint in her, and to the endangerment of every life on board of her, will be chronicled and puffed as "the fastest boat on the route;" and will be crowded by hundreds of persons travelling for *pleasure*, as well as for business.

"A boat which will start as an opposition line, and underbid the old line, even though that was reasonable in its charges, will find a rush of passengers to her decks. Now, then, so long as such is the feeling, and such the practice of the community, we may cry out against the carelessness of the managers of our steamboats, when, in their races they are so unlucky as to blow up or run on a rock, we may even judge them, in certain flagrant cases, worthy of the gallows—as perhaps some of them really are—and still the evil will not be remedied; and if traced home it will be found lying at our own door. If the public will patronize and encourage men to run boats without a reasonable compensation, and to run them in the least possible time, without regard to human life—so long, just so long, we shall have steamboat disasters; and every few weeks the community will be clothed in sadness, and the mourners will go about our streets."

We are indebted to ADAMS & Co., who will please accept our thanks, for the *English Railway*, and *Mining Journals*, of the 12th April, by the steam-ship.

On referring to these Journals we find that the railway fever has not yet reached its height, but seems to be steadily advancing.

The following extract from the *Mining Journal* of April 12th shows that railway shares are esteemed as one of the best, if not the very best investments of capital—an opinion in which we fully concur, when judiciously made.

#### “ PROGRESS OF RAILWAYS.

“ The transactions in railway shares have this week been more buoyant than ever: speculation appears again to be on the increase, and the desire of investing, so far from being checked, continues as restless and unabated as ever. Scotch and Irish railways appear to hold a prominent position at the present moment; and, while the latter are especially in great request, it may be mentioned as an instance of the high favor of the former, that for the allotment of 22,000 shares in the Great North of Scotland, there were applications for no less than 200,000, and in the Inverness and Elgin Railway, where only 15,000 of the total amount of £300,000 were to be allocated, 109,652 shares, representing a sum of £2,193,040, were sought for. This, indeed, looks as if the mania for speculation had not in the least subsided; but it is not to this class of stock that the spirit is confined; even in novel propositions to be applied to railways, the anxiety to invest is singularly perceptible; we believe that, for the 12,000 shares into which Bilbrow's Atmospheric Railway capital is divisible, above 36,000 have been already applied for. This sudden eagerness to speculate is, doubtless, attributable in a great measure, to the eminent success attending enterprise in similar projects. Railways appear daily progressing, not only in extension, but receipts, and affording thus a steadily increasing return for capital; such investment is naturally considered a safe as well as eligible medium for permanent enterprise.”

#### ON ATMOSPHERIC RAILWAYS.—BY DR. J. G. HEWLETT.

In no subject is an active, energetic, and commercial people more deeply interested than in the means for safe and expeditious intercommunication; and, as we have long maintained a high pre-eminence among the civilized nations of the earth for our zeal, enterprise and commerce, we can only expect to secure these honorable distinctions by affording every possible encouragement to those inventions and discoveries which have a tendency to bring the arts and sciences to the highest degree of culture and practical utility. The truth of this statement has been admitted; and yet a strange, but most decided opposition has been raised

to almost every remarkable invention that has been introduced during the last fifty years. The proposed locomotive steam-carriage was most violently opposed by the devout lovers of stage-coach travelling. The olden times and the olden ways were so much admired that any innovation on the olden practices were dreaded with a terror, a little less than that felt at an approaching earthquake. That the whole host of interested parties should be opposed to a new and improved mode of travelling was no more than might be expected, because the doctrine of vested rights, as maintained and practically carried out in this country, had ever been a mighty barrier to all social and moral improvements. But that parties who had no such rights to be jeopardised or damaged should be opposed, must be a matter of surprise to every reflecting mind. For not a few, both in Bristol and Birmingham, were to be found, who, on hearing of the respective railways proposing to accomplish twenty miles an hour, said, with much complacency—“ Let others venture their necks who please, but as for me, I am quite contented to travel at the rate of ten miles an hour, including all stoppages, and think it is speed enough for any reasonable man.” And so it was, according to the means employed—means which involved no small amount of suffering and cruelty to animals. But now that locomotive power has become a general mode for the transmission of men and chattels, the very persons who were so timid and so dreading consequences, are now among its warmest advocates and substantial patrons. Yet this must not be regarded as an ultimatum, but merely a step in the ever-advancing course of improvement. Seeing how former inventions have been treated, on their first introduction to public notice, by the populace at large, it is no more than experience has taught us, to expect that every bold invention, developing some new power, should meet with a similar treatment; and, upon this principle, a host of prejudices are arrayed against atmospheric railways. The prejudices which have existed against former inventions, and subsequently giving way to approbation and admiration of the highest order, induce the writer of this paper to think, that those prejudices arose from a want of information, and a consequent misapprehension of the whole invention. This is certainly the case in reference to many who are opposed to atmospheric railways; they talk of accidents occurring by this mode of travelling which must, of necessity, be more fatal than accidents by the locomotive power. No mode of travelling can pledge an entire exemption from accidents. A small piece of orange peel on our ordinary pavements may occasion the death of the man who accidentally puts his foot upon it. But this is very different from a company of men looking pale with fear, dreading that a shower of pumpkins from the moon will dash them to pieces, when they have not as yet any credible testimony that there are pumpkin gardens in the moon. With the utmost respect for the

fears of the timid, and the misconceptions of the uninformed, we venture to think, that a few plain matter-of-fact statements will have a tendency to dissipate their fears, and correct their misconceptions. Correct definition is the foundation of all sound information. The terms constantly employed on this topic are “ locomotive power” and “ atmospheric principle or power.” Locomotive power is the mechanical force identifying itself with the carriages moved. Atmospheric power is mechanical force acting on the carriages through different media—a force renewable at intervals on the line—so that the atmospheric power is often classed with the stationary, as the impulse, or cause of motion, is only at intervals, as in some railways, such as Blackwall, the rope by which the carriages are moved is put in motion by a power that is entirely fixed and distinct from the carriages themselves.

The history of atmospheric railways will satisfactorily show that the principle is not so new—and, consequently, the plans constructed on it by no means so jejune and immature as some imagine. If seven cities have contended for the honor of being the birthplace of Homer, it is no wonder that many persons who have had thinkings and imaginings on the subject should contend for the honor of being the inventor of the atmospheric mode of propulsion. There are some difficulties in tracing this Nile to its right source; the first authentic data, however, which we have immediately connected with the subject, is the publication of a pamphlet, in 1810, by Mr. Medhurst, in London, in which he proposed the idea of employing the power of the atmosphere created in an extended tube laid between the rails, and communicating the moving power thus obtained to propel carriages travelling on a road. Mr. Pinkus, however, asserts that Mr. Medhurst only proposed the impracticable part of Papin's plan of forcing air under the compression of many atmospheres, as several others before him had done, adding, at a subsequent date, the idea of moving a piston through an under ground tunnel, by forcing in air behind it, from distances of 20 miles apart, and, by means of such piston and tunnel, impelling passengers and goods. Medhurst's first plan was to convey letters and goods by means of rarefaction and compression of air in a channel six feet high and five feet wide, contained in a paved road or iron railway. Mr. Medhurst, it should be observed, took out no patent, performed no experiments, and distributed his pamphlets chiefly among his friends; so great controversy has always existed as to the legitimacy and extent of his claims. In 1824, he contested his claims to invention, in a paper war with Mr. Valance; and in 1840, Mr. Pinkus contested them. In 1817, Mr. Lewis proposed a plan, which was a modification of that of Medhurst's. In 1824, Mr. Valance took out a patent for his method of an underground tunnel, also availing himself of rarefaction and atmospheric pressure. Mr. Valance made experiments with his system at Brighton, but does not appear to

have been successful, so that his patent produced him no return, while Mr. Medhurst claimed priority of the invention. There is, however, strong reason for deciding that Mr. Valance first proposed employing the power of the atmosphere against a vacuum for railway purposes, as Mr. Medhurst did a *plenum*. In 1828, Mr. Medhurst re-published his pamphlet of 1810, and he then proposed to use a tube comparatively much smaller, to enclose a piston in it, and to transmit its action to the outside, through a longitudinal opening; he proposed also to have stationary engines twenty miles apart, for forcing in air. Of this plan he published a drawing, showing a long box, and a pipe suspended over a channel of water, in order to make a water joint or valve. According to the assertions of some of his friends, he made experiments with this and failed, from the impossibility, explicitly says one, of making the continuous communication from the inside of the pipe to the carriage tight enough to allow a useful degree of rarefaction to be produced; Mr. Pinkus, however, says he was well informed that Mr. Medhurst never made a single experiment. The suggestion of that mode of railway transit appears to be fairly due to Mr. Medhurst; the important step of creating a vacuum before the piston belongs to Mr. Valance, while the further improvement of attaching the piston to an external carriage is disputed by Mr. Medhurst and Mr. Pinkus; Mr. Medhurst's pamphlet is certainly the *first* publication, while Mr. Pinkus quotes no evidence as to his own claims. On the 1st of March, 1834, Mr. Pinkus brought out his first patent; and in this he proposed, as a valve, one in the form of a cord, or rope, and which he calls a valvular cord. Mr. Pinkus states, that in 1830, he had again prepared fresh plans and specifications, such as are now enrolled, and that he had exhibited them to his friends, and in 1833 commenced his patent. In 1834, he constructed a large working model, which was publicly exhibited in Wigmore-street; according to the Samuda advocates, the experiments were a complete failure; but in 1836, an association was formed for working under Mr. Pinkus's principle, and contracts were made for works, to demonstrate the principle. In 1836, Mr. Pinkus took out another patent for this country, with improvements, and also for foreign countries; in this the valve was formed of iron plates, secured to felt, to lay against pieces of wood, which he proposes to fix to the inner sides of the trough, as presenting a smoother surface than cast iron; he also described a spring copper valve, fastened at its foot to the pipe, and meeting at the top, in the shape of an inverted V. The system was then called the pneumatic system, and excited a good deal of attention, and much controversy. At this period works were designed to be applied on the West London Railway, at Wormwood Scrubbs; the works nearly completed a line half a mile in length, formed on the margin of the Kensington Canal, which was united with that line of railway; Messrs. Samuda and Hague were the contractors for the engines, the

former also for the mains and valves. Mr. Clegg is claimed by Mr. Pinkus as having been at that time confidentially employed and consulted by him, and as having witnessed the progress of the experiments; to these assertions of Mr. Pinkus we have not seen a satisfactory answer; certain it is, that on the 3d of January, 1839, a patent was taken out by Messrs. Clegg and Samuda, from which practical results have been obtained. The grand principle of the improved atmospheric plan, up to this period, was in hermetically sealing the valve with a composition each time the train passed. In 1839, experiments had been made on this plan at Chailot, through the exertions of Mr. James Bonfit. Next, an extensive experiment was performed on Wormwood Scrubbs, on the West London railway, Mr. Pinkus's apparatus having been removed, his company falling to the ground for want of funds. The portion of the line selected was half a mile long, with a rise of 1 in 120 for rather more than half the distance, and 1 in 115 for the remainder. On the 11th of June, 1840, this line was open for experiments, and these were attained with sufficient success, and so far sanctioned by the approval of eminent engineers, as to justify further proceedings. We should observe, that on the 3d August, 1839, Mr. Pinkus obtained a third patent, in which he describes a valve and composition precisely similar to Clegg and Sumada's; on the 24th March, 1841, a fourth, where he proposes a gaso-pneumatic power. About 1841, Mr. Bonfit set up at Havre, in the factory of M. Nilbus, machinery for manufacturing Clegg and Samuda's valve. At the close of 1843, Clegg and Sumada's plan was laid down on the Dalkey line for the short distance of one mile and a quarter; this is a continuation of the Dublin and Kingstown line. And in the subsequent history of atmospheric railways, we have last—but, as we imagine, not least—the extraordinary but simple invention of Mr. James Pilbrow, which obtained a patent on the 18th November, 1844; this invention does away with the continuous valve altogether, having many other advantages which preceding inventions cannot claim.

As the two plans which now chiefly engage the attention of the public are that of Messrs. Clegg and Samuda, and that of Mr. Pilbrow, we purpose in a subsequent part of this paper, to give a minute description of each of these plans, and a comparative estimate of both. At present we invite your attention to the general advantages of the atmospheric system above steam locomotive power. A diminution of expenditure is one of the most obvious advantages. In the original outlay there is not a necessity for that extensive levelling as is now required; engines of very great power will not be needed; the wear and tear of materials will be diminished; and, by consequence, the rates of charges for travelling will be lessened, and cheap travelling will be secured with a certainty of *increased safety and comfort*. This advantage of *safety* is one of paramount importance. The atmospheric sys-

tem precludes all the terrible calamities of bursting boilers and burning trains, with which the public has become painfully familiar. Running off the line is also avoided; since, in the atmospheric system the impelling power is at the centre of gravity, and must, from its action, keep the train on the rails. A collision of trains, from which such disastrous results have arisen, cannot possibly take place on the atmospheric principle. Then, not to enter into any metaphysical discussion of the question, how much the very consciousness of safety promotes our comfort—it may suffice to say, that the atmospheric system offers a full enjoyment of the pure atmosphere of heaven as you quietly glide on by an invisible power, and entire freedom from the clanking of cumbersome machinery, flying sparks, hot cinders, and strong sulphuretted hydrogen. Another advantage is, *increased speed*—the average rate of travelling by the atmospheric power being fifty miles an hour, while the highest velocity of travelling on the fastest line, by steam is thirty miles an hour; and in a country where time is appreciated as property of great value, this must be considered of paramount importance, did it exist alone; but when speed can be secured at less expense, and with increased safety and comfort, no doubt can exist, to which system the most decided preference is to be given. The plans of atmospheric railways, now fairly before the public, claim our particular attention. The first we notice is that of Clegg and Samuda; and we cannot do better than give the description drawn up by M. Arago. We shall now say a few words on the manner in which they have contrived to establish an immediate and unyielding connection between the piston, on which the atmosphere acts as a moving power, and the leading carriage of a train running outside the tube on the ordinary rails. This inflexible connection, of which we have just spoken, could not be established conveniently, except by means of a metal rod passing from the piston to the carriage. Now, as it is necessary that this connection should be maintained during the entire course of the piston, there must be a longitudinal opening in the upper surface of the tube. It is along this upper slit that the metal arm travels, by means of which the movement of the piston is communicated to the leading carriage of the train, and thence to all the others. This rod or arm, has been very justly called the connecting or moving arm, or plate.—But, it may be asked, if there is an opening in the tube, how is the vacuum to be produced? We give the reply. The opening is continued the whole length of a valve, by which it is hermetically closed; the vacuum can be thus successively produced in that part of the tube to the left and right of the piston, as in the closed tube, of which we have spoken in the commencement. By a movement to which we shall presently refer the valve is partially opened near the piston, so as to let the connecting plate pass; after which it immediately falls by its own weight. This is the most delicate part of the appa-



tus. If the valve accurately closes the opening a perfect vacuum is produced and maintained, by which we obtain a permanent and powerful moving force. On the contrary, should the valve allow the air to enter by any fissure, we cannot produce a sufficient vacuum, but by having recourse to a very powerful air pump—and, moreover, this imperfect vacuum can only be supported by the continual action of the pump. The longitudinal valve, which closes the opening of the tube, is formed of a strip of leather of indefinite length, strengthened above and below by a series of iron plates of about a foot long, and not leaving a space between them of more than three-eighths of an inch. Weight is thus given to the valve without destroying its elasticity. The leather is closely and hermetically fastened by one of its edges to one side of the opening. The other edge remains unattached and moveable; and, when the valve is closed, it merely rests on the second lip of the opening, which has been previously covered in its entire length, by a composition of wax or tallow. When the valve opens, that edge of the leather fastened to the tube bends, and thus acts as a true hinge. The valve is never raised to a perpendicular position; its movement never exceeds an angle of 45 deg. The mere falling of the valve by its own weight does not give it sufficient adherence to the edge of the opening, so as to prevent the entrance of air into the tube; and therefore it scarcely resumes its place before it is heavily pressed by a wheel fixed at the back of the leading carriage, to which also is attached a cylinder filled with burning charcoal, for the purpose of melting the composition of tallow and wax, by which the valve is held down. This is a full description of the Clegg and Samuda atmospheric railway. Did time allow, we might also notice a similar plan by M. Hallette, of Arras. We come now to notice the invention by Mr. Pilbrow, C.E., for which a patent has been taken out. Now, this invention does not appear to be, like many of its predecessors, a mere improvement in some mechanical detail, but seems rather to be a new creation—a new system altogether. It might be asked, where Clegg and Samuda's patent differs from Pinkus's, &c., or what have Clegg and Samuda done? but no one will find it necessary to investigate far to discover the difference here—no one will ask that question as to Pilbrow's. By this plan, the necessity for the continuous valve running along the upper part of the tube is entirely avoided; the connection between the propulsive principle within and the carriages without being obtained in a manner entirely distinct. The propulsion tube, instead of being broken or stopped at intervals of a few miles, extends unbroken for the whole distance. At intervals on the top of the propulsion tube—say, every thirty feet—there are placed boxes and supports. Within these boxes are cogged wheels or smooth-surfaced wheels (a combination of the two, as the model is now before you), working horizontally on an axle, or shaft, the upper

portion of which passes through an aperture in the top of the box, and at the outside or above these boxes, the same axles are made to bear rollers or wheels similar to those inside the box. The passages through which the shafts pass are rendered air-tight by the shoulders or flat fillet turned upon the shafts. [The lecturer referred to diagrams.] Attached to the propulsion piston is a long rod, or bar, nearly fitting the small square channel, or tube, cast upon the propulsion tube, and, running along with the piston, is conducted by this smaller tube between the lower wheels. Either side of this bar is covered with cogs, or is smooth, or a combination of the two, as the case may be [the lecturer referred to diagrams and model], corresponding with the surface of the wheels within the boxes above described. It should be mentioned, also, that these wheels, or rollers, are made to project in a slight degree within the smaller tube. [The lecturer pointed out the distinction between the adhesion and cog plan; the latter not being indispensable, but, on the contrary, arrangements which many prefer.] As to the model in particular, which meets all the objections raised against other forms or arrangements of this invention, the manner of working the apparatus is simply this:—the air being exhausted from the propulsion tube, the piston, with its rod attached, is moved along inside it by the pressure of external atmosphere; and, as it moves, the rod works on the wheels on the inside, turns them round, and, as they turn the wheels outside, the boxes turn also. These external wheels are then made to act upon the train, by means of a rod attached to it, similar to that attached to the piston within; and thus, as the piston moves along inside the tube, the first carriage of the train moves along also over it outside the tube, through the medium of this double set of wheels and rods. In attempting to give a comparative estimate of these two plans, it is right to state that Clegg and Samuda's plan has most of the general advantages which atmospheric railways have over the present locomotive principle. The great distinction, however, between the system of Messrs. Samuda and that of Mr. Pilbrow is this—that in the former, the connection between the carriage train and the propulsion piston is direct; in the latter it is indirect, a third medium being employed. Another important distinction is that the Samuda system has the propulsion tube above ground, and has insuperable difficulties in crossing roads, and in intersecting other lines; the Pilbrow invention placing the tube below the surface, gets rid of all the objections in regard to crossing and diverging lines from the main trunk. The continuous valve of the Samuda plan must necessarily occasion much leakage, while the Pilbrow plan, dispensing with the valve altogether, no leakage from that cause can possibly arise. The leakage of Samuda's plan is equal to five horse power per mile, but Pilbrow's only two and a half horse power during the whole time of working every ten miles; the Samuda plan re-

quires an exhausting engine at short intervals of about two miles and a half; the Pilbrow plan can be worked with only one engine at the interval of ten miles. The Samuda plan is remarkably complex, and, therefore, may be subject to frequent interruptions for repairs. As M. Arago inquires—"Can we hope for future success from a system into which enters, as principal agents, a strip of leather of immense length, a composition of wax and tallow, and a hot iron to dissolve the wax?" Now, the Pilbrow plan is remarkable for its simplicity and the fewness of agents employed. It is much to be lamented that the Pilbrow plan has been attacked, and difficulties ascribed to it, for which no grounds whatever exist—difficulties which have no existence whatever, but in the imagination of the objector. Even these imagined difficulties must be frankly met, such as "the fine ground metallic surfaces of the wheels soon being injured;" "the friction and wear of the spindles, by dust;" but the most formidable objection was stated against the use of cogs—that great speed would certainly break or strip the cogs. Now, the inventor has stated in his pamphlet, and in this room (January 8) that you may dispense with the cogs, and make use of adhesion, or a combination of the two, at high velocities, though it is right here to state, that an experiment has been made with the cogs at the rate of fifty-five miles per hour, and they did not break or strip. It, however, would be perfectly useless, to spend time in refuting objections which have been either anticipated or already proved groundless."

The *Atmospheric Railway* appears to be gaining ground. The above article by Dr. Hewlett, which we copy from the *Mining Journal*, in relation to the various plans of Atmospheric Railways, will be read by many with interest.

THE ANGLO AMERICAN, No. 3, Vol. V, A. D. Patterson editor, E. L. Garvin & Co., publishers, Astor buildings, No. 4 Barclay street. We have unintentionally omitted to notice the commencement of the 5th volume of this excellent journal. There are very few of the weekly journals which come under our observation that can compare with it, as a reading paper, either for its variety, or its judicious selections. It is published once a week, 24 large pages, at \$3 a year.

MERCHANTS' MAGAZINE, No. 5, Vol. XII—for May—Freeman Hunt, 142 Fulton st. We have before us the May number of this valuable magazine. Among numerous other articles, we find one upon the enlargement of the canal, by John B. Jervis, Esq., civil engineer, which we shall give entire in our next number.

Dr. Griscom pronounces the cars on the Long Island railroad, the best (if not indeed the only) ventilated cars in the U. States.

## CONSUL AT HAVRE.

We cut the following just tribute, to the American Consul at Havre, from the Baltimore American, and give it a place in the Journal for the purpose of doing our part in showing the American people the estimation in which the system of changing our public men in subordinate stations with every political change, is, and *should* be held by all honorable minds:—

The Journal de l'Arrondissement du Havre, after copying from an American paper a notice that Mr. Pickett, of New Orleans, had been nominated as the successor of R. G. Beasley, Esq., U. S. Consul at Havre, on the ground that he, Mr. B., had made a fortune by his office, remarks—

"Mr. Beasley has fulfilled the duties of Consul twenty-eight years—having previously discharged like duties in England for ten years. During the whole of that long career, Mr. Beasley has succeeded in conciliating at once the esteem of his own countrymen, and of those among whom he has lived. A man of intelligence, and of peculiar aptitude for all that promotes the arts of industry, the name of Mr. Beasley, American Consul at Havre, will long live in a city, where he has had the talent to introduce notable improvements.

"Steam navigation, now one of the most important elements of the prosperity of Havre, was introduced here by Mr. Beasley, who first put a steamer on the route of Honfleur. First after the general peace, Mr. Beasley gave the impulse to public improvements, by causing to be built on the slope of Ingouville some of those charming residences which now cover that beautiful natural amphitheatre. His example found numerous imitators; but now, in looking at that modern village, suspended on the hill side, and overlooking our port, we must not fail to assign the part that belongs to him who was the first to lead off in this progress.

\* \* \* \* \* "The countrymen of Mr. Beasley will lose in him a consul—firm, enlightened, and full of energy; but Havre will long preserve, we hope, a citizen who enjoys among all classes of our population a well merited consideration.

"The motive assigned by the American papers for displacing Mr. Beasley is curious enough. 'You have made a fortune,' they say to him, 'turn out for some one else.' Strange logic! According to this, one might ask, what estimate would be placed by the American Government upon a functionary who, by his prodigalities and carelessness, should succeed in being sold out twice a year by the sheriff—and whether, in the U. States, a certificate of indigence is a talisman and pledge of success for those who aspire to public office? In this case it would be precisely the occasion to sing, with Berger—

'Les gueux! les gueux  
Sont des gens heureux!'

upon the soil of the Union!"

A number of the inhabitants of Havre en-

gaged in the trade with the United States, on hearing of Mr. Pickett's nomination to the U. S. Senate, addressed a highly complimentary letter to Mr. Beasley, from which we take the following passage:—

"You having resided so many years in Havre, and having fulfilled the duties of Consul in a manner so satisfactory to us, and we think we may say generally to those interested in the commerce of the place, we hope and trust that the Senate, by declining to ratify the appointment, will allow you to retain the office which you have so long filled to the honor of your country. Whether you be destined in the course of events to remain in place, or to spend the remainder of your days in retirement, you may rest assured of the friendship and esteem of all who have had an opportunity of knowing you as we do, and in speaking of you, we will repeat the words of the American Nestor:—

'He has served his country long and faithfully.'

## THE IRON TRADE.

In England the price of iron seems to be steadily advancing. This state of things, if it should continue for any considerable length of time, will materially affect the progress of railways; yet, eventually, and at no distant day, it will work its own cure, by drawing large amounts of capital into the manufacture of iron, and thus, by a brisk competition, furnish an abundance of iron at reduced prices.

We take the following short article on the iron trade from the Mining Journal, of 12th April, which says:

"We have, in a former number, already announced the result of the iron masters' preliminary meeting at Wolverhampton, about a fortnight since, where it was determined to make an advance of £2 per ton, making bar iron about £12, and hoops £12 10s. In consequence of these unprecedented high prices, which were then decided on, the greatest interest was evinced as to the result of the quarterly meeting at Birmingham, on Thursday last, more especially as it was generally believed that the masters would be unable to maintain the great rise which has taken place. But, as we have more than once maintained, the price of iron so far from receding, has not yet reached its limit; and the issue of the meeting on Thursday fully confirmed our previous confident opinion. The prices were then fixed at—bar iron, £12; hoops, £12 10s.; and Shropshire pig iron, £6 10s. Still, though we all along foresaw and forewarned this inevitable advance, we were not blind to its possible disastrous effects. Apart from the great inconveniences arising to the manufacturing industry of the country, the prostration of labor it may yet entail, and the crippling of commercial enterprise, in more respects than one; apart from the pernicious effects it must have upon our ship building, (a department promising a few months ago

to afford a more permanent medium for the prosperity of the iron trade than any in prospect)—and apart from the indirect detrimental influence, the high price must have upon the stability of the trade itself—apart, we say, from all these present and positive evils, should a reaction take place—should a fall occur, but half as suddenly as the recent rise—the injury caused, primarily to the holder, and secondarily to the working population, will be incalculable; and, sooner or later, come that reaction must. If, from no other cause, the introduction of foreign metal, whether castings from Belgium, or the raw material from India—aye, and even the United States of America—will effect that fall, which, at present, is with so much short sightedness delayed. Meanwhile, though the prices have been quoted so high, the market continues firm, with a good business doing the entire week. There was a report last evening on 'Change, that Scotch pig iron had obtained £6 6s. per ton."

**RAILWAY IRON.**—A contract was entered into in this town, on Saturday, for 21,000 tons of rails, at £12 a ton; to be delivered at the rate of 1000 tons per month, beginning in October. The purchase is made by a Glasgow house.—*Liverpool Times.*

**RAILROAD IRON AND FIXTURES.** THE Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO.,  
21 Broad st., N. York.

ja45

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,  
Reading, Pa.

ja15

**GEORGE VAIL & CO., SPEEDWELL IRON** Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1½ in. to 2½ in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions.

ja451y

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.

Capital, \$2,000,000.

JOHN S. DARCY, Esq., President.  
J. P. JACKSON, Esq., Secretary.

ROBERT SCHUYLER, Esq., Vice President.  
J. WORTHINGTON, Esq., Treasurer.

Leave New York, foot of Courtland street.	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
For Newark.....	9, 11, 12.....	2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4 3-4, 6.....				
" New Brunswick.....	9.....	3, 4 3-4.....				
Leave New Brunswick...	6, 7 1-2, 11 1-2.....	8 3-4.....	11 1-2	8 1-2		
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	11-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4		

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....										
Newark.....	9 1-4	25	9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2	5 1-2	12 1-2	5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

KITE'S PATENT SAFETY BEAM.

Messrs. Editors.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 23, 1840.

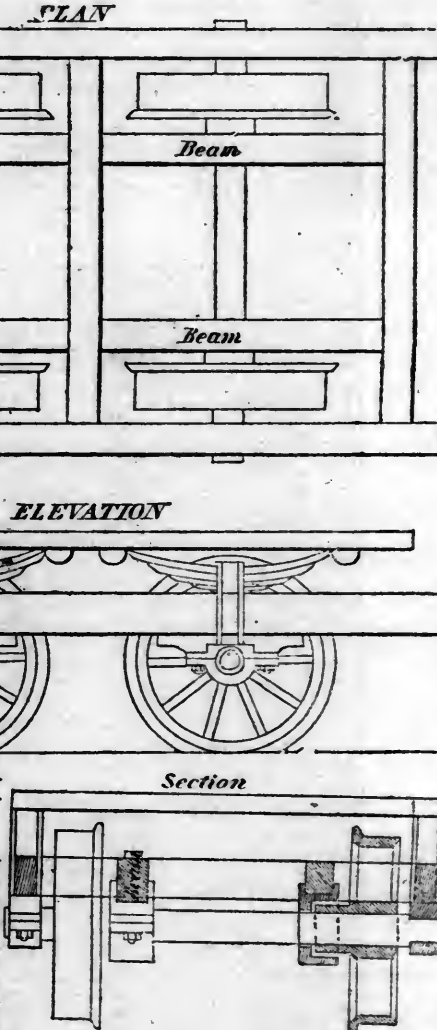
The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,

GEORGE CRAIG, Superintendent,

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



W. R. CASEY, CIVIL ENGINEER. No. 92 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

REFERENCES.—Col. James F. Baldwin, Civil Engineer. Boston, Col. J. M. Fessenden, " " Wm. Parker, Esq., Engineer and Superintendent Boston and Worcester railroad. ja45

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work. Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship. Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

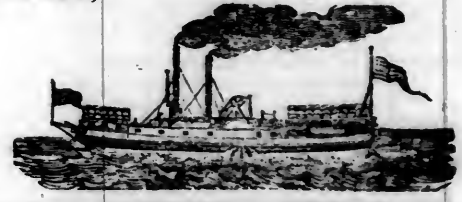
HENRY BURDEN, Agent. Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS	A. M.	P. M.	MILES.	FARE.
Boston	Portland		Eastern,	Daily,	7 $\frac{1}{2}$	2 $\frac{1}{2}$	106	\$3 00
Boston	Portsmouth		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	54	2 00
"	Newburyport		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	35	1 25
"	Salem		"	"	7 $\frac{1}{2}$ , 9, 11 $\frac{1}{2}$	2 $\frac{1}{2}$ , 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14	50
"	Portland		Boston and Maine,	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	109	3 00
Portland	Boston		"	"	7 $\frac{1}{2}$	3	109	3 00
Boston	Lowell		Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston		"	"	7 $\frac{1}{2}$ , 11	2, 4 $\frac{1}{2}$ , 5 $\frac{1}{2}$	26	75
Boston	Concord		Concord,	"	7 $\frac{1}{2}$ , 11	3 $\frac{1}{2}$	76	2 00
Concord	Boston		"	"	7, 11	3 $\frac{1}{2}$	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11	5	41	.....
Nashua	Boston		"	"	6 $\frac{1}{2}$	1 $\frac{1}{2}$ , 5	41	.....
Boston	Worcester		Boston and Worcester,	"	7, 9	2 $\frac{1}{2}$	44	1 25
Worcester	Boston		"	"	7, 10	6	44	1 25
"	"		"	Sundays,	7	.....	.....	.....
Boston	Worcester		"	"	.....	2	.....	.....
Boston	New York via Norwich		"	Mon., Wed. & Fri.,	.....	4	.....	.....
"	" " L. Island railroad		"	Tues., Thur. & Sat.,	7	.....	.....	.....
"	" " New Haven		"	Daily,	9	2 $\frac{1}{2}$	.....	.....
"	Albany		Western,	"	9	2 $\frac{1}{2}$	200	6 00
Albany	Boston		"	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	200	6 00
Springfield	Boston and Albany		"	"	7	3	.....	.....
Boston	New York via New Haven		"	"	7	2 $\frac{1}{2}$	.....	.....
Charlestown	West Acton		Fitchburg,	"	8	1, 4 $\frac{1}{2}$	.....	.....
West Acton	Charlestown		"	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	5	.....	.....
Boston	New York, via Steamboat trains		Boston and Stonington,	Tues., Thur. & Sat.,	.....	4 $\frac{1}{2}$	.....	.....
"	" " " "		Boston and Newport,	Mon., Wed. & Fri.,	.....	4 $\frac{1}{2}$	.....	.....
"	Providence		"	Daily,	7 $\frac{1}{2}$	4 $\frac{1}{2}$	41	1 50
Providence	Boston		"	"	.....	On arrival of the mail.	41	1 50
Taunton	"		"	"	8	4	.....	.....
New Bedford	Boston		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	.....	.....
Boston	Dedham		"	"	8 $\frac{1}{2}$	3, 6 $\frac{1}{2}$	.....	.....
Dedham	Boston		"	"	7, 10	5 $\frac{1}{2}$	.....	.....
New York	Greenport		Long Island,	"	7 $\frac{1}{2}$	.....	95	2 25
Brooklyn	Hicksville & intermediate places		"	"	9 $\frac{1}{2}$	.....	26	56 $\frac{1}{2}$
"	Greenport		"	Tues., Thur. & Sat.,	9 $\frac{1}{2}$	.....	95	2 25
"	Hicksville, (Saturday to Suffolk)		"	Daily,	.....	4	26	56 $\frac{1}{2}$
Greenport	Brooklyn, (Boston train)		"	"	.....	1	95	2 25
"	" (accommodation do.)		"	Mon., Wed. & Fri.,	.....	.....	95	2 25
Hicksville	" & intermediate places.		"	Daily,	7	1 $\frac{1}{2}$	26	56 $\frac{1}{2}$
New York	Albany & Boston via N. Haven		Steamer,	"	6 $\frac{1}{2}$	.....	.....	5 00
"	Middletown		New York and Erie,	"	8, 3	.....	53	.....
Middletown	New York		"	"	6 $\frac{1}{2}$	3 $\frac{1}{2}$	53	.....
Philadelphia	Pottsville		Reading,	"	9	.....	94	3 50
Pottsville	Philadelphia		"	"	9	.....	94	3 50
New York	Newark		N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4 $\frac{1}{2}$ , 6, 7 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Newark	New York		[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 9, 11	1 $\frac{1}{2}$ , 4, 5 $\frac{1}{2}$ , 7, 9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
New York	Newark		"	Sundays,	9	4 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	Elizabethtown		"	Daily,	11 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Elizabethtown	New York		"	"	9, 11	2, 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	Rahway		N. J. railroad and trans. co.,	"	7, 7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 10 $\frac{1}{2}$ , 12	3 $\frac{1}{2}$ , 5	14 $\frac{1}{2}$	31 $\frac{1}{2}$
Rahway	New York		"	"	9, 11	3, 4 $\frac{1}{2}$ , 6	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New Brunswick		"	"	6 $\frac{1}{2}$ , 7, 8 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$ , 9 $\frac{1}{2}$	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New Brunswick	New York		"	"	9	3, 4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
"	"		"	"	6, 7 $\frac{1}{2}$ , 11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
"	"		"	Sundays,	11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New York	New Brunswick		"	"	9	4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
Philadelphia	New York		Camden and Amboy,	Daily,	7	.....	91	3 00
Philadelphia	Philadelphia		"	"	5 $\frac{1}{2}$	.....	91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	9	.....	30	75
Bristol	Philadelphia		"	"	9	.....	30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"	8	.....	93	.....
Philadelphia	Philadelphia		"	"	9	.....	93	.....
Baltimore	Washington		Baltimore and Washington,	"	9	5, 11 $\frac{1}{2}$	41	2 50
Washington	Baltimore		"	"	6	5 $\frac{1}{2}$	41	2 50
Baltimore	Cumberland and inter. places.		Baltimore and Ohio,	"	7 $\frac{1}{2}$	.....	.....	.....
"	Frederick		"	"	.....	4	.....	.....
Cumberland	Baltimore		"	"	8	.....	.....	.....
Hancock	"		"	"	10 $\frac{1}{2}$	.....	.....	.....
Martinsburg	"		"	"	11 $\frac{1}{2}$	.....	.....	.....
Harper's Ferry	"		"	"	.....	12 $\frac{1}{2}$	.....	.....
Frederick	"		"	"	.....	2	.....	.....
"	"		"	Sundays,	8	.....	.....	.....
Ellicott's Mills	"		"	Daily,	7 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$	.....	.....
Richmond	Petersburg		Richmond and Petersburg,	"	10 $\frac{1}{2}$	14	.....	.....
Petersburg	Richmond		"	"	5 $\frac{1}{2}$	.....	.....	.....
Albany	Schenectady		Mohawk and Hudson,	"	8	.....	.....	.....
Schenectady	Albany		"	"	9	.....	.....	.....
Albany	Saratoga		"	"	7 $\frac{1}{2}$	.....	.....	.....
Saratoga	Albany		"	"	7	12 $\frac{1}{2}$ , 5	.....	.....
Troy	Saratoga		Troy and Saratoga,	"	.....	3 $\frac{1}{2}$	.....	.....
Saratoga	Troy		"	"	7 $\frac{1}{2}$	.....	.....	.....
Auburn	Rochester		Auburn and Rochester,	"	8 $\frac{1}{2}$	.....	.....	.....
Rochester	Auburn		"	"	8	.....	.....	.....
"	Buffalo		Rochester and Buffalo,	"	.....	3	.....	.....
Buffalo	Rochester		"	"	.....	3	.....	.....
"	Falls		Buffalo and Falls,	"	9	.....	.....	.....
Falls	Buffalo		"	"	.....	1 $\frac{1}{2}$	.....	.....
Buffalo	Albany		Albany and Buffalo	"	8 $\frac{1}{2}$	.....	.....	.....

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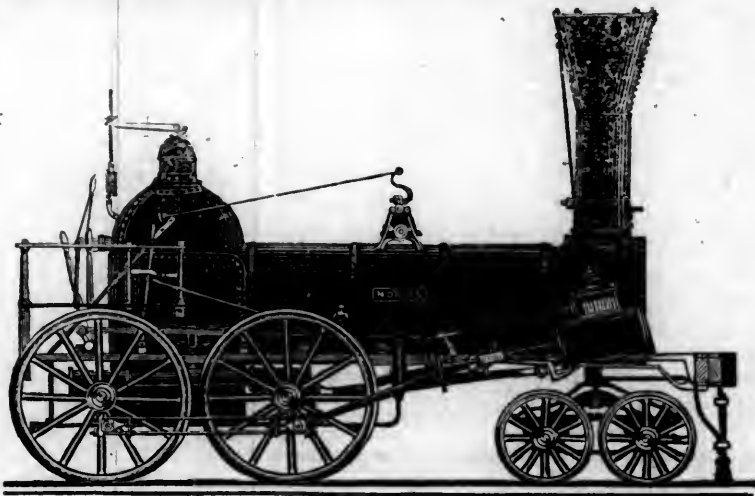
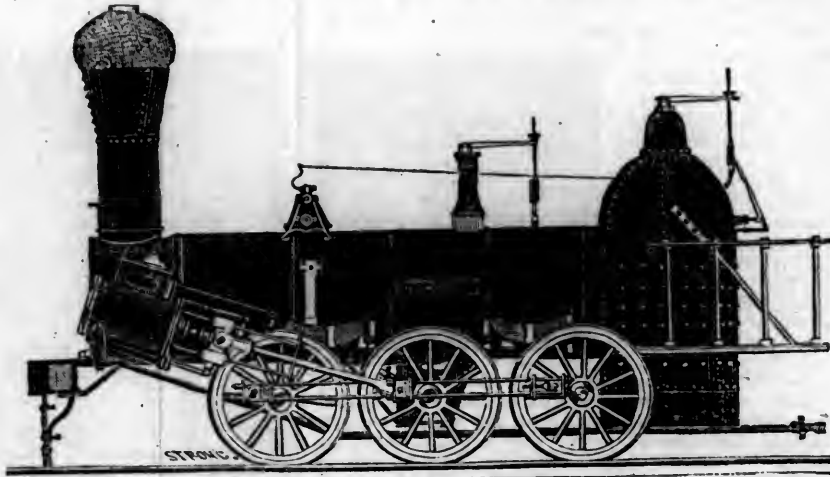
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**W. R. CASEY, Civil Engineer.**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, turnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

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ja45

## RAILWAYS IN SCOTLAND.

We give from Herapath's Railway Journal the following "Report of the Railway Department of the Board of Trade, on the Schemes for extending railway communication in Scotland," for the purpose of showing the views of that body in relation to railways.

Railway Department, Board of Trade  
Whitehall, 13th March, 1845.

The Aberdeen railway: Caledonian; Clydesdale Junction; Dundee and Perth; Edinburgh and Northern; Edinburgh and Glasgow—Stirling Branch; Edinburgh and Hawick; Glasgow, Barrhead and Neilston; Glasgow and Ayr—Cumnock Branch; Glasgow, Dumfries and Carlisle; Glasgow Junction; Glasgow Harbor Union; Scottish Central; Scottish Midland; have determined on submitting the following report thereon for the consideration of parliament.

The above schemes may be classed according to the leading objects which they have in view:

1. The Caledonian railway, on the one hand, with the Clydesdale and other minor railways, which it is proposed to use in entering Glasgow; and on the other hand the Glasgow, Dumfries and Carlisle, and Edinburgh and Hawick, in connection with the existing Edinburgh and Glasgow and Glasgow and Ayr railways, and the North British railway, sanctioned last year, may be considered as competing schemes for completing the railway communication south of the Forth and Clyde between Scotland and England.

2. The Scottish Central (in continuation of the line of the Caledonian from Castle Cary on the Edinburgh and Glasgow railway to Perth;)

The Scottish Midland, (in continuation of the Scottish Central from Perth to Forfar;)

The Edinburgh and Glasgow—Sterling Branch;

The Edinburgh and Northern (from Burntisland, on the Frith of Forth, opposite to Edinburgh, through Fife to Perth;)

The Dundee and Perth: and the Aberdeen, (from Frickheim, a point midway on the Arbroath and Forfar railway to Aberdeen;) are schemes proposed for extending railway communication north of the Forth and Clyde, or more correctly speaking, north of the line of the present Edinburgh and Glasgow railway.

3. The Glasgow, Barrhead and Neilston, and Glasgow and Ayr—Barrhead and Neilston Branch, are competing schemes for supplying local accommodation to a manufacturing district in the vicinity of Glasgow.

4. And finally, the Glasgow Junction and Glasgow Harbor Union, are schemes for extending existing railways in the town of Glasgow, with a view to effect a junction with other railways, and to obtain a readier access to the river for coals and minerals. Both these schemes, however, appear to depend so materially on considerations of pri-

vate interest, which we are precluded from entertaining, and on detailed evidence as to local circumstances, that we do not feel ourselves justified in reporting any decided opinion respecting them.

The other lines referred to are delineated on the map accompanying this report, a reference to which will afford the readiest explanation of their respective objects and direction.

It is evident that a consideration of these lines raises the whole question of deciding on the best permanent system of railway communications for Scotland generally.—The sanction of the North British railway from Edinburgh to Berwick, last year, together with the completion of the eastern chain of English lines up to Newcastle, warrant us in assuming as an admitted fact that this eastern line of communication from London to Edinburgh will be completed, but with the exception of this fact, the whole question of railway communication for Scotland may be considered as an open one.

In approaching it, we will endeavor to consider first, what at the cardinal points to be attended to, in laying out a system of railway communications for Scotland.

Edinburgh, Glasgow and Perth are evidently the three points upon which we must fix our attention, as determining the direction of the leading railways. Edinburgh, as the capital, and seat of the courts of justice and university, and Glasgow as the commercial and manufacturing capital and city of largest population, are the great centres to which the principal streams of traffic in Scotland converge, and from which the principal connection with England is maintained.

Perth, again, from the natural configuration of the country, with the Grampians on the one hand, and the estuaries of the Forth and Tay on the other, is evidently the point of convergence for the traffic of the northern portion of the kingdom.

In railway communication the preservation of an entire and unbroken line is a point of vital importance, and in our report on the Worcester and Wolverhampton district, to which we here beg to refer, we have pointed out numerous practical instances of the very great expense, delay and inconvenience which have been found to result from any break in this entireness of communication, occasioned by the meeting of different gages. A break occasioned by the intervention of an arm of the sea or wide navigable river is, of course, an evil of a still more formidable character. Considered merely with reference to time, a short ferry would, generally speaking, involve a delay equivalent to several additional miles of travelling on an unbroken line of railway, a disadvantage which would be still further increased, if, as seems probable, the rate of railway travelling should, by the continued improvements in the construction of the locomotive engine, become considerably accelerated.

For the conveyance of goods, coals, cattle, agricultural produce, etc., (which con-

stitutes a most important portion of the benefits likely to result to the community from the introduction of railways,) the loss of time represents but a small portion of the inconveniences arising from any break in the chain of communication.

In fact the inconvenience to all traffic of this description is so great as to justify us in assuming, as the most indispensable point to be attended to, in considering the extension of a trunk line for the northern portion of Scotland, that such line shall afford an entire and unbroken communication.

Now with this view, Perth and Stirling, which are the points at which the navigation of the estuaries of the Forth and Tay ceases evidently determine the direction of the trunk line for the north of Scotland. A line through Fife may give local accommodation and be used for a portion of the traffic from Dundee, and the towns on the east coast to Edinburgh; but can never be put in competition with an unbroken inland line by Stirling and Perth, as a trunk line for the connection of the north of Scotland with Edinburgh, Glasgow and England.

The Scottish Central line appears to comply with these conditions and to be unexceptionable in its direction as the first link of a great trunk line for the north. The gradients of these lines are in parts, rather severe, but not more so than are perfectly practicable and have been frequently sanctioned, and are necessary from the nature of the country, in order to avoid any great expense. The works are not on the whole very heavy, and the estimates of traffic, which have been carefully prepared, appear to show a fair probability of a sufficient return on the capital required.

We conclude, therefore, as the first step in our inquiry into the question of railway communications for Scotland, that the Scottish Central line is one which, upon public grounds, appears to deserve the sanction of the legislature.

As a consequence of this conclusion, it follows that we must express an unfavorable opinion of the Edinburgh and Glasgow company's Sterling branch. This branch competes, and is manifestly inconsistent with the southern portion of the Scottish Central line; and although in itself it might have been an useful and proper undertaking, it is clear that if our views, already stated, are correct, it must give way to one of much larger scope and national importance.

We now come to the more difficult question of railway communications south of Edinburgh and Glasgow.

We have already described generally the two competing systems proposed; which, for the sake of brevity, we may designate as the "Caledonian" and "Dumfries and Hawick" systems.

The Caledonian line consists of a main trunk line of 73 miles in length from Carlisle, in the most direct practicable route, to a point near Lanark, where two branches fork off, one of 27½ miles in length, to Edinburgh, the other towards Glasgow. The connection with Glasgow is effected by two

routes, and partly by means of railways already formed. From the fork or point of junction with the Edinburgh branch, the Glasgow branch diverges north westward till it joins the Wishaw and Coltness railway, which it uses for four miles to Motherwell. At this point the proposed Clydesdale railway branches off to Glasgow, to the south side of the Clyde, giving an access to the quays on the south side of the river, and forming a junction with the Glasgow and Ayr and Glasgow and Greenock railways; while the Wishaw and Coltness line, in connection with the Glasgow and Garnkirk, continues the communication to the north side of Glasgow, and to a junction with the Edinburgh and Glasgow railway. Agreements have been entered into between the Caledonian company and the company of proprietors of the minor connecting lines above mentioned, by which the latter bind themselves to adapt their lines to the traffic of the Caledonian company, and to allow the use of them on moderate fixed terms, giving a priority to this traffic over their own local traffic.

The Caledonian scheme further comprises a line from the Glasgow and Garnkirk line, a little beyond Motherwell, to join the Scottish central line at its southern terminus, at Castle Cary.

The whole Caledonian scheme, therefore, will consist of the following parts:

1. New railway to be made,		Miles.	Chains.
Caledonian trunk line from Carlisle to point of divergence at Carnwarth, - - - - -			
	72	55	
Point of divergence to Edinburgh			
	27	40	
Ditto to Wishaw and Coltness railway, - - - - -			
	12	10	
Castle Cary branch, - - - - -			
	10	3	
Dumfries branch, - - - - -			
	13	44	
Minor Junctions, etc., - - - - -			
	0	65	
<hr/>			
Total of Caledonian, - - - - -	136	57	
Clydesdale Junction, - - - - -	10	56	
	147	33	

2. Existing railways, forming part of the system,		Miles.	Chains.
Wishaw and Coltness line, and portion of Monkland and Kirkintilloch, - - - - -			
	11	0	
Garnkirk and Glasgow, - - - - -			
	8	20	
Pollock and Govan (forming part of Clydesdale line,) - - - - -			
	2	62	
<hr/>			
Total of existing railway, - - - - -	22	2	
Total of Caledonian system, - - - - -	169	35	

This system would afford a very complete railway communication from Glasgow, Edinburgh, and the north of Scotland, to all parts of England, with the exception of the eastern portion, the communication with which may be assumed to be already supplied by the east coast line.

The competing system proposes to attain the same general objects in the following manner:

1. By the proposed Glasgow, Dumfries and Carlisle line, in connection with the

existing Glasgow and Ayr line, giving a western line of communication from Glasgow to England.

2. By a line from Edinburgh to Hawick, which the promoters offer to pledge themselves to continue to Carlisle, giving a communication from Edinburgh to the west of England and the manufacturing districts.

3. By the Glasgow Junction railway, intended to connect by an unbroken communication, the Edinburgh and Glasgow, and railways north of the Clyde, with the Glasgow and Ayr, and Glasgow, Dumfries and Carlisle.

This system would consist of the following parts:

1. New railway to be made,		Miles.	Chains.
Glasgow, Dumfries and Carlisle from Kilmarnock to Carlisle, 91 16			
Line from Carlisle by Hawick to junction with the Edinburgh and Dalkeith railway, about 86 0			
Glasgow Junction, - - - - - 1 30			
	178	46	

2. Existing railways forming part of the system,

Portion of Glasgow and Ayr railway from Kilmarnock to Glasgow, 34		Miles.
Edinburgh and Glasgow railway, 46		
Edinburgh and Dalkeith, 8		

It is quite clear that the traffic from Scotland to the south would not be sufficient at present to support two competing systems; and that if the one be sanctioned, the other, or so much of the other as directly competes with it, must be rejected. In this point of view, the Caledonian, and the Glasgow, Dumfries and Carlisle lines, are absolutely inconsistent with each other; neither could the Caledonian, and a trunk line from Edinburgh to Carlisle, by way of Hawick, stand together, although a line for the mere purposes of local accommodation between Edinburgh and Hawick would not interfere with the traffic of the Caledonian line, and would not necessarily be inconsistent with it.

The Clydesdale line, although a material part of the Caledonian system, has a local traffic of its own, and would not necessarily be included in the rejection of that system. So also the Glasgow junction, although a part of the system opposed to the Caledonian, might, if a sufficient case of public advantage were otherwise established to overrule the objections of a private and local nature to which we have alluded, be sanctioned, notwithstanding the rejection of the system of which it formed a part.

Having thus explained the two competing systems, we proceed to investigate their comparative merits.

*To be continued.*

**MONMOUTHSHIRE CANAL COMPANY AND THE NEWPORT AND PONTYPOOL RAILWAY.**

Some time about the year 1792, a company obtained a charter by act of Parliament, to construct certain canals and roads through the mineral districts of Monmouth-

shire, all which roads were made to terminate in a focus at Newport, an excellent harbor on the river Usk. At the time referred to, Newport was but a small village, with a population of only a few hundred souls. The little iron made and coals gotten in the surrounding districts, was conveyed for shipment on mules' backs, and one or two small smacks, sailing weekly to Bristol, sufficed for the trade of the place. The mountains around abounded with game, and the wild grouse was rarely disturbed in its haunt, and scarce knew the fear of man. At that time a mania existed, and spread through England, for the construction of canals, fully equal to the present excitement for railways. The Monmouthshire canal was commenced, but, after a series of pecuniary and other difficulties, was almost suspended—constructed at a great expense for that time, opening a new district, and, when complete, almost without trade—the shares falling to a third of the first cost. A few bold spirits, however, still held the helm, and determined to weather the storm. Amongst these rank almost first one of the celebrated Wedgewood's family, founders of the modern Etruria. These firm men were not disappointed in their calculation; every year brought more capital into the country, and increased the trade of their lines, till at last the once despised canal shares have been held as a safe and desirable investment, at a premium of 120 per cent. on the first cost. The port of Newport now contains 15,000 inhabitants, splendid docks,—and her exports far exceed in tonnage that of Bristol, the once boasted queen of the west. The mountains in the northern district, the only part yet opened extensively, are one scene of bustle and activity; steam engines laboring with resistless force, and the whole horizon is one continued blaze with the volumes of flame emitted from the furnaces and forges covering the country.—*Mining Journal.*

Thus will it be in less than half a century hence, in our own mountainous regions; through the entire length of the "back-bone of the Union," "steam engines will labor with resistless force, and the whole horizon will be in one continued blaze with the volumes of flame emitted from the furnaces and forges" covering those regions! and this, too, mainly in consequence of the introduction of canals and railroads, as a medium of transportation and travel.

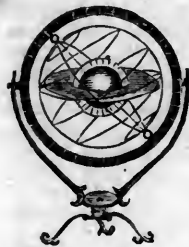
The mining Journal says—

"We think we may state with certainty, that the government is actively engaged in completing arrangements that will materially concern Ireland, more especially in the introduction of railways there. Foreseeing the danger which must inevitably follow an indiscriminate adoption of such projects, and the ruinous consequences which reckless speculation, or a re-action, would entail, it intends to form a commission, which shall, by its strict investigation and require-



ments, at once prevent the possibility of equivocal designs, and limit their furtherance to such undertakings as will prove indisputably beneficial to the country. It will derogate the right, not only of passively recommending, but actively promoting, such enterprises as it deems advisable, while it will discountenance, with equal pertinacity, any schemes whose objects are problematical.—At present, we are not prepared to speak more in detail, as it would be obviously premature to publish statements which might only serve to impede the government in its measures.”

VALE'S GLOBE AND TRANSPARENT CELESTIAL SPHERE.



We have seen this very ingenious and useful instrument, and had it explained by the inventor, and particular problems resolved, questions answered and points illustrated with a simplicity and clearness that satisfied us that this instrument must be a valuable acquisition to the teacher, it has another recommendation, at least to us, as it goes on the *railroad* plan. A gentleman with us observed that he had learned more in the short explanation given in half an hour, than he had before in months, and that he had had subjects clearly explained in a few minutes on which he had troubled himself during a voyage without success.

We shall not attempt to describe minutely this instrument, it should be seen by every teacher and amateur in person, and described by Mr. Vale himself, which he is always ready to do. The cut which we now present conveys but a poor idea, because the instrument itself possesses every motion real and apparent which is exhibited in nature, or the effects of which we see; it is a model of nature, and at every movement we see the thing to be explained, and comprehend it with a word; but as it has several motions, all made by hand, and though extremely simple, yet when used by a person unaccustomed to it, we can easily conceive that he might give it every movement but the *right*. We therefore again recommend that it be seen, and in the first instance, explained by the inventor.

It consists of two globes in combination, the terrestrial within, and the celestial in transparent sections without; in the figure accompanying this, we see only the terrestrial sphere and globe within; but on this sphere (consisting of the principal circles and points in the heavens, as the equator, poles, etc.)

the transparent sections are hung at pleasure on the outer sphere.

The principal merit of the instrument consists in a moveable figure, representing a traveller, or ship, and his antipode (not shown in the cut) specked at the top and bottom of the globe; to the globe also is attached a broad surface representing a moveable horizon to the traveller, or ship, shown in the cut. The traveller moves to any part of the earth, his horizon follows him; he goes round the world, and at every step the entire phenomena of the heavens are seen, and in a moment, by a swivel motion, the antipode is seen, and all his phenomena. For the mere teaching of geography, the movement of this traveller to every great city, and the exhibition of the *antipode* at each station, gives a clear idea in *one* lesson of the figure of the earth, and of the prominent locations.

We merely say that this globe and sphere performs every problem in a *rational* manner, which can be performed on both globes. It is also convertible into a planetarium of much simplicity, and supplying the deficiencies of the older kind. It is also a universal sundial, and it will resolve the most difficult problems in astronomy and spherics by forming triangles on the sphere.

A friend present who had just returned from a voyage, and while at sea had learned the use of the quadrant, sextant, etc., required the *rationale* of the manner of getting the latitude at sea. In *two minutes* it was done, to the perfect satisfaction of those who stood round, the ship's place was shown on the earth, the sun's place in the heavens, and *how*, from its mere altitude at noon, the latitude of the ship was found, was exhibited; our friend could perform the operation at sea, but had sought in vain for its explanation on board the ship. Why the sun was sometimes too fast and at others too slow, was *shown*; and the precision of the equinoxes made so plain that a child would have understood it. From its simplicity it could and ought to be introduced into our public schools. Mr. Vale is well known in New York as a teacher of navigation, and may be found in May, and after, at 3 Franklin Square.

We are gratified to learn that there is to be a move made to establish Atlantic steamships from this port. New York is not only deficient in the improved mode of inland communication, but also in steam ships upon the Atlantic—being very far behind Boston in both these elements of prosperity. It is high time that more liberal views, and more energetic action be found among those who have the means of promoting those im-

portant works, which will secure to our city the full benefits of her unrivalled position and natural advantages.

THE AMERICAN ATLANTIC STEAM NAVIGATION COMPANY.—In the Senate, on the 6th inst., Mr. Bockee, chairman of the select committee of eight senators to whom was referred the bill for the renewal and extension of the American Atlantic Steam Navigation Company's charter, made a favorable report, and recommended the bill to a third reading. He stated that the objects of the company were of great national importance; that Congress, at its last session, passed an act brought forward and promoted by the company, authorizing the Post Master General to make contracts for carrying the American foreign mails in steamships, and that they had reserved to themselves the option of taking the steamships employed in carrying the foreign mails, for the service of the navy in case of war. He considered, therefore, that the charter was necessary to carry out the views of the general government. The bill passed with only two negatives, and with some unimportant amendment was returned to the assembly for their concurrence. The charter is for twenty-four years, and a capital of two millions in \$100 shares. In the afternoon of the same day, the bill was referred by the House to the standing committee on trade and manufactures, to report complete. On Wednesday, the report was brought in, recommending the assembly to concur in the amendment of the Senate, which the House agreed to. The main question was then taken by yeas and nays, and the bill passed unanimously, save one vote.

CALEDONIAN RAILWAY.—We are credibly informed, that this railway company is about to bring before the public an important project connected with their line, which will embrace the greater portion of the breadth of Scotland, from Berwick to Air, and will intersect the Caledonian line at the point near Lanark, where the Edinburgh, Glasgow, and northern branches diverge. This important step is in compliance with the suggestions of the Board of Trade, and it is probable the prospectus will be published in our paper next week—*Mining Journal*.

FOR SALE, AT A SACRIFICE—A LOCOMOTIVE Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.  
Also, 1 20-horse High Pressure Steam Engine.  
2 8-horse " " "  
1 Upright Hydraulic Press.  
All of which will be sold low, on application to  
T. W. & R. C. SMITH,  
Founders and Machinists,  
May 12th Alexandria, D. C.

RAILROAD IRON AND FIXTURES. THE Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.  
DAVIS, BROOKS & CO.,  
21 Broad st., N. York

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
							Per share.	Per cent. per annum.				
Arroath and Forfar.....	15	102,000	35,000	138,870			0 12 6	2 10 0	25 27	Aberdeen.....	1,600,000	
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1 5 0	2 10 0	100 100	Barnsley Junction.....	200,000	
Brandling Junction.....	23	161,700	365,470	481,452				4 10 0	50 50	Belfast and Ballymena.....	385,000	
Bristol and Gloucester.....	37½	400,000	211,000					nihil.	30 36	Blackburn and Accrington.....	400,000	
Chester and Birkenhead.....	14½	750,000	143,170	518,989	5,856	13,148	0 8 6	1 14 0	50 32	Birk. and Ches. Junction..	1,000,000	
Dublin and Drogheda.....	31	450,000	150,000	500,869				nihil.	55 72	Bolt., Wigan and Liverpool	800,000	
Dublin and Kingston.....	6	200,000	152,200	359,000			6 0 0	6 0 0	100 166	Caledonian.....	1,800,000	
Dundee and Arbroath.....	16½	100,000	49,445	153,416	2,989	6,993	1 5 0	5 0 0	25 29	Cambridge and Lincoln...	1,250,000	
Durham and Sunderland.....	18½	169,350	124,055	270,392	9,889	17,702		nihil.	34 29	Chatham and Portsmouth...	5,000,000	
East County and North and East.....	86½	4,443,200	1,341,155	3,931,905	47,385	118,726	1 6 6		45 57	Chester and Wrexham.....	120,000	
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	2 6 4	10 0 0	50 57	Churnet valley.....	1,800,000	
Glasgow, Paisley and Ayr.....	51	937,500	1,066,951	12,446	12,446	36,736	2 6 4	10 0 0	50 60	Direct Northern to York...	4,000,000	
Glasgow, Paisley and Greenock.....	22½	650,000	216,666	787,884	11,572	23,177	0 5 0	2 0 0	25 12	Dublin and Belfast.....	950,000	
Grand Junction.....	104	2,478,712	2,453,169	84,309	195,080	5 0 0	10 0 0	100 210	166 166	Dundee and Perth.....	250,000	
Great North of England.....	45	969,000	581,071	1,262,518	12,201	36,189	1 12 6	3 5 0	100 119	Edinburg and Northern...	800,000	
Great Western.....	221½	4,650,000	3,679,343	7,272,539	132,235	369,904	3 10 0	7 0 0	75 138	Ely and Bedford.....	270,000	
Hartlepool.....	15½	438,000	155,540	719,205				8 0 0	100 100	Glogow, Dum. & Carlisle.	1,300,000	
Leicester and Swannington.....	16½	140,000		140,000	2,207	6,317	1 5 0	5 0 0	50 50	Gt. South and West Ext...	1,200,000	
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5 0 0	10 0 0	100 203	Gt. Grimby and Sheffield.	600,000	
Llanelli.....	27	200,000	44,000	221,624			1 0 0	2 0 0	87 100	Harwich and E. coun. Jun.	160,000	
London and Birmingham.....	12½	6,874,976	1,928,845	6,393,468	92,823	405,768		10 0 0	100 218	Huddersfield & M. rl. & cl.	600,000	
London and Blackwall.....	3½	804,000	266,000	1,315,640	15,978	23,870			16 6	Kendal and Windermere...	125,000	
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0 12 0	2 8 0	50 47	Leeds and Dewsbury.....	400,000	
London and Croyden.....	8½	550,000	229,000	761,885	7,583	10,545	0 5 0	2 10 0	14 17	Leeds and Thirsk.....	800,000	
London and Greenwich.....	3½	759,383	233,300	1,040,930	15,193	28,933		nihil.	13 10	Liv. Ormskirk and Preston	600,000	
London and South Western.....	92½	2,222,100	630,100	2,596,291	68,457	150,469	1 12 6	6 10 0	41 73	London and Portsmouth...	1,750,000	
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1 0 6	5 0 0	40 48	London and York.....	5,000,000	
Manchester and Bolton.....	10	778,100	197,730	773,743	4,653	21,140	2 2 0	4 10 0	93 110	Londonderry & Enniskillen	500,000	
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	8,653	156,761		71. & 101.	60 88	Lynn and Ely.....	200,000	
Midland railway.....	178½	5,158,900	1,719,630	6,279,056	76,983	281,898			100 96	Manchester, Bury and Ross	300,000	
Newcastle and Carlisle.....	61	878,240	188,563	1,135,609	26,499	73,947	4 0 0	4 0 0	100 105	Manchester and Buxton...	250,000	
Newcastle and Darlington.....	23	500,000		405,728				nihil.	21 49	Mullingar and Athlone...		
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466		2 0 0	50 37	Newcastle and Berwick...	700,000	
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2 10 0	6 16 8	100 104	Richmond & W. End Junc.		
Paris and Orleans.....	82	1,600,000	400,000	1,978,415			0 16 0	8 0 0	20 39	Scottish Central.....	700,000	
Paris and Rouen.....	84	1,440,000			31,247	91,171		8 0 0	20 38	Sheffield and Lincolnshire.	650,000	
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066		nihil.	50 18	Shrewsbury and Gd. Junc.	400,000	
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876		nihil.	82 93	Shrew. Wolv. Dudley & B.	900,000	
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0 10 6	2 2 0	50 39	Trent Valley.....	900,000	
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1 0 0	6 5 0	100 55	West London Extension...	64,000	
Ulster.....	25	519,150	20,000	348,636	5,401	13,856	0 15 0	5 1 8	29 37	West Yorkshire.....	1,000,000	
Yarmouth and Norwich.....	20½	187,500	62,500	230,250				nihil.	16 25	Whitehaven and Maryport	100,000	
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2 10 0	10 0 0	50 100			

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15½	15½	Loughborough.....	70	142½	142½	70	1140	
Anti Dry Rot.....	10,000		18½		2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Compai.....	5,700	100	35		34½		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27½	27	Mersey and Irwell.....	500	100	100	10		
Gt Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2½	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6½		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	14		Oxford.....	1,786	100	100	30	505	
Peninsular and Orientak.....	11,493	50	50	7	64½	65	Regents or Loncon.....	21,418	33½	33½	2½	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....			6				Somerset coal.....	800	150	150	7½	123	123
Reversionary Int. Soc.....	5,325	100	100	4½	104	104	Stafford and Worcester.....	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36½	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7½	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100					Severn & Why & Rail Av.	3,762	26½	26½	5½	30	30

Canals.

Ashby de la Zouch.....	1,432	113	av.	4	70	70	Thames and Medway.....	8,149	19½	19½		10	10
Barnsley.....	720	100	100	14	180	180	Warwick and Birmingham.	1,000	100	100	10½	167	
Birmingham, 1-16 share	3,000	118½	79	10	150	160	Warwick and Napton.....	980	100	100	8½	122	
Do. and Liverpool Junction	4,000	160	100		13½	13½							
Coventry.....	500	100	100	20	365	365							
Cromford.....	460	do.	do.	24	250	250							
Derby.....	600	do.	do.	9	105	105							
Erewash.....	231	do.	do.	32	440	440							
Forth and Clyde.....	1,297	400½	40½	4	440	440							
Grand Junction.....	11,600	100	100	7	162	161½							
Grants Surrey.....	1,500	do.	do.		20								
Gloucester and Berkley.....	5,000	do.	do.		8	8							
Grantham.....	749	150	150	8	185	185							
Lancaster.....	11,699	47½	47½	3	40	40							
Leads and Liverpool.....	2,897	100	100	34	640	640							
Leicester.....	545	140	140	9	139	139							

Water Works.

Birmingham.....	4,800	25	25	3½	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7½	88	90
New River L. B. Ann.....	1,500			2½		
Manchester and Salford....	6,486	av.	30	8½	57	57
Vauxhall, It. S. London....	1,000	100	5	5	55	55
West Middlesex.....	8,294	av.	63½	6½	126	127

Docks.

Commercial Dock.....	1,065	100	100	3	80	
East and West India.....		sto.		5½	137	
London.....	3,238,310	sto.		4½	114½	115
St. Katharine.....	1,352,752	sto.		5	116	171
Southampton.....	7,000	50	50			



AMERICAN RAILROADS.													SALES.	
RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843. Income.		Div. per cent.	1844. Income.		Div. per cent.	Previous prices.	Week ending April 2d.	
						Gross.	Nett.		Gross.	Nett.			Shares.	Price.
Me. 1	Portland, Saco and Portsmouth.	50	1,200,000				89,997	47,166	7	124,497	74,841	6	113½	102
N. H. 2	Concord.	35	750,000									12	70½	139½
Mass. 3	Boston and Maine.	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	110½	112½
" 4	Boston and Maine extension.	17 1-4	455,703	unfin.										
" 5	Boston and Lowell.	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120½	120
" 6	Boston and Providence.	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	108½	109½
" 7	Boston and Worcester.	44	2,914,078				4 0,141	162,000	6	428,437	195,163	7½	116½	117½
" 8	Berkshire.	21	250,000	not stated				17,500	7	17,737				
" 9	Charlestown branch.		280,260						13	34,654	13,971	5½	70½	82½
" 10	Eastern.	54	2,388,631				279,563	140,595	6	337,238	227,920	8	109½	109
" 11	Fitchburg.	50	1,150,000	just opnd						42,759	26,835		120	124
" 12	Nashua and Lowell.	14 1-2	380,000				84,079		8	94,588	34,944	10	121	126½
" 13	New Bedford and Taunton.	20	430,962				50,671	24,000	6	64,998	24,000	6		
" 14	Northampton and Springfield.		172,883	unfin.										
" 15	Norwich and Worcester.	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	70½	72
" 16	Old Colony.		87,820	unfin.									102	104
" 17	Stoughton branch.	4	63,075	unfin.										
" 18	Taunton branch.	11	250,000					20,000	8	96,687	20,000	8	118	
" 19	Vermont and Massachusetts.													
" 20	West Stockbridge.	3	41,516	200		100						4		
" 21	Western, (117 miles in Mass.).	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	102½	101½
" 22	Worcester branch to Milbury.		8,431	506										
" 23	Housatonic, (10 months.).	74	1,244,123							150,000			82	
Con. 24	Hartford and New Haven.	38	1,100,000	100,000	10,000	100						6	89	94½
" 25	Hartford and Springfield.	25 1-2	600,000	400,000	2,000	100								
" 26	Stonington, (year ending 1st Sept.).	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		41	39½
N. Y. 27	Attica and Buffalo.	31	336,211				45,896	7,522		73,248	48,033	0		
" 28	Auburn and Rochester.	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	106	
" 29	Auburn and Syracuse.	26	766,657		133½		86,291	27,334		96,738	52,544	6	116	
" 30	Buffalo and Niagara.	22	200,000		1,500								100	
" 31	Erie, (416 miles.).		5,000,000										31½	29
" 32	Erie, opened.	53						48,000		126,020	59,075			
" 33	Harlem.	26	1,206,231							140,685	62,399		70	72
" 34	Hudson and Berkshire.	31	575,613			50				35,029	1,999	0	14	
" 35	Long Island.	96	1,610,221	392,340	29,846					153,456	58, 6	0	75½	76
" 36	Mohawk and Hudson.	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	64½	61
" 37	Saratoga and Schenectady.	22	303,658				42,242	3,000	1	34,666	8,455	0		
" 38	Schenectady and Troy.	20 1-2	640,800				28,043			32,646	6,365	0		
" 39	Syracuse and Utica.	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	115	
" 40	Tonnawanda.	43	727,332				76,227			114,177	75,805	5		
" 41	Troy and Greenbush.	6	180,000											
" 42	Troy and Saratoga.	25	475,801				44,325	21,000		38,502	9,971	2½		
" 43	Utica and Schenectady.	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	129	
N. J. 44	Camden and Amboy.	61	3,200,000				682,832	383,880		784,191	404,956		110½	111
" 45	Elizabethtown and Somerville.	26												
" 46	New Jersey.	34	500,000										93½	
" 47	Paterson.	16	2,000,000									6	85	
Pa. 48	Beaver Meadow.	26	500,000											
" 49	Cumberland Valley.	46	1,000,000										30	
" 50	Harrisburg and Lancaster.	36	1,250,000											
" 51	Hazleton branch.	10	860,000											
" 52	Little Schuylkill.	29	120,000											
" 53	Blossburg and Corning.	40	900,000											
" 54	Mauch Chunk.	9	600,000											
" 55	Minchill and Schuylkill Haven.	18	100,000										143½	
" 56	Norristown.	20	315,000										6½	7
" 57	Philadelphia and Trenton.	30	800,000										104	
" 58	Pottsville and Danville.	29 1-2	400,000											
" 59	Reading.	94	1,500,000	7,447,570	40,200	50				597,613	343,511		50½	49
" 60	Schuylkill valley.	10	9,457,570											
" 61	Williamsport and Elmira.	25	1,000,000				20,000							
" 62	Philadelphia and Baltimore.	93	400,000				43,043	200,000			210,000		43½	42
Del. 63	Frenchtown.	16	4,400,000											
Md. 64	Baltimore and Ohio, (1st Oct.).	188	600,000				575,235	279,402		358,620	346,946		48½	50½
" 65	Baltimore and Susquehanna.	58	7,623,600										5	6
" 66	Baltimore and Washington.	38	3,000,000				177,227	71,691		212,129	104,529		84	
Va. 67	Greensville and Roanoke.	17 12	1,800,000											
" 68	Petersburg and Roanoke.	60	260,000							122,871	72,898	3		
" 69	Portsmouth and Roanoke.	78 1-2	969,880											
" 70	Richmond and Fredericksburg.	61 1-2	850,000											
" 71	Richmond and Petersburg.	22 1-2	1,200,000											
" 72	Winchester and Potomac.	32	700,000											
N. C. 73	Raleigh and Gaston.	84 1-2	500,000											
" 74	Wilmington and Raleigh.	161	1,360,000											
S. C. 75	South Carolina.	136	1,800,000							532,871	140,196	5		
" 76	Columbia.	66	5,671,452		34,410	75	201,464	77,456		328,425	180,704			
Ga. 77	Central.	190					227,532	93,190						
" 78	Georgia.	147 1-2	2,581,723				248,026	158,207		248,096	147,523			
" 79	Montgomery and West Point.	89	2,650,000	170,000		100				35,000	15,000			
Ky. 80	Lexington and Ohio.	40	500,000											
Ohio 81	Little Miami.	40	450,000											
" 82	Mad river.	40	400,000											
Ind. 83	Madison and Indianapolis.	56	152,000											
Can. 84	Champlain and St. Lawrence.	15	212,000					12,000		58,000	24,000		110	

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Thursday, May 15, 1845.

Errors will sometimes occur in well regulated establishments, and they may sometimes therefore be expected in ours—and will, we hope, be overlooked, when the past cannot be remedied. It is exceedingly vexatious, though, to be made ridiculous, either by mischievous types, or roguish boys—as we were in the two last numbers of the Journal. By some means, either accidental or designedly, the figures \$250,000, standing in the column of the "cost," in the table of "American Railroads," opposite "No. 8—Berkshire railroad," are out, and all the figures in that column are elevated *one line* above their proper place: by which operation the Charlestown branch railroad is represented as having cost \$2,388,631!, and the Norwich and Worcester road was built for the trifling sum of \$87,000!!, and the West Stockbridge road is made to cost only \$7,585,202!!!, while that noble work, the "Western railroad," of 156 miles in length, over mountains and broad rivers, appears to have cost *only* \$8,431!!!!, and so of all the rest down to "No. 46—Morris and Essex," which, having nothing else to do, has gone in search of the cost of the "Berkshire"—thus equalizing the *number of lines* in the page, though thirty-six of them are misplaced by the mysterious absence of these two chaps.

We shall not, we trust, be prosecuted for the thirty-six libels, *twice* told, of which we plead guilty in the premises, as we have detected, *corrected* and *acknowledged* the wrong before it was pointed out to us even by the injured parties. But let us once catch the rascal who committed the deed—and—

RAILROAD ACCIDENTS.

It is painful to record the numerous accidents on railroads—and it is equally painful to think that many of them result from *carelessness*, either of those who have charge of the roads or trains, or—which is quite as frequent—of those who suffer. There is, however, another source prolific of serious accidents. We have often observed that, in the construction of bridges and depots, there is not space enough between the posts for the passage of cars of the width of those in common use; and in many cases where there is a double track, they are too near together; so near, indeed, that a man would be crushed if he happened to be caught between two passing trains, or a loaded car, on the other track—as recently occurred on the Philadelphia and Reading railroad. Now one thing is certain, and should therefore be, as far as possible, guarded against. We all know that men will be thoughtless sometimes, and intently and necessarily engaged at others, so as to be wholly unconscious of approaching danger; therefore, in the construction of railroad bridges, and the *entrance* to depots, there should always be space allowed for a person to stand, or pass; or the cars should be made *narrower*, and thus allow sufficient space. In the construction of new, or rebuilding of old structures, this subject should be well considered.

We are indebted, though we sometimes omit to give credit, to that excellent paper, the Pottsville "Miners' Journal," for our reports of the Pennsylvania coal trade.

The demand for coal is very brisk at present, particularly for large white ash, and the price has advanced. A large portion of the Schuylkill valley, and the whole of the Mill Creek region, remains cut off from the market, in consequence of the roads being taken up to widen the tracks between the Reading railroad and the connection. The Mill Creek road will be ready in about three weeks. The Little Schuylkill railroad, at Port Clinton, has been completed, and the first train of cars departed from that place on Thursday last.

Vessels are very scarce at Philadelphia, to carry coal to eastern ports, and freights have advanced.

Freights from Pottsville to Philadelphia, 70 cents, to New York, \$1 80.

THE COAL TRADE.—Sent by railroad from Pottsville and Port Carbon, for the week ending on Thursday evening last..... 4,586-05  
 Per last report..... 50,281-06

Total..... 54,867-11  
 From Schuylkill Haven..... 5,979-05  
 Per last report..... 92,358-05

Total..... 98,337-10  
 From Port Clinton..... 130-18  
 Total..... 153,335-19

BY CANAL.

From Pottsville and Port Carbon..... 3,275-15  
 Per last report..... 24,815-02

Total..... 86,120-17  
 From Schuylkill Haven—total up to Thursday evening..... 775-01  
 Per last report..... 775-01

Total..... 3,115-06  
 From Port Clinton..... 1,107-05  
 Per last report..... 6,631-09

Total by canal..... 38,974-17  
 Total by railroad..... 153,335-19

Total by railroad and canal..... 192,310-16

MOUNT CARBON RAILROAD.—The amount of coal transported over this road for the week ending on Thursday evening last, is 6,280  
 Per last report, 51,824

Total, 58,104

LEHIGH COAL TRADE.—Despatched this season up to 5th mo. 3d, 1845, from Mauch Chunk.

Lehigh coal and navigation co. - 4995  
 Summit, - 1854-6849  
 Room Run, - 2463  
 Beaver Meadow railroad and coal co., - 2270  
 From Penn Haven.—Hazleton coal co., - 642  
 From Rock Port.—Buck Mountain coal co., - 12224

Total shipments from Mauch Chunk. Lehigh coal and navigation co. - 18215

Summit mines, - 4990-23195  
 Room run do., - 8205  
 Beaver Meadow railroad and coal co., - 7204  
 From Penn Haven.—Hazleton coal co., - 2050  
 From Rock Port.—Buck Mountain coal co., - 40,655

PINE GROVE COAL TRADE.—Transportation on Union canal railroad from 16 to 30th April (inclusive.)

	Tons	cwt.	qr.
Per last report,	2879	8	0
Amount transported on Swatara railroad, during March, 1845	3667	1	2- 6,546 9 2
April,	548	16	0
	2410	00	2- 2959 6 2

WYOMING COAL TRADE—Total to May 3d, 5758

MINEHILL AND SCHUYLKILL HAVEN RAILROAD.—The following is the amount of coal transported over

this road, for the week ending on Wednesday evening last: 6,500-04  
 Per last report, 94,953-03  
 Total, 101,453-07

MIAMI CANAL.—The water, says the Cincinnati Gazette, is to be let out on the 20th inst., to make general repairs, and will remain out two or three weeks.

TIDE WATER CANAL.—The Baltimore American says: "We are gratified to find from the following letter from our correspondent at Havre de Grace, that the trade on this important work is rapidly and steadily increasing. When further progress is made in the completion of works having for their object the ready and cheap transportation of anthracite coal to the Pennsylvania canals, and thence to the Chesapeake bay, by means of the Tide Water canal, there is no doubt that Baltimore will participate largely in the lucrative and prosperous trade that will be opened."

HAVRE DE GRACE, May 1, 1845.

GENTLEMEN: Since the opening of the canal, this season, the number of arrivals of boats has been 600 of which 235 have been towed to Philadelphia, and 205 to Baltimore, making 80 boats in favor of Philadelphia. There have cleared from this place northwardly, up to this date, 528 boats; to the same date last year, 392 boats, which is an increase in favor of this year, thus far, of 136 boats.

RAILROADS AND CANALS IN OHIO.

We learn from the Cincinnati Gazette, that Mr. Mills, who negotiated the loan in Boston for completing the railroad from Sandusky to Cincinnati, had reached the latter city; and that energetic measures will be adopted for its early completion in a substantial manner. The editor of the Gazette wisely urges that the structure be of the most permanent kind rather than that it be completed in the shortest possible period. In this we cordially agree with him, and hope to see that his opinion of the managers of the work is correct, when he says, of the directors,

"They will look to one thing, as, after all, the important matter—*durability*. For they, or any company, will save time and money, if not life, in such an undertaking, who make this the test; and this the sensible directors of the Miami and Mad River road understand perfectly well. We may assure our readers, then, of this—that the work will be finished just as soon as it can be safely done."

The directors of the Concord railroad have declared a dividend for the last six months of six per cent. This makes a dividend of thirteen per cent. for the last year, with a respectable surplus on hand.

We always record, with pleasure and pride, the extraordinary performances of American machinery, and especially of American locomotive engines. The following statement is taken from the Pottsville "Miners' Journal," of 10th inst. This engine hauled what would load the largest ship which sails out of the port of New York.

"The greatest draught ever made over any railroad in the world, was made on Tuesday, by Wm. Norris & Co.'s new engine, the Atlantic, over the Pottsville and Philadelphia road. The Atlantic started from Schuylkill Haven on Tuesday, with 150 iron cars, weighing 390 tons, and containing 744 tons, one hundred weight of coal, total weight, exclusive of weight of engine, 1,134 tons, one hundred weight. This enormous train and weight she started without aid, and during the whole draw from Schuylkill Haven to Philadelphia, she never once slipped a wheel, or required assistance from other engines, but performed her work alone and beautifully, and in a shorter time than has been made before over the road by any engine with a coal train. She broke but two couplings in the whole draw between Schuylkill Haven and Philadelphia.

## THE ERIE CANAL ENLARGEMENT.

When the Erie canal was constructed, it was calculated that boats of thirty tons would be best adapted to its navigation; such a boat it was expected would be drawn by one horse. The size of the boat was to be seven feet wide, draw three feet of water, and be seventy-five feet long. In view of this kind of boat, the locks were made ninety feet long and fifteen feet in width in the chamber, designed to pass two boats at a time. A model boat on this plan was built and put in operation on the first opening of the middle section of the canal. The model was taken from English canal boats. It was doubtless considered that experience in England had led to this, as best adapted to canal navigation. The model, however, was never copied on the Erie canal. There would probably have been some experimenting on the model plan, had not the first navigation of the canal been made with the Durham boats, that had been in use on the Mohawk river. As soon as the canal was opened, these river boats, being ready, entered the canal, and engaged more or less in its navigation. The boats then built for the canal, followed more the form of the river boats than the model canal boat.

The consequence has been, that no boats have been used in the navigation of this canal that would admit of two passing a lock at the same time. At the time the Erie canal was commenced, there were intelligent men, who advanced the opinion, that it would not be capable of accommodating the freight that would ultimately seek this channel for market. When the subject of dimensions was discussed by the canal commissioners and engineers, they decided on the original size, as being under, all the circumstances, best calculated to meet the interests of the enterprise. The novelty, at that time, of such undertakings, the great magnitude of the work, and the incredulity of a large portion of the citizens as to its success and usefulness, no doubt, produced a cautious action on the part of the commissioners in settling this question. The friends of the enterprise were generally satisfied with their decision. Accustomed to view the power of a horse as sufficient to draw but half or three quarters of a ton, an improvement that would increase his capacity to 30 tons, seemed to reach all the economy that could be expected.

The dimensions of this canal were 28 feet in width at bottom, 40 feet at top water, and 4 feet deep.

The necessity of economizing the expenditures, and the want of experience, led to many errors in the original construction of this work. Among these may be mentioned that of laying the canal, to a great extent, on a low level as compared with the adjacent country and the streams that passed it. By this means, numerous small streams, and some large ones, emptied their waters directly into the canal, and deposited more or less of sand, mud, and gravel on its bottom. This deposit had to be removed mostly in the spring of the year, before na-

igation was opened; and, being necessarily a difficult and expensive operation, was rarely done so as to give the navigation the benefit of a full depth of water. The location of locks, particularly at Cohoes, and the narrow and crooked channel of the canal, at Little Falls and other places, contribute much to impair the navigation. Under these circumstances, the rapidly increasing trade had so filled the canal, in 1833, that measures to improve the navigation were required to meet its wants.

In May, 1834, the legislature authorized the canal commissioners to double the locks between Albany and Syracuse. The commissioners, during that season, had surveys and examinations made to carry out this measure. This gave rise to a discussion of the question, whether the second set of locks should not be adapted to a canal of larger dimensions, with such improvements in its general character as were practicable?—At this time, no attention of consequence appeared to have been given to other considerations, than what was sufficient to afford the necessary capacity to the trade—economy in the traction of boats was not generally regarded. At that time, I was engaged as the engineer of the Chenango canal. The late governor, Wm. C. Bouck, was, at that time, a canal commissioner, and had charge of that canal. With Mr. Bouck I had frequent conversations in relation to the improvements contemplated on the Erie canal. Having an intimate knowledge of the greatest portion of the Erie canal, and knowing the necessity of many improvements, it appeared to me important that nothing should be done until the whole subject was well considered. The trade had increased beyond the highest expectation of its friends, and had every prospect of going on increasing for a long time to come. It appeared to me that three considerations were important to be kept in view.—first, to provide a capacity that would meet the ultimate wants of the trade; second, to provide the most economical transportation; and, third, to provide for a class of boats that could be towed safely and economically on the Hudson, thereby saving the expense, delay, and loss consequent on transshipment.

Mr. Bouck took a deep interest in this enterprise, and requested me to investigate the question relating to economy of transportation. In January, 1835, I addressed a letter to him, giving the result of my investigations. This letter he submitted to the canal committee of the assembly, who appended it to their report of that session. In that letter, I endeavored to show that, on a canal of 70 feet width at surface, and 7 feet deep, with locks 16 feet wide, and 110 feet long in the chamber, the power of traction required would be about 53 per cent. per ton—and that the total cost of transportation would be 50 per cent., or one half—of that required on the Erie canal at that time.

This investigation many persons were disposed to question, both at that time and

subsequently—denying that it would be realized in practice. I have never known, however, that any one has entered into any investigations to prove its fallacy; nor have I ever doubted that this economy in transportation, on the completion of the enlargement on this scale, as finally settled upon by the Canal Board, would be fully realized. So long, however, as the work remains unfinished, the question in relation to this canal cannot be practically settled.

But the value of this kind of improvement has not escaped the vigilant eye of private enterprise. Incorporated companies have turned their attention to it for the purpose of increasing the capacity, and economizing the expense of transportation. The Delaware and Hudson Canal Company have carried an improvement of this kind to such an extent as to afford very interesting results. I will introduce their experiment with a few general remarks on the Delaware and Hudson canal.

This canal commences at tide water, at Roundout, near the west bank of the Hudson river, runs through Ulster, Sullivan, and part of Orange county, in this state, to the Delaware river, near Carpenter's Point, a distance of 60 miles, thence up the Delaware about 22 miles, to the mouth of the Lackawaxen river; crossing the Delaware, it follows the valley of the Lackawaxen, in Pennsylvania, about 25 miles, to the village of Honesdale. The total length is about 108 miles, and has — feet lockage in 110 locks. At Honesdale, the canal meets the Carbondale railroad, by which the coal of the Lackawana valley is there brought to it. The main object of the canal was the coal trade. The canal was commenced in 1825; in the fall of 1829 it was opened for navigation; about 8,000 tons of coal were brought to market through it that year. That portion of the route lying in the valleys of the Lackawaxen, Delaware, and lower Roundout rivers, was of a very difficult and expensive character for a canal. Those valleys are narrow, and bounded by steep and high hills—to a large extent, rock rising from the water's edge to several hundred feet in height. The enterprise, at the time the work was begun, required the most energetic and persevering efforts to surmount the natural obstacles it had to meet, and to sustain the means necessary, in the face of a strong public sentiment, which had arrayed itself against it.

It is but simple justice to the managers of this work to say, they evinced, under great discouragements, an eminent degree of devotion, ability and perseverance, in completing a work that has conferred great benefits on the city of New York. Although other avenues to the coal fields of Pennsylvania have since been extensively opened, and the price of coal greatly reduced, it will be obvious, on the least reflection, that this avenue, connecting with the tide water of the Hudson, affords a highly important competitor to more distant channels, and must do much in regulating the price of that article. The canal was made

generally 20 feet wide on the bottom, 32 feet on the surface, (in some parts 36 feet,) and 4 feet depth of water. The locks are 76 feet long between the gates, and 9 feet wide. It was designed for boats of 30 tons. At the time it was projected, it was not supposed its annual business would exceed 150,000 tons. In consequence of the increasing demand for coal, and the importance of improving the means and the economy of transit, the company turned their attention, in 1842, to the subject of enlarging their canal. The plan submitted by R. F. Lord, Esq., their engineer, was to raise the water one foot, making the canal 5 feet deep instead of 4 feet. By this proceeding, its top width would be increased from 32 feet to 35 or 36 feet, according to the slope of the banks. The cross section of the water-way of the original canal was 104 square feet; and as enlarged, 137½ to 140 square feet according to the slope. Taking 139 as the average, the enlarged section is about 36 per cent. greater than the original section. This plan of enlargement was commenced in the latter part of the season of 1842. In the spring of 1843, the work had progressed so far, that they began to give the canal increased depth of water. This course was proceeded in by a gradual process, continuing through the season, but not reaching the full plan of improvement during that year. From this partial condition of the alteration, the boats increased their average tonnage from 31 to 35 tons, in the year 1843. The quantity of coal brought down the canal that season, (1843,) was 227,605 tons. At the opening of navigation, in 1844, owing to the unsettled condition of the new work, and the effect of frost on recently raised banks, the water was not put on the full height to which it had been carried the fall previous. As the season advanced, the water was gradually raised; and, in autumn, of that year, was brought to the full depth of five feet. There were three classes of boats used for navigating the canal that season, (1844):—First, the old boats, without alteration; second, the old boats, raised, so as to give them increased draft of water; and third, new boats, built for the enlargement.

The average tonnage of the 1st class (for 1844) has been	36 <sup>7</sup> / <sub>8</sub> tons.
Do. of the 2d class,	39 <sup>2</sup> / <sub>5</sub>
Do. of the 3d class,	42 <sup>1</sup> / <sub>2</sub>
The average for all the boats has been	40 <sup>2</sup> / <sub>5</sub>

The total quantity of coal bro't down the past season was 251,000 tons.

The following will show the influence of this improvement on the price of freight:—

The price per ton, in 1842, before the improvement was brought into use, was \$1 34

The price, in 1844, the improvement fully in use only the latter part of the season, 0 97

This success has induced the company to decide on a further enlargement of their work. The new boats, of which 135 were in use during the autumn, when the full depth of water was enjoyed, carried 45 tons

and upwards. The engineer has informed me that these boats, during the time the water was full height, were navigated by the same power that had always been employed on the old boats, previous to the enlargement, to carry an average of 31 tons,—that is, by one horse. They have a regulation on this canal, by which boats that perform their trips in nine days are paid a higher price per ton than when a longer time is taken. This rule has long been established, and the object is to maintain greater regularity in the delivery of coal. The boatmen, therefore, have an inducement to use all diligence in navigating their boats.

The new boats, with 45 tons, on the completed improvement, have made their trips quite as easily within the time as on the old navigation, with 31 tons; and hence it is estimated, the cost of transportation will be reduced from \$1 34, in 1842, to 90 cts., in 1845. Further, the saving in the price of freight, in the years 1843 and 1844, has more than re-imbursed the expense of the enlargement.

This experiment, which appears to have been very carefully observed, shows that an enlargement of the section of the canal of 36 per cent., has increased the capacity of boats navigating it 45 per cent., and this without at all increasing the cost of traction, or the hands to manage the boats. Comparing the price of transportation, that on the enlarged canal, is 67 per cent. of the cost on the old canal. Here we see that a saving of one-third the expense of transportation has been effected on a canal, by enlarging its sectional area 36 per cent.

This canal, as enlarged, has not the sectional area required for the most favorable traction of a boat of 45 tons, and, consequently, more tractile power is required, than would be necessary if it was the most favorable section; but, notwithstanding the transportation derives great advantage from the measure of improvement, the boats for this canal, from their form and size, do not require the same relative section for 45 tons, as they do for 31 tons.

In the calculations of the expense of transportation before alluded to for the Erie canal, the relation of the sectional areas of the original form to that of the proposed 7 feet canal, are as 1 to 2.94; or, the enlarged canal is nearly 200 per cent. greater area than the original size. This measure of enlargement was to give the most favorable traction, or one-half the cost per ton on the old canal. It was regarded as important to an economical transportation, with large boats, in a crowded and promiscuous trade, that the section of canal should be liberal, not only to favor their traction, but to allow adequate freedom in their movement in passing each other, and more fully to feel their rudders. It is obvious, a boat navigating a comparatively shallow and narrow canal will not obey its rudder as readily, or be as easily managed, as on a broad and deep channel.

The experience on the Delaware and Hudson canal has shown that an enlarge-

ment of 36 per cent. has reduced the cost of transportation 33 per cent.; we are, therefore, led to the conclusion, that an enlargement of the Erie canal of 200 per cent. will reduce the cost of transportation, at least, 50 per cent. Boats for the large canal would be advantageously towed on the Hudson, saving all the delay, expenses of transshipment, and consequent breakage, and one set of agencies, which it is believed would save full 50 per cent. of Hudson river charges, and the delay incident to transshipment. The tolls on the canal are, probably, nearly equal (taking the general average) to the cost of transportation at this time; the saving, therefore, of 50 per cent. on the transportation would be equal to at least 25 per cent. of the total cost of toll and transportation. That this reduction would materially increase the trade, is obvious on the least reflection. That this reduction will be effected by the completion of the enlargement, can no longer admit a reasonable doubt.

In 1835, an estimate was made, under the direction of the canal commissioners, by four engineers, each taking a certain section of the proposed improvement. The fact, that this estimate falls very much below the cost of the work, so far as it has progressed, has been severely animadverted upon, and calls for some explanation of the discrepancy. I made the estimate for the section commencing at Albany, and extending 57 miles west. The principal object was to obtain an approximate estimate of different dimensions of enlargement. From two to three months was all the time given to make this examination, prepare plans and calculations of quantities and cost. No great accuracy could be expected from the limited time given. The aggregate of this estimate was about \$12,500,000, and the damages for land would have increased it to, probably, about \$14,000,000.

So far as I was concerned, this estimate was based on the following considerations, which have not been observed, so far, in the construction of the work—to wit:—

1st. The work was to be prosecuted no faster than the surplus tolls would afford funds. Whereas, it has been prosecuted much more rapidly, by additional funds, obtained by loans to a large amount, at a time when prices for labor and materials were high, and still further enhanced by putting a large amount under contract, within a short time.

2d. Only one set of locks was contemplated by the estimate; whereas, double locks of a very expensive character have been constructed in numerous cases. I do not contend that it was inexpedient to construct double locks; but the estimate should have the benefit of the additional set.

3d. The plan of work, embracing mechanical structures, was contemplated in the estimate, (so far as I was concerned,) to be plain and substantial; having regard to adequate strength and permanency, the convenience of the navigation, and proper symmetry in design; whereas, a very expensive

mode, in executing a large portion of the work, not necessary for strength and permanency, has, to a great extent prevailed. It is due to myself to say that I earnestly remonstrated against this, in the outset;—urging that it was unnecessary, and would eventually jeopard the success of the enterprise. In this I was supported by Commissioner Bouck, who has, in all my intercourse, manifested a deep interest in the success of the improvement. There were items of work, not embraced in the original canal, that have been added to the plan of enlargement, which were not decided on at the time of the estimate. I have no doubt some, and perhaps most of these will be beneficial to the improvement.

The enlargement proceeded to the close of 1841, when it was arrested in consequence of financial embarrassments. Since that time, a very limited amount of work has been done. The total expenditure, thus far, for work, damages for land, &c., has been about \$13,000,000. The length of enlarged canal in use last season was near 36 miles, and 17 miles are to be put in use next spring, making 53 miles of canal in use and ready for use, and 228 structures. There are 40 structures completed, but not in use, not being connected, in consequence of other work unfinished. There are 117 structures in an advanced state—two-thirds done. It may be observed, that the more expensive parts, such as heavy sections of canal, large aqueducts of the first and second classes, and locks, are generally either completed, or in a high state of advancement. This accounts for the fact that, although only a small portion of the improvement is in use, more than half the expense has been incurred, leaving about \$11,000,000, (by the revised estimate of the canal commissioners, made in 1839,) to complete it on the expensive plan on which the work has been commenced. Taking into consideration the present, or a fair price for labor and materials—an economical revision of the plans of work remaining to be done,—(I mean such a revision as is compatible with the present dimensions of the enlarged canal, and will secure all necessary permanence and convenience to the navigation) and a prosecution of the work at a rate of progress that will not enhance prices, there can be hardly a doubt, the remaining part of the enlargement may be completed for a much less sum than the above balance.

From the accumulation of deposit in the canal, and causes before alluded to, the average tonnage on down freight was reduced from 39 tons, in 1835, to 30 tons, in 1838. In consequence of this depression in the tonnage of boats, the canal commissioners gave greater attention to the repairs of the canal. They found the bottom in many places much filled with mud, sand, and gravel, which, in fact, had been gradually accumulating, and, probably, never thoroughly cleaned out since the first introduction of the water. It is one of the objects of the enlargement, by raising the banks, and at some places the levels, and, instead of dams,

constructing culverts and aqueducts, to turn land floods and their sediment under the canal, and thus, to a great extent, relieve the canal from this impediment.

By proceeding with a more thorough system of cleaning out the bottom, and raising the banks, the average tonnage was gradually increased, and, in 1841, it had reached 36 tons. At this time, but little of the new work had been brought into use. In 1842, a portion of the new work, mostly between Albany and Schenectady, was brought into use at places where the old work was always embarrassing to the navigation. As the enlargement was now suspended, the commissioners made more vigorous efforts to clean out the bottom and raise the banks; which, with the new canal in use, so improved the navigation, that, in 1844, the average down tonnage of boats was about 60 tons, or double what it was in 1838.—Other circumstances contributed to this result. The boats were constructed more full in their bearing, and a greater portion devoted exclusively to freight.

Notwithstanding this increase of tonnage, there were 257 more lockages in 1844 than in 1838. The down freight in 1838, was 419,249 tons, and, in 1844, 871,537 tons. Consequently, all the efforts to improve the canal, and which have doubled its capacity, have only kept pace with the increasing trade. The tonnage of 1838 was a trifle greater than that of 1836; and, as the time from 1838 to 1844 may be too limited to present a fair statement of increase, I propose to take 1834, when the trade had no special cause to affect its magnitude.

I have not the means of ascertaining the tonnage of 1834, except by comparing the tolls, which afford a sufficient approximation. The tolls of 1844 were 85 per cent. greater than in 1834—a period of ten years. During this time there has been some reduction of tolls, the extent of which I cannot now state, but probably such as would show the tonnage to have increased nearly if not quite 100 per cent. It will be observed this increase has taken place since the time when the canal was so fully occupied, that further capacity was required. In my letter to Commissioner Bouck, before referred to, I gave it as my opinion, that the tonnage would be doubled in ten years, and urged this as a reason for adopting a liberal scale for the contemplated enlargement.

I have not noticed the return, or up freight, for the reason that, it being much less in tonnage than the down freight, the latter only is important in a calculation of capacity. The average price of freight on the canal may be taken at something above the charge of tolls; or the total charge of freight and tolls, at something over double the tolls. The total amount of tolls on the Erie canal, for the navigable year of 1844, was \$2,190,147. The transportation may be assumed at \$2,400,000, but say \$2,200,000. If the enlarged work, when completed, will effect a reduction of half this sum, as it is believed has been conclusively shown, the annual saving on last year's trade, with-

out considering the way trade, would be \$1,100,000. This trade must increase for many years to come. For several years it has been contended by the opponents of this enterprise, that the freight furnished by the forest would fall off as rapidly as that of agriculture, &c., would increase; and, therefore, no material increase of tonnage would occur. This subject was very ably discussed last winter, in the report of H. Seymour, Esq., chairman of the Canal Committee, in the assembly. The document is one of great interest, in which the canal policy of this State is treated in a manly and able manner. By a statement in a late number of the Merchant's Magazine, it appears the tonnage from the forest, arriving at tide-water, from all the canals, in 1844, was 32 per cent. over that of 1843, and that the total tonnage arriving at tide-water, in 1844, was 30.6 per cent. greater than that of 1843, showing the increase from the forest to have been greater than from all other sources, that is, the ratio of increase has been greater. It thus appears, Mr. Seymour's views, that the tonnage would continue to increase for a long time to come, have been well sustained by the facts thus far. There can be no doubt that, if adequate provision is made to accommodate it, the trade of this canal will go on increasing for many years; and, if we allow twenty years for it to double the last year's business, no time should be lost in devising a system of proceeding that will bring the improvement into complete operation in the course of about eight years. When it is completed from Albany to Syracuse, the trade will derive great benefit; and, by the time it is wholly in operation, say about eight years from this time, the annual saving in transportation will not be less than \$1,500,000. The improvement will be a self-producing cause of increasing trade. That which now will not bear charges of transportation, will enter its regular business. The area of country that will concentrate in this channel, will be enlarged in proportion to the increased facilities and economy secured for its accommodation.

In the report of the canal commissioners, of January, 1844, where, speaking of the lockages in 1843, they remark—"The rapidly increasing transportation of property on this canal, from those states bordering on the western lakes, will, undoubtedly, greatly add to the number of lockages." In their recent report, (January, 1845,) they remark—"The great increase of business on the canals has materially added to the number of lockages." Again, page 10—"If the business on the canals continues to increase, it will soon be indispensable to its accommodation to have double locks brought into use at all places from Albany to Syracuse."

If time permitted, I would show, from the reports of canal commissioners, the failing and deteriorating condition of many of the old structures and works on the Erie canal, and the difficulty, from its small section at several places, in passing a sufficient supply of lockage water, during the seasons of greatest pressure in its business. Much



more could be done, if the business was equally spread through the season of navigation, but such an arrangement is impracticable. The western lakes being closed in the winter, the products accumulated at their ports during the suspended navigation, will, at the opening of spring, rush to market, and supplies from the Atlantic market be immediately called for. Then again, after harvest, there will be an accumulated business in the fall trade.

In relation to the value of the enlarged canal, even for boats used on, and limited by the dimensions of the original work, the canal commissioners, in their report of Jan., 1844, remark—"those portions of the enlargement of the Erie canal, which are in use between Albany and Syracuse, and the construction of double locks on the enlarged plan at points most liable to detention and delay, have added greatly to the capacity of the canal, and to the certainty, safety, and expedition of transportation."

In their late report, (January, 1845,) the commissioners, in speaking of a section of about six miles of enlarged canal, embracing Schoharie creek, to be brought into use next spring, remark—"by this improvement the heavy annual expenses, to which the state has been heretofore subjected, in dredging the channels of the creeks, and in maintaining dams and towing path bridges, will be avoided; the injurious and vexatious delays, to which boats have been liable at the old locks, prevented, and inestimable benefits to the interest of all concerned in the navigation of the canal secured." The same report, when speaking of 11 miles of enlarged canal, also to be brought into use next spring, known as the Jordan level, the commissioners remark—"The canal will receive an additional supply of water from the Nine Mile Creek feeder: the expense of two lock tenders, and the repair of two locks and two aqueducts, that are in a dilapidated condition, will be saved, and the hazzard of interruption to the navigation will be greatly diminished."

The same report, in speaking of the locks near the upper Mohawk aqueduct, the commissioners remark—"During the busy portions of the season of navigation, these locks are in constant employment, and require the uninterrupted attendance of the lock tenders."

It therefore appears that, in regard to the convenience and economy of navigation—of repairs of canal, and also in regard to the increasing amount of the trade—the canal commissioners are deeply impressed with the usefulness of this improvement: and the friends of the enterprise do not appear to have over estimated its necessity and importance.

Several valuable and interesting public documents have at different times been published, which present many important particulars in relation to the subject under consideration. But the limited range of a single article, does not allow them to be further discussed.

The unproductiveness of the lateral canals has been much dwelt upon by the opponents of the enlargement of the Erie canal. The total length of the lateral canals is about equal to that of the Erie canal; while the tolls on the latter, for the last season were about 90 per cent. of the aggregate tolls of all the state canals. There can be no doubt, however, that the tolls on the Erie canal, have been increased by the trade brought to it by the lateral canals; but to what extent I am not able to say. That money has been, to a greater or less extent, unwisely expended on the lateral canals, there can be no doubt. But is this a sufficient reason why we should neglect the proverbially great avenue of internal commerce? an avenue passing through the central and most fertile portion of our own state, connecting with internal lakes, rivers and artificial canals, spreading its ramifications and usefulness to the great mass of our citizens; and uniting the most extensive inland lake navigation in the world, with one of the best river navigations!—Certainly no careful, intelligent, and candid examination of the subject will call for an abandonment of the enterprise, and leave its unfinished structures to point out to future times our incapacity to appreciate its importance.

To the city of New York, I regard the completion of the enlargement of the Erie canal as a question of great importance.—She has a deep interest in whatever tends to reduce the expense of interior transportation. She has already felt, in her accumulated millions, the effect of this canal as originally constructed. If I should undertake to estimate the benefits that have already flowed to the citizens of this state, in the advancement of their agriculture, manufactures and commerce, the amount would appear incredible. But the time has arrived when increased facilities are demanded for the accommodation of the increased and increasing trade. Great efforts are making to divert as much of this trade to other ports as is practicable. And while the citizens in the interior have a common interest with New York, in reducing the cost of transportation, and possess the means for doing so, is it consistent with an intelligent spirit of enterprise, and regard for the public interest, to fold our hands and remain idle?

Without questioning the policy that led to a suspension of the enlargement in 1842, there can be no question the canal finances are now in a condition that admits of a safe and sufficient system, gradual in its commencement, and looking to the completion of the enterprise at some eight years from this time, without increasing the state debt. There can be no reasonable doubt, the tolls at the end of six or eight years will amount to \$3,000,000 per annum. The new work put in complete operation, the expense of repairs would be reduced probably to between \$300,000 and \$400,000;—and a surplus, applicable to the debt of \$2,600,000 per annum, may be calculated upon at that time with confidence.

It has been urged that taxes had to be laid to support the canals, and the people will not submit to it. Few persons understand this process of financiering, which has thrown, undeserved discredit upon the state canals. By laws of the state, \$200,000 of canal tolls have been, and are, annually appropriated to the general fund; and the salt revenues, which have been created, and are sustained by the canals, amounting annually to about \$100,000, have the same direction. Now the process is simply to take a portion of the canal revenues, appropriate them to the general fund, and then make up a part of the deficiency to the canal revenues from taxes; which should simply have been paid over in the first instance, to the general fund, and the canals left with their own revenues.

It is said we must pay the canal debt, before further progress can be made in the completion of the work. By the recent report of the comptroller of the State, it appears the total canal debt is \$20,713,905; the annual interest, \$1,126,397, and that he has on hand applicable to this debt, \$2,691,225. This will reduce the debt to \$18,022,680, on which the annual interest will be about \$950,000. Add to this the annual cost of maintaining the canals, (which the last two years averaged \$424,000,) for the last year was \$464,334, and taking the whole sum of interest and repairs at the rate of last year, from the tolls of the last navigable year, \$2,446,375, and there is a balance of \$1,032,041; or, over \$1,000,000 of surplus revenue. This surplus some propose to appropriate, after deducting what is carried to the general fund, to the extinguishment of the canal debt; and this improvement, (after more than half the expenditure necessary to complete it on the expensive plan that has been pursued,) is to be suspended from 15 to 20 years, until this debt is paid! Is it reasonable that the present generation shall pay the whole of this debt, with the improvement so far advanced, but unfinished; and the trade from which this great surplus revenue is derived, be allowed to suffer from inconvenient and inadequate accommodation during this long term? Can it be that such a proposition will meet the approbation of the calm and practical good sense of an intelligent people?

If the measure was one of doubtful usefulness, and there was reasonable ground to apprehend it would bring a burden upon the people, we should pause until the questions of usefulness and finance were well settled. It is not to be doubted that inexpedient expenditures have been made; but they are past, and can only be useful as beacons to guide us in the future. There is no reason, however, that because some have failed that *that* which is proverbially good should be neglected. The agriculturist would not be deemed wise, who, having lost his crop of oats, should therefore neglect to cultivate his corn.

It must be borne in mind that the Erie canal not only bears the deficiencies of the unproductive laterals, but also an expendi-

ture on its own unfinished (consequently mainly unproductive) enlargement, and on unfinished laterals of together some \$15,000,000. It has proved itself capable of bearing all these, and has acquired under them so much vigor that it is now proposed to add to it the unpaying railroad debt of near \$4,000,000. This is not all; for it is already proposed, as it increases in strength, not to complete its unfinished work, but to add other expenses of government. Now, a work that is expected to bear such burdens, is certainly entitled, on the score of revenue, to have the best care that circumstances will permit. It would, however, be doing it injustice, to limit its usefulness, by the measure of its tolls. The benefits conferred on the general interest of the State, to agriculture, arts and commerce, and the general socializing influence produced by easy intercommunication, far exceed the value of its tolls.

In the present condition of the canal finances, there can be no difficulty in proceeding with the enlargement of the Erie canal, on a scale that will annually bring more or less into use, and thereby improve the present navigation; and in a few years the whole may be completed, when its enhanced revenues will rapidly extinguish the debt; the holders of which will think themselves paid too soon.

I am aware that some persons are of the opinion that it is better to neglect the Erie canal, and depend on railroads to provide for the increasing trade. When it is considered that, on the completion of the enlarged Erie canal, a barrel of flour may be carried, exclusive of tolls, from Buffalo to New York for 15 cents, it will hardly be contended that railroads, judging from general experience in general trade, would be able to compete, in heavy freight, with the canal. To add present canal tolls would raise the cost to about 43 cents. For the promiscuous trade of the country, a canal boat, loaded at the canal port, and proceeding *without change of cargo to this city*, the great mart for the interior, has peculiar advantages. But it is not necessary to discuss this subject, for the avenue under consideration is of sufficient importance to require both railroad and canal of large capacity to meet its varied, great and growing wants.

When it is considered that the annual tonnage of the Erie canal, that arrives at, and departs from tide water, is about equal to all the tonnage that enters and clears from the port of New York, I am persuaded my fellow citizens will agree with me, in regarding the enlargement of the canal, as a work in which she has a deep interest. It is indeed the great internal pillar in her commercial fabric. The interior of the State is no less interested than the city; it is a common interest, to economize the transit of property, and serve the general interest of trade.

If the ample accommodation that is within our reach, is given to this trade, we may reasonably expect, at no great lapse of time after the work shall have been completed, its enhanced magnitude will be such, as to ad-

mit a reduction of tolls on such articles as are now able to bear only a moderate participation in the general trade, and ultimately a general reduction, and still leave abundant revenues to provide for its debt, and furnish means for other objects. Thus the trade would not only have the benefit of great economy in transportation, but also a reduction of tolls, which could not fail to produce incalculable advantages.

The subject is regarded as one of great general interest, and commends itself to the dispassionate consideration of an intelligent community. It should be viewed as above all partisan questions of policy, and treated as a matter in which the mass of our citizens has a common interest.

If we do not forget the inestimable benefits conferred on our own and other States, by the original work, we shall not fail to perceive the importance of now completing its enlargement, required to afford adequate provision for its greatly accumulated and increasing trade.

It will be perceived that no measures are here proposed to increase the canal debt, or to impair the ability of the canal revenues, to meet punctually the interest on the canal debt, and expenditures for repairs. It is merely to appropriate the canal revenues to canal purposes, and after the interest on the debt, and expense of repairs are paid, the annual surplus to be appropriated to complete the enlargement of the Erie canal. And if it should be regarded as important to continue the present appropriation of \$200,000 from canal tolls to the general fund, there will still be left, on a calculation of tolls for the last navigable year, over \$800,000 per annum to proceed with the work of enlargement.

A single remark on the question of canals as compared with railroads. It is very often observed that one, or the other, is the best mode to effect cheap transportation. I consider, that this question depends on circumstances. In the transportation of passengers and light freight, and such as requires winter transportation, a railroad possesses decided advantages; while for heavy freight, a large promiscuous trade, and more or less connected with natural navigation, a canal may be highly beneficial, even with a successful railroad by its side. With such a canal as the Erie, already in operation, possessing within itself the means of completing its own enlargement, so as to render it one of the most perfect artificial navigations in the world, it certainly would be unwise to abandon it, for any superiority that has yet been demonstrated in railroad transportation—far better for all interested in cheap carriage to have both canal and railroad.

There are situations where a canal would be impracticable, and yet a railroad may be a highly successful improvement.

It is not for the public interest that these improvements should be compared by a partisan view; but that each should be considered with reference to its adaptation to the local circumstances and trade that is to be accommodated.

J. B. J.

#### MANUFACTURE OF IRON.

Most of our scientific readers are aware, that at the last annual meeting of the British Association for the advancement of Science, the council of that body granted £50 to Dr. Lion Playfair and Dr. Bunsen, of Marburg, for the purpose of enabling them to make certain experiments, with a view to discover the chemical theory of the manufacture of iron. For several months past, these two eminent chemists have been pursuing their interesting investigations separately, with what result the report of their labors will, no doubt, in due time, furnish ample information to the public. In order to compare notes with his colleague in this inquiry, and also for the purpose of visiting the iron districts of this country, Dr. Bunsen came to Manchester a few days ago, and is now on a visit to Staffordshire, accompanied by Dr. Playfair. Dr. Bunsen, who is professor of chemistry in the university of Marburg, has already attained no ordinary rank in the science to which he has devoted his talents: indeed, Berzelius speaks of him as one who will yet be named among the greatest chemists of Europe. Among many important discoveries attributed to him one of the most useful perhaps is that of an antidote for the poisonous effects of arsenic, which he found in the hydrated peroxide of iron, a simple preparation, and one which ought to have a place on the shelves of every druggist in the kingdom. In Germany, if we are rightly informed, every druggist and apothecary who sells the poison, is bound by law also to sell the antidote.—*Man. Guar.*

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,  
Reading, Pa.

**GEORGE VAIL & CO., SPEDWELL IRON** Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1½ in. to 2½ in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions.

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.  
 JOHN S. DARCY, Esq., President.  
 J. P. JACKSON, Esq., Secretary.

Capital, \$2,000,000.  
 ROBERT SCHUYLER, Esq., Vice President.  
 J. WORTHINGTON, Esq., Treasurer.

	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
Leave New York, foot of Courtland street.						
For Newark.....	9, 11, 12.....		2, 3, 4 3-4, 6, 7 1-2		9.....	4 3-4
" Elizabethtown.....	9, 11.....		2, 3, 4 3-4, 6.....			
" Rahway.....	9, 11.....		3, 4 3-4, 6.....			
" New Brunswick.....	9.....		3, 4 3-4.....			
Leave						
New Brunswick...	6, 7 1-2, 11 1-2.....		8 3-4.....		11 1-2	8 1-2
Rahway.....	6 3-4, 7, 8 1-4, 12.....		4 3-4, 9 1-4.....			
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12		3 1-2, 5.....			
Newark.....	7 1-2, 8 1-4, 9, 11.....		11 1-2, 4, 5 1-2, 7, 9 3-4		11 3-4	9 3-4

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

KITE'S PATENT SAFETY BEAM.

Messrs. Editors.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.  
 Wilmington, Del., Sept. 28, 1840.

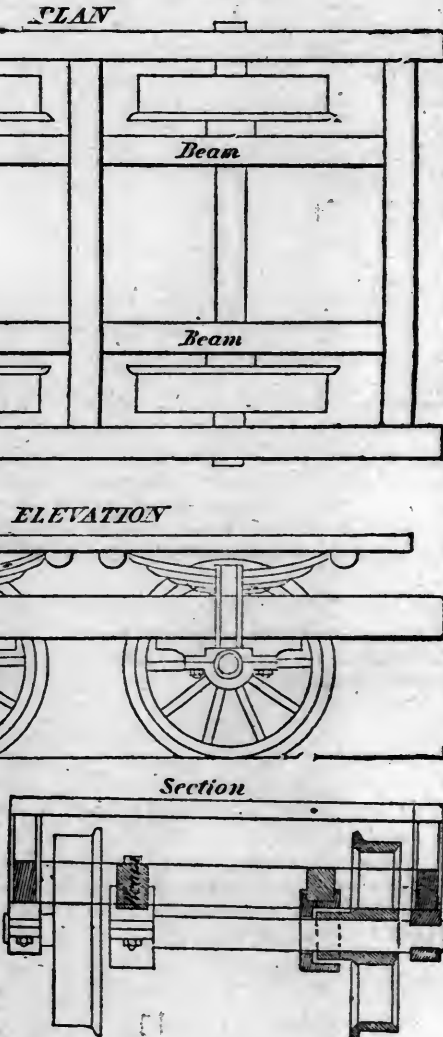
The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,

GEORGE CRAIG, Superintendent,

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railroads, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

REFERENCES.— Boston, Col. James F. Baldwin, Civil Engineer. Col. J. M. Fessenden, " " Wm. Parker, Esq., Engineer and Superintendent Boston and Worcester railroad. ja45

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN E. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co., Boston.

MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, PATTERSON, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work. Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory,—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent. Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS.	A. M.	P. M.	MILES.	FARE.
Boston	Portland		Eastern,	Daily,	7 $\frac{1}{2}$	2 $\frac{1}{2}$	106	\$3 00
Boston	Portsmouth		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	54	2 00
"	Newburyport		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	35	1 25
"	Salem		"	"	7 $\frac{1}{2}$ , 9, 11 $\frac{1}{2}$	2 $\frac{1}{2}$ , 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14	50
"	Portland		Boston and Maine,	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	109	3 00
Portland	Boston		"	"	7 $\frac{1}{2}$	3	109	3 00
Boston	Lowell		Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston		"	"	7 $\frac{1}{2}$ , 11	2, 4 $\frac{1}{2}$ , 5 $\frac{1}{2}$	26	75
Boston	Concord		Concord,	"		3 $\frac{1}{2}$	76	2 00
Concord	Boston		"	"		3 $\frac{1}{2}$	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11	5	41	.....
Nashua	Boston		"	"	6 $\frac{1}{2}$	1 $\frac{1}{2}$ , 5	41	.....
Boston	Worcester		Boston and Worcester,	"	7, 9	2 $\frac{1}{2}$	44	1 25
Worcester	Boston		"	"	7, 10	6	44	1 25
"	"		"	Sundays,	7			
Boston	Worcester		"	"		2		
Boston	New York via Norwich		"	Mon., Wed. & Fri.,		4		
"	" " L. Island railroad		"	Tues., Thur. & Sat.,	7			
"	" " New Haven		"	Daily,	9	2 $\frac{1}{2}$		
Albany	Boston		Western,	"	9	2 $\frac{1}{2}$	200	6 00
Springfield	Boston and Albany		"	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	200	6 00
Boston	New York via New Haven		"	"	7	3		
Charlestown	West Acton		Fitchburg,	"		2 $\frac{1}{2}$		
West Acton	Charlestown		"	"	8	1, 4 $\frac{1}{2}$		
Boston	New York, via Steamboat trains		Boston and Stonington,	Tues., Thur. & Sat.,	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	5		
"	" " " "		Boston and Newport,	Mon., Wed. & Fri.,		4 $\frac{1}{2}$		
Providence	Providence		"	Daily,	7 $\frac{1}{2}$	4	41	1 50
Taunton	Boston		"	"	8	On arrival of the	41	1 50
New Bedford	Boston		"	"	7 $\frac{1}{2}$	4		
Boston	Dedham		"	"	8 $\frac{1}{2}$	2 $\frac{1}{2}$		
Dedham	Boston		"	"	8 $\frac{1}{2}$	3, 6 $\frac{1}{2}$		
New York	Greenport		Long Island,	"	7, 10	5 $\frac{1}{2}$		
Brooklyn	Hicksville & intermediate places		"	"	7 $\frac{1}{2}$		95	2 25
Greenport	Hicksville, (Satur'dy to Suffolk)		"	Tues., Thur. & Sat.,	9 $\frac{1}{2}$		95	2 25
"	Brooklyn, (Boston train)		"	Daily,	9 $\frac{1}{2}$	4	26	56 $\frac{1}{2}$
Hicksville	" (accommodation do.)		"	Mon., Wed. & Fri.,		1	95	2 25
New York	& intermediate places.		"	Daily,	7	1 $\frac{1}{2}$	26	56 $\frac{1}{2}$
"	Albany & Boston via N. Haven		Steamer,	"	6 $\frac{1}{2}$			5 00
Middletown	Middletown		New York and Erie,	"	8, 3		53	.....
Philadelphia	New York		"	"	6 $\frac{1}{2}$	3 $\frac{1}{2}$	53	.....
Pottsville	Pottsville		Reading,	"	9		94	3 50
New York	Philadelphia		"	"	9		94	3 50
Newark	Newark		N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4 $\frac{1}{2}$ , 6, 7 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Newark	New York		[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 9, 11	1 $\frac{1}{2}$ , 4, 5 $\frac{1}{2}$ , 7, 9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
New York	Newark		[9 A. M. and 4 $\frac{1}{2}$ P. M., trains, connect with Somerville Railroad.]	Sundays,	11 $\frac{1}{2}$	4 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Elizabethtown	Elizabethtown		"	Daily,	9, 11	2, 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New York		N. J. railroad and trans. co.,	"	7, 7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 10 $\frac{1}{2}$ , 12	3 $\frac{1}{2}$ , 5	14 $\frac{1}{2}$	31 $\frac{1}{2}$
Rahway	Rahway		"	"	9, 11	3, 4 $\frac{1}{2}$ , 6	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New York		"	"	6 $\frac{1}{2}$ , 7, 8 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$ , 9 $\frac{1}{2}$	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New Brunswick	New Brunswick		"	"	9	3, 4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
"	"		"	Sundays,	6, 7 $\frac{1}{2}$ , 11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New York	New Brunswick		"	"	11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
Philadelphia	New York		Camden and Amboy,	Daily,	9	4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New York	Philadelphia		"	"	7		91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	5 $\frac{1}{2}$		91	3 00
Bristol	Philadelphia		"	"	9		30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"		4	30	75
Baltimore	Philadelphia		"	"	8		93	.....
"	Washington		Baltimore and Washington,	"	9	8	93	.....
Washington	Baltimore		"	"	9	5, 11 $\frac{1}{2}$	41	2 50
Baltimore	Cumberland and inter. places		Baltimore and Ohio,	"	6	5 $\frac{1}{2}$	41	2 50
"	Frederick		"	"	7 $\frac{1}{2}$			
Cumberland	Baltimore		"	"	8			
Hancock	"		"	"	10 $\frac{1}{2}$			
Martinsburg	"		"	"	11 $\frac{1}{2}$			
Harper's Ferry	"		"	"		12 $\frac{1}{2}$		
Frederick	"		"	"		2		
"	"		"	Sundays,	8			
Ellicott's Mills	"		"	Daily,	7 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$		
Richmond	Petersburg		Richmond and Petersburg,	"	10 $\frac{1}{2}$	1 $\frac{1}{2}$		
Petersburg	Richmond		"	"	5 $\frac{1}{2}$			
Albany	Schenectady		Mohawk and Hudson,	"	8	5 $\frac{1}{2}$		
Schenectady	Albany		"	"	9	3 $\frac{1}{2}$		
Albany	Saratoga		"	"	7 $\frac{1}{2}$	2		
Saratoga	Albany		"	"	7	12 $\frac{1}{2}$ , 5		
Troy	Saratoga		Troy and Saratoga,	"		3 $\frac{1}{2}$		
Saratoga	Troy		"	"	7 $\frac{1}{2}$			
Auburn	Rochester		Auburn and Rochester,	"	8 $\frac{1}{2}$			
Rochester	Auburn		"	"	8	3		
"	Buffalo		Rochester and Buffalo,	"		3		
Buffalo	Rochester		"	"				
"	Falls		Buffalo and Falls,	"	9			
Falls	Buffalo		"	"		1 $\frac{1}{2}$		
Buffalo	Albany		Albany and Buffalo	"	8 $\frac{1}{2}$			

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



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THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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### FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arrester, have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and O. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. McKee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliot, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\* \* \* The letters in the figures refer to the article given in the *Journal of June, 1844.* ja45

**A GOOD SECOND HAND LOCOMOTIVE.** Engine, 6 wheels, weighing with wood and water about 10 tons, with Tender complete, made by Baldwin, for sale by A. & G. RALSTON & CO. Mar. 20, 1m. 4 South Front St., Philadelphia.

**SPRING STEEL FOR LOCOMOTIVES.** Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent, ja53 Albany Iron and Nail Works, Troy, N. Y.

**TO RAILROAD COMPANIES AND MANUFACTURERS OF railroad Machinery.** The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE, N. E. cor. 12th and Market sts., Philad., Pa. ja45

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del.; Locomotive and other steam engines; Jack screws, Wrought iron work and Brass and Iron castings; of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY**  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS**  
etc. The Subscriber having made important improvements in the construction of rails, mode n guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN**, Civil Engineer,  
Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO IRON MANUFACTURERS.** THE SUBscribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

**A. & G. RALSTON & CO.**,  
ja45 No. 4 South Front St., Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**  
**WELDED WROUGHT IRON TUBES**  
From 4 inches to 1 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2000 lbs. per square inch, with Drop Cores, T. L., and other fixtures to suit, fitted together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER TUBES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Biluminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.  
**W. R. CASEY**, Civil Engineer.

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS**, 48 State st., or to **CURTIS, LEAVENS & CO.**, 106 State st., Boston, or to **A. & G. RALSTON & Co.**, Philadelphia. ja45

**NORRIS' LOCOMOTIVE WORKS**

BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches Diameter of Cylinder,	× 20 inches Stroke.
"	2,	14	" " × 24 " "
"	3,	14 1/2	" " × 20 " "
"	4,	12 1/2	" " × 20 " "
"	5,	11 1/2	" " × 20 " "
"	6,	10 1/2	" " × 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

RAILWAYS IN SCOTLAND.

We give from Herapath's Railway Journal the following "Report of the Railway Department of the Board of Trade, on the Schemes for extending railway communication in Scotland."

(Continued from page 303.)

The leading public objects which it appears to us to be important to keep in view, are,

1. The traffic of Glasgow (including the district of which it is the centre) with Liverpool, Manchester, London and the rest of England.

2. The traffic of Scotland, north of the Forth and Clyde, with same places.

3. The traffic of Edinburgh (and its district) with Liverpool, Manchester, and the west of England (the traffic with London and the east of England being assumed to be sufficiently provided for by the east coast line.)

4. The traffic of Edinburgh and the east of Scotland with Dumfries and the south-west.

5. The local accommodation of the southern counties of Scotland are already provided with railway communication by the Berwick line.

Assuming, for the sake of comparison, each system to be carried out completely, the advantages would appear to be divided.

For the first of the above objects, viz., the connection of Glasgow with England, the Caledonian system is preferable, as giving a shorter line by 23 miles.

In order to obtain this diminution of distance, the Caledonian line, however, has to pass the range of hills which runs across the south of Scotland at a higher level than the Dumfries line, and to attain the requisite elevation by gradients of great severity.— It becomes, necessary, therefore, to examine the nature of these gradients more in detail, in order to ascertain how far the advantages of the Caledonian, as a trunk line, in actual distance, may be neutralized by the character of its inclinations.

The principal ascent on the Caledonian line, is on the south side of the range. From Beattock to the summit of the Clyde pass, the ascent in 13 miles 77 chains is 760 feet, or at an average inclination of 1 in 97, which is surmounted by the following gradients:—

		Miles.	Chains.
1 in 200	for	4	5
1 " 100	"	1	70
1 " 80	"	2	40
1 " 75	"	5	42

On the rest of the line, the gradients, though in parts rather severe, are not of an extraordinary character, having nothing steeper than 1 in 100.

On the Dumfries line, the steepest gradient is 1 in 100; but at this inclination there is a continued plane of four miles; and for 16 miles together, in rising from Kilmarnock to the summit, the average inclination is 1 in 154. Upon both lines the curves are unexceptionable.

The question of gradients enters so materially into a comparison of these lines, that we think it right to subjoin the following passage from one of our previous reports, in which our views upon the subject are fully stated:—

"*Gradients.*—As the question of gradients and curves enters as an important element into the consideration of these and many other schemes, it may be well that we should here state the views by which we have been guided in forming a judgment.

"Discarding all merely theoretical considerations, we have approached the subject in a practical point of view, referring to the actual experience of existing railways as the sole test of what is admissible in regard to future ones.

"And first, in regard to gradients.

"The improvements that have taken place in the construction of the locomotive engine have greatly enlarged the standard of its capabilities. Not many years ago, any thing steeper than 1 in 200 was looked upon as a decidedly objectionable feature in a line, and enormous expense was incurred in avoiding gradients of steeper inclination.

"The difference of expense in construction between a line with first class gradients, as it was called, i. e., none steeper than 1 in 200, and one with second class gradients ranging up to 1 in 100, was frequently not less than £10,000, £20,000, or even £30,000 per mile. The London and Birmingham, Great Western, and Brighton lines, for instance; averaging above £50,000 per mile, while the Grand Junction and London and South Western did not exceed from £20,000 to £25,000. Experience has fully proved that no saving, either in time or economy of working, has been attained at all commensurate to this enormous additional outlay of capital. Indeed, in many cases, cheaply constructed lines have been worked at an equal or less expenditure for locomotive power, and at as high an average velocity as lines constructed at twice the expense.

"This is so universally admitted, that such gradients as were formerly thought objectionable are now adopted every day as a matter of course, and as the capabilities of the locomotive have been enlarged, gradients of a class which would have been considered a few years ago altogether impracticable, have come into general use.

"It is important to ascertain, by reference to actual practice, the results which have been already arrived at, and which must be taken as starting points to guide us in the consideration of any new scheme.

"The Lickey incline on the Birmingham and Gloucester railway is a conclusive proof that a gradient of 1 in 37½ for a length of 2 miles 3 chains; may be worked by the aid of an engine constructed for the purpose, without serious inconvenience to an extensive traffic. It is also a proof that such an incline may descend without danger by the force of gravity, regulated by the action of breaks.

"The Sutton incline, of 1 in 88, on the

Liverpool and Manchester railway, is surmounted by the ordinary trains of that railway, whose traffic is of a very heavy description, with a single locomotive engine.

"On the Newcastle and Carlisle line, an incline of 1 in 106 for 4 miles consecutively, is surmounted by the ordinary trains without difficulty or delay.

"The use of a stationary engine for ascending the incline on the Manchester and Leeds railway from the Victoria station, which is 1 in 59 for 1000 yards, and 1 in 49 for 640 yards, has been in a great measure discontinued, the ordinary engines being found capable of taking up its heavy passenger and goods trains of not less than 80 tons weight.

"On the Edinburgh and Glasgow railway, stationary power has likewise been discontinued, the locomotive engine being found a more efficient and economical substitute on the Glasgow incline of 1 in 42 for 1½ miles; and recently, the locomotive engine has been equally substituted for stationary power upon the inclined plane of the London and Birmingham railway, from the Euston-square terminus to Camden-town, parts of which are at 1 in 66 and 1 in 75.

"Many other facts of a similar nature might be quoted, but the above seem quite sufficient to establish the general proposition:—

"1. That gradients of from 1 in 50 to 1 in 100, are perfectly practicable to the ordinary locomotive engine, with moderate loads.

"2. That gradients up to 1 in 37½, or higher, may be surmounted by heavy trains, with the aid of an assistant engine of peculiar construction.

"The application of these facts requires much discrimination. Nothing can be more fallacious than a mere comparison of gradients upon two lines, without reference to their peculiar circumstances.

"In the first place, the distribution of the gradients is a fact often of much more importance than their absolute inclination.

"A line of an undulating character, with steep but short gradients, alternately rising and falling, may be often worked at as much advantage as one where the inclines although less steep, are of greater continuance. On the other hand, where the inclination of the line is concentrated upon one or two gradients of such length and severity that assistant power is required at any rate, it may be comparatively unimportant whether such gradients are a few feet in the mile more or less. In this way, lines which have gradients of 1 in 70, or 1 in 80, distributed over them in short lengths, may be positively better lines, i. e., more susceptible of cheap and expeditious working, than others which have nothing steeper than 1 in 100, or 1 in 120.

"Another important consideration with reference to gradients is the nature of the traffic. It may be conceded, that, although gradients of 1 in 50 or 1 in 100, may be perfectly surmountable by the locomotive engine, they involve a certain loss of power as compared to lines of less inclination.

"Where the traffic is of such a heavy nature, that the full, or nearly the full power of the locomotive engine is rendered available with the ordinary trains, any increase in the inclination must require extra power and extra expense—and, therefore, up to a certain point, increased original outlay in improving gradients may become productive of eventual economy; also, where high speed and great punctuality are very important, as upon a long line, forming a link in a very extended communication, good gradients, if attainable at any moderate outlay, may be very desirable. But in the ordinary circumstances of a line dependent not so much on a heavy through traffic, which can be concentrated upon a few trains a day, as upon a local traffic, requiring frequent and light trains stopping at numerous stations, it appears perfectly well established that, in a commercial point of view, it is unwise to enlarge, beyond a certain point, the original outlay for the sake of arriving at perfection in gradients. Such a small proportion only of the total cost of working is dependent, under such circumstances, upon gradients, that the interest upon any considerable additional outlay is far more than equivalent to any possible saving in working expenses. The interest upon the extra cost of construction, occasioned by a slight improvement in gradients, would often be sufficient to defray, not merely the additional, but the total cost of locomotive power upon the line of inferior gradients.

"Experience seems also to establish that, under these circumstances, i. e., of a large local traffic, with frequent trains, light loads and numerous stoppages, the traffic may be conducted not only with far greater economy to the company, but also without loss of speed or other inconvenience to the public. A remarkable instance of this is afforded by the working of the traffic between Oldham and Manchester, which has to pass over inclines of 1 in 59, 1 in 48, and 1 in 27 for two miles—the whole distance being seven miles, and the gradient for the remaining five miles 1 in 150. Ten trains are run each way, carrying, on the average, 1,200 passengers, and 300 tons of goods per day, at an average speed of 22 miles per hour. The working of the North Union, Newcastle and Carlisle, and other lines, also affords a proof that, with light trains, the effect of steep gradients on speed is very limited. The experience of the cases above quoted appears also sufficient to show that gradients ranging from 1 in 100 up to 1 in 50, or even a higher inclination, may be worked under ordinary circumstances with perfect safety."

To apply these views to the case before us: it is evident that the long ascent on the Caledonian line, of fourteen miles, at an average inclination of 1 in 97, cannot be considered as impracticable. It would, however, require in most cases the aid of an assistant engine, in order to ensure the passing of trains with tolerable speed and punctuality. This would involve some expense as compared with a line capable of being worked without such assistant power, and also some

loss of time, since the ascent, even with the aid of an assistant engine, could not be expected to be surmounted at the average speed upon a moderate gradient, nor could the whole time lost in the ascent be regained in descending on the other side.

The comparison, however, does not lie between this portion of the Caledonian railway and a line nearly level, for the Dumfries line has, as we have seen, an ascent of 16 miles, at an average inclination of 1 in 154, of which one plane of four miles is at 1 in 100.

It is probable that the use of assistant power would be required to enable trains to surmount it with tolerable speed and punctuality, and would equally involve some expense and loss of time, as compared with a level line.

On the whole, therefore, after a careful comparison of the gradients of the two lines, we do not think that, supposing passenger trains of the ordinary weight, drawn by powerful engines of the most improved construction, and assisted in each case up the long ascents by assistant engines, to run over them from end to end, the difference in the time of performing the journey would be so much affected by the gradients as to neutralize much of the advantage of the Caledonian line in respect of actual distance. Neither do we think that the difference in working expense would be so great as to induce the shorter line to charge the public a higher rate of mileage than would be charged upon the other line under ordinary circumstances. This being the case, we have to repeat our opinion, that, for the first of the objects above enumerated, viz., of supplying a trunk line of communication for Glasgow southwards, the Caledonian line is decidedly preferable.

For the second object, viz., the traffic of the north of Scotland with England, the Caledonian is still more decidedly superior. By its junction with the Scottish central line, at Castle Cary, it reduces the distance for all traffic from that point to Carlisle to 105½ miles, while, from the same point, the distance by way of Glasgow and Dumfries, would be 144 miles. This assumes, moreover, the railway communication to be completed by the construction of the Glasgow junction line, which is strongly opposed on the event of this line being rejected, the Dumfries line would fail in providing an unbroken railway communication for the north of Scotland, since the Clyde would intervene between the proposed railways."

For the third and fourth objects, viz., of affording a communication between Edinburgh and the west of England and south west of Scotland, the Caledonian is also superior. The distance by it from Edinburgh to Carlisle is 100 miles, while by the proposed Hawick line it would be about 97; but the latter is a much worse line in respect of curves and gradients, and is only proposed at present as a single line. In fact, the proposed line between Edinburgh and Hawick, for which alone plans and sections

are deposited, is not of a character which could be readily sanctioned as an important passenger line, when one of a better description is to be got.

As between Edinburgh and Dumfries, the Caledonian scheme affords a line of 84 miles, while the rival system would only afford a circuitous line by way of Glasgow of 141 miles in length, and depending for an unbroken communication on the construction of the Glasgow junction line, or a line very circuitous by Carlisle.

On the other hand, for the fifth object, viz., of local accommodation to the southern counties of Scotland, the Dumfries and Hawick scheme appears preferable to the Caledonian.

By the Dumfries line the county of Ayr is accommodated, which is entirely left out by the Caledonian scheme; Paisley and the county of Renfrew are about equally situated, in respect of distance, to England by the two schemes; but being placed in the through line of communication by the Dumfries line are, probably, on the whole better accommodated by it. Dumfries-shire, although much worse accommodated in respect of connection with Edinburgh, is more directly traversed by the Dumfries line, and gains in distance to England and Glasgow. It is, therefore, also, on the whole, probably interested in the success of that line, as also, to a slight extent, the adjoining counties of Kirkcudbright and Wigton.

The counties of Roxburgh and Selkirk including the manufacturing district of Hawick and Golshields, are decidedly interested in the success of the Hawick line, which alone proposes to afford them any accommodation.

On the one hand, the Caledonian line, for about 33 miles of its course from the fork, near Lanark, to Beattock, traverses a district singularly sterile and destitute of population; and, although the northern portion of the line will be of considerable local benefit to the important county of Lanark, and by opening up a rich coal field in the vicinity of Wilsontown, will be of great use in affording a supply of that article, and more especially of a particular description of it used in the making of gas; yet, considered as mere local lines for the accommodation of the southern counties, it appears to us that the Caledonian would be productive of less benefit than the two lines of the Dumfries and Hawick scheme.

We are, therefore, brought to consider whether the larger interests and greater amount of population are benefitted by the superior advantages of the Caledonian, or by those of the Dumfries and Hawick system. Trying it by this test, we find that—

	Population.
Ayr . . . . .	164,356
Roxburgh . . . . .	46,025
Selkirk, . . . . .	7,990

218,371

have a strong interest in the adoption of the Dumfries and Hawick in preference to the Caledonian scheme.



Also—

	Population.
Renfrew, . . . . .	155,072
Dumfries, . . . . .	72,832
Kirkeudbright, . . . . .	41,119
Wigton, . . . . .	39,195
	308,218

On the other hand—

Lanark, . . . . .	423,972
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and all Scotland north of the Forth and Clyde, (except, perhaps, Fife,) containing a population of 1,200,000, have a decided interest in the adoption of the Caledonian line.

Also, Edinburgh and the adjacent district, population about 250,000, have a decided, although not as strong an interest the same way, being already supplied by the east coast line.

We can have no hesitation, therefore, in arriving at the conclusion that, on the whole, a decided preponderance of advantage to Scotland is afforded by the Caledonian scheme in connection with the Scottish central, as giving better trunk communication for all the most important streams of traffic; and we have consequently to report our opinion, that it deserves, on public grounds, a preference over the competing scheme.

We are fortified in this opinion by the consideration, that the minor local benefits of the competing scheme will probably be attained by the gradual extension of branches in connection with other lines, although they may be now postponed in order to secure the best trunk line for the country at large; whereas, if an inferior trunk line be sanctioned for the sake of minor local advantages, it may not be so easy to obtain an improved one afterwards.

Having arrived at the conclusion that the Caledonian scheme is preferable, on public grounds, we have now to enquire how far this conclusion may be affected by considerations of expense, and whether the scheme is likely to sustain itself as a solvent commercial undertaking.

As compared with the rival scheme, we have seen that the Caledonian involves the construction of about 137 miles of new railway as against 178.

An examination of the different plans and sections will show that the Caledonian line is, on the whole, of a less difficult and expensive character than the Dumfries line; while the Hawick line would be still more expensive to construct, as a good double line for an important passenger traffic. The Glasgow junction, which is required to complete this system, would also be a very expensive work, being carried partly by a tunnel below the town of Glasgow, and partly by arches across the streets and the Clyde.

On the whole, therefore, the cost of construction of the Dumfries and Hawick system could not fail to be much higher than of the Caledonian; and it would require, including existing lines, about 240 miles of railway to be worked as against 170 by the Caledonian system, in order to accommodate the same principal streams of traffic.

Admitting, as we have, that the Dumfries and Hawick scheme would afford greater local accommodation to the southern counties, and therefore command greater local traffic, we are not of opinion that this additional local traffic could be at all sufficient to compensate for the additional cost of construction and working; and, therefore, we think that if any scheme for connecting Scotland with England, in addition to the line by the east coast, can support itself, the Caledonian is most likely to do so. Upon this point, we are aware that the commissioners who reported in 1841, on the best mode of effecting railway communications between England and Scotland, while giving a decided preference to the Caledonian route for national purposes, expressed a somewhat unfavorable opinion; and we think it very probable that, under the circumstances, and upon the evidence then before them, that opinion was a sound and judicious one. Considerable changes have, however, taken place since that period. A much greater degree of economy has been introduced in the construction of railways than the commissioners would have been warranted in assuming; the cost of working, also, has been considerably reduced; and, owing to the improvement of the locomotive engine, steep gradients have ceased to be regarded as such a formidable source of expense.—The continuation of the western line from Lancaster to Carlisle, and the support given by the western companies to the Caledonian line, also place that line on a much more secure footing than it held when considered by the commissioners.

The traffic tables, which have been prepared with much care, show an ample return on the estimated capital; and, although these estimates must always be, to a considerable extent, uncertain, especially where—as in the present case, they depend a good deal on speculative sources of income, such as the diversion of passengers and merchandise from steamboats and other existing modes of water communication; yet still, on the whole, having regard to the above circumstances, we see no sufficient reason why the Caledonian line, if constructed with due regard to economy, may not be able to support itself as a fair commercial undertaking; and certainly no such decided reasons to the contrary, as should induce us to recommend that the sanction of the legislature should be withheld from a line of so much national importance.

We directed our attention very particularly to the Edinburgh branch of the Caledonian scheme, with a view to ascertain whether it promised a sufficient return to be a support rather than a burden to the main undertaking; and also whether the construction of an unnecessary line might not be saved if this branch were made to join the existing Edinburgh and Glasgow line, instead of entering Edinburgh independently. It appeared to us, however, that owing to the difference of levels, this latter object could not be attained without great difficulty, while the advantages of the separate en-

trance into Edinburgh, and separate terminus there proposed by the Caledonian scheme were represented to be considerable; and as regards the branch generally, we were satisfied that it was likely to bring a large accession of traffic and to afford much public advantage, more especially from the supply of coals which it would furnish to all the towns and districts adjacent to the main line.

On the whole, therefore, we have arrived at the conclusion that the Caledonian scheme in its integrity appears to us, on public grounds, to be deserving of preference.

This, as we have already stated, appears to us to involve the rejection of the Glasgow, Dumfries, and Carlisle line, and also of any scheme from Edinburgh to Carlisle, proposed as a competing scheme, to the Caledonian. The Edinburgh and Hawick line, however, considered simply as a local line for the accommodation of the district, does not fall within this description. It will unquestionably afford considerable local advantage to the district traversed, including the towns of Hawick and Galashiels, which are the seats of a thriving woollen manufacture. The benefit conferred on all this district will be great, by lowering the price of coals, which are now carted at a heavy expense from the vicinity of Dalkeith, and by affording a communication with Edinburgh. If constructed cheaply, the traffic may be sufficient to afford a moderate remuneration to the North British Company, by whom it is undertaken, and of whose Dalkeith line it will be a feeder; and although this is a point which we should have wished to investigate more fully, if we could have commanded the requisite time and evidence, and to which we beg to direct the attention of the committee on the bill, we do not, as at present advised, see any sufficient reasons to the contrary to induce us to report an opinion adverse to the measure, upon public grounds.

There are some facts connected with the experience of existing railways in Scotland which would make us hesitate in concluding that railways, if constructed with economy, may not be supported even in localities where the existing traffic appears insufficient for that purpose.

Between Arbroath and Forfar there was no public conveyance previous to the formation of the railway; the population of these towns is only 8,707 and 9,620 respectively; there are only a few small intermediate villages, and the traffic in the direction of the line was quite inconsiderable. Now, there are 90,000 passengers, in the course of the year, conveyed by the railway, and its receipts average from £150 to £200 per week. The Dundee and Arbroath railway, likewise, has created a considerable traffic; and although only 17 miles in length, and, therefore, too short to be worked with advantage as an independent line, is in a prosperous condition, paying a dividend of from 5 to 6 per cent.

(For conclusion, see page 322.)

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.		Total sums, in pounds, authorized to be raised by loan or mortgage.		Total sums, in pounds, expended at dates of latest balance sheets.		Cost of working in pounds for six months as stated in latest balance sheets.		Total earnings, in pounds, for six months as stated in latest balance sheets.		Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
		£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	Per share.	Per cent. per annum.				
Arboath and Forfar.....	15	102,000		35,000		138,870						0 12 6 2 10 0	25	27	Aberdeen.....	1,600,000	
Birmingham and Gloucester.....	55	1,187,500		407,336		1,500,806		39,261	53,203	1 5 0 2 10 0	100	100	100	100	Barnsley Junction.....	200,000	
Branding Junction.....	23	161,700		365,470		481,452				4 10 0	50	54	50	54	Belfast and Ballymena.....	385,000	
Bristol and Gloucester.....	37½	400,000		211,000						nihil.	30	36	30	36	Blackburn and Accrington.....	400,000	
Chester and Birkenhead.....	14½	750,000		143,170		518,980		5,856	13,148	0 8 6 1 14 0	50	32	50	32	Birk. and Ches. Junction.....	1,000,000	
Dublin and Drogheda.....	31	450,000		150,000		500,869				nihil.	55	72	55	72	Bolt., Wigan and Liverpool.....	800,000	
Dublin and Kingston.....	6	200,000		152,200		359,000				6 0 0 6 0 0	100	166	100	166	Caledonian.....	1,800,000	
Dundee and Arbroath.....	16½	100,000		49,445		153,416		2,989	6,993	1 5 0 5 0 0	25	29	25	29	Cambridge and Lincoln.....	1,250,000	
Durham and Sunderland.....	18½	169,350		124,055		270,392		9,889	17,702	nihil.	34	29	34	29	Chatham and Portsmouth.....	5,000,000	
East County and North and East.....	86½	4,443,200		1,341,155		3,931,905		47,385	118,726	1 6 6	45	57	45	57	Chester and Wrexham.....	120,000	
Edinburg and Glasgow.....	46	1,125,000		375,000		1,649,523		29,429	55,866	2 6 4 10 0	50	57	50	57	Churnet valley.....	1,800,000	
Glasgow, Paisley and Ayr.....	51	937,500		1,066,951		12,446		12,446	36,736	2 6 4 10 0	50	60	50	60	Direct Northern to York.....	4,000,000	
Glasgow, Paisley and Greenock.....	22½	650,000		216,666		787,884		11,572	23,177	0 5 0 2 0 0	25	19	25	19	Dublin and Belfast.....	950,000	
Grand Junction.....	104	2,478,712		2,453,169		84,309		195,080	5 0 10 0 0	100	210	100	210	Dundee and Perth.....	250,000		
Great North of England.....	45	969,000		581,017		1,262,518		12,201	36,189	1 12 6 3 5 0	100	119	100	119	Edinburg and Northern.....	860,000	
Great Western.....	221½	4,650,000		3,679,343		7,272,539		132,235	369,904	3 10 0 7 0 0	75	138	75	138	Ely and Bedford.....	270,000	
Hartlepool.....	15½	438,000		155,540		719,205				8 0 0	100		100		Glasgow, Dum. & Carlisle.....	1,300,000	
Leicester and Swannington.....	16½	140,000		140,000		2,207		6,317	1 5 0 5 0 0	50		50		Gt. South and West Ext.....	1,200,000		
Liverpool and Manchester.....	32	1,209,000		497,750		1,739,835		57,239	117,559	5 0 10 0 0	100	203	100	203	Gt. Grimsby and Sheffield.....	600,000	
Llanely.....	27	200,000		44,000		221,624			1 0 0 2 0 0	87		87		Harwich and E. coun. Jun.....	160,000		
London and Birmingham.....	12½	6,874,976		1,928,845		6,393,468		92,823	405,768	10 0 0	100	218	100	218	Huddersfield & M. rl. & cl.....	61,000	
London and Blackwall.....	31	804,000		266,000		1,315,640		15,978	23,870		16	6	16	6	Kendal and Windermere.....	125,000	
London and Brighton.....	56	1,793,800		998,350		2,630,451		29,372	84,880	0 12 0 2 8 0	50	47	50	47	Leeds and Dewsbury.....	400,000	
London and Croyden.....	8½	550,000		229,000		761,885		7,583	10,545	0 5 0 2 10 0	14	17	14	17	Leeds and Thirsk.....	800,000	
London and Greenwich.....	31	759,383		233,300		1,040,930		15,193	28,933	nihil.	13	10	13	10	Liv. Ormskirk and Preston.....	600,000	
London and South Western.....	92½	2,222,100		630,100		2,596,291		68,457	150,469	1 12 6 6 10 0	41	73	41	73	London and Portsmouth.....	1,750,000	
Manchester and Birmingham.....	31	2,100,000		690,586		1,923,699		15,397	58,162	1 0 6 5 0 0	40	48	40	48	London and York.....	5,000,000	
Manchester and Bolton.....	10	778,100		197,730		773,743		8,555	21,140	2 0 2 4 10 0	93	110	93	110	Londonderry & Enniskillen.....	500,000	
Manchester and Leeds and Hull.....	81	2,937,500		1,943,932		3,921,593		46,653	156,761	7 1 10 1	60	88	60	88	Lynn and Ely.....	200,000	
Midland railway.....	178½	5,158,900		1,719,630		6,279,056		76,983	281,898		100	96	100	96	Manchester, Bury and Ross.....	300,000	
Newcastle and Carlisle.....	61	878,240		188,563		1,135,069		26,499	73,947	4 0 0 4 0 0	100	105	100	105	Manchester and Buxton.....	250,000	
Newcastle and Darlington.....	23	500,000				405,728				nihil.	21	49	21	49	Mullingar and Athlone.....		
Newcastle and North Shields.....	7	150,000		153,876		309,629		8,943	18,466	2 0 0	50	37	50	37	Newcastle and Berwick.....	700,000	
North Union.....	39	739,201		308,306		1,015,447		9,071	37,794	2 10 0 6 16 8	100	104	100	104	Richmond & W. End Junc.....		
Paris and Orleans.....	82	1,600,000		400,000		1,978,415				0 16 0	20	39	20	39	Scottish Central.....	700,000	
Paris and Rouen.....	84	1,440,000						31,247	91,171	8 0 0	20	38	20	38	Sheffield and Lincolnshire.....	650,000	
Preston and Wyre.....	19	830,000		179,852		355,161		4,191	7,066	nihil.	50	18	50	18	Shrewsbury and Gd. Junc.....	400,000	
Sheffield and Manchester.....	19	1,150,000		311,759		951,455		11,895	14,876		82	93	82	93	Shrew. Wolv. Dudley & B.....	900,000	
South Eastern.....	88	2,996,000		1,530,277		3,464,172		40,993	81,482	0 10 6 2 2 0	50	39	50	39	Trent Valley.....	900,000	
Taff Vale.....	30	465,000		154,785		590,006		8,509	18,414	0 0 6 5 0 0	100	55	100	55	West London Extension.....	64,000	
Ulster.....	25	519,150		20,000		348,626		5,401	13,856	0 15 0 5 1 8	29	37	29	37	West Yorkshire.....	1,000,000	
Yarmouth and Norwich.....	20½	187,500		62,500		230,250				nihil.	16	25	16	25	Whitehaven and Maryport.....	100,000	
York and N. Mid. and Leeds and Selby	28	1,062,500		167,500		676,644		27,132	55,752	2 10 0 10 0 0	50	100	50	100	FRENCH RAILWAYS.		

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15½	15½
Anti Dry Rot.....	10,000		18½		2	
Australian Trust Company	5,700	100	35		34½	
General Steam Navigation	20,000	15	14	10	27½	27
Gt Western Steam Pa.....			100		25	
Metropolitan Wood Pav.....	15,000	10	6	5	6½	
Patent Elastic Pav.....	10,000	1	1	5	11	
Peninsular and Oriental.....	11,493	50	50	7	64½	65
Ditto.....	3,200	50	40	7		
Polytechnic Institution				6		
Reversionary Int. Soc.....	5,300	100	100	4½	104	104
R. Mail Steam Packet.....	15,000	100	60		36½	37
South Western Steam.....	4,000	25	5			
Ship Owners' Towing.....	3,000	10	7½	10	15	
Thames Tunnel.....	4,000	50	50			
University College.....	1,500	100	100			

Canals.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Ashby de la Zouch.....	1,432	113	av.	4	70	70
Barnsley.....	720	100	100	14	180	180
Birmingham, 1-16 share	3,000	118½	79	10	150	160
Do. and Liverpool Junction	4,000	160	100		13½	13½
Coventry.....	500	100	100	20	365	365
Cromford.....	460	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	446	440
Forth and Clyde.....	1,297	400½	40½	4	440	440
Grand Junction.....	11,600	100	100	7	162	161½
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Renkley.....	5,000	do.	do.		8	8
Grantham.....	749	150	150	8	185	185
Lancaster.....	11,699	47½	47½	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	640
Leicester.....	545	14	140	9	139	139

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Loughborough.....	70	142½	142½	70	1140	
Monmouthshire.....	2,409	100	100	10	160	160
Melton Mowbray.....	250	100	100	10	117	117
Mersey and Irwell.....	500	100	100	10		
Macclesfield.....	3,000	100	100	2½	15	15
Neath.....	247	100	100	17	365	365
Oxford.....	1,786	100	100	30	505	
Regents or Loncon.....	21,418	33½	33½	2½	25	25
Shropshire.....	500	125	125	6	120	120
Somerset coal.....	800	150	150	7½	123	123
Stafford and Worcester.....	700	140	140	25	480	480
Shrewsbury.....	500	125	125	12	230	230
Stourbridge.....	300	145	145	14	360	360
Stroudwater.....	200	150	150	19		
Swansea.....	533	100	100	15	240	240
Severn & Why & Rail Av.	3,762	26½	26½	5½	30	30
Trent and Mersey.....	2,600	50	50	65	495	
Thames and Medway.....	8,149	19½	19½		10	10
Warwick and Birmingham.....	1,000	100	100	10½	167	
Warwick and Napton.....	98	100	100	8½	122	

Water Works.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Birmingham.....	4,800	25	25	3½	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7½	88	90
New River L. B. Ann.....	1,500			2½		
Manchester and Salford.....	6,486	av.	30	8½	57	



AMERICAN RAILROADS.													SALES.	
RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	Week ending April 30.	Price.
						Gross.	Nett.		Gross.	Nett.				
Me. 1. Portland, Saco and Portsmouth.	50	1,200,000				89,997	47,166	7	124,497	74,841	6	113½	102	
N. H. 2. Concord.	35	750,000									12	70½	139½	
Mass. 3. Boston and Maine.	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	110½	112½	
" 4. Boston and Maine extension.	17 1-4	455,703	unfin.											
" 5. Boston and Lowell.	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120½	120	
" 6. Boston and Providence.	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	108½	109½	
" 7. Boston and Worcester.	44	2,914,078				40,141	162,000	6	128,437	195,163	7½	116½	117½	
" 8. Berkshire.	21	250,000	not stated				17,500	7	17,737					
" 9. Charlestown branch.		280,260						13	34,654	13,971	5½	70½	82½	
" 10. Eastern.	54	2,388,631				279,563	140,595	6	337,238	227,920	8	109½	109	
" 11. Fitchburg.	50	1,150,000	just op'd						42,759	26,835		120	124	
" 12. Nashua and Lowell.	14 1-2	380,000				84,079		8	94,588	34,944	10	121	126½	
" 13. New Bedford and Taunton.	20	439,962				50,671	24,000	6	64,998	24,000	6			
" 14. Northampton and Springfield.		179,883	unfin.											
" 15. Norwich and Worcester.	59	2,170,366	900,000	16,535	109	162,336	24,871		230,674	99,464	3	70½	72	
" 16. Old Colony.		87,820	unfin.									102	104	
" 17. Stoughton branch.	4	63,075	unfin.											
" 18. Taunton branch.	11	250,000					20,000	8	96,687	20,000	8	118		
" 19. Vermont and Massachusetts.														
" 20. West Stockbridge.	3	41,516	209		100						4			
" 21. Western, (117 miles in Mass.).	156	7,686,202	4,686,202	30,000		573,882	284,433		753,753	139,679	3	102½	101½	
" 22. Worcester branch to Milbury.		8,431	506											
" 23. Housatonic, (10 months).	74	1,244,123							150,000			82		
Con 24. Hartford and New Haven.	58	1,100,000	100,000	10,000	100						6	89	94½	
" 25. Hartford and Springfield.	25 1-2	600,000	400,000	2,000	100									
" 26. Stoughton, (year ending 1st Sept.).	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		41	39½	
N. Y. 27. Utica and Buffalo.	31	336,211				45,896	7,522		73,218	48,032	0			
" 28. Auburn and Rochester.	78	1,796,342	209,000	14,000	100	189,693	112,000		237,667	152,007	6	106		
" 29. Auburn and Syracuse.	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
" 30. Buffalo and Niagara.	22	200,000		1,500								100		
" 31. Erie, (416 miles).		5,000,000										31½	29	
" 32. Erie, opened.	53						48,000		126,020	59,075				
" 33. Harlem.	26	1,206,231							140,685	62,309		70	72	
" 34. Hudson and Berkshire.	31	575,613			50				35,029	1,990	0	14		
" 35. Long Island.	96	1,610,221	392,310	29,816					153,456	58,766	0	75½	76	
" 36. Mohawk and Hudson.	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,300	0	64½	61	
" 37. Saratoga and Schenectady.	22	303,658				42,242	3,000	1	34,666	8,455	0			
" 38. Schenectady and Troy.	20 1-2	640,800				28,043			32,616	6,365	0			
" 39. Syracuse and Utica.	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	115		
" 40. Tonawanda.	43	727,332				76,227			114,177	75,865	5			
" 41. Troy and Greenbush.	6	180,000												
" 42. Troy and Saratoga.	25	475,801				44,325	21,000		38,502	9,971	2½			
" 43. Utica and Schenectady.	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	129		
N. J. 14. Camden and Amboy.	61	3,200,000				682,832	383,880		784,191	404,956		110½	111	
" 15. Elizabethtown and Somerville.	26													
" 16. New Jersey.	34	500,000										93½		
" 17. Paterson.	16	2,000,000									6	85		
Pa. 18. Beaver Meadow.	26	500,000												
" 49. Cumberland Valley.	46	1,000,000												
" 50. Harrisburg and Lancaster.	36	1,250,000										30		
" 51. Hazleton branch.	10	860,000												
" 52. Little Schuylkill.	29	120,000												
" 53. Blossburg and Corning.	49	900,000												
" 54. Mauch Chunk.	9	600,000												
" 55. Minehill and Schuylkill Haven.	18	100,000										143½		
" 56. Norristown.	20	315,000										6½	7	
" 57. Philadelphia and Trenton.	30	800,000										104		
" 58. Pottsville and Danville.	29 1-2	400,000												
" 59. Reading.	94	1,500,000	7,447,570	40,200	50				507,613	343,511		50½	49	
" 60. Schuylkill valley.	10	9,457,570												
" 61. Williamsport and Elmira.	25	1,000,000				20,000								
" 62. Philadelphia and Baltimore.	93	400,000				43,043	200,000			210,000		43½	42	
Del. 63. Frenchtown.	16	1,400,000												
Md. 64. Baltimore and Ohio, (1st Oct.).	183	600,000				575,235	279,402		58,620	346,946		48½	50½	
" 65. Baltimore and Susquehanna.	58	7,623,600										5	6	
" 66. Baltimore and Washington.	33	3,000,000				177,227	71,691		212,129	104,529		84		
Va. 67. Greenville and Roanoke.	17 1-2	1,800,000												
" 68. Petersburg and Roanoke.	60	260,000							122,871	72,896	3			
" 69. Portsmouth and Roanoke.	78 1-2	969,880												
" 70. Richmond and Fredericksburg.	61 1-2	850,000												
" 71. Richmond and Petersburg.	22 1-2	1,200,000												
" 72. Winchester and Potomac.	32	700,000												
N. C. 73. Raleigh and Gaston.	84 1-2	500,000												
" 74. Wilmington and Raleigh.	161	1,360,000												
S. C. 75. South Carolina.	136	1,800,000												
" 76. Columbia.	66			34,410	75	201,464	77,456		532,871	140,196	5			
Ga. 77. Central.	190	5,671,452				227,532	93,190		328,425	180,704				
" 78. Georgia.	147 1-2	2,581,723				248,026	158,207		248,096	147,523				
" 79. Montgomery and West Point.	89	2,650,000	170,000		100				35,000	15,000				
Ky. 80. Lexington and Ohio.	40	500,000												
Ohio 81. Little Miami.	40	450,000												
" 82. Mad river.	40	400,000												
Ind. 83. Madison and Indianapolis.	56	152,000												
Can. 84. Champlain and St. Lawrence.	15	212,000					12,000		58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Thursday, May 22, 1845.

NEW YORK AND ERIE RAILROAD.

We congratulate the people of this city, the southern tier of counties, the "great west" and the company, upon the result of the legislative proceedings in relation to this important work. Although the legislature has but partially done its duty towards the people of the southern part of the State, in its legislation in relation to the New York and Erie railroad, yet they have done something; and now, if the people of this city, and along the line of the road, will but do their duty, and subscribe promptly the three millions of dollars required to secure the benefit of the recent legislation, we may, in a few years, enjoy all the benefits resulting to a city like this from an easy, cheap, rapid and uninterrupted communication with the interior.

It is to be hoped and presumed that the company will adopt energetic measures to obtain an early subscription to the stock of the company, and then to resume active operations on the work.

We have not yet received a copy of the law, which, we understand, relinquishes, on certain conditions, the lien of the State for its former loans, and cannot therefore speak understandingly in relation to it; especially as no two of the newspapers that we have seen agree in their notices of it; we believe, however, that the principal features are to relinquish the State lien for three millions, when the company shall have obtained subscriptions to an equal amount and have paid in and expended \$750,000 on the work; and that when the \$3,000,000 subscription shall have been paid up and expended on the work, then the company may issue their bonds for an equal amount, which shall be sold by the comptroller, and also expended upon the work. These bonds to be secured by the entire work, upon which over ten millions of dollars will have been expended, and the interest upon them to be paid to the comptroller. It also provides, we understand, that the present holders of old stock shall exchange it two shares for one.

The law is not what it should have been, yet it will ensure the completion of the road, and the rapid prosperity of this city, and the region through which it will pass, if the managers will set diligently to work, adopt judicious measures, and carry them rigidly into operation.

They will of course, we presume, concentrate their forces on the eastern portion of the line, and bring short sections successively into use, and thus make every mile as completed contribute its share of business to the whole line in use.

It has also occurred to us that they might with propriety unite with the New York and Albany company

and build a road in common from this city, through the 8th avenue, and Westchester county, to a point where they must diverge from the line of the Albany road to connect at Piermont by a ferry. In this way these two lines from this city may be mutually beneficial to each other, and to the people. Let the people now come to the work with a will, and a determination to complete both roads in the shortest possible time, and they may rest assured that the real estate of this city will increase in value to an amount greater than it would otherwise do, more than the entire cost of both roads.

WESTERN RAILWAY AND THE READING.

A late visit to the depot of the Western road at East Albany, has presented an important fact in railway information, to wit, that iron in pigs, blooms and rolled, is transported by contract (to take it at the pleasure and convenience of the railroad company) at rates that are less than by the river, and coasting craft, taking insurance into calculation. This conforms to information in a letter by the last steamer, "that railways in England are everywhere depriving the canals of a great part of their business, and even much of the coasting trade. It is understood the contract price is something less than two cents per ton per mile from Albany to Boston. Even two cents per ton per mile, taking into consideration the heavy grades of 83 feet to the mile over the Western railroad, limits the capacity of action to 80 tons the working, and to 100 tons the maximum load, with Winans' best 22 ton engines, and is a rate much lower in proportion than is charged for coal transported over the Reading railway, 1 1/2 cent per ton per mile: such, however, is the favorable location, and construction of this road, being on a level or descending line from the coal mines to the Schuylkill, that the regular working load is 500 tons each train with either Norris' or Baldwin & Whitney's engines of 16 to 18 tons. The latter class of locomotives have drawn 156 iron cars, containing 769 tons of 2240 each. The rate of transportation on the Reading railroad, therefore, is high, compared with the Western railroad of Massachusetts. These low rates, however, must not be the guide for charges on all other railways. Much depends on the quantity and the nature of the trade, with the class of gradients going to and from the seaboard. In the case of the Western railway, we presume the ascent to the summit, from tide water at Albany to Boston, is from twenty-five to thirty-three per cent. more favorable than from the Connecticut river west. There is no difficulty in the locomotive on the Reading railway taking up the ascending grades of 19 feet to the mile, all the empty cars, and all the freight required for the interior. This gives it superior advantages to any railway in the United States, and we mistake much, if this road, under eastern management, does not pay a greater dividend than any railway in the United States. We perceive that the Schuylkill canal, by its side, is in the course of "enlargement," a doubtful policy—taking into view the cost of the same—by our experience, to secure cheap transportation. In the latitude of Pennsylvania, a canal, compared with a railway, loses one year in three; in this State it is nearly one in two. This is a great item to take into consideration, where a steady coal trade, like that from the Schuylkill valley, is to be contended for. The railroad giving constant employment to the mines, while the canal, as observed, would cause them to lose about one year in three.

An important fact is stated by the last steamer; "all the late charters for railways granted by parliament, are accepted with avidity when they limit the

charge for transportation to three-fourths of a penny sterling," or 1 1/2 cent per ton per mile.

A great change is gradually taking place in public opinion in this country and in England, in favor of railways. The Western railway of Massachusetts has done much to establish the "productiveness of a good railway "between desirable points;" and the next year's business in the coal trade over the Reading railroad, of say from 800,000 tons this year and 1,000,000 of tons calculated to be transported the next year, will satisfy the most skeptical of the superiority of the Reading railroad for cheap transportation over any canal that can be built. This must be self evident to any one who will examine the subject without prejudice in favor of canals, and with candor. J. E. B.

ERIE CANAL ENLARGEMENT.

We republished, in our last number, from Hunt's Merchants' Magazine, an exceedingly interesting article in relation to our New York canals, and especially to the enlargement of the Erie canal, from the pen of JOHN B. JERVIS, Esq., civil engineer; and accidentally omitted to give the proper credit, or to acknowledge the source from whence it came.

We would not, intentionally, rob our neighbor HUNT of his valuable wares, even though he could, from his abundance, afford to spare us occasionally a portion, and still be overstocked with good things, not even though the article belonged more appropriately to our Journal, but by some mistake, perhaps, in consequence of the "switch" being out of place, it got on the wrong track. We have however done our best to place it on the right track again, and will merely say to the writer that our columns have always been, and still are open to him; and that we shall be careful hereafter to keep the switch in watchful hands, and use it too, if need be, on the resumption of measures which ought not to have been undertaken.

THE COAL TRADE.—SCHUYLKILL VALLEY.

Sent by railroad from Pottsville and Port	
Carbon—total tons.....	60,131-09
From Schuylkill Haven—total tons.....	105,517-08
From Port Clinton.....	520-18
Total.....	166,169-06

BY CANAL.

From Pottsville and Port Carbon—total.	
From Schuylkill Haven—total.....	21,044-11
From Port Clinton—total.....	5,152-14
From Port Clinton—total.....	9,251-05
Total.....	9,251-05
Total by canal.....	45,448-13
Total by railroad.....	166,169-06

Total by railroad and canal..... 211,617-19

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.	
Summit mines,.....	21463
Room run do.,.....	7043—31506
Beaver Meadow railroad and coal co.,.....	10064
From Penn Haven—Hazleton coal co.,.....	9061
From Rock Port—Buck Mountain coal co.,.....	2869
Total.....	53,500

PINE GROVE COAL TRADE.—On Union canal railroad from 16 to 30th April—total tons..... 6546  
 On Swatara railroad—total tons..... 2959

WYOMING COAL TRADE—total..... 8048

WILKESBARRE COAL TRADE—total..... 11152

MINEHILL AND SCHUYLKILL HAVEN RAILROAD.—total tons..... 109,928-12

MOUNT CARBON RAILROAD—total tons.. 63,983

## RAILWAY SYSTEM IN SCOTLAND.

We commenced the publication in our last, and complete in the present number, the able and interesting report of the railway branch of the board of trade, to the railway committee of the house of commons, upon the numerous applications for new railways, and branches to, or extensions of, railways now in use in Scotland. It speaks of some matters in which most of our readers have but little interest, and occupies more space than we could well afford to it, and do justice to other calls upon the Journal; yet we give it entire, and ask for it an attentive perusal, as it gives many important facts, and much useful information, which should be in the possession of the people of this country, who, more than any other people on earth, require the facilities of railroads for the transaction of their business.

The board of trade say that, with the exception of the eastern line from London to Edinburgh, the railway question for Scotland is yet an open one—therefore it is of the utmost importance that, in commencing a system which is likely to pervade the whole country, care should be taken, in locating the main or trunk lines, that the great through or main business shall pass over the shortest and most favorable route, and which may, at the same time, be accessible by lateral or branch roads for the principal cities and manufacturing towns in every direction.

The board appear to appreciate the value of an unbroken communication when passing through large towns or cities. Of so much importance, indeed, do they esteem this point, that they recommend leaving *Dunfermline* entirely out of the main line, and the construction of a branch road of 20½ miles, at a cost of £200,000, mainly on account of the difficulty of passing through that town which is confined between a high hill on one side, and the river on the other. Possibly some of the members have had experience in being "cabbed," or "hacked," or "carted," from one railroad to another, in some of our cities, and are thus able to estimate fully the pleasure and profit of such excursions, and would therefore prevent others from participating in them.

It will be seen, on reading this report, that grades of 1 in 80, 1 in 50, and even 1 in 38 are spoken of as not being serious obstacles to a heavy business on good roads, with locomotive power. They say that, "not many years ago anything steeper than 1 in 200 was looked upon as a decidedly objectionable feature in a line;" and that "the difference of expense in construction, between a line with first class gradients, i.e. none steeper

than 1 in 200, or second class, ranging up to 1 in 100, was frequently not less than £10,000, £20,000, or even £30,000 per mile! Whereas now it is found that locomotives may be constructed which will work successfully on grades of 60, or 100, or even 140 feet to the mile, as on the Lickey incline, on the Birmingham and Gloucester railway, which is 1 in 37½, or 142 feet to the mile, for two miles and three chains, which is worked by an engine constructed for the purpose without serious inconvenience to an extensive traffic." They say also that there "passes over the road between Oldham and Manchester, which has grades of 1 in 59, 1 in 48 and 1 in 27 for two miles, and 1 in 150 for the whole remaining distance of five miles, ten trains, each way, carrying on an average 1,200 passengers and 300 tons of goods per day at an average speed of 22 miles per hour;" and that the working of the North Union, Newcastle and Carlisle, and other lines, also affords proof that, with light trains, the effect of steep gradients, ranging from 1 in 100 to 1 in 50, or even higher inclination, may be worked under ordinary circumstances with perfect safety. The distribution of gradients is deemed quite an important matter, even more so, sometimes, than their absolute inclination. They say that a line of undulating character, with steep but short gradients, alternately rising and falling, may oftentimes be worked at as much advantage as one where the inclines, though less steep, are of greater continuance; and then on the other hand, where the inclination of the line is concentrated on one or two gradients of such length and severity that assistant power is required at any rate, it may be comparatively unimportant whether such gradients be a few feet more or less in the mile. In this way lines with gradients of 1 in 70 or 1 in 80 distributed over them in short lengths may be positively better lines, i.e. more susceptible of cheap and expeditious working, than others which have nothing steeper than 1 in 100 or 1 in 200. These views have been years ago often advanced by an able correspondent of this Journal, though they then met with less favor than longer experience seems to have accorded them. So with other opinions advanced in the Journal, at the time deemed visionary.

## STEAMBOAT ARRANGEMENT ON LAKE ONTARIO.

We learn from the Oswego Whig, that the summer arrangements for travel and business on Lake Ontario have been completed, and that a daily line of steamboats will ply during the season between Ogdens-

burg and Lewiston, stopping at intermediate places, as follows:—

The boats forming the line are the Lady of the Lake, Capt. J. J. Taylor; the St. Lawrence, Capt. J. Van Cleve; the Rochester, Capt. N. H. Throop, and the new steamer Niagara, Capt. R. F. Child. Going downwards, a boat will leave Lewiston every day, (Sundays excepted,) at 3 o'clock, P. M.; Rochester at 10, P. M.; Oswego at 8, A. M.; Sacket's Harbor at 12, M., and Kingston at 4, P. M., arriving at Ogdensburgh in time for the daily boats for Montreal, which run in connection with this line. On the upward trip, a boat will leave Ogdensburgh every day, (Sundays excepted,) at 8 o'clock, A. M.; Kingston 5, P. M.; Sacket's Harbor 9, P. M.; Oswego 9, A. M., and Rochester at 6, P. M., and arrive at Lewiston at 4 o'clock, A. M., in time for the cars for Niagara Falls and Buffalo, and in time for the steamers leaving Buffalo at 9, A. M. A boat also leaves Lewiston for Toronto and Hamilton, immediately on the arrival of one of this line at Lewiston.—These boats also run in connection with the packet boats plying twice a day between Syracuse and Oswego, forming the pleasantest and cheapest route between Syracuse and lake Erie. The difference between the railroad and the lake route is stated thus:—

Railroad fare from Syracuse to Niagara Falls, (200 miles.)	\$7 00
Board on the way,	1 00
Supper, breakfast, &c., at Buffalo	1 50

\$9 50

Fare from Syracuse by the lake route to Niagara including board, &c (196 miles,)	\$5 50
Difference in favor of the lake route,	\$4 00

The packet boats running between Oswego and Syracuse are new, commodious, and elegantly fitted up and furnished, and under the charge of capable and attentive captains, already well and extensively known. The steamers forming the line are of the first class, unsurpassed for speed, safety, and elegance of accommodation on the lakes. They are under charge of experienced, skilful, and well-tried commanders, attentive to their duties, and regardful of the safety and the comfort of passengers.

The grand and attractive scenery of the lake Ontario route, combined with its cheapness and opportunity for rest and comfort, afford to passengers going east and west a welcome and delightful change from the monotony of a railroad ride of 365 miles.

## RAILROADS.

Hon. William Jackson recently made an interesting speech, at a meeting of the friends of a railroad from Worcester to Providence. Mr. Jackson has long been familiar with railroads, in the capacity of stockholder and director, and few men are more competent to enlighten the public upon the subject of railroads. His speech abounds with interesting facts and illustrations. He illustrated the facility and cheapness of railroad transportation as follows:—

"Every morning in the year except Sunday you may see an engine with a train of cars containing about 100 tons of merchandise, passing from Albany over the Berkshire mountains at the rate of 10 or 12 miles an hour, or 100 miles per day; stops included. One of your horses might carry 1200 lbs. over those mountains 25 miles per day. Divide the load of this engine by 1200 and you have the requisite number of horses for 25 miles in a day, say 167; and four times this number, or 668, could carry this load 100 miles in a day—and hence the iron horse is every day, fair or foul, doing the work of 668 of your horses. And he does the work with the aid of only four men;—yours, with four-horse teams, would require 167 men. The interest on the cost of such an engine, amount expended for its repairs, wages of the four men, with wood and oil, show the annual expense of maintaining this team to be about \$11,000. Similar items in relation to your teams will show an annual aggregate expense of about \$120,000."

With such facts before the mind, it is no matter of surprise that railroad transportation is cheap. Coal is transported 90 miles over the Reading, Pa., railroad, at a cost of 45 cents per ton, and it is expected that the expense will be reduced to 37 cents.

In regard to the estimates of passengers which will pass over a contemplated road, Mr. Jackson gives a good many interesting facts, showing that the actual always exceeds the estimated number of passengers. The estimated number of passengers between Boston and Lowell, before the Lowell road was built, was 37,440. The actual average number between those two cities alone, for the last six years, without including those brought to the Lowell road by other roads, has been over 100,000. The estimate for the Worcester road was 23,500. Before the opening of the Western and Norwich roads the number reached 78,000.—The original estimate of the eastern road was 121,700. The number now exceeds 500,000. The estimate for the Fitchburg was 71,791. The first half year of running about half the road, nearly 10,000 more passengers were carried than were estimated for the whole road a whole year.

The increase of passengers on all our railroads, said Mr. Jackson, has surprised every body, and yet there is no necromancy or mystery about it to any one who has been in a position where all the elements which are working to produce this result are in sight. His own experience and example, he observed, would perhaps afford as good an illustration as any other. He was seven and a half miles from Boston, and carried on a manufacturing business of the same kind and about a similar extent for twenty years.—Before there was a railroad, he went to the city once a week with a horse and chaise, and spent a day about it. Instead of an hour's hard work for himself and horse, he now went in twenty-two minutes—could stay half an hour, one hour, or more, and return when ready, without the loss of five minutes. Hence, he now went every day,

and sometimes twice a day. The same is the case with multitudes.

Mr. Jackson presented another fact, which is the most important to the capitalist, viz., the value of railroad stock as an investment. All northern railroads pay good dividends, but the Stonington, Norwich and Housatonic. In reference to two of these roads, Mr. J. remarks, that they "are competitors for the same business. Either, without the other, would be good property; together, they afford a practical illustration of the folly of two charters for the same business, with a view of cheapening transportation, by the encouragement of competition between two railroads. If they act as competitors, they destroy each other. By a division of the proceeds, as is now the case between these roads, they are only doomed to half pay, and the public to high charges forever, which a single road, doing all the business, could afford to reduce greatly." All southern roads are also poor property, as none pass through territory sufficiently populous to support them.

The length, cost, and market value of the New England railroads, which stand well at the stock board, are presented in a tabular form, as follows:—

	Length, miles.	Capital.	Dividend, per ct.	Price, for 100 pd in.
Portland,	50	1,200,000	6	101
Concord,	35	750,000	12	141
Maine,	56	1,300,000	6	111
Bost. & Prov.,	42	1,900,000	6	110
Bost. & Wor.,	44	2,900,000	7	118
Eastern,	54	2,400,000	6	110
Fitchburg,	49	1,000,000	—	122
Nashua & Lowell,	15	380,000	8	125
New Bedford,	21	420,000	6	102
Taunton,	11	250,000	8	117
Western,	156	8,090,000	6	104

Total capital, \$20,000,000  
Average dividend, 7½

Another important fact was stated. The increase in the amount of the valuation in Boston, for eleven years preceding the opening of railroads, was 25½ millions of dollars; for the eleven subsequent years, it was more than 41½ millions—and this, too, in spite of two severe pecuniary revulsions in the latter period. Mr. Jackson said it was the opinion of many shrewd men in Boston, that the gain of property in the city, attributable solely to the instrumentality of railroads, amounts to more than the entire cost of these roads.

We copy the above from the Hampshire Gazette, for the purpose of saying that we fully concur in the above opinions, and have not a doubt of their entire accuracy. We have often said, and now repeat, that the city of New York would, in ten years, be the gainer by building the New York and Erie, and the New York and Albany railroads, by a tax upon its real estate, even if it never received a dollar in the way of dividends; but if properly constructed and managed, they would, in addition to the enhanced value which they would give to property, yield from \$1,000,000 to \$2,000,000 net revenue within ten years after their completion,

and thus pay all necessary taxes of our city government.

IMPROVED RAILROAD CARS.

We have had occasion more than once to speak in terms of commendation of the Iron Truck Frame and superior passenger cars, built by Messrs. Davenport & Bridges, of Cambridgeport, near Boston, now in use on several of our principal railroads—and especially on the Long Island road. An easy, spacious and well ventilated car is of much greater importance to the success of a railroad than the companies seem to imagine. Who that has once rode in such a car would not willingly pay an extra price rather than to be confined in a "box," as is the case on some railroads, where they are endeavoring to "wear out their old cars" before they avail themselves of the improvements of the age.

We give in another page, a description, with engravings, of the "improved iron truck frame," above alluded to, and shall give in our next, and succeeding numbers, different views of the cars made by Messrs. D. & B., both external and internal, and also of their improved freight car; in the hope that they may be more generally used—especially on long lines.

THE IRON TRADE.

We have received by the steamer Britannia the English Railway and Mining Journals to 3d inst. We find in the Mining Journal of April 19th, the following remarks upon the Iron trade, viz:—

"Although the ironmasters at Wolverhampton, and the preceding quarterly meetings, had evinced such readiness to advance the price of their metal, and, even in the face of a quotation already high to an extent without a parallel, had ventured to increase it, the public looked with much confidence to the last and decisive meeting at Dudley, expecting a modification, if not an important reduction, in the prices previously fixed on; these anticipations have not, however, been realised. At the quarterly meeting at Dudley, last Saturday evening, the ironmasters confirmed the prices agreed on at Wolverhampton, and which, as the determinate figure for the metal now, may be quoted as follows:—Bars, £12; common nail rods, £12; rails, £14; hoops, £13; plates, £14; sheets, £14; pigs, (Shropshire,) £6 10s.; pigs, (Staffordshire,) £6 10s. This decision to maintain the advance fixed on a fortnight since, is justified by various concurrent circumstances. The abundance of orders, the full engagement of the different works, the extraordinary advance in coal and limestone, and the corresponding increase in the wages of the miners, all warranted the confirmation of the previously arranged quotation. Still, we are far from considering it either wise or beneficial;—

while in many cases it is but nominal—in others it is, there is no doubt, positively prejudicial.”

From this it appears that there was a determination to persist in demanding these high rates. We find, however, in the same journal, of the 26th April, the following remarks, viz.—

“We have, for the past several weeks, recorded the rise in price of iron, while we have, in common with many others, considered it too rapid to be permanent. When we reflect that pig iron was selling in the Clyde at 35s. per ton, which is now quoted at £5 10s. to £6—that bars were sold at £4 5s., now quoted at £10 to £11, it may very well be imagined, that the ironmasters must be doing a good ‘trade’ at present prices, if they could ‘live’ before. But it appears, from the course taken within the past few days by some of the principal parties interested in the ‘trade,’ that, in their opinion, the price is too high, and hence their determination to reduce the price of bars, which we are informed on good authority, has been settled at 40s. per ton, with the intention of a further reduction, so as to put a stop to the excessive prices, wages, and, further, the rivalry which is naturally expected from new works being established, and old works resumed. Our impression is, that the demand for iron, although it may cover the next two or three years, is not such as to warrant the advance in price, and that some folks will, if they mind not, ‘burn their fingers.’ Some of the Welsh ironmasters are progressing at a railroad pace—they can afford to do so with present prices; but let them take care that they do not destroy themselves.”

The Journal of 3d inst. has the following, which shows that the contemplated reduction had been made by at least a portion of the trade.

“A meeting of some of the most influential Staffordshire ironmasters was held on Thursday last, at Birmingham, when it was resolved to take off the last advance of £2 per ton upon manufactured iron, which, it will be remembered, we referred to in our remarks of last week.”

It seems, however, that speculators have got hold of the trade, and there is no telling what may be the result, unless the manufacturers keep the control in their own hands.

“The iron market is much firmer in Scotch pigs, the speculators again turning their attention to it; 85s. has been paid within the past week for 10,000 tons, and there are few sellers now under 87s. 6d., though we are aware of an offer being made of 1000 tons Scotch pig at 80s., which, being under some risks, was even declined by the party—the terms were subsequently accepted by another less cautious trader.”

The number of passengers who passed through the Thames tunnel in the week ending April 12, was 23,921; amount of money, 99l. 13s. 5d., (last year, 199l. 18s.)

The Worcester Palladium says that “the subscriptions in this town to the stock of the Worcester and Nashua railroad had reached last week to over \$100,000.”

#### RAILWAYS IN SCOTLAND.

(Continued from page 325.)

These circumstances induce us to hesitate in recommending the rejection of lines proposed to open out new districts in Scotland, where the local advantage will be considerable, and where substantial parties are ready to undertake them; although we may feel doubts, looking at the existing amount of traffic, as to its sufficiency to yield a fair return on the required capital.

In such cases, we think it better to direct the attention of the committee on the bill for authorizing the undertaking, specially to the point of estimates and traffic.

Subject to this reservation, we have to report our opinion, that there are no public grounds why the Edinburgh and Hawick line should not receive the sanction of the legislature.

The Cumnock branch of the Glasgow and Ayr company, which runs in the same direction as the Glasgow, Dumfries and Carlisle line, for 13 miles from Kilmarnock, does not appear either to be necessarily involved in the fate of that undertaking. It will open up a rich mineral field, and afford local accommodation to a considerable district in Ayrshire; and as the Glasgow and Ayr company are desirous of undertaking it as a feeder to their existing line, we are aware of no public reasons why it should not be sanctioned.

We now come to the remaining schemes north of the Forth and Clyde; viz. the Aberdeen, the Scottish Midland, the Dundee and Perth, and the Edinburgh and Northern.

We have already stated our opinion that the Scottish Central line to Perth must be assumed as the basis of a system of railway communication for the northern portion of Scotland.

It is equally clear that the Aberdeen line is a proper and necessary part of such a system. Aberdeen is a town of 64,000 inhabitants, the seat of considerable trade and manufactures, and the centre of an important district.

The population along the line, including	
Stonehaven.	3,012
Brechin,	7,560
Montrose,	15,093
Forfar,	9,620
Arbroath,	8,707

in connection with Dundee, Perth, Edinburgh, Glasgow, and England to the south, also appears sufficient to justify and support an extension of railway communication in this direction, where it is ascertained that a line of cheap construction and with favorable gradients can be found; nor does there appear to be any reason why such a line might not afford, as well as the Dundee and Arbroath, and Arbroath and Forfar lines, a moderate return on the capital invested. At the same time, it is obviously desirable to

avoid unnecessary expense; and with this view, the termination of the Aberdeen line at Friockheim, which by rendering the Arbroath and Forfar railway available, saves the construction of 5½ miles of main railway, and four miles of branches, appears justifiable, although a slight shortening of distance in the main line, to the south might be attained by taking the line, as has been suggested, straight to Forfar. By this latter combination, however, not only would increased expense be incurred, but the distance of the town of Montrose from the main line would be increased, and all the traffic of that town, and of places to the north of it, with Arbroath, and with the large and important town of Dundee, would be diverted over a considerable additional length of railway. The Aberdeen line, therefore, appears to us to be well laid out, with a view to the objects which it has to attain. The importance of this line is increased, by the consideration that a cheap and easy line, traversing a district of considerable population and local traffic, is stated to have been surveyed from Aberdeen to Inverness. Should this be the case, it seems not improbable that railway communication to the more northern counties may be extended in this direction.

On the whole, therefore we have to report our opinion, that we are not aware of any public grounds why the Aberdeen line should not be sanctioned.

Assuming the sanction of this as the northern, and of the Scottish Central and Caledonian as the southern links of a great trunk line of communication for Scotland, the question of supplying the intermediate link rests between the Scottish Midland and the Dundee and Perth, in connection with the existing Dundee and Arbroath, and Arbroath and Forfar lines. By the former the connection between Perth and the Aberdeen railway, is effected in 38 miles, by the latter in 44; 7½ miles of the Arbroath and Forfar line being common to each combination.

Had the question simply been, whether under existing circumstances, and with the existing prospects of traffic upon the northern lines, it was better to take a circuit of six miles, for the purpose of placing the towns of Arbroath and Dundee in the main line, and rendering the existing Dundee and Arbroath line available, or to shorten the trunk line by this distance, by going through Strathmore to Perth, we should have been inclined to prefer the former alternative.—But it appears that the advantage of an unbroken locomotive communication cannot be afforded by the Dundee route, which is interrupted by two gaps, first in the town of Dundee, and secondly in Arbroath.

The termini of the Dundee and Perth, and Dundee and Arbroath railways are more than half a mile apart; and the only connection proposed to be made is, by laying down rails along some of the principal quays and streets of Dundee, over which a limited number of carriages and wagons may be hauled by horse power. Even this arrangement will be subject to the control of the harbor commissioners, who have a power se-



cured to them by the act of the Dundee and Arbroath railway company, of buying up about three-quarters of a mile of this railway, including its terminus, in order to meet the contingency of the space being required for the accommodation of the increasing trade of the port, or for additional dock room.

In the town of Arbroath a similar interruption exists, and the traffic passing from the one railway to the other is drawn by horses over rails laid down in the streets.

The interruption at Arbroath might probably be avoided by effecting a junction of the two lines outside the town, at a moderate expense; but at Dundee, owing to the peculiar situation of the town, which is confined between a steep hill and the river, there seems no possibility of effecting a proper junction, unless at an expense so heavy as to render it very unlikely that it will be undertaken.

The existence of this interruption seems to us conclusive against the alternative of selecting the Dundee route as the sole line of through communication from the north of Scotland to the south; when by the Scottish Midland or Strathmore line we are offered a communication  $5\frac{1}{2}$  miles shorter in actual distance, without interruption, and with excellent gradients. The difference in point of time between this and the Dundee route for the transmission of mails and quick trains must necessarily be considerable; and this great line of communication could not properly be made to depend on the exercise, on the part of the harbor commissioners of Dundee, of a discretion guided by circumstances referable to the trade of that port.

The Scottish Midland line appears thus to be necessary as an integral portion of the northern line of communication, and it moreover will afford great accommodation to a district of considerable resources, and capable of much improvement; while, being of remarkably easy construction, and likely to be worked economically in connection with other lines, it appears to hold out a fair prospect of remuneration. This, however, is a point upon which, as in the case before referred to, we must content ourselves with directing the particular attention of the committee on the bill to the estimates laid before them.

The construction of the Scottish Midland would render the Dundee and Perth line unnecessary as part of the through line from the north to Perth. But looking at the importance of the town of Dundee, which, as the seat of extensive linen manufactures, is much connected with Glasgow, Liverpool and other commercial and manufacturing towns in England, it appears to us very desirable that it should enjoy a connection with the general railway system of the kingdom; and as this connection can be effected by a line of  $20\frac{1}{2}$  miles, the estimated cost of which is only £200,000, and which will moreover be the means of introducing coals at a cheaper rate into Dundee, and of accommodating a considerable local traffic between that town

and Perth, we cannot hesitate to report our opinion that, notwithstanding the sanction of the Scottish Midland as the preferable line for through communication to the north, the construction of the Dundee and Perth line appears to us, upon public grounds, to be justifiable.

In considering this line, we have assumed that it is to follow the alternative line on the north bank of the Tay, and not as originally proposed, to cross that river by a bridge;—such bridge having been objected to by the lords commissioners of the admiralty, after investigation by an engineer appointed by them for the purpose as calculated to interfere injuriously with the navigation.

For the same reason in considering the Edinburgh and Northern line, we equally assume that it is to run to Perth, without effecting a junction lower down, by means of this proposed bridge, with the Dundee and Perth line.

We have already stated our opinion that for the purposes of a through line of communication, this line, owing to the interruption of the ferry, cannot be placed in competition with the Scottish Central. Considered, however, simply as a local line, it is calculated to afford great accommodation to the County of Fife, and also by opening up the coal fields of that county to the adjoining counties, and to the towns of Perth and Dundee. The advantage to the latter town will be somewhat diminished by the increased distance rendered necessary by the circuit by Perth, in order to avoid interference with the navigation of the Tay. Still the advantage, from the introduction of coals at a cheaper rate, will be considerable; and having reference more particularly to this, we do not feel ourselves justified in reporting unfavorably of the undertaking, unless fully convinced that it holds out no reasonable probability of being a solvent commercial undertaking. This we do not feel to be the case, if the railway be constructed, as is proposed, with a single line of rails, and as cheaply as possible; although we beg to direct the attention of the committee on the bill particularly to the estimates, both of cost and of traffic. With this reservation we have to report that we are aware of no public grounds why the scheme should not be sanctioned.

The two remaining schemes—the Glasgow, Barrhead and Neilston direct; and Glasgow and Ayr, Barrhead and Neilston branch—have reference to a local question of competition for the accommodation of a manufacturing district in the vicinity of Glasgow. This district, comprising Pollockshaws, Thornliebank, Barrhead, Neilston, and other manufacturing villages, is evidently of sufficient importance to justify the extension to it of railway communication; and the sole question is between the independent scheme proposed for that purpose, and the branch proposed by the Glasgow and Ayr company from their existing line.

The former is more direct, giving a shorter communication to Glasgow by two miles upon a total distance of nine miles.

It also accommodates more places, and a larger population; is more favorably situated for extension; and is supported by a great majority of the local interests concerned, which are opposed to the Glasgow and Ayr branch.

The only point in which this branch appears preferable to the direct line is, that it affords a shorter communication towards Paisley; but as the principal traffic of the district is with Glasgow, and as the distance from Barrhead to Paisley is very circuitous, being eight miles by railway, while it is only three by the turnpike road, this advantage does not seem of much weight.

It has been objected to the direct line, that it is too short to be worked with economy, and to support the expense of an independent establishment and station in Glasgow: and, as a general rule, it is certainly true that lines of this short length are worked more advantageously as branches in connection with existing lines; but in the present instance, this objection is obviated by an agreement with the Glasgow and Greenock railway company to work the line, and to provide accommodation at their own station in Glasgow.

It appears to us, therefore, that as the direct line offers such superior advantages, this is not a case in which the Glasgow and Ayr company can fairly claim to be allowed the privilege of extending a branch from their existing line; and we have, therefore to report, that of the two competing schemes, the Glasgow, Barrhead and Neilston direct appears to us to be preferable.

With reference both to this line and to the proposed Clydesdale Junction railway, we beg to direct the attention of the committee on the bills, to the crossing of the turnpike road from Glasgow to Paisley on a level, by a portion of the Pollock and Govan railway, over which some part of the traffic of the lines in question may pass.

A level crossing over a road of this importance, at a point where it forms one of the principal outlets, and in point of fact may almost be considered as one of the public streets of Glasgow, is evidently objectionable, whatever restrictions may be introduced against the use of locomotive engines, or for regulating the passing of wagons; but the amount of inconvenience, and the proper mode of applying a remedy, are questions which depend so much upon detailed evidence as to local circumstances, that we may abstain from expressing any decided opinion respecting them.

The only other projected lines in Scotland are certain short branches proposed by the Edinburgh and Glasgow railway company:

1. A branch, three furlongs in length, to connect the Edinburgh and Glasgow railway with the Monkland and Kirkintilloch.
2. A branch five miles in length, to the village of Campsie.
3. A branch two furlongs in length, to afford access to additional station room in Glasgow.

We are not aware of any objections to these branches on public grounds.

Fig. 1.

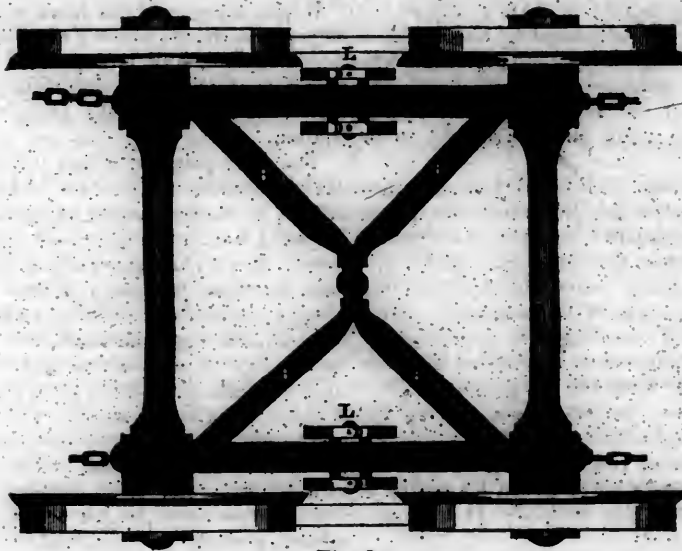
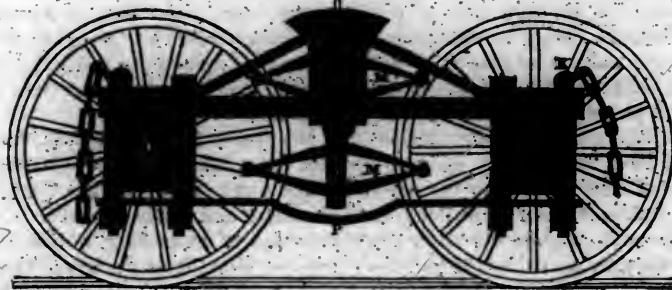


Fig. 2.



DAVENPORT & BRIDGES' IMPROVED PATENT IRON TRUCK FOR RAILROAD CARS, is presented above, and the attention of Railroad Companies is respectfully invited to the following description of their justly-celebrated invention:

Fig. 1 of the drawing above represents a top view or plan of our Improved Railroad Truck. Fig. 2 is a central, longitudinal and vertical section. C, Fig. 1 and 2, represents the arched bars of the side trusses; they consist of two long bars of plate iron, (about three inches wide by seven-eighths of an inch thick,) bent into the shape as seen in drawing 2. Each of them is placed directly over a flat and straight tie bar, A, which extends from one end to the other, as seen in Fig. 2. These parts, so arranged, receive between their ends the ends of diagonal cross bars or braces, B, which are united at their centres by being clasped and welded, as seen in Fig. 1. The bars so composing what may be considered as side trusses and diagonal cross braces, rest at their ends upon four pedestals, F, F, which receive the bearings or boxes for the axles to run on. Another flat tie bar, P, extends from the under side of one of the pedestals to that of the other, on the same side of the frame, and the whole is secured together by eight bolts, J, J, passing down through the ends of the several bars, A, B, C, and the pedestals, and on each side of the journals of the axles; O, O, in the positions represented in the drawings. From the above it will be seen that there are two bolts to each pedestal, and that this number is all that is requisite for the full security of the bars and pedestals together. The body rests and moves upon two sectional supports, D D, arranged on the sides of the truss frames, as seen in Fig. 2; they extend somewhat, or a sufficient distance above the truss frames, and are jointed at their lower ends by means of a bolt, L, which rests upon the top of the lower spring, M, which spring rests upon a bolt passing through the lower part of the inverted strap, E, which strap passes over and rests upon the top part of the upper spring, M, which is placed within the truss frame; and rests upon the top of the bar, A.

Two bands, N, N, are passed entirely around the central part of each truss frame, the object of the same being to transfer the strain, or a portion thereof, of the spring, from the tie bar, A, to the arched bar, C.

These Trucks are adapted as well for eight-wheeled passenger cars as for baggage and freight cars, giving to each a more agreeable and easy motion than any other Truck heretofore constructed or in use. They are simple in their construction, combining strength and great durability, although weighing at least twelve hundred pounds less than the common Trucks. Besides these excellences, by reason of the elasticity of the braces, B, B, B, as seen in the drawing, and the other peculiarities of construction, the weight is equalized upon all the wheels, and yet any one may be raised so as to pass any inequality on the rails without lifting either of the other wheels from the track, thus rendering it almost impossible to run a car off. Being bound, and having as it were but four joinings, they are protected from injury by lateral strains, and in case of damage are easily repaired.

These excellences have been fully tested by use, for a long time, on the Eastern, the Fitchburg and Long Island railroads; and for proof of the above stated superiority of these Trucks over all others, we refer to the experience of those who have used and run them.

CAMBRIDGEPORT, April 1, 1846.

DAVENPORT & BRIDGES.

#### MINERAL RESOURCES OF PENNSYLVANIA.

With a territorial domain of 47,000 square miles, this, the keystone of the States, has richer native resources than any other state in the Union: its population in 1684 only 7000, was in 1840 nearly 2,000,000: its agricultural products exhibit a corresponding increase: it yields abundantly both anthracite and bituminous coal. In 1820 only 365 tons of anthracite were sent to market, in 1830 the quantity reached 174,737 tons, in 1840 it was 865,414, and in 1844, 1,031,699—showing that the trade has nearly doubled within four years. The region where bituminous coal abounds, embraces 21,000 square miles, and at least 2,000,000 tons are annually mined in the state. Iron is very abundant in the state; also, marble, limestone, zinc, copper and lead.

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Dayenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,  
Reading, Pa.

ja45

**GEORGE VAIL & CO., SPEEDWELL IRON** Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1½ in. to 2½ in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions.

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**FOR SALE, AT A SACRIFICE—A LOCOMOTIVE ENGINE,** 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine.

2 8-horse " " " " " "  
1 Upright Hydraulic Press.

All of which will be sold low, on application to

T. W. & R. C. SMITH.

Founders and Machinists,

May 12th

Alexandria, D. C.

**RAILROAD IRON AND FIXTURES. THE** Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

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NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.  
 JOHN S. DARCY, Esq., President.  
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Capital, \$2,000,000.  
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 J. WORTHINGTON, Esq., Treasurer.

Leave New York, foot of Courtland street.	DAILY				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
For Newark.....	9, 11, 12.....	2, 3, 4, 3-4, 6, 7, 1-2	9.....	4-3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4, 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4, 3-4, 6.....				
" New Brunswick.....	9.....	3, 4, 3-4.....				
Leave New Brunswick.....	6, 7, 1-2, 11, 1-2.....	8, 3-4.....	11, 1-2	8, 1-2		
Rahway.....	6, 3-4, 7, 8, 1-4, 12.....	4, 3-4, 9, 1-4.....				
Elizabethtown.....	7, 7, 1-2, 8, 1-2, 10, 1-2, 12.....	3, 1-2, 5.....				
Newark.....	7, 1-2, 8, 1-4, 9, 11.....	1, 1-2, 4, 5, 1-2, 7, 9, 3-4.....	11, 3-4	9, 3-4		

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4-3-4 P. M. to meet the Somerville train, and for Philadelphia.

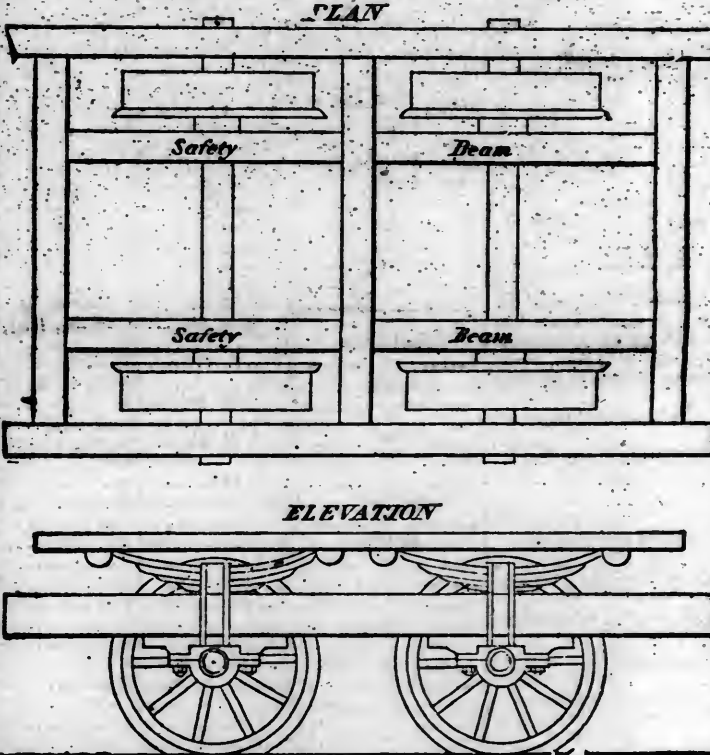
TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....					5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....			14 1-2	31 1-4			5	12 1-2	16 3-4	50
Rahway.....			19 3-4	31 1-4	10 1-2	25			11 3-4	37 1-2
New Brunswick.....			31 1-2	50	16 3-4	50	11 3-4	37 1-2		

KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken; but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.



Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,

GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,

W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

REFERENCES.—Boston, Col. James F. Baldwin, Civil Engineer. Col. J. M. Fessenden, Wm. Parker, Esq., Engineer and Superintendent Boston and Worcester railroad. ja45

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture; and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merriut, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work. Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS.	A. M.	P. M.	MILES.	FARE.
Boston	Portland		Eastern,	Daily,	7½	2½	106	\$3 00
"	Portsmouth		"	"	7½	2½, 4½	54	2 00
"	Newburyport		"	"	7½	2½, 4½	35	1 25
"	Salem		"	"	7½, 9, 11½	2½, 3½, 4½, 6	14	50
Portland	Portland		Boston and Maine,	"	7½	2½	109	3 00
Boston	Boston		"	"	7½	3	109	3 00
Boston	Lowell		Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston		"	"	7½, 11	2, 4½, 5½	26	75
Boston	Concord		Concord,	"	"	3	76	2 00
Concord	Boston		"	"	"	3	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11	5	41	.....
Nashua	Boston		"	"	6½	1½, 5	41	.....
Boston	Worcester		Boston and Worcester,	"	7, 9	2½	44	1 25
Worcester	Boston		"	"	7, 10	6	44	1 25
"	"		"	Sundays,	7	"	"	"
Boston	Worcester		"	"	"	2	"	"
Boston	New York via Norwich		"	Mon., Wed. & Fri.,	"	4	"	"
"	" " L. Island railroad		"	Tues., Thur. & Sat.,	7	"	"	"
"	" " New Haven		"	Daily,	9	2½	"	"
"	Albany		Western,	"	9	2½	200	6 00
Albany	Boston		"	"	8½	1½	200	6 00
Springfield	Boston and Albany		"	"	7	3	"	"
Boston	New York via New Haven		"	"	7	3	"	"
Charlestown	West Acton		Fitchburg,	"	8	1, 4½	"	"
West Acton	Charlestown		"	"	7½, 10½	5	"	"
Boston	New York, via Steamboat trains		Boston and Stonington,	Tues., Thur. & Sat.,	"	4½	"	"
"	" " " "		Boston and Newport,	Mon., Wed. & Fri.,	"	4½	"	"
"	Providence		"	Daily,	7½	4	41	1 50
Providence	Boston		"	"	"	4	41	1 50
Taunton	"		"	"	8	On arrival of the mail	"	"
New Bedford	Boston		"	"	7½	2½	"	"
Boston	Dedham		"	"	8½	3, 6½, 7, 9½	"	"
Dedham	Boston		"	"	7, 10	5½	"	"
New York	Greenport		Long Island,	"	7½	"	95	2 25
Brooklyn	Hicksville & intermediate places		"	"	9½	"	26	56½
"	Greenport		"	Tues., Thur. & Sat.,	9½	"	95	2 25
"	Hicksville, (Saturd'y to Suffolk)		"	Daily,	"	4	26	56½
Greenport	Brooklyn, (Boston train)		"	"	"	1	95	2 25
"	" (accommodation do.)		"	Mon., Wed. & Fri.,	"	"	95	2 25
"	" & intermediate places.		"	Daily,	7	1½	26	56½
Hicksville	Albany & Boston via N. Haven		Steamer,	"	6½	"	"	5 00
New York	Middletown		New York and Erie,	"	8, 3	"	53	.....
Middletown	New York		"	"	6½	3½	53	.....
Philadelphia	Pottsville		Reading,	"	9	"	94	3 50
Philadelphia	Philadelphia		"	"	9	"	94	3 50
New York	Newark		N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4½, 6, 7½	9½	25
Newark	New York		[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7½, 8½, 9, 11	1½, 4, 5½, 7, 9½	9½	25
"	"		"	Sundays,	9	"	9½	25
New York	Newark		[9 A. M. and 4½ P. M., trains, connect with Somerville Railroad.]	Daily,	11½	9½	9½	25
Elizabethtown	Elizabethtown		"	"	9, 11	2, 3½, 4½, 6	14½	31½
New York	Rahway		N. J. railroad and trans. co.,	"	7, 7½, 8½, 10½, 12	3½, 5	14½	31½
Rahway	New York		"	"	9, 11	3, 4½, 6	19½	31½
New York	New Brunswick		"	"	6½, 7, 8½, 12	4½, 9½	19½	31½
New Brunswick	New York		"	"	9	3, 4½	31½	50
"	"		"	"	6, 7½, 11½	8½	31½	50
"	"		"	Sundays,	11½	8½	31½	50
New York	New Brunswick		"	"	9	4½	31½	50
Philadelphia	New York		Camden and Amboy,	Daily,	7	"	91	3 00
New York	Philadelphia		"	"	5½	"	91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	9	"	30	75
Bristol	Philadelphia		"	"	9	4	30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"	8	4	93	.....
Baltimore	Philadelphia		"	"	9	8	93	.....
"	Washington		Baltimore and Washington,	"	9	5, 11½	41	2 50
Washington	Baltimore		"	"	6	5½	41	2 50
Baltimore	Cumberland and inter. places		Baltimore and Ohio,	"	7½	"	"	"
"	Frederick		"	"	"	4	"	"
Cumberland	Baltimore		"	"	8	"	"	"
Hancock	"		"	"	10½	"	"	"
Martinsburg	"		"	"	11½	"	"	"
Harper's Ferry	"		"	"	"	12½	"	"
Frederick	"		"	"	"	2	"	"
"	"		"	Sundays,	8	"	"	"
Ellicott's Mills	"		"	Daily,	7½, 12	4½	"	"
Richmond	Petersburg		Richmond and Petersburg,	"	10½	1½	"	"
Petersburg	Richmond		"	"	5½	"	"	"
Albany	Schenectady		Mohawk and Hudson,	"	8	5½	"	"
Schenectady	Albany		"	"	9	3½	"	"
Albany	Saratoga		"	"	7½	2	"	"
Saratoga	Albany		"	"	7	12½, 5	"	"
Troy	Saratoga		Troy and Saratoga,	"	7½	3½	"	"
Saratoga	Troy		"	"	7½	"	"	"
Auburn	Rochester		Auburn and Rochester,	"	8½	"	"	"
Rochester	Auburn		"	"	8	3	"	"
"	Buffalo		Rochester and Buffalo,	"	"	3	"	"
Buffalo	Rochester		"	"	"	"	"	"
"	Falls		Buffalo and Falls,	"	9	"	"	"
Falls	Buffalo		"	"	"	1½	"	"
Buffalo	Albany		Albany and Buffalo	"	8½	"	"	"

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, Vol. I., No. 22 ]

THURSDAY, MAY 20, 1845.

[WHOLE No. 465, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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One square ".....	1 00
Professional notices per annum.....	5 00

### ENGINEERS and MACHINISTS.

STILLMAN, ALLEN & Co. N. Y.  
 JAS. P. ALLAIRE, N. Y.  
 H. R. DUNHAM & Co. N. Y.  
 WEST POINT FOUNDRY, N. Y.  
 PHENIX FOUNDRY, N. Y.  
 R. HOE & Co. N. Y.  
 J. F. WINSLOW, Albany Iron and Nail Works,  
 Troy, N. Y. (See Adv.)  
 TROY IRON AND NAIL FACTORY, H. Burden Agent. (See Adv.)  
 ANDREW MENEELY, West Troy. (See Adv.)  
 ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
 S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
 NORRIS, BROTHERS, Philadelphia, Pa.  
 KITE'S Patent Safety Beam. (See Adv.)  
 FRENCH & BAIRD, Philadelphia, Pa. [See Adv.]  
 BALDWIN & WHITNEY, Philadelphia, Pa.  
 JOHN F. STARR, Philadelphia, Pa.  
 MERRICK & TOWNE, do.  
 NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. [See Adv.]  
 ROSS WINANS, Baltimore, Md.  
 CYRUS ALGER & CO., South Boston Iron Company.  
 SETH ADAMS, Engineer, South Boston, Mass.  
 HINCKLEY & DRURY, Boston.  
 C. C. ALGER, [Stockbridge Iron Works,] Stockbridge, Mass.

### IRON MERCHANTS and IMPORTERS.

DAVIS, BROOKS, & Co. N. Y. [See Adv.]  
 A. & G. RALSTON & Co. Philad. Pa. [See Adv.]  
 THOMAS & EDMUND GEORGE, Philadelphia. [See Adv.]

## KITE'S PATENT SAFETY BEAM.

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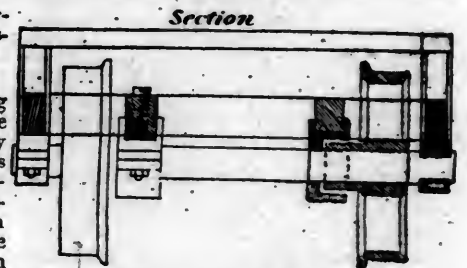
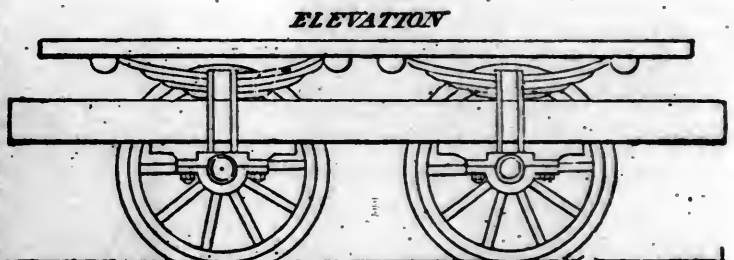
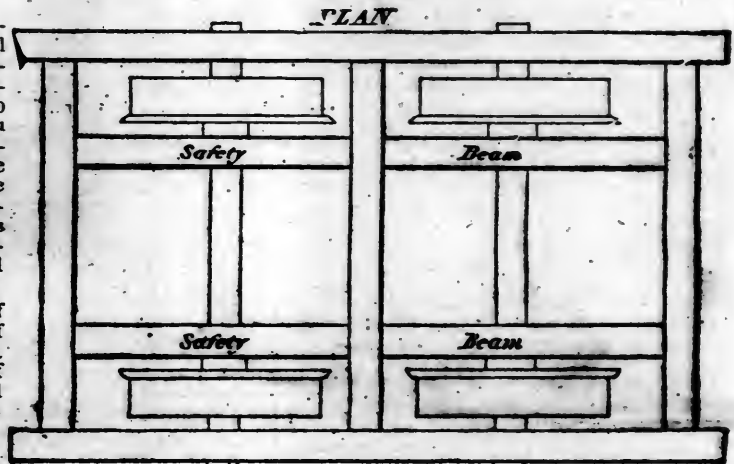
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JOHN FRAZER, Agent,  
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JAMES ELLIOTT, Sup. Motive Power,  
 W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**TO IRON MANUFACTURERS.** THE SUBscribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geisselhauser, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO.,  
ja45 No. 4 South Front st., Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

From 4 inches to 24 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**TO IRON MASTERS.—FOR SALE.—MILLSITES** in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lycoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, or Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer,*

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 129 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, turnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 69x45 1/2 feet two stories high, with a shed part 45 1/2 x 29 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 51x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6900 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia. ja45

**RAILROAD IRON AND LOCOMOTIVE Tyres** imported to order and constantly on hand by  
A. & G. RALSTON  
Mar. 29th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING** Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gear of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

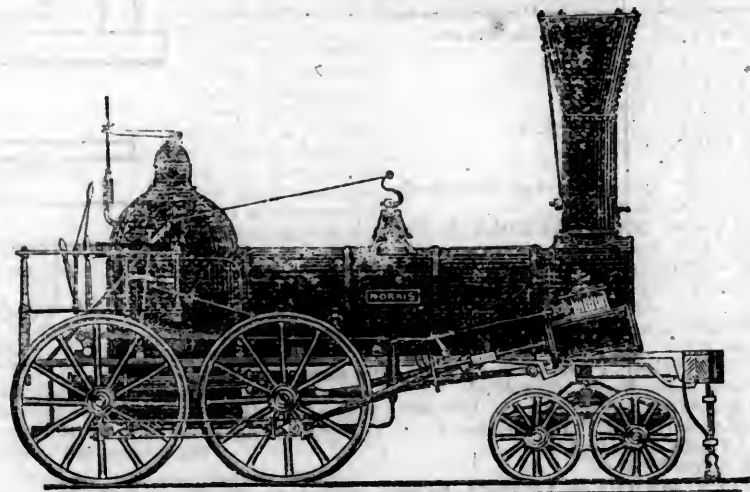
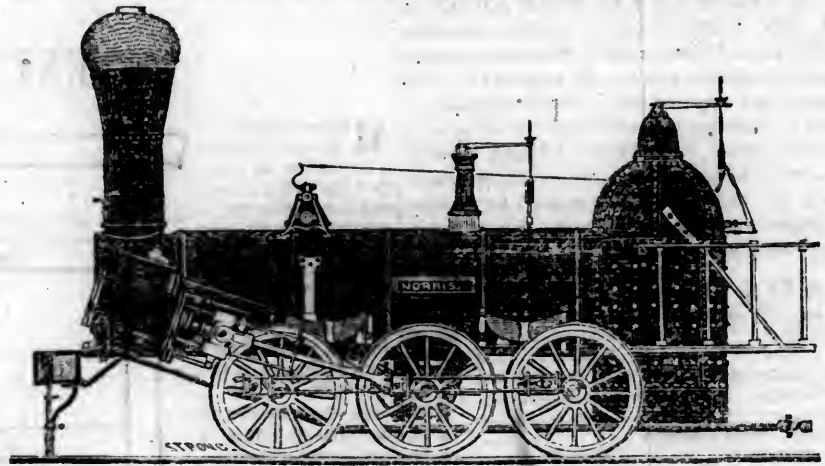
The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dolbs, Superintendent, will meet with immediate attention.  
ANDREW C. GRAY,  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS** etc. The Subscriber having made important improvements in the construction of rails, mode n guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, *Civil Engineer,*  
Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NORRIS' LOCOMOTIVE WORKS**

BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches Diameter of Cylinder,	× 20 inches Stroke.
"	2,	14	" " " × 24 " "
"	3,	14 1/2	" " " × 20 " "
"	4,	12 1/2	" " " × 20 " "
"	5,	11 1/4	" " " × 20 " "
"	6,	10 1/2	" " " × 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

DUBLIN AND KINGSTOWN RAILWAY  
THIRTEENTH ANNUAL REPORT.

We give this report for the purpose of showing the success, 1st, of well located railways in connection with large cities, even when only a few miles in length; 2d, their tendency to create business for themselves, and thus become ultimately, if not immediately, profitable when judiciously and liberally managed; i. e., when managed so as to promote the mutual interest and convenience of the masses and the proprietors; and, 3dly, to show the results of a year's operation on the atmospheric railway from Kingstown to Dalkey. We hope it will be read with care by all interested in railways, and especially by those who have the management of the Harlem railroad—a work which has heretofore generally been managed in a way neither to conciliate the people nor to promote the interest of the proprietors. The late managers have, it is true, somewhat improved upon their predecessors, and given more energy to their operations, yet there is ample room for further improvement.

DUBLIN AND KINGSTOWN RAILWAY.

The thirteenth annual meeting of the above company was held on Saturday, in their rooms in Westland Row, Dublin.

P. Low, Esq. in the chair.

Mr. JAMES PIM, treasurer, read the following REPORT :

Dublin, 29th March, 1845.

Gentlemen—The comparative statements of traffic and the statistical returns with which we have commenced our annual reports for some years past have given much satisfaction, and we, therefore, continue them as the best means we know of to afford you information as to the present and progressive state of your concern:—

The number of passengers booked at all the stations this year, was.....1,710,503  
Preceding year,.....1,506,819

Increase,.....203,684

Estimated trips by subscribers,....523,930  
Preceding year,.....455,232

Increase,.....68,698

Gross number of passengers this year, subscribers included,.....2,234,433  
Preceding year,.....1,962,051

Increase,.....272,382

Subscriptions received,.....£6,867 4 6  
Preceding year,.....5,785 18 1

Increase,.....£1,881 6 5

Gross income from all sources £51,187 6 7  
Preceding year,.....45,255 8 2

Increase,.....£5,931 18 5

CLASSIFICATION OF PASSENGERS FOR THE LAST SIX YEARS, INCLUDING SUBSCRIBERS.

Year ending last day of Feb.	First class.	Second class.	Third class.	Total.
1840.....	39,422	550,414	790,105	1,989,761
1841.....	35,553	721,105	759,353	1,519,024
1842.....	37,091	849,116	754,958	1,632,085
1843.....	63,156	953,937	729,788	1,758,878
1844.....	98,076	1,049,213	814,732	1,962,051
1845.....	104,109	1,219,555	910,763	2,234,433
Total number of trains despatched,.....				39,745
Total number of miles travelled,.....				181,479
Average number of coaches per train,....				7.511
Average number of passengers per train..				72.676
Consumption of coke (gas coke) per train per mile, (lbs.).....				18.789
Average sum received per passenger per mile, subscribers included, (pence).....				0.893
Cost of locomotive power per train per mile, (pence).....				9.452

A considerable proportion of the increase in the receipts this year is due to the atmospheric railway from Kingstown to Dalkey, which has, as we anticipated, been eminently successful as an experiment—has greatly increased the number of passengers by the railway—has added very materially to the value of your property, and has laid the foundation for future extensions of the line, to which you may look forward with confidence, as the sources of large additional income, and to which we conceive the company is well entitled by its liberality towards the public and its enterprize.

Whilst on this subject, we would call your attention to the following extract from a report of the board, presented to you at a special meeting of the company, on the 6th of April, 1842:—

“If the proposed loan of £25,000 shall be now obtained, and that repayment of principal and interest shall be accepted by the treasury, at the rate of six per cent., the annual charge upon the undertaking will be £1,500 a year, for a period of about twenty-eight years.

“If the proposed extension to Dalkey be at all successful, even to the extent of paying its own working expenses, the increased traffic upon the main line resulting therefrom will more than pay this annual charge of £1,500 a year to the Board of Works, and there can be no doubt that if these results are obtained during the first year or two, the very great increase of residents in the precincts of Dalkey, which must be the natural consequence of an increased facility of communication and intercourse between it and Dublin, will necessarily bring a vast increase of traffic upon the railway.”

From this extract it will be seen that the board did not anticipate any immediate direct profit from this extension; and although the expenses of this line have amounted to a very large sum in proportion to its receipts, it has arisen from several causes—most of them incidental to a first trial, and all of which are capable of satisfactory explanation; but there is one of those causes so peculiar that we desire especially to call your attention to it, as it has grown out of that system which you have long since sanctioned, and which, after much discouragement, has led to such gratifying results in the management of our undertaking, namely, that of endeavoring to create a traffic, and

to increase it to the greatest extent, by affording to the public the utmost possible accommodation, and at very low rates.

One great object which we have steadily kept in view, was to encourage permanent residents along all parts of the line and the surrounding neighborhood. We have, therefore, continued to run the Dalkey trains every half hour, up to nine o'clock at night, although very few passengers, indeed, have been conveyed after 6 o'clock, P. M., during the winter, and many of the trains have run without a single passenger.

We are, however, confirmed in our conviction of the soundness of this policy by the preparations which are now being made in the district of Dalkey and Killiney, to which we have alluded, for building operations on a very large scale. It is a striking evidence of the disadvantageous manner in which this traffic has been carried on with reference to the proportion of expenses and income, that the average number of passengers in each carriage has been under four.

Notwithstanding these apparent discouragements, our confidence is unshaken in the ultimate complete and entire success of the atmospheric system, and a highly gratifying evidence of the extent to which public attention has been directed to it, has been lately evinced by the appointment of a select committee of the House of Commons, consisting of some of the most distinguished members, to enquire into the system.

The work performed on the Dalkey line, from the 29th March, 1844, to the 28th February, 1845, has been 8,753 trains each way, or in all 17,506 trains, consisting of 64,042 coaches, conveying 240,225 passengers.

Average coaches per train,....	3.65
“ passengers, “.....	13.69
“ coach....	3.75

In consequence of the successful results of the extension from Kingstown to Dalkey, as well as from a conviction of the vast importance of the subject, we have had under our anxious deliberation for many months past, the propriety of promoting an extension of the line to the county of Wicklow, and after much consideration, we came to the conclusion that your interest would be best advanced by the formation of a separate company to complete the line from Kingstown to Wicklow, and we had, consequently, resolved to have the necessary surveys made and the usual notices inserted in the Gazette.

We were then made aware that a powerful and enterprising English company had determined to promote a coast line from Kingstown to Wexford and Waterford, and we gladly agreed to co-operate with them in promoting this very important object—stipulating, however, that we should, in any event, secure our original plan of an extension to Wicklow.

Circumstances arose which rendered it desirable that this great measure should be postponed for a year, and after much consideration, we determined on abandoning

that portion of our project between Bray and Wicklow, and confining our present exertions to complete the line to Bray.

Our reason for postponing the Bray and Wicklow portion was, that it might interfere, or, at least, appear to interfere, with the greater project; and the reasons why we determined to endeavor to complete the line to Bray are sufficiently important to demand a separate paragraph.

Assuming that a line of railway is completed from Kingstown to Bray, we submit, without hesitation, that in order to secure the success of the undertaking it must be worked on the same principles which we have endeavored to carry out on the Dublin and Kingstown line; in a word, *maximum* accommodation to the public and *minimum* fares; and, to secure the first, it is absolutely necessary that the trains shall run from an early until a late hour in the day, and at short intervals.

Now, let it be assumed that the line from Bray to Wexford and Waterford is completed, the character of the traffic on such a line would be altogether different, and might, and probably would, require a different arrangement to arrive at maximum profits.

These considerations have led us to the conclusion, that we ought to use our most strenuous exertions to promote the formation of the Kingstown and Bray company, and the construction of the line.

The bill for the incorporation of the company has been brought into Parliament by our directions, as the provisional committee; it has been read a first time, and we are informed by our professional advisers that the standing orders of both houses have been strictly complied with, and we have every reason to hope that the act will be obtained early in the present session.

Of the importance of this extension to your interests, we need not enlarge, but we are anxious to record our opinion, that so far from its interfering with the greater and more interesting project to which we have already alluded, it would, by removing many local difficulties of a peculiar character, greatly facilitate its future construction.—Part of the conditions upon which the shares in the Bray extension were allocated was, that the Dalkey extension should be conveyed to the new company at and for the sum of £35,000, and a resolution to that effect will be proposed at the present meeting.

The gross profits for working the railway for the first year, including the Dalkey line, are.....	£27,590	2	4
From which deduct — payment to board of works on account of loan, £6,000; interest on debentures, £2,244 19s. 2d.; interest on other loans, £401 11s. 10d.....	8,626	11	4
Leaving the nett profits of the year.....	£18,963	11	0
From which this meeting is			

required to set aside one-eighth part, as a fund to meet contingencies.....

	2,370	8	11
	£16,593	2	5
Add surplus from last year..	3,843	6	7

Making a present surplus of £20,436 9 0

From this sum the directors recommend that you shall now declare a dividend of 9 per cent. per annum, amounting to £18,436 9s. to be carried to next account, and, in addition to which, your fund to meet contingencies will amount to £3,528 5s. 6d.

Messrs. Francis Low, Arthur B. Cane, and James Dawson, are the directors who this year go out of office by rotation, but they are eligible to be re-elected.

THE EARL OF ROSSE'S GREAT TELESCOPE.

We offer our readers an account of the performance of the Rosse Telescope, which we have as far as possible condensed from a valuable and interesting memoir published in the Times newspaper of April 15, by Sir James South. We make no apology for the reprint, as we are anxious to have a systematic record of all that affects the advance of science, and feel also that though most of our readers may have seen the original account, this condensed form of it will perhaps invite a re-perusal.

"In the Times, of September last, I had the gratification of announcing to the public that the construction of the large telescope by the Earl of Rosse was so far advanced that the instrument had actually been directed to the heavens, and that, too, with satisfactory results.

"The great speculum, however, as then used, had been only approximately published, and was inserted in the tube merely to ascertain if its focal length coincided with that which it was designed to give it.

"The diameter of the large speculum is six feet, its thickness five inches and a half, its weight three tons and three-quarters, and its composition 126 parts of copper to 57½ parts of tin; its focal length is 54 feet—the tube is of deal; its lower part, that in which the speculum is placed, is a cube of eight feet; the circular part of the tube is at its centre, seven feet and a half in diameter, and at its extremities six feet and a half. The telescope lies between two stone walls, about 71 feet from north to south, about 50 feet high, and about 23 feet asunder. These walls are as nearly as possible parallel with the meridian.

"In the interior face of the eastern wall a very strong iron arc, of about 43 feet radius, is firmly fixed, provided, however, with adjustments, whereby its surface facing the telescope may be set very accurately in the plane of the meridian—a matter of the greatest importance, seeing that by the contact with it of rollers attached to one extremity of a quadrangular bar, which slides through a metal box fixed to the under part of the telescope tube, a few feet from the object end of the latter, whilst its other ex-

trinity remains free, the position of the telescope in the meridian is secured, or any deviation from it easily determined, for on this bar lines are drawn, the interval between any adjoining two of which corresponds to one minute of time at the equator. The tube and speculum, including the bed on which the latter rests, weigh about 15 tons.

"The telescope rests on an universal joint, placed on masonry about six feet below the ground, and is elevated or depressed by a chain and windlass; and, although it weighs about 15 tons, the instrument is raised by two men with great facility. Of course, it is counterpoised in every direction.

"When completed, its range will embrace an arc between 10 degrees of altitude towards the south and 47 degrees north; so that all objects between the pole and 27 degrees south of the equator will be observable with it; whilst in the equator any object can be viewed with it about 40 minutes of time on either side of the meridian.

"The observer when at work stands in one of four galleries, the three highest of which are drawn out from the western wall, whilst the fourth, or lowest, has for its base an elevating platform, along the horizontal surface of which a gallery slides from wall to wall by machinery within the observer's reach, but which a child may work.

"The telescope lying at its least altitude can be raised to the zenith by the two men at the windlass in six minutes; and so manageable is the enormous mass, that, give me the right ascension and declination of any celestial object between these points, and I will have the object in the field of the telescope within eight minutes from the first attempt to raise it.

"When the observer has found the object, he must at present follow it by rackwork within its reach. As yet it has no equatorial motion, but it very shortly will, and at no very distant day clockwork will be connected with it, when the observer, if I mistake not, will, whilst observing, be almost as comfortable as if he were reading at a desk by his fireside.

"The night of the 5th of March was, I think, the finest I ever saw in Ireland. Many nebulae were observed by Lord Rosse, Dr. Robinson and myself. Most of them were, for the first time since their creation, seen by us as groups or clusters of stars; whilst some, at least to my eyes, showed no such resolution. Never, however, in my life did I see such glorious sidereal pictures as this instrument afforded us.

"Although, however, the power of this telescope in resolving nebulae into stars, hitherto considered irresolvable was extremely gratifying, still it was in my mind little more than I had anticipated; for experience has long since told me that a telescope may show nebulae, even those resolvable by it, very well, whilst, when directed to a bright star, with a very moderate magnifying power, its imperfections will be actually offensive.

"Perfection of figure, then, of a telescope



must be tested, not by nebulae, but by its performance on a star of the first magnitude. If it will, under high power, show the star round and free from optical appendages, we may safely enough take it for granted it will not only show nebulae well, but any other celestial object as it ought. Regulus, on the 11th, being near the meridian, I placed the telescope on it, and with the entire aperture and a magnifying power of 800 I saw, with inexpressible delight, a star free from wings, tails, or optical appendages; not, indeed, like a planetary disc, as in my large achromatic, but as a round image resembling voltaic light between charcoal points; and so little aberrations had this brilliant image that I could have measured its distance from and position with any of the stars in the field with a spider's line micrometer, and a power of 1,000, without the slightest difficulty; for not only was the large star round, but the telescope, although in the open air and the wind blowing rather fresh, was as steady as a rock.

"On subsequent nights, observations of other nebulae, amounting to some thirty or more, removed most of them from the list of nebulae, where they had long figured, to that of clusters; whilst some of these latter, but more especially 5 Messier, exhibited a sidereal picture in the telescope such as man before had never seen, and which, for its magnificence baffles all description.

"Of the moon, a few words must suffice. Its appearance in my large achromatic of twelve inches aperture, is known to hundreds of your readers; let them, then, imagine that with it they look at the moon, whilst with Lord Rosse's 6 feet they look into it, and they will not form a very erroneous opinion of the performance of the leviathan.

"On the 15th of March, when the moon was seven days and a half old, I never saw her unilluminated disc so beautifully, nor her mountains so temptingly measurable. On my first looking into the telescope, a star of about the 7th magnitude was some minutes of a degree distant from the moon's dark limb. Seeing that its occultation by the moon was inevitable, as it was the first occultation which had been observed with that telescope, I was anxious that it should be observed by its noble maker; and very much do I regret that, through kindness towards me, he would not accede to my wish; for the star, instead of disappearing the moment the moon's edge came in contact with it, apparently glided on the moon's dark face, as if it had been seen through a transparent moon, or as if the star were between me and the moon. It remained on the moon's disc nearly two seconds of time, and then instantly disappeared, at 10h. 9m. 95.72s. sidereal time. I have seen this apparent projection of a star on the moon's face several times, but from the great brilliancy of the star this was the most beautiful I ever saw. The cause of this phenomenon is involved in impenetrable mystery\*.

"The only telescopes in point of size comparable with Lord Rosse's 3 feet and 6 feet

\* Would not this appearance, it is asked with great

are Sir William Herschel's 20 feet and 40 feet Lemairean's. The 20 feet had a speculum of 18.8 inches diameter, and the 40 feet one of 4 feet.†

"The Lemairean of 18.8 inches diameter in point of light is equal to a Newtonian of 22 inches and a half diameter.

"The Lemairean of 4 feet diameter is equal to a Newtonian of 57 inches and four-tenths.

"The Lemairean of 3 feet is equal to a Newtonian of 43 inches.

"And the Lemairean of 6 feet is equal to a Newtonian of 86 inches.

"By substituting, then, the Lemairean form for the Newtonian, the present 3 feet Newtonian will be made as effective as if it were 43 inches diameter, and the 6 feet as if it were 86 inches in diameter; or the quantity of light in each telescope, after the alteration, will be, to its present light, as 7 to 5 nearly, or almost half as much again as it now has.

"Seeing, then, that the change from the Newtonian to the Lemairean construction will be attended with such an accession of light, Lord Rosse, having determined geometrically the form of the curve requisite to produce with it a definition of objects equal to that which each of the telescopes at present gives, is devising mechanical means for producing it; but as he is, in about a fortnight, coming over to England to attend his parliamentary duties, it is probable that this important desideratum will scarcely be effected till autumn comes upon us.

"What will be the power of this telescope when it has its Lemairean form it is not easy to divine;—what nebulae will it resolve into stars; in what nebulae will it not find stars;—how many satellites of Saturn will it show us;—how many will it indicate as appertaining to Uranus;—how many nebulae never yet seen by mortal eye will it present to us;—what spots will it show us on the various planets; will it tell us what causes the variable brightness of many of the fixed stars; will it give us any information as to the constitution of the planetary nebulae;—will it exhibit to us any satellites encircling them; will it tell us why the satellites of Jupiter, which generally pass over Jupiter's face as discs of nearly white light, sometimes traverse it as black patches;—will it add to our knowledge of the physical construction of nebulous stars; of what mysterious class of bodies which surround some stars, called, for want of a better name, "photospheres;"—will it show the annular nebula of Lyra merely as a brilliant luminous ring, or will it

submission, indicate a refracting atmosphere which the telescopes hitherto constructed have not been able to detect? If this hypothesis turn out correct, it will be easy enough to determine the extent of the atmosphere, by observing in sidereal occultations the time of a star's passing from the moon's apparent edge, (namely, the limits of her atmosphere,) to her real edge. Since the above was written, a letter from Sir James South has appeared in the Times, in which it is stated that the phenomenon occurs both at immersion and emersion. Is not this a powerful confirmation of our hypothesis?—*Ed. C. E. and A. Journal.*

† Sir James South intends here, we presume, to draw a comparison between "reflecting" telescopes

exhibit it as thousands of stars arranged in all the symmetry of an ellipse;—will it enable us to comprehend the hitherto incomprehensible nature and origin of the light of the great nebula of Orion;—will it give us, in easy, appreciable quantity, the parallax of the nebulae themselves;—finally, having presented to us original portraits of the moon and of the sidereal heavens, such as man has never dared even to anticipate,—will it by daguerreotypic aid administer to us copies founded upon truth, and enable astronomers of future ages to compare the moon and heavens as they then may be, with the moon and heavens as they were? Some of these questions will be answered affirmatively, others negatively, and that, too, very shortly; for the noble maker of the noblest instrument ever formed by man "has cast his bread upon the waters, and will, with God's blessing, find it before many days."—*Civ. Eng. and Arch. Jour.*

#### A NOVEL VIADUCT, TRULY.

We find the following notice of a "novel railway viaduct" in the London Mining Journal, of 19th April. The writer says that,

"A model has been prepared of the viaduct designed by Messrs. Leahy, the engineer of the Cork and Bandon line, for the intended crossing over the mail coach road and valley at Chetwynd, situated about four miles from Cork. The extreme height of the viaduct is 82 feet over the valley, which is passed by three equal spans, each 240 feet; the centre and the two abutment piers are of stone, in a bold and enriched Doric style, which has an exceedingly pleasing effect. The model is one-twelfth of the full size, and this proportion is strictly preserved in all its parts; the construction is very handsome, extremely simple and novel; the greater number of its parts are of uniform size and shape, and, curious to say, there is neither a mortice and tenon joint, or a spike or nail in the entire structure, nor will there be any necessity of centering for its erection. All these peculiar features of the design will reduce the expense of its construction far below the usual cost of such works; the model has been subjected to a most rigid test, by loading its entire surface with a pile of metal weights, equivalent to over 1000 tons on the real structure, and yet it sustained the immense weight with the greatest ease.—There is no viaduct in Europe constructed on this principle, which, from its great simplicity, cheapness and efficiency, will enable companies to construct railways in localities where otherwise they could not be attempted—and for this reason it promises to be of national advantage. The other bridges and viaducts on this line are of similar character; we may allude to that intended for the Bauden river, crossing as a chaste continuance of the arch and truss principle, combining beauty with strength and economy in a high degree."

We shall be greatly obliged to any gentleman who will furnish us with further details of this viaduct.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds authorized to be raised by shares.	Total sums, in pounds authorized to be raised by loan or mortgage.	Total sums, in pounds expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.		Share Capital.
							Per share.	Per cent. per annum.			Per share.	Value of share.	
Arboath and Forfar.....	15	182,000	35,000	133,870	.....	.....	0	12 6 2	10 0	25	27	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500	407,335	1,500,805	39,261	53,263	1	5 0 2	10 0	100	100	Barnsley Junction.....	385,000
Braundling Junction.....	23	161,760	365,470	481,452	.....	.....	.....	4 10 0	50	51	51	Belfast and Ballymena.....	400,000
Bristol and Gloucester.....	37 1/2	400,000	211,000	.....	.....	.....	.....	nihil.	30	36	36	Blackburn and Accrington.....	1,000,000
Chester and Birkenhead.....	14 1/2	750,000	113,170	518,983	5,856	13,148	0	8 6 1	14 0	50	52	Birk. and Ches. Junction.....	800,000
Dublin and Drogheda.....	31	450,000	150,000	500,809	.....	.....	.....	0 0 0	0 0	160	166	Bolt., Wigan and Liverpool.....	1,800,000
Dublin and Kingston.....	6	200,000	152,200	359,000	.....	.....	.....	5 0 5	0 0	25	29	Caledonian.....	1,250,000
Dundee and Arbroath.....	16 1/2	100,000	49,445	153,416	2,989	6,993	1	5 0 5	0 0	25	29	Cambridge and Lincoln.....	5,000,000
Durham and Sunderland.....	18 1/2	169,350	121,055	270,392	9,889	17,762	.....	nihil.	34	29	29	Chatham and Portsmouth.....	120,000
East County and North and East.....	86 1/2	4,442,260	1,311,155	3,931,905	47,385	118,726	1	6 6	45	57	57	Chester and Wrexham.....	1,800,000
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1	2 6 4	10 0	50	57	Churnet valley.....	4,000,000
Glasgow, Paisley and Ayr.....	51	937,500	.....	1,066,951	12,416	36,736	1	2 6 4	10 0	50	60	Direct Northern to York.....	950,000
Glasgow, Paisley and Greenock.....	22 1/2	650,000	216,666	787,884	11,572	23,177	0	5 0	2 0 0	25	12	Dublin and Belfast.....	250,000
Grand Junction.....	104	2,478,712	.....	2,453,169	84,309	195,080	5	0 10 0	0 0	100	210	Dundee and Perth.....	800,000
Great North of England.....	45	969,000	581,617	1,262,518	12,201	36,189	1	12 6 3	5 0	100	119	Edinburg and Northern.....	270,000
Great Western.....	231 1/2	4,650,000	3,679,343	7,272,539	132,235	369,904	3	10 0	7 0 0	75	133	Ely and Bedford.....	1,300,000
Hartlepool.....	15 1/2	438,000	155,540	719,905	.....	.....	.....	8 0 0	100	.....	.....	Gt. South and West Ext.....	1,200,000
Leicester and Swannington.....	16 1/2	190,000	.....	140,000	2,205	6,217	1	5 0	5 0 0	50	.....	Gt. Grimby and Sheffield.....	600,000
Liverpool and Manchester.....	32	1,269,000	497,750	1,739,835	57,229	117,559	5	0 10 0	0 0	100	203	Harwich and E. coun. Jun.....	600,000
Llanelly.....	27	260,000	41,000	221,624	.....	.....	.....	1 0 0	2 0 0	87	.....	Huddersfield & M. rl. & cl.....	125,000
London and Birmingham.....	12 1/2	6,874,976	1,928,845	6,393,468	92,823	405,768	.....	10 0 0	100	218	.....	Kendal and Windermere.....	400,000
London and Blackwall.....	3 1/2	804,000	266,000	1,315,640	15,973	23,870	.....	0 10 0	0 0	100	210	Leeds and Dewsbury.....	800,000
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0	12 0	2 8 0	50	47	Leeds and Thirsk.....	600,000
London and Croydon.....	8 1/2	550,000	229,000	761,855	7,583	10,545	0	5 0	2 10 0	14	17	Liv. Ormskirk and Preston.....	1,750,000
London and Greenwich.....	5 1/2	759,383	233,300	1,040,930	15,193	28,933	.....	nihil.	13	10	.....	London and York.....	5,000,000
London and South Western.....	92 1/2	2,222,100	630,100	2,536,291	68,457	150,469	1	12 6	6 10 0	41	73	Londonderry & Enniskillen.....	500,000
Manchester and Birmingham.....	31	2,100,000	690,582	1,923,699	15,397	58,162	1	0 6	5 0 0	40	48	Lynn and Ely.....	200,000
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2	2 0	4 10 0	93	110	Manchester, Bury and Ross.....	300,000
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761	.....	7 1/2	10 1/2	60	88	Manchester and Buxton.....	250,000
Midland railway.....	178 1/2	5,158,900	1,719,630	6,279,056	76,983	281,898	.....	nihil.	82	93	.....	Mullingar and Athlone.....	700,000
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947	4	0 0	4 0 0	100	105	Newcastle and Berwick.....	650,000
Newcastle and Darlington.....	23	500,000	.....	405,728	.....	.....	.....	nihil.	21	49	.....	Richmond & W. End Jun.....	400,000
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466	.....	2 0 0	50	37	.....	Scottish Central.....	900,000
North Union.....	39	739,201	308,306	1,015,417	9,071	37,794	2	10 0	6 16 8	100	104	Shrew. Woly. Dudley & B.....	900,000
Paris and Orleans.....	82	1,600,000	400,000	1,978,415	.....	.....	.....	0 16 0	8 0 0	20	39	Trent Valley.....	900,000
Paris and Rouen.....	84	1,440,000	.....	.....	31,247	91,171	.....	8 0 0	20	38	.....	West London Extension.....	61,000
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066	.....	nihil.	50	18	.....	West Yorkshire.....	1,000,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876	.....	nihil.	82	93	.....	Whitehaven and Maryport.....	100,000
South Eastern.....	88	2,996,600	1,530,277	3,464,172	40,993	81,482	0	10 6	2 2 0	50	39	.....	.....
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	0	0 6	5 0 0	100	53	.....	.....
Ulster.....	25	519,150	20,000	348,626	5,401	13,850	0	15 0	5 1 8	29	37	.....	.....
Yarmouth and Norwich.....	20 1/2	187,500	62,500	230,250	.....	.....	.....	nihil.	16	25	.....	.....	
York and N. Mid. and Leeds and Selby.....	28	1,062,500	167,500	676,644	27,132	55,732	2	10 0	10 0 0	50	100	.....	.....

Stream and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10	.....	15 1/2	15 1/2	Loughborough.....	70	142 1/2	142 1/2	70	1140	1140
Anti Dry Rot.....	10,000	.....	18 1/2	.....	2	.....	Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company.....	5,700	100	35	.....	3 1/2	.....	Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation.....	20,000	15	14	10	27 1/2	27	Mersey and Irwell.....	500	100	100	10	.....	.....
Gt Western Steam Pa.....	.....	.....	100	.....	25	.....	Macclesfield.....	3,000	100	100	2 1/2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6 1/2	.....	Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1 1/2	.....	Oxford.....	1,736	100	100	30	565	565
Peninsular and Oriental.....	11,493	50	50	7	6 1/2	65	Regents or Loncon.....	21,418	33 1/2	33 1/2	2 1/2	25	25
Ditto.....	3,200	50	40	7	.....	.....	Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....	.....	.....	.....	6	.....	.....	Somerset coal.....	800	150	150	7 1/2	123	123
Reversionary Int. Soc.....	5,300	100	100	4 1/2	104	104	Stafford and Worcester.....	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60	.....	36 1/2	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5	.....	.....	.....	Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	2,000	10	7 1/2	10	15	.....	Stroudwater.....	266	150	150	19	.....	.....
Thames Tunnel.....	4,000	50	50	.....	.....	.....	Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100	.....	.....	.....	Severn & Why & Rail Av.....	3,762	26 1/2	26 1/2	5 1/2	30	30

Canals.

Ashby de la Zouch.....	1,432	113	av.	4	70	70	Thames and Medway.....	8,149	19 1/2	19 1/2	.....	10	10
Barnsley.....	720	199	100	14	180	180	Warwick and Birmingham.....	7,000	100	100	10 1/2	167	167
Birmingham, 1-16 share ..	3,000	118 1/2	79	10	150	150	Warwick and Napton.....	986	100	100	8 1/2	122	122
Do. and Liverpool Junction.....	4,000	160	100	.....	13 1/2	13 1/2	.....	.....	.....	.....	.....	.....	
Coventry.....	500	100	100	20	365	365	.....	.....	.....	.....	.....	.....	
Cromford.....	480	do.	do.	24	250	250	.....	.....	.....	.....	.....	.....	
Derby.....	600	do.	do.	9	105	105	.....	.....	.....	.....	.....	.....	
Erewash.....	231	do.	do.	32	410	440	.....	.....	.....	.....	.....	.....	
Forth and Clyde.....	1,297	400 1/2	40 1/2	4	110	110	.....	.....	.....	.....	.....	.....	
Grand Junction.....	11,600	100	100	7	162	161 1/2	.....	.....	.....	.....	.....	.....	
Grand Surrey.....	1,500	do.	do.	.....	20	.....	.....	.....	.....	.....	.....	.....	
Gloucester and Berkley.....	5,000	do.	do.	.....	8	8	.....	.....	.....	.....	.....	.....	
Grantham.....	749	150	150	8	185	185	.....	.....	.....	.....	.....	.....	
Lancaster.....	11,699	47 1/2	47 1/2	3	40	40	.....	.....	.....	.....	.....	.....	
Leeds and Liverpool.....	2,897	100	100	34	640	640	.....	.....	.....	.....	.....	.....	
Leicester.....	545	14	140	9	139	139	.....	.....	.....	.....	.....	.....	

Water Works.

Birmingham.....	4,800	25	25	3 1/2	28	28
East London.....	4,433	100	100	8	323	323
Grand Junction.....	5,500	av.	41 2/3	7 1/2	83	90
New River L. B. Ann.....	1,500	.....	.....	2 1/2	.....	.....
Manchester and Salford.....	6,486	av.	30	8 1/2	57	57
Vauxhall, lt. S. London.....	1,000	.....	.....	5	55	55
West Middlesex.....	8,294	av.	63 1/2	6 1/2	126	127

Docks.

Commercial Dock.....	1,065	100	100	3	80	80
East and West India.....	.....	sto.	.....	5 1/2	137	137
London.....	3,238,310	sto.	.....	4 1/2	114 1/2	



AMERICAN RAILROADS.													SALES.	
RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	Week ending May 27th.	
						Gross.	Nett.		Gross.	Nett.			Shares.	Price
N. H.	1 Portland, Saco and Portsmouth.	50	1,200,000				89,997	47,166	7	124,497	74,841	6	113½	
	2 Concord.	35	750,000								12	70½		
Mass.	3 Boston and Maine.	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	110½	15 117
	4 Boston and Maine extension.	17 1-4	455,703	unfin.										
	5 Boston and Lowell.	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120½	
	6 Boston and Providence.	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	108½	
	7 Boston and Worcester.	44	2,914,078				4,014,162,000		6	428,437	195,163	7½	116½	52 118½
	8 Berkshire.	21	250,000	not stated				17,500	7	17,737				
	9 Charlestown branch.		280,260						13	34,654	13,971	5½	70½	
	10 Eastern.	54	2,388,631				279,563	140,595	6	337,238	227,920	8	109½	15 112
	11 Fitchburg.	50	1,150,000	not op'd						42,759	26,835		120	6 122½
	12 Nashua and Lowell.	14 1-2	380,000				84,079		8	94,588	34,944	10	121	
	13 New Bedford and Taunton.	20	430,962				50,671	24,000	6	64,998	24,000	6		
	14 Northampton and Springfield.		172,883	unfin.										
	15 Norwich and Worcester.	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	70½	10,060 71½
	16 Old Colony.		87,820	unfin.								102		9 109
	17 Stoughton branch.	4	63,075	unfin.										
	18 Taunton branch.	11	250,000					20,000	8	96,667	20,000	6	118	
	19 Vermont and Massachusetts.													
	20 West Stockbridge.	3	41,516	200		100						4		
	21 Western, (117 miles in Mass.).	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	102½	261 104
	22 Worcester branch to Milbury.		8,431	506										
	23 Housatonic, (10 months.)	74	1,244,123							150,000			82	40 30
Co'n	24 Hartford and New Haven.	38	1,100,000	100,000	10,000	100						6	89	
	25 Hartford and Springfield.	25 1-2	600,000	400,000	2,000	100								
	26 Stonington, (year ending 1st Sept.)	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		41	2,680 35
N. Y.	27 Attica and Buffalo.	31	336,211				45,896	7,522		73,248	48,033	0		
	28 Auburn and Rochester.	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	162,007	6	106	37 107½
	29 Auburn and Syracuse.	26	766,657			133½	86,291	27,334		96,738	52,544	6	116	
	30 Buffalo and Niagara.	22	200,000		1,500								100	
	31 Erie, (446 miles.)		5,000,000										31½	785 30½
	32 Erie, opened.	53						48,000		126,020	59,075			
	33 Harlem.	26	1,206,231							140,685	62,399		70	2,750 71½
	34 Hudson and Berkshire.	31	575,613			50				35,029	1,999	0	14	
	35 Long Island.	96	1,610,221	392,340	29,846					153,456	58,766	0	75½	4,060 71½
	36 Mohawk and Hudson.	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,703	0	64½	975 60
	37 Saratoga and Schenectady.	22	303,658				42,242	3,000	1	34,666	8,455	0		
	38 Schenectady and Troy.	20 1-2	640,800				28,043			32,646	6,365	0		
	39 Syracuse and Utica.	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	115	30 116
	40 Tonawanda.	43	727,332				76,227			114,177	75,865	5		
	41 Troy and Greenbush.	6	180,000											
	42 Troy and Saratoga.	25	475,801				44,325	21,000		38,502	9,971	2½		
	43 Utica and Schenectady.	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	129	
N. J.	44 Camden and Amboy.	61	3,200,000				682,832	383,880		784,191	404,956		110½	2 110
	45 Elizabethtown and Somerville.	26												
	46 New Jersey.	34	500,000										93½	56 95
	47 Paterson.	16	2,000,000									6	85	
Pa.	48 Beaver Meadow.	26	500,000											
	49 Cumberland Valley.	46	1,000,000											
	50 Harrisburg and Lancaster.	36	1,250,000										30	
	51 Hazleton branch.	10	860,000											
	52 Little Schuylkill.	29	120,000											
	53 Blossburg and Corning.	40	900,000											
	54 Mauch Chunk.	9	600,000											
	55 Minehill and Schuylkill Haven.	18	100,000						12				143½	
	56 Norristown.	20	315,000										6½	
	57 Philadelphia and Trenton.	30	800,000										104	
	58 Pottsville and Danville.	29 1-2	400,000											
	59 Reading.	94	1,500,000	7,447,570	40,200	50				597,613	343,511		50½	1,000 49
	60 Schuylkill valley.	10	9,457,570											
	61 Williamsport and Elmira.	25	1,000,000				20,000							
	62 Philadelphia and Baltimore.	93	400,000				43,043	200,000			210,000		43½	5,156 18½
Del.	63 Frenchtown.	16	4,400,000											
Md.	64 Baltimore and Ohio, (1st Oct.)	188	600,000				575,235	279,402		538,620	346,946		48½	
	65 Baltimore and Susquehanna.	58	7,623,600										5	
	66 Baltimore and Washington.	38	3,000,000				177,227	71,691		212,129	104,529		84	
Va.	67 Greenville and Roanoke.	17 1-2	1,800,000											
	68 Petersburg and Roanoke.	60	260,000							122,871	72,898	3		
	69 Portsmouth and Roanoke.	78 1-2	969,880											
	70 Richmond and Fredericksburg.	61 1-2	850,000											
	71 Richmond and Petersburg.	22 1-2	1,200,000											
	72 Winchester and Potomac.	32	700,000											
N. C.	73 Raleigh and Gaston.	84 1-2	500,000											
	74 Wilmington and Raleigh.	161	1,360,000											
S. C.	75 South Carolina.	136	1,800,000							532,871	140,196	5		
	76 Columbia.	66			34,410	75	201,464	77,456		328,425	180,704			
Ga.	77 Central.	190	5,671,452				227,532	93,190						
	78 Georgia.	147 1-2	2,581,723				248,026	158,207		248,086	147,523			
	79 Montgomery and West Point.	89	2,650,000	170,000		100				35,000	15,000			
Ky.	80 Lexington and Ohio.	40	500,000											
Ohio	81 Little Miami.	40	450,000											
	82 Mad river.	40	400,000											
Ind.	83 Madison and Indianapolis.	56	152,000											
Can.	84 Champlain and St. Lawrence.	15	212,000					12,000		58,000	24,000		110	

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.  
 Thursday, May 29, 1845.

CLEVELAND, COLUMBUS AND CINCINNATI RAILROAD.

Since the article in relation to the Sandusky and Cincinnati railroad was written, we have received the Delaware (Ohio) Gazette, in which we find an account of "a meeting of the commissioners appointed by the general assembly at the last session, for the organization of the Columbus railroad company, the Cleveland, Columbus and Cincinnati company, and the Columbus and Sandusky company, held at Mansfield on the 1st day of May, 1845, in pursuance of previous notice: John W. Allen, of Cleveland, was appointed chairman, and D. T. Fuller, of Delaware, secretary.

"After a discussion of the several charters and routes between Cincinnati and Columbus and the lake, on motion of S. Finch, of Delaware, a committee of two commissioners named in each charter was appointed by the chair, to examine the several charters, and report under which it is expedient to organize—also, to report upon such other matters as they may deem advisable. Under this resolution, the chairman appointed Sandford S. Bennett, George H. Busby, Irad Kelley, James Purdee, Sherman Finch and Hiram Randolph; and, on motion of Jas. Purdee, the chairman was added to the committee, and the meeting adjourned to 3 o'clock, P. M.

"The meeting was again organized, and the committee appointed in the morning made a written report, recommending that a company be formed under the Cleveland, Columbus and Cincinnati charter, and the amendments thereto made at the last session of the legislature, and that the commissions of that company cause books to be opened for subscriptions for the stock necessary for the construction of a road from Cleveland to Columbus; which report was accepted, and so it was determined by the commissioners of the three routes, that that terminating at Cleveland should be adopted.

"The commissioners on the Cleveland, Columbus and Cincinnati route, subsequently stated that they had fixed on the 3d Monday in June for opening books and subscriptions to the stock, at the following places, and under the direction of the gentlemen whose names are annexed to each, viz:

"At Cleveland, Richard Hillard, T. P. Handy and Philip Scoville. At Columbus, Sam'l Medary, Joseph Ridgway, Jr., and Wm. Dennison, Jr. At Strongsville, in Cuyahoga county, David Harvey and Harman Stone. At Medina, David King, U. H. Peak and S. N. Sargeant. At Blyria, Artemas Bebee, E. W. Hubbard and H. Ely, Jr. At Ashland, in the county of Richland, Charles R. Deming and John P. Reznor. At Mansfield, James Purdee and E. W. Lake. At Lexington, in the county of Richland, J. F. Adams and A. Abernethy. At Shelby, Richland county, Robert Lee and Thomas Mickey. At Marion, E. Hardy, S. S. Bennett and Wm. Bain. At Mt. Gilead, in Marion county, J. B. Shaw, Nathan House and S. Gellen. At Delaware, S. Finch,

H. Williams and B. Powers. At Eden, in Delaware county, S. Scott, H. E. Randolph and Israel Potter. At Bucyrus, Josiah Scott, John Caldwell and Samuel Myers. At Auron, Josiah Tracey and Tower Jackson.

"Also resolved, that Sherman Finch, Hosea Williams and Benjamin Powers, of Delaware, be a committee of correspondence with authority to call subsequent meetings of the commissioners, when they shall deem it expedient."

These two lines from Sandusky and from Cleveland to Cincinnati, appear to be competing lines.

We take it for granted that the "Mad river and Sandusky" line will be completed at all events, and connected with the Miami road, and thus open a line, from the lake to the Ohio at Cincinnati. Of course a line from Cleveland, through Columbus, will not be very far distant, at least for a part of the way, from the Mad river road—it would therefore seem to us good policy to run westerly from Cleveland, and connect with the Mad river road, and thus open a continuous railroad to Cincinnati, and at the same time a portion of the Great Western Railroad from New York to the Mississippi. We do not however pretend to put our limited knowledge of the matter in competition with those who are familiar with it, but rather make these remarks to elicit the facts. We shall of course go for the earliest possible completion of a railroad: from the lake to the Ohio at Cincinnati, and then for another further east.

CENTRAL RAILROAD, MICHIGAN.

"By the accompanying table," says the Detroit Free Press, "it will be perceived that the receipts for freight for the first five months of the present fiscal year are less than one-half of those for the same period of the preceding year, owing to the great falling off last season in the usual wheat-crop in this State. The receipts for passengers, however, it will be seen, are increased about in proportion to the extension of the road since last spring. Although the aggregate receipts for the first five months of this year are over \$16,000 short of last year's receipts for the same period, yet it will be seen that they are nearly double what they were in the same period year before last, when the receipts for the year fell only a few dollars short of \$150,000. If our farmers are blessed with as good a crop of wheat this season, as there is now every reason to anticipate, and from the flattering prospect of increased travel on the road, we see no reason to doubt but that the receipts for the year will yet come nearly or quite up to the estimate of the board of internal improvement in their last annual report, which was \$275,000.

Receipts on this road for the first five months of the three last fiscal years:

	Freight.	Passgrs.	U. S. M.	O'le'n	Total.
Dec. 1842.....	\$3,322 77	2,025 14	.....	.....	5,347 91
Jan. 1843.....	2,413 04	1,320 26	621 39	.....	4,254 69
Feb. do.....	1,502 19	1,278 73	.....	.....	2,779 92
Mar. do.....	2,540 28	1,486 74	.....	.....	4,027 02
April, do.....	2,579 49	1,793 47	1,211 37	.....	5,589 33
1st 5 mos. '42-3.	12,357 77	7,907 34	1,732 76	.....	21,997 87
Dec. 1843.....	8,049 12	2,568 02	.....	.....	10,617 14
Jan. 1844.....	8,265 95	2,942 37	520 65	90 00	11,818 87
Feb. do.....	7,893 31	2,311 89	.....	160 70	10,367 69
Mar. do.....	5,391 38	2,635 02	1,321 92	.....	9,398 32
April, do.....	8,574 98	5,804 47	.....	57 00	14,176 85
1st 5 mos. '43-4.	33,116 14	16,111 76	1,842 47	307 70	56,378 07
Dec. 1844.....	4,469 66	3,454 08	697 69	.....	8,621 43
Jan. 1845.....	2,467 31	3,404 24	551 28	.....	6,412 83
Feb. do.....	2,483 84	3,241 23	1,456 99	27 41	7,308 47
Mar. do.....	2,926 80	3,950 59	.....	100 42	6,977 81
April, do.....	4,911 89	6,076 70	568 46	.....	11,607 11
	17,279 50	20,225 90	3,293 42	127 83	40,927 65

This is one of the very few cases in which the business of a railroad has fallen off this year, as compared with last year. It is however accounted

for in the short crops of wheat in 1844. We look confidently however to a much better comparative statement at the close of the year.

One word to the editorial corps of Detroit.—These extracts are made from the only Detroit paper which has come to us in years—and this appears to have come from a friend, "S. S.," who will please accept our thanks for giving us an opportunity to speak of the railroads in Michigan. We have frequently sent the Journal to the Detroit papers, and requested an exchange, but whether we are to place their "declinature" to the account of the high estimation in which they hold their own papers, or the low estimation of ours, or both, we are at a loss to determine, and will not ask, as we have no hesitation to say that we can be quite as useful to them as they to us—yet we should be well pleased to receive a paper from Detroit, that we may be able to speak of their public works occasionally as they merit.

THE COAL TRADE.—SCHUYLKILL VALLEY.

The demand for coal continues brisk, and the red ash men are now busy in supplying the orders for New York dealers, the demand for this kind of coal having commenced much sooner this year than last.

The rails on the Schuylkill valley railroad are now laid as far up as New Philadelphia, and the shipments from that quarter are rapidly increasing.

The bridge over the Schuylkill and the laying of the rails through the deep cut on the Mill creek road will be completed to-day or Monday, giving access to several of the collieries on the Mill creek for shipments. The whole road, it is believed, will be completed in the course of next week.

The shipments by railroad are increasing considerably, reaching 15,549 02 tons this week. By canal, 5,748 10. Total for the week, 21,297 12 tons.

Freights to Philadelphia 70 cts., to N. York, \$1-80. By railroad, from Pottsville and Port Carbon \$1-10—from Schuylkill Haven, \$1, toll included.

Sent by railroad from Pottsville and Port Carbon—total tons.....	66,620-09
From Schuylkill Haven—total tons.....	114,000-05
From Port Clinton.....	920-04
Total.....	181,570-18

BY CANAL.

From Pottsville and Port Carbon—total.....	3,4311-05
From Schuylkill Haven—total.....	6,488-00
From Port Clinton—total.....	10,397-18

Total by canal.....	51,197-03
Total by railroad.....	181,570-18

Total by railroad and canal.....232,768-01

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines.....	30286
Room run do.,.....	8816—39102
Beaver Meadow railroad and coal co.,.....	12782
From Penn Haven—Hazleton coal co.,.....	11230
From Rock Port—Buck Mountain coal co.,.....	3436

PINE GROVE COAL TRADE.—On Union canal railroad to 15th May—total tons.....9485  
 On Swatara railroad—total tons.....4472

WYOMING COAL TRADE—total.....13186

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....119,749-04

MOUNT CARBON RAILROAD—total tons.. 70,430

The doctrine of "low fares and high speed for passengers" is becoming the order of the day, and must prevail. The Railway Times of May 3d, says—"The Eastern Counties railway company have announced their intention of reducing their fares and increasing the speed of their trains."

## ATMOSPHERIC RAILWAY.

It will be recollected by our readers that we gave, in the last August number of the Journal, numerous engravings and full descriptions of the atmospheric railway, as put in operation by Messrs. Clagg & Samuda, from Kingston to Dalkey, in connection with the Dublin and Kingston railway. It will also be recollected that those two eminent engineers, Messrs. Brunel and Stephenson, took opposite sides on the subject, and that each based his opinions on actual experiments made by themselves on the road. Of course there has been no little interest felt in the result of the year's operations; and we are gratified in being able to give the annual report of the directors, which is highly satisfactory and instructive—establishing beyond a question the correctness of the policy adopted by that company—and *should be by all others*—“of endeavoring to create a traffic, and to increase it to the greatest extent, by affording to the public the *utmost possible accommodation at the very lowest rates.*” We ask for this report an attentive perusal by all who take an interest in the success of railroads in this country, as we are now again upon the threshold of a rapid extension of—and, we hope, important improvements in—the railroad system generally. It needs not the wisdom of a prophet, or the son of a prophet—nor do we claim the honor of being either the one or the other—to predict, that, in a few years, the railroad interest of this country will become one of the predominant and overshadowing interests of the country; hence the *necessity* of its being properly managed and governed in its infancy.

## ATLANTIC STEAM NAVIGATION CO.

We copy the following letter in relation to this important matter from the Journal of Commerce. We shall now see *American Atlantic steam ships*. There is, at times, *much* in a name—even if it be rarely met with—as we shall learn ere long in this case; and we trust that our government will contribute largely to the success of the enterprise, and thus ensure the construction of a class of ships, which may be at once turned, if necessary, into efficient steamships of war, a species of defence in which we are, in comparison with other nations, sadly deficient.

“The public are aware that the State legislature, with a promptitude and liberality which call for our warmest acknowledgments, granted the above named company an act of incorporation, the particulars of which, for general information, I beg to subjoin.

“The act designates the name of the company, which is to continue for twenty-four years from the present time.

“The capital stock of the company is to be two millions of dollars, in shares of one hundred dollars each, for the purpose of carrying on foreign steam navigation.

“The company may commence operations when five hundred thousand dollars are subscribed.

“The directors, twelve in number, and enumerated in the act of incorporation, are to open subscription books for said capital stock in the city of New York, giving fourteen days' previous notice, for such amount of stock as they may require, and the same notice for an extension of the stock from time to time, as the directors may deem expedient.

“Within twenty days after said subscription, a deposit of five per cent. upon which is to be made at the time of subscribing, the directors are to make an allotment of the shares to the subscribers, in such manner as the majority of them shall deem most advantageous to the interests of the company.

“The twelve directors to be elected annually by the stockholders; any six of them, the president being one, to form a quorum for the transaction of the business of the company.

“Dividends of the profits of the company to be made semi-annually, in January and July.

“The act to take effect immediately.

“Your obedient servant,

“15th May, 1845. JUNIUS SMITH.”

## AMERICAN LOCOMOTIVES.

We copy the following article in relation to the performance of the locomotive *Atlantic*, on the Reading railroad, from the *Philadelphia North American*, of the 17th inst. It is another evidence of the enterprize and skill of American mechanics; and such an one as we are always pleased to record, by whomsoever given.

“To exhibit the unrivalled skill of Philadelphia mechanics in a very important branch of manufacture, and to afford a satisfactory answer to the calls for information relating to the performance of locomotive engines on the Reading railroad, and the extraordinary power of those built by Messrs. Norris, Brothers—we have, on application to those gentlemen, been favored with a letter addressed to them by the able engineer, who is superintendent of the Reading railroad, giving a statement of the performance of the “*Atlantic*,” on the 3d inst.—this performance far exceeding anything on record, and fully sustaining the high and well earned reputation, at home and abroad, of the builders.

“The great advantages which Messrs. Norris have gained in the peculiar construction of their six wheel combined engines, in overcoming friction, at all times having the whole adhesion of the engine, the weight being equally distributed upon the rail, and an easy passage through curves of short radii, has been fully proven by the performance referred to of the “*Atlantic*,” showing, conclusively, that an engine built upon Messrs. Norris' plan is capable of doing more

work than engines weighing 4,000 pounds more.

“The six driving wheels are placed in an independent, flexible, vibrating truck, equal distances apart, the power applied directly to the centre pair of wheels, and the truck is so constructed that the wheels are allowed to assume any position upon the rail, occasioned by unevenness of the road, without producing an extra strain or friction upon the machinery, or binding of the flanges upon the rails, when passing through short curves.”

(COPY.)

MESSRS. NORRIS, BRO'S—

GENTLEMEN: On the 3d inst. the engine “*Atlantic*,” built by you for our company last year, made the following performance on the Reading railroad:

She left Schuylkill Haven, one of the termini of our road in the coal region, at 9 33, A. M., with a train of 158 coal and other cars, all loaded, and arrived at the Falls of Schuylkill, near Richmond, our Delaware terminus, at 8 30, P. M., with the above train, of which the following are the particulars:

Length of train, 2020 feet.

Weight of coal, 740 tons, of 2240 lbs.

Total weight of cars and coal, exclusive of engine and tender, 1268 tons, of 2000 lbs.

Running time, 8 hours 3 minutes.

Total time, including stoppages, 10 hours 52 minutes.

Wood used, 1035 cubic feet, or 8-09 cords.

Water used, 8659 American gallons.

Total distance run, 84 miles, of which 40 miles were level: and one continuous level of 8 miles long.

The train was started with ease twice, on a level. The engine weighs 15 $\frac{1}{2}$  tons; six 46 inch wheels, all coupled; cylinders, 14 $\frac{1}{2}$  X 20 inches.

The engine performed with perfect ease to herself, during the whole trip: turned curves of 700 feet radius, with facility; and brought up 110 empty coal cars in her regular trip on the road next day.

I should think her capable of hauling some twenty more coal cars in addition to the above trains.

I am, very respectfully, yours,  
(Signed) G. A. NICOLLS,  
Sup't transportation machinery and motive power, Philadelphia and Reading railroad.  
READING, Penn. U. S. }  
May 8, 1845. }

We cut the following from the Portsmouth (Ohio) Tribune, and fully concur with the writer, that “the west,” nor the east either, “need to depend on the English manufacturers for railroad iron.” We shall ere long be able to manufacture, not only our own railroad iron, but also all other kinds of iron required in the country. We have the raw material in the greatest abundance, and also ample capital and Yankee enterprize and skill to meet *any* demand, and only require to *understand* our own resources and ability

to accomplish anything we may be disposed to undertake to ensure ample supplies for all purposes.

#### "RAILROAD IRON, ETC.

"It is a fact, as we believe, not generally known, that considerable railroad iron has been manufactured in Portsmouth, Ohio, probably the first, also, that was manufactured in the United States. In October, 1841, T. G. Gaylord & Co., at their rolling mills, made over *one hundred tons* of rails for the Madison and Indianapolis railroad, and some *sixty tons* for the Little Miami railroad. Twenty-five tons of spikes for the former road have also been made, and fourteen tons of cast iron chairs for rails for the latter. Although no great profit was realized from this manufacture (at \$30 the ton,) and the proprietors of the mills declined a subsequent offer for a bill of 2500 tons of rail, principally from want of time to fill the order, yet enough has been done to show that there is no need of the west depending on English manufacturers for railroad iron.—That the increasing demands of the west for this kind of iron, will, ere long, call into operation the means of supply, near home, can no longer be doubted."

#### SANDUSKY AND CINCINNATI RAILROAD.

We find in the Cincinnati Gazette, of 13th inst., the following cheering indications that Ohio is moving vigorously in relation to her railroads, from lake Erie to the Ohio river, at Cincinnati, the "queen city of the west." It *must* be so. *In the nature of things it cannot be otherwise*, but that the State of Ohio will, in a few years, not only have at least two, if not three lines of railroad, besides her canals, from lake Erie to the Ohio river, but these roads will be intersected nearly at right angles, by at least *two* lines from east to west: one near the lake, in connection with the roads from the city of New York, and the other in connection with the Baltimore and Ohio railroad. These two great rival lines from the Atlantic to St. Louis, or some other point on the Mississippi, *must* pass through Ohio.

#### "OUR RAILROAD.

"The directors of both branches of the Sandusky and Cincinnati railroad are taking action upon the loan, and preparing to go to work.

"Mr. Mills has just returned from the north. Mr. Shoemaker accompanied him. The president and directors mean to put their road under contract to Urbana, and to complete it to Springfield with all proper despatch. Mr. S. is here to make arrangements, we learn, with regard to the purchase of iron.

"The president and directors of the Little Miami are now (Saturday morning) in session. They are preparing the necessary papers to perfect the loan, and making ready for efficient action in extending and completing the road. No time will be lost, either

in neglecting what should be done, or in attempting what cannot be safely accomplished. Their aim will be to complete the road at the earliest practicable period."

#### WHITE WATER CANAL.

The Cincinnati Gazette has the following very just remarks in relation to the benefits resulting from internal improvements, or *canals and railroads*. It is true, as the editor remarks, that there has been much mismanagement in their construction—we say a great waste of public money, which would not have been done with private funds—yet, with all the errors, and losses, and disappointments, the country will be, and indeed *now is*, far more wealthy, and prosperous, and powerful, with her present canals and railroads, even if their cost had been paid by a *tax upon the property* of the country, and tolls only sufficient were charged to pay their current expenses, or keeping them in repair—yes, even if they had cost *double what they have*. Says the Gazette,

"The White Water Valley canal is fast progressing to completion, and will, in all human probability, be ready for the fall business to Cambridge city. Already, we understand, has the water been let in at the feeder dam just below Connersville. The aqueducts over Garrison creek, just above Laurel, and over White Water, just below Laurel, will be the last work finished this side of Connersville. But we understand these aqueducts will be done in the month of May. We presume, therefore, that we shall have an opportunity of celebrating the 4th of July with our friends at Connersville by water communication.

"With all the burden and disgrace of a public debt which we *do not pay*, we would this day rather it should continue to hang over us, than to dispense with the benefits and conveniences of the White Water canal. We were always in favor of internal improvements, and with all its unpopularity, we are not yet ashamed, or regret that we advocated such a scheme. We know it was wrongly managed, but this we never counteracted or apologized for. The White Water canal will make this valley the richest and most independent part of the world. We are yet young, but with our fertile soil—rich and inexhaustible—there is nothing to impede our progress to wealth the most unbounded. When we recollect what has been done in this valley within the last 25 years, who can estimate the wealth, splendor and magnificence which shall beautify and adorn it in 50 years? Mansions and fine private dwellings will displace the cottage farm house, as they have driven out the log cabin, and our posterity will enjoy in luxury our labors and the toil of our fathers. But without some great public improvement we could never have been anything but hewers of wood and market pedlars. Few of us fully appreciate the benefits of canals, railroads and turnpikes."

#### RAILROADS IN NEW ENGLAND.

The vigorous movements of the New England people at this time in relation to the construction of railroads northwardly from Boston, Hartford and Portland, indicate a spirit of enterprize characteristic of the descendants of the pilgrims. There are now three distinct lines—we may say *four* a part of the way—upon which great efforts will be made by the inhabitants near them, and by their respective friends in the cities in which they are designed to terminate, for an early breaking of ground, and prosecution of the work.

There cannot, we are *sure*, be a doubt of the construction of a railroad up the valley of the Connecticut river, in continuation of that now in course of construction to Northampton—at least as far as the mouth of White river, and thence to Burlington via Montpelier, and probably to Wells' river and still higher up. To doubt this, would be a *libel* on the character of the people of that beautiful valley. We know them too well to believe that those who were first, and foremost, and deepest in the Merino sheep trade, in its earliest history in this country, will be the last to avail themselves of the advantages of railroads.

There will also, and of *course*, be a railroad to Brattleboro' in continuation of the Fitchburgh road, which will find its way across the Green mountains at some favorable point before it reaches Windsor, and thence to Rutland and Burlington. To doubt this would be a libel upon the people of Boston—than whom, we would sooner libel any other people on earth: as we cherish—though almost an entire stranger to their persons—a high admiration of them, or rather of their acts.

There will most assuredly be also another line from the Fitchburgh road, through Keene in New Hampshire, to Bellows Falls, in Vermont, or to some point above there. Of this we feel assured: first, from the determination manifested by the Keene people who attended the convention in Boston last September, for the purpose of extending the Fitchburgh road northward—as well as from the present movements of the people on the line. We well recollect the assurance given by Mr. Edwards, of Keene, who desired a suspension of action, when the convention decided to act under the call, which was for the purpose of taking means to construct a road to Brattleboro' from Fitchburgh. He told them that on the day they were ready to run cars from Fitchburgh, around New Hampshire, through Brattleboro' to Bellows Falls, they, the New Hampshire people,

would have a road ready for cars to pass in a much more direct line from one of those places to the other; and their movements have been in accordance with that assurance; and the road will be built at an early day. It is not yet certain whether these two lines will unite there, and pass up the valley of the Connecticut on the east or west side, to the mouth of White river, or whether there will be one on each side of the river. Time will determine.

After these—and possibly before them—will be the road from Concord, in New Hampshire, in continuation of the Lowell and the Nashua and Concord roads, to the mouth of White river, opposite Lebanon, there to connect with the Connecticut valley road, or up the valley of the Merrimac, to Meredith bridge, and Plymouth, and thence to Haverhill and Wells river—or perhaps both—and thence to Burlington and Canada line somewhere. This road must be built by the people on its line, and those interested in the three roads from Boston to Lowell, Nashua and Concord, unless they are willing to give up the main travel and business from Canada, which would of course take the railroad down the Connecticut valley, unless there was one equally favorable over this route. These considerations, we hold, are quite sufficient to ensure the early commencement and eventual completion of these lines. Boston is deeply interested in them; indeed she will be under the necessity, and not without the inclination, of putting her broad and vigorous shoulders to the wheel, to prevent, if possible, the construction of a railroad from Portland to Montreal, and thus prevent the business and travel of the Canadas to the mother country, from reaching the Atlantic without her deriving toll from it, as is now the case. A few years—less than ten—will see the cars passing over them at the rate of twenty miles an hour; but even that, with all the counter interest of Boston, will not, we think, prevent the construction of another, and a shorter line from the Atlantic to the Canadas. Portland, though comparatively small, will make a vigorous, and we think a successful effort to become the sea port of the Canadas: and many people will pass from Montreal to Boston, and the reverse, by the way of Portland.

The annexed extracts show that the people are moving in the valley of the Connecticut, as well as in the valley of the Merrimac.—The first is from the Boston Courier, and says that,

“A meeting of those in favor of extending railroad communication from the southern part of the State of Vermont, up the

valley of the Connecticut river, is called at Windsor, Vermont, on the 11th day of June next. ‘to take measures preparatory to the immediate opening of books for subscriptions to the capital stock of the Connecticut and Passumpsic river railroad company; and to take such other measures as may be deemed expedient to hasten the commencement and completion of a railroad, under the charter of said company—a road which will, in its course, connect with, or intersect the routes of the following roads, either now in progress of construction or contemplated, viz: the Greenfield and Northampton, the Vermont and Massachusetts, the Cheshire, the Champlain and Connecticut river, and the Vermont Central, and which will open a direct medium of communication between Montreal, on the one hand, and Boston and New York on the other.’ The call is signed by the mayor and other gentlemen of Hartford, Ct., by the president of the Western railroad, and citizens of Springfield and Northampton, and by some of the principal citizens of Brattleboro’, Windsor, Putney, Hartland, Hartford, Norwich, Thetford, Bradford, and Barnet, Vt.”

The next is from the New Hampshire Patriot, of May 22d, and says,

“In the case of the Northern railroad, the report of the railroad commissioners is in favor of the route from Concord, by way of Franklin, Andover, Wilmot, etc., to Lebanon; but the commissioners state that they have examined another route, which, starting at Concord, strikes Contocook river, at Horse hill bridge; thence to the Blackwater and up that stream until it meets the route proposed by the corporation. The distance is stated to be five miles shorter by this route. The report suggests to all concerned whether the interests of the corporation and the public would not be promoted, by making the main road on the Blackwater route, and extending a branch by Fishersville and Boscawen Plain to Franklin. The highest grade on the route of the Northern railroad is said to be 52-80 feet per mile.

“In the case of the Boston, Concord and Montreal railroad, the report fully adopts the route proposed by the corporation, which passes out of Concord near Federal bridge; thence through Canterbury to Sandbornton bridge; thence to Meredith bridge and village; Holderness village, Plymouth, etc., to Haverhill, and thence up the Connecticut river to some point, on the west bank, near Wells river, ‘or to such other point on the west bank opposite Haverhill or Littleton, or any town on said river between those towns as may be judged necessary to meet a railroad constructed, or to be constructed, in the State of Vermont.’ It is stated that the highest grade on this route will not exceed 45 feet to the mile.

“Both reports were fully approved by the governor and council.”

#### GREAT WESTERN (CANADA WEST) RAILWAY.

We find the following statement in the Hamilton Gazette of 19th inst., and copy it

at length, that our readers may be familiar with the railroad movements in Canada, as well as in the States. By referring to the map it will be seen that the distance from Albany to Detroit is much less by this than by any other route; and that, by the construction of this road, it will become a thoroughfare for the people of Michigan, Wisconsin and the northern part of Illinois and Iowa, which will ensure it a large and increasing business. The charter has been recently renewed with liberal provisions, and early movements, will, we understand, be made to enable its managers to commence operations.

#### To the Editor of the Gazette—

“SIR: The movements in the province respecting this railway have attracted general attention, and much anxiety having been manifested as to its eastern and western termination, by people in the province near its extremities, and by our friends in the United States, I take the liberty of making a few remarks relating to a question of so much real moment to the company, and to the interests existing at or near the probable terminations of the road.

“The charter fixes but two points to and through which the road must pass, namely, the towns of Hamilton and London, and this was done for the purpose of securing it as a great provincial enterprise, capable hereafter of extension down the province to Montreal. The eastern termination must be somewhere on the Niagara river, and the western termination must be at some point on the Detroit or St. Clair rivers, or on both, branching off at London. The precise points of these terminations will be decided on hereafter by the stockholders, all of whom, whether residents or non-residents of the province have a voice according to the amount of stock held by them. The proper course therefore for every interest, either in or out of the province, which may be particularly interested in the termini, is plainly to secure the majority of the stock, this will give such interest the power of controlling the termini of the road. The stockholders here will be satisfied with having the points of Hamilton and London, and are perfectly willing to leave the termini to the choice of the majority of the stockholders—indeed they cannot do otherwise.

“The capital stock is £1,500,000—\$3,000,000—in shares of \$50 each.

“The length of the line from Niagara or Queenston to Detroit, via Hamilton and London, is about 240 miles, and from Buffalo to the same place is about 255 miles, through the same towns.

“The length of the line from Niagara or Lewiston to Port Sarnia, through the same towns, is about 190 miles, and from Buffalo about 205 miles.

“The probable cost of the road has been variously estimated at from \$12,000 to \$20,000 per mile, according to the degree of permanency and solidity of construction.

“The route from Hamilton to Chatham,



145 miles, has been carefully surveyed and plans and estimates made by skillful engineers, and prove the country to be extremely favorable for a railroad.

"The government may resume the railroad in 30 years, by paying the company the amount of its cost, and 20 per cent. in addition, provided the company shall realize clear annual profits during that time of 12½ per cent. This amounts to a perpetual charter.

"The committee of management will shortly prepare and publish a mass of authentic data upon this interesting subject, to which I refer for more full information—and steps will be immediately taken to procure the remainder of the stock to be taken, in this province, the United States and England. Your obedient servant,

"A CANADIAN STOCKHOLDER.

"Hamilton, May 17, 1845."

We learn from the following paragraph from the Liverpool Mercury that another "big gun" is nearly completed in England for the American steam frigate Princeton! Should it, in war, prove as formidable to our enemies as did its predecessor, in time of peace, to our friends, we should not require more than half a dozen such guns, and such officers as its father, to rid us of a whole nation of enemies, especially if not a more powerful nation than Great Britain or Mexico!

Seriously, however, it appears to us that it is quite time for our government to arrest this system of favoritism to certain officers, who have been fortunate in some, if not in all their speculations. What other officer in the navy or army, beside the commander of the Princeton, would have been thus indulged? and would he have been if he had only his pay as an officer to live on?

The "Princeton's" New Gun.—An immense cannon, intended for the American navy, is just being finished at the foundry of Messrs. Fawcett & Co., in this town. It is of malleable iron, of a superior quality, manufactured for the purpose at the Mersey iron works. The weight of metal previously to being bored was upwards of 11 tons, and the gun will be about 8 tons when finished. The length is 13 feet, and bore 12 inches; outside diameter of the widest part, 27½ in., the iron varying in thickness from 3½ in. at the mouth to 7½ in. at the opposite extremity. The exterior is beautifully finished, bearing a polish similar to engine work, which has cost considerable time and labor. This ponderous piece of ordnance will, on its completion, be placed on board the American frigate Princeton, which is expected here shortly to receive it, and mounted on the same carriage which supported the huge cannon that burst some time back when several persons lost their lives. It is the largest ever made in this country, and will rank as one amongst many other efforts of mechanical skill and ingenuity in iron work

which have emanated from Messrs. Fawcett and Co.'s establishment. Before its delivery, the gun will be tested by a double charge of gunpowder (54 lbs.) and two balls made for the purpose.

#### NORWICH AND WORCESTER RAILROAD.

The Worcester Spy makes the following explanation of a fact of some importance relating to this road:

"The Worcester and Norwich road pays a good income on the actual cost of its construction. The company undertook to build it when but a small portion of its stock was taken up by men able to hold it, and, in consequence thereof, were obliged to make great sacrifices to raise money, and finally disposed of a considerable portion of the stock at from fifty to sixty-five dollars per share.—The real par of the stock, that is to say, the average amount actually paid on the whole number of shares, instead of being one hundred dollars, is only sixty-seven. On that amount the road pays a good income, and shares now sell at \$70 each, which is above the actual, though less than the nominal par value."

This would be found true, we doubt not, in numerous other instances, yet the work is deemed unprofitable until it pays full interest on its par value.

#### SUSPENSION AQUEDUCT.

We find the following paragraph in the Journal of Commerce, which announces the successful accomplishment of the new aqueduct for the canal over the Alleghany river, at Pittsburgh. We have kept our eye on this work and looked to its completion with much interest; and now that the enterprising projector and contractor, Mr. John A. Roebling, whose name must be familiar to many of our readers, has successfully completed the work, we shall hold him to his promise to furnish us a full description of it for publication:—

"The water was let in the new wire suspension aqueduct between Pittsburgh and Alleghany, on Thursday evening, 22d inst., but was drawn off again the same evening in order to repair a small leak in the bank of the canal, near the Pittsburgh end of the aqueduct. Having been repaired, the water was again admitted on Friday evening, and the canal is now in order from Pittsburgh to the Portage railroad. Mr. Roebling, the contractor, has successfully achieved in this aqueduct a very difficult and important work."

#### ATLANTIC AND ST. LAWRENCE RAILROAD.

We learn from the Portland Advertiser that the books for subscription to the stock of this company will be opened on Monday, the 30th day of June next, at Augusta, Thompson, Bangor and Portland, in Maine, and also at Portsmouth, New Hampshire, Salem and Boston, Mass., and in the city of New York, and will remain open for ten days at each place.

The editor of the Advertiser says, very justly, that,

"Montreal has entered grandly into the work. We are not so rich as they—our city is not half so large. But we must hold up our end! Sherbrooke, too, which is but a small place, has a large-hearted people, and has sent us word to be up and doing. We must pitch a tune here, for the whole line to Dixville Notch. They will keep up with us manfully, if we begin high enough. A well manifested confidence in Portland will produce an impression, which we need not expatiate upon, in reference to the subscriptions, which we have reason to look for, from capitalists in the money markets of this country and in Europe."

It is true that much, very much, depends upon Portland, and we doubt not her citizens will come up to the mark like real New Englanders.

#### CHENANGO CANAL.

We are encouraged a little in the hope that, as the resources of the country on its southern borders are more thoroughly developed, it may do something towards paying its expenses. The Binghamton Courier, of 15th inst., says, "The tolls collected at this port, last year, it will be recollected, exhibited a gratifying increase of business at this point of the Chenango canal—having more than doubled upon the preceding year. The collector informs us that the receipts of this year, so far, show a considerable increase over last year. As the resources of the country are developed, new sources of wealth and elements of trade are discovered and brought into profitable requisition. We have a strong soil fitted to a very diversified production, extensive forests abounding in valuable timber, and abundant water power; and these, the energy of our industrious inhabitants is rapidly making available to the supply of their wants and the production of wealth. A few days since a float containing thirty thousand cubic feet of timber, came some seventy miles down the Susquehanna, and was locked into the canal at this place, bound for Troy. This is a new experiment for this region, and is likely, it is said, to prove a profitable one. The tolls on this clearance alone were \$600."

#### THE BROAD GAUGE.

The London Railway Times has the following in relation to the wide track for railways, viz:

"It has been stated during the last few days, that in the event of the Gt. Western company proceeding with their line from Oxford to Rugby and Birmingham, it is the intention of the Grand Junction co. to carry on the broad gauge from Birmingham (in addition to the narrow) to Liverpool and Scotland! It is added, that surveys having been made of their line, the practicability of this scheme, at a moderate cost, has been ascertained. If effected, the journey between London and Edinburgh and Glasgow would be reduced to about 7 hours, and that to Liverpool to 3½ hours. The connection with Ireland would be also improved, as the Chester and Holyhead railway would possibly see it to be their interest to adopt the wide gauge."

#### DAVIES' IMPROVED RAILWAY BREAK.

There cannot be a question as to the necessity of some improvement in the "break" for railway carriages; and as the following description of a new plan which has been put upon some of the carriages of the London and Birmingham railway, is spoken of in a very favorable manner, we give it from the London Mining Journal, of 3d May, and ask attention to it from those who are engaged in the manufacture of cars, or in charge of railroads in this country.

"At the Society of Arts on Wednesday evening last, a paper was read descriptive of a new railway carriage break, the invention

of Mr. David Davies, and which we may safely state possesses advantages found in no other yet introduced, and which, at the same time, is free from all the serious objections hitherto urged against the old carriage breaks. Mr. Davies having explained the mechanism of his invention by a large diagram on the wall, Mr. Rotch, V.P., made some interesting and judicious remarks on the subject; to prepare his hearers for appreciating the advantages of this invention, he explained to them the action of the old break, viz: that of a wedge being driven down between the peripheries of the fore and hind wheels; the instant this action took place, a powerful strain was produced on the end of the axle, against which one side of the nave of the wheel was pressed, and the free side of the circumference still having an inclination to revolve, a twisting action was the result, which eventually produced a fracture of the axle. Another objection was the shaking and groaning noise to which the passengers in every break carriage were subject, causing considerable fear among the females, and inducing all parties who had been at all experienced in railway travelling to avoid the break carriage as they would a perfect nuisance. Mr. Davies' break removes all these objections; it consists of a series of eight levers, placed beneath the framework of the carriage, one end of each projecting to a level with the circumference of the wheels; these levers each turn on a fulcrum in the outer rail of the frame—thus making the short arm of the lever that which grips the wheel, and the long one projecting within the framework; these long arms are connected to two cross levers, which are acted upon by a diagonal bar, which, being put in motion by a winch handle on the roof acting on a screw, each of the four wheels are grasped at two opposite points, the same as if clasped by a pair of pincers, by which grip a far greater power is applied with the most perfect ease—while the pressure being equally distributed, there is no strain upon the axle, and the motion of the carriage is checked with the greatest possible rapidity. The whole arrangement of the levers is of the most simple description, and so smooth and perfect is the action, that a gentleman present, who had paid much attention to the working of this break, stated he had endeavored, under all circumstances, to detect any noise or grinding in its action, both in the carriage and on the roof, but that in all cases it worked perfectly smooth, and free from anything which could be of any possible annoyance; and further, that while descending inclines with the old break, the guard was compelled to keep up a firm pressure with his hands to retain the break in its place, while the action of the screw in the one described, was so perfect, that the moment the break was applied, the handle might be left without any fear of slipping, or the levers losing their hold. It appears there are six carriages on the London and Birmingham line to which these breaks are affixed, and which are found to be superior to all the others—one break carriage in a train

being found as effective on the Euston incline as three on the old system. Mr. Rotch expressed some surprise that an invention of so much importance to the public safety and convenience, was not more warmly supported by the directors of railways generally, or that even on the London and Birmingham line, where it was found so efficient, they had not applied it to all their carriages;—much, however, as they had the welfare of the public at heart, they were compelled to consult their engineers, which circumstance too often prevented the introduction of useful inventions. He was, however, happy to say, since he had been in the room a letter had been handed to Mr. Davies, from an influential party connected with the London and Birmingham line, in which ample testimony was borne to the value of this break, and an opinion expressed that, by confining the cost to a moderate amount, they must make their way in all railway establishments."

#### THE IRON TRADE.

It is somewhat important for us here to keep well informed in relation to the iron trade in England; we therefore give the following remarks of the editor of the London Mining Journal in that paper of 3d May.

"The advance in the price of iron within the past few months, to which we have from time to time directed attention, and the general improvement in the iron trade, has been most encouraging—while, as might naturally be expected, would be the case under such circumstances, expectations have been raised and prices quoted or imagined, which any one possessing a knowledge of the trade itself, must have been well aware could never be maintained. We last week noticed the considerable rise which has taken place, while the result of the meetings held during the last and present week, noticed in an article appended to these remarks, is, in itself, convincing evidence that we were not wrong in saying the price of iron had reached its maximum—at least for the present. The demands of the colliers, and others employed, have, we admit, been met by the masters with a liberality correspondent with the advance in prices, and the profits which they derive; but there is a limit, and glad are we to find that the ironmasters have of their own accord, determined to prevent, so far as they can, those consequences which must result from a reaction. The demand for iron, more especially bar, and railway iron, for the next three years, can be pretty well ascertained or calculated upon, and that alone will not only keep the present works in active operation, but may justify a partial extension; but this is only for a time, and we caution those who would embark capital, from hastily rushing into undertakings which, however they may answer for the moment, yet, it must be remembered, require a large capital, not only invested for carrying on operations, but expended in the plant."

"We feel satisfied that with prudence on the part of the ironmasters, the price of iron,

if not supported at the present quotations' will, at least obtain such a price, that while it not only pays a good per centage on the capital employed, will give to the collier and miner, as well as to all other operatives, fair wages—this is all that can be required or looked for, and with this, we feel assured, all will be content. The letters which appear in our columns give some valuable statistics and points for consideration—that a certain animus pervades the writers is only natural; but it is only fair to look on both sides of the question."

**W. R. CASEY, CIVIL ENGINEER, NO. 23** Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

**TO RAILROAD COMPANIES AND MANUFACTURERS** of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. **THOMAS & EDMUND GEORGE,** ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**PATENT HAMMERED RAILROAD, SHIP AND BOAT SPIKES.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. **JOHN F. WINSLOW, Agent.**

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Cuming & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co., Boston.

**PATENT RAILROAD, SHIP AND BOAT SPIKES.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

**HENRY BURDEN, Agent.** Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\* \* \* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45



## DAVENPORT &amp; BRIDGES' IMPROVED CAR.



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All orders punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

DAVENPORT & BRIDGES'  
IMPROVED PATENT IRON TRUCK.

Fig. 1.

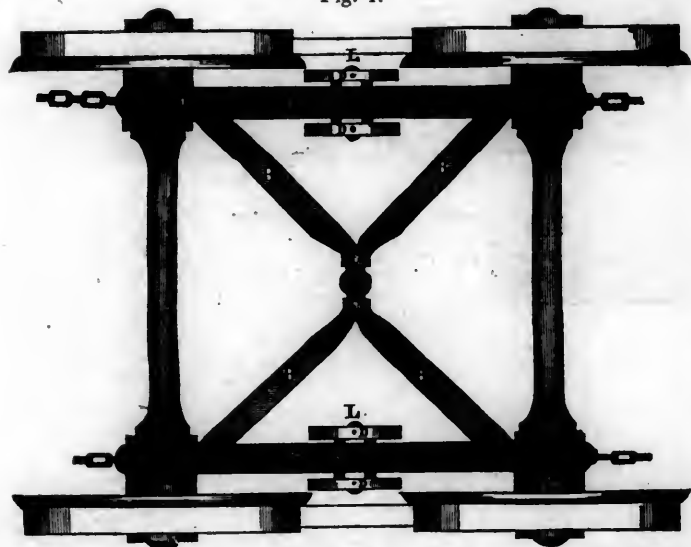
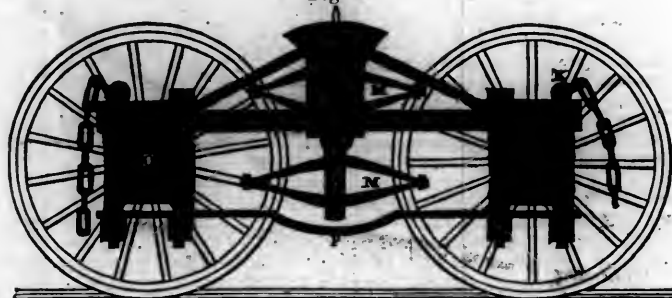


Fig. 2.



DAVENPORT & BRIDGES' IMPROVED PATENT IRON TRUCK FOR RAILROAD CARS, is presented above, and the attention of Railroad Companies is respectfully invited to the following description of their justly-celebrated invention:

Fig. 1 of the drawing above represents a top view or plan of our Improved Railroad Truck. Fig. 2 is a central, longitudinal, and vertical section. C, Fig. 1 and 2, represents the arched bars of the side trusses: they consist of two long bars of plate iron (about three inches wide by seven-eighths of an inch thick,) bent into the shape as seen in drawing 2. Each of them is placed directly over a flat and straight tie bar, A, which extends from one end to the other, as seen in Fig. 2. These parts, so arranged, receive between their ends the ends of diagonal cross bars or braces, B, which are united at their centres

by being clasped and welded, as seen in Fig. 1. The bars so composing what may be considered as side trusses and diagonal cross braces, rest at their ends upon four pedestals, F, F, which receive the bearings or boxes for the axles to run on. Another flat tie bar, P, extends from the under side of one of the pedestals to that of the other, on the same side of the frame, and the whole is secured together by eight bolts, J, J, passing down through the ends of the several bars, A, B, C, and the pedestals, and on each side of the journals of the axles, O, O, in the positions represented in the drawings. From the above it will be seen that there are two bolts to each pedestal, and that this number is all that is requisite for the full security of the bars and pedestals together. The body rests and moves upon two sectional supports, D D, arranged on the sides of the truss frames, as seen in Fig. 2; they extend somewhat, or a sufficient distance above the truss frames, and are jointed at their lower ends by means of a bolt, L, which rests upon the top of the lower spring, M, which spring rests upon a bolt passing through the lower part of the inverted strap, E, which strap passes over and rests upon the top part of the upper spring, M, which is placed within the truss frame, and rests upon the top of the bar, A.

Two bands, N, N, are passed entirely around the central part of each truss frame, the object of the same being to transfer the strain, or a portion thereof, of the spring, from the tie bar, A, to the arched bar, C.

These Trucks are adapted as well for eight-wheeled passenger cars as for baggage and freight cars, giving to each a more agreeable and easy motion than any other Truck heretofore constructed or in use. They are simple in their construction, combining strength and great durability, although weighing at least twelve hundred pounds less than the common Trucks. Besides these excellences, by reason of the elasticity of the braces, B, B, B, B, as seen in the drawing, and the other peculiarities of construction, the weight is equalized upon all the wheels, and yet any one may be raised so as to pass any inequality on the rails without lifting either of the other wheels from the track, thus rendering it almost impossible to run a car off. Being bound, and having as it were but four joinings, they are protected from injury by lateral strains, and in case of damage are easily repaired.

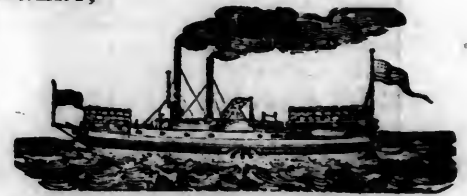
These excellences have been fully tested by use, for a long time, on the Eastern, the Fitchburg and Long Island railroads; and for proof of the above stated superiority of these Trucks over all others, we refer to the experience of those who have used and run them.

CAMBRIDGEPORT, April 1, 1845.

DAVENPORT & BRIDGES.

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



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THURSDAY, JUNE 5, 1845.

[WHOLE No. 466, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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TROY IRON AND NAIL FACTORY, H. Burden Agent. (See Adv.)  
ANDREW MENEELY, West Troy. (See Adv.)  
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NORRIS, BROTHERS, Philadelphia, Pa.  
KITE'S Patent Safety Beam. (See Adv.)  
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A. & G. RALSTON & Co. Philad. Pa. [See Adv.]  
THOMAS & EDMUND GEORGE, Philadelphia. [See Adv.]

## KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—  
As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.  
Wilmington, Del., Sept. 28, 1840.

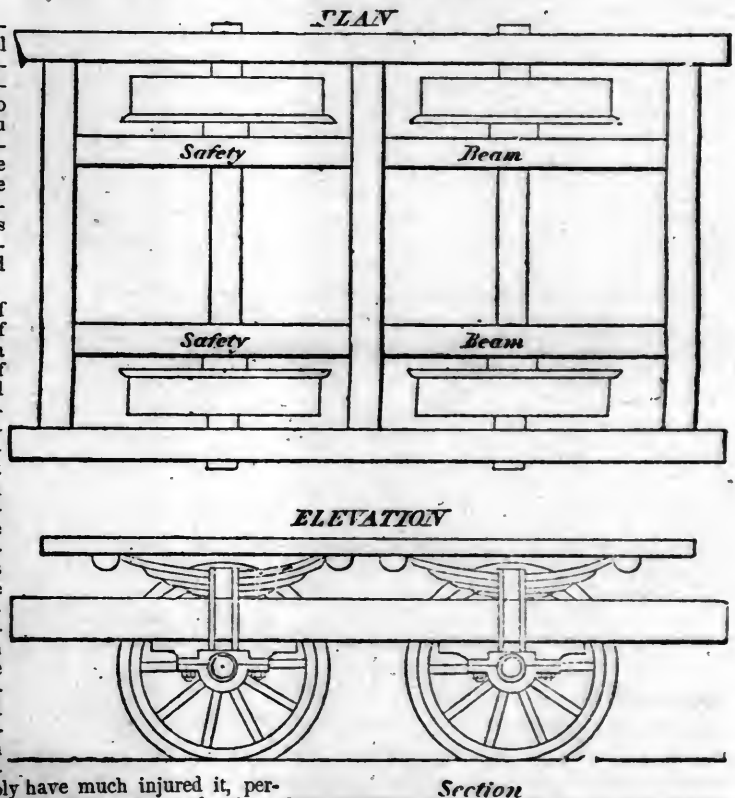
The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**TO IRON MANUFACTURERS.** THE SUBscribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.  
A. & G. RALSTON & CO.,  
ja45 No. 4 Sout Fronth st., Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

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**WELDED WROUGHT IRON TUBES**

From 4 inches to 4 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FITTINGS.



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**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal* and *Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer,*

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia.  
ja45

**RAILROAD IRON AND LOCOMOTIVE** Tyres imported to order and constantly on hand  
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**THE NEWCASTLE MANUFACTURING** Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
ANDREW C. GRAY,  
ja45 President of the Newcastle Manuf. Co.

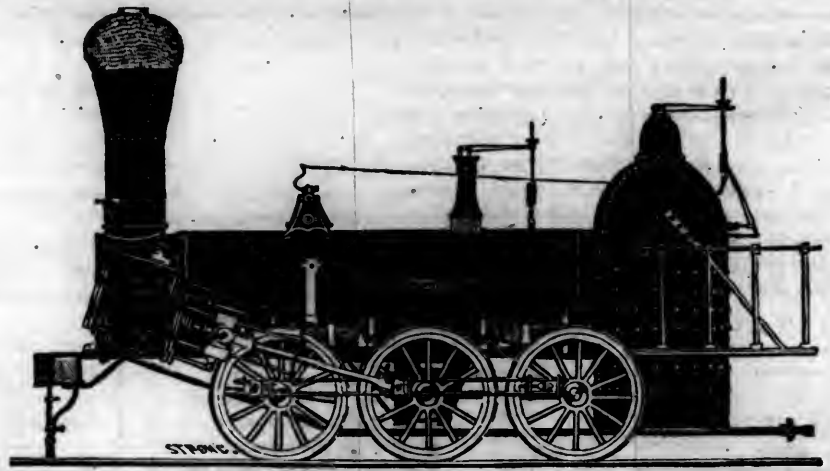
**CUSHMAN'S COMPOUND IRON RAILS** etc. The Subscriber having made important improvements in the construction of rails, mode n guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, *Civil Engineer,*  
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NORRIS' LOCOMOTIVE WORKS**

BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches	Diameter of	Cylinder,	× 20 inches	Stroke.
" 2,	14	"	"	× 24	" "
" 3,	14½	"	"	× 20	" "
" 4,	12½	"	"	× 20	" "
" 5,	11½	"	"	× 20	" "
" 6,	10½	"	"	× 18	" "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

## REINAGLE'S AIR ENGINE.

The following account of what is termed the "Leviathan Air Engine," is taken from the "Mining Journal" of 5th April last. It is given by the editor of that excellent journal as "from a correspondent," without introduction or comment, from which we infer that he had not looked into the matter. We shall probably hear more of it soon.

## LEVIATHAN AIR ENGINE.

A most stupendous construction of this nature has been lately made by Prof. Reinagle, in elucidation of a principle as novel as its power is tremendous. The inventor is securing patents in every civilized country for this discovery, and this will obviously account for our not entering into a more definite description of its component parts. At present this unlimited power is obtained by two distinct modes, unaided by rarification, which is a third and independent principle.

There are artificial lungs, the providers of the power and first action, as in the animal system, which send highly condensed air into a recipient, a globe of strong metal or a cylinder, which to the body of the engine is as the heart is to animal life. Air-tubes conduct the vital power to this ever-receiving and ever-ejecting vessel. From it the engine is fed by a tube, whose capacity is about one-sixth of those which receive the condensed air as leaders. Two metre air-balls are used, one next the globe or cylinder, which is called the heart. These are the two great ventricles. To each of these is employed a stop-cock, with a graduated deal scale up to 90 deg. Beyond these is placed a third stop-cock, with a long arm, or lever handle. This is also regulated by a similar graduated scale. When the air is turned on by opening these several valve-cocks to the proper points, a handle is pressed by the engineer, which opens a valve like an air-gun valve, and the engine is instantly set in motion.

The present engine has a double-crank action, but for general purposes the professor has employed a three-throw crank, which will be worked by air vessels slung, which rise and fall on the revolution of the cranks. On the top of the lift of these air vessels, which are small, an opening in a small fixed cylinder, which the before-named vessels work upon, lets loose the surplus air, driven in by air-gun velocity. The present engine stands, *per se*, (that is, not including the condensed air-cylinder, nor the air-condensers, which are eight feet high,) upon a space not exceeding two feet square; and its power, were the axle in due proportion as well as the bearings, is no less than 568 horses. The air-condensers will perform their duty for about two hours, and provide ample air to propel a train of eighty tons at thirty-five miles per hour. According to the weight used so becomes the increase of the power. To those now made, and made of wood, 610 lbs. is employed to each compressor, while 1000 lbs. or 1500 lbs. could be used if desired. When the falling body within has

done its duty, in half a minute each of as many air-condensers as the inventor may choose or require to employ, can be re-set in action for two more hours, and so on *ad infinitum*. The proportion of what Professor Reinagle denominates the heart of the machine is 1-23d of the cubic bulk of the air contents of the pair of lungs or air-condensers—*ergo*, when it is once filled, he has a disposable power, working, when he likes, up to twenty-three atmospheres; and this can be maintained for centuries without waste or failure; that is to say, a power of air is supplied equal to that which is dispensed, without the slightest variation, while it costs absolutely nothing to obtain this condensed air. Professor Faraday, having seen the drawing, and heard the theory and practice of this invention explained, complimented the inventor by declaring, that he had discovered perpetual motion of the most terrific description.

Professor Oliver Byrne, the eminent mathematician, has spent above three months with Professor Reinagle studying this unlimited power, and he defies any man to refute his assertion, that this air-power, as at present used, is boundless, and that the whole engine is so perfect as to allow of no material improvement, if any at all. Other eminent men have recently seen it, amongst them Dr. Armstrong, Dr. Carpue, and some distinguished foreigners, besides very many private friends of the inventor, of great intelligence, who have all expressed their candid opinion of its perfect simplicity, and of its immense power. The invention allows the use of air-condensers, of any length and width, up to 20,000, or 500,000, nay even 1,000,000, planted in squares, or in avenues, or clusters of circles. They would pass the air provided by them into numerous recipients, to be united as the branches of veins to the heart, so as to press into one huge receiver, or they can be prepared to use separately, as well as collectively, *at a moment's notice*. Let us suppose it is required to empty a water-choked mine, of any description, of its body of water. The common supposed contents ascertained, it may be deemed expedient to use a 10,000 or a 20,000 horse-power to do the task promptly. In such a case, forty, fifty, or sixty pairs of perpetual air-condensing providers would be used. The air within them is pressed upon with a load of 3 lbs. to every square inch; forty pairs will have a total pressure per second of 49,600 lbs., which per minute=2,976,000 lbs. This condensed air is now rarified, by a peculiar and very simple contrivance, 700° or times its volume, but only in aliquot parts of minimum quantities, safe from all communication of heat to the main body. Our readers may from this be enabled to calculate what that augmented power resists and overcomes. To give it expression would, perhaps, under present circumstances, expose it to ridicule. We, therefore, for the present, omit the statement of this Leviathan power. Professor Reinagle proposes to set this everlasting agent to pump the water from the mine by his improved cone and cylinder

pumps, of great magnitude, which have already excited the utmost astonishment.

The engine, once set in motion, can be kept going, without expense, for years and years, save one or two men for a 20,000 horse-power, to work once every two hours for one minute, and no more, to re-set the air-condensers. To enable the public to form some notion of the power obtained, Professor Reinagle has contrived a table apparatus, anything but air-tight, and partaking in the air-moving vessel of the form used in the engine, by which he moves 80 lbs. full two feet, in three seconds (placed on a four-wheeled car) by his breath alone. Even 100 lbs. can be moved in like manner. Now, according to Bostock's *Elementary System of Physiology*, who, in vol. ii., page 34, when speaking of the lungs, states that, "assuming 170 cubic inches of air as the quantity which may be forcibly expelled, and that 120 will be still left in them, we shall have 290 cubic inches as the measure of the lungs in their natural or quiescent state." He then says, a few lines further on, "that rather more than two-thirds can be expelled by a forcible expiration." Two-thirds of 290 cubic inches is 192 and a fraction. Now these 192 cubic inches forcibly ejected, using such puff of air with this invention, drives 80 lbs. and upwards, on a four-wheeled car of small size, two feet in three seconds: that is equal to 40 feet per minute. If the strongest man were to try the power of his lungs in moving the same car *alone*, by blowing through a tube against a surface at the end of a cylinder, six inches long and two inches wide, as if it were a piston, he would not be able to make it move an inch, the car weighing 3½ lbs. But when this novel method is employed in blowing into a vessel conic in form, resting over a cylinder as a mere support and guide, as well as rest, using the model horizontally, the said model and weighted car being placed on a table or the floor, and blown into through a connecting tube only one quarter of an inch bore, and the receiver or propelling air-vessel being only three inches diameter at the base of the frustrum of the cone, and nine inches long, there is acquired, as above stated, the enormous power to propel above 80 lbs. a certain distance; but, as has been witnessed, above 100 lbs. can be propelled one foot distance in two seconds. The pair of air-condensers now raised in Professor Reinagle's drawing-room, made of wood, contain 27·216 cubic inches in each, which equals 54·432. 192 cubic inches, expressed from our lungs under such feeble comprehensive powers as the diaphragm and costal muscles, with the small closing of the ribs, is proved to be capable of moving upwards of 80 lbs. two feet in three seconds. The mere contents of the pair of air-condensers, being 284 times the expulsive capacity of our lungs, using no greater power, shows that 22,720 lbs. can be propelled two feet every three seconds. But when several atmospheres are at once let loose from the general receiver or heart, which in the case of the present existing engine would be

twenty-three, a most enormous increase of power is obtained; in fact, it is expected that, with the present small engine, 220 tons can be propelled at a rate of twenty-five to thirty miles per hour; because so many and *such certain expedients are at command* to augment the condensed air-power. More condensers, or greater pressure by increased weight, or by rarefaction, extend to an unbounded measure the propelling power at command. The total weight of the present engine, with all its appurtenances, does not exceed 7 *cwt.* Its cost, compared to a steam engine of equal energy, is most trifling. All these advantages—united to an almost total absence of friction (there being no pistons) and no cost in the maintenance of the perpetual supply of air-power; little or no wear and tear; great simplicity of construction (few of the parts requiring nice workmanship)—must recommend it immediately for universal purposes, as one of the greatest economists ever yet introduced. It ought to be remarked that the force is only calculated for three seconds' duration; but, as the present power can be augmented for railway use by three or four pairs of air-condensers, such a leviathan motive power can be supplied, as would draw *all the carriages* which the Birmingham Company *possess, at once*; as two condensers and this engine will equal fourteen of the present locomotives, and go at a rate of thirty miles per hour, drawing, at the least, 420 tons. If the present horse-power locomotives do draw a train of 40 tons, at a rate of 25 to 30 miles per hour, then this engine, being 14 times the power, should move at the same speed 560 tons.

#### RAILROAD COMMUNICATION FROM BOSTON TO OGDENSBURG.

It is thus that the Boston people look at and encourage all enterprises which promise to contribute to the prosperity of their city. They invite applications to them for aid in constructing such works, even though in neighboring states, as are likely to increase their business, and thus enhance the value of their property. We hope our own favored city will now come forward and put its shoulders to the wheel, and ensure the speedy completion, in the most substantial manner, of *the railroad of this country*—the NEW YORK AND ERIE—a work which will, when completed, produce an influence for good upon this city, equal at least to that of the *Erie canal*. Its entire cost will be saved in *ten years* from its completion, in the reduced cost, and *improved quality*, of living and travel to the people of the city of New York alone, in addition to the greatly enhanced value of real estate. We have heard no truer remark, than that "*we cannot afford to have the work delayed longer*"—and we hope to be able to state that the whole amount of stock required was subscribed the *first day* that the books were open for that purpose, and then learn that the work is to be imme-

diately recommenced, and vigorously pushed forward, in the most judicious and energetic manner; to an early completion. That day will be an era in the annals of the city of the Knickerbockers.

*Railroad to Ogdensburg.*—It is now understood that the Fitchburg and Concord Railroads will, by one or more routes, be soon continued to Burlington, on the east side of Lake Champlain. By a recent act of the Legislature of New York, a company was created for the purpose of constructing a railroad from the western side of Lake Champlain to Ogdensburg in New York, which is situated at the foot of navigation from the great western lakes. Ogdensburg is two hundred miles nearer Boston than Buffalo, being about the same distance from Boston that Buffalo is from Albany. The productions of the great West can as well be shipped to Ogdensburg, through the ship canal which connects lakes Ontario and Erie, as to Buffalo, or any other point on the lake waters.

In 1840, a thorough survey of the route from Ogdensburg to Lake Champlain was made by the state of New York, at an expense of \$30,000. By this survey it was ascertained that the road, one hundred and twenty miles in length, could be built for about \$2,000,000. The route is through the counties of Clinton, Franklin and St. Lawrence, a territory not surpassed, for agricultural purposes, by any portion of the state of New York, of equal extent. The population of these three counties is supposed to be about 136,000, and is rapidly increasing. In 1840 there were three hundred and ninety stores in these counties and in Essex, which lies near the road, south of Clinton county, with a capital invested of \$1,178,258; the annual value of the agricultural productions was \$4,476,849, and of manufactures, \$4,898,049. About \$3,000,000 have been invested in manufactures. The mineral wealth of this region is said to be immense. There are already in operation in these four counties about one hundred and fifty furnaces, forges, bloomeries and rolling-mills, and the state has recently established a prison on the line of the proposed road, where five hundred convicts are to be employed in manufacturing iron.

These facts show that the business of the country between the termini of the proposed railroad is very considerable, and of course the road would derive from it much benefit and income.

But it is believed by the friends of this route that a great trade with the West will be carried on over this road; and it is pretty evident that a merchant in Boston, forwarding goods west, would adopt this route, because, by so doing, he would save two hundred miles of railroad or canal transportation. A shipper of produce in the West would send by this route for the same reason. Should this road be completed, we see no reason why it would not bring to Boston a very considerable portion of the western trade, which now goes to New York. It will be

of great use to the people of Concord, Manchester, Nashua, and Lowell, by saving to them a very considerable portion of the expense of transportation on their western produce; for when the Concord railroad is continued to Burlington, this produce will be brought to these towns direct, at a saving of from 225 to 275 miles of canal and railroad transportation.

We see no reason why this route would not take the great travel west; and travellers for pleasure would find it a most desirable mode of getting to the Falls.

In fact, we do not see why this route would not be the shortest, cheapest, quickest, and safest, from Boston to the great West, both for travellers and merchandise.

We understand commissioners from Northern New York will be in town in a few weeks, to ask the aid of our capitalists in constructing this road. We hope their visit will not be in vain, for we fully believe that such investments will be safe and profitable, and that the road will be of great utility to Boston and all New England.

#### RAILROADS IN NEW HAMPSHIRE.

We find the following remarks in the Boston Courier of 29th May, and can assure the editor of that excellent paper, and the people of our native State, that we also are highly gratified to learn that the right spirit is aroused in the people of New Hampshire—and we will also say a word to them in private—viz: *repeal* your restrictive and stringent laws—adopt a liberal course towards those who are willing to invest their capital among you, for the improvement of *your property*, as well as the advancement of their own interest. Impose all proper and necessary restrictions, but never punish yourselves by keeping other people out of your State, who desire to expend their money on your roads, and in improving your unrivalled water power, and thereby enhancing the value of your lands.

Capitalists are sometimes cautious animals. They are much more likely to be caught by gentle than violent means. Repeal your *personal liability*, and your *unanimous consent* clauses, and New Hampshire will rapidly increase in population, enterprise and wealth—and, of course, in intelligence.

We have some recollection of the character of the route, having passed over it many years since, from Concord to Lebanon, and thence to Montpelier and Burlington, (Vt.,) and being familiar with a part of it, we have long been satisfied that a railroad from Boston would, at no distant day, traverse that route—and it seems that our anticipations are soon to be realized. Of the other route, up the valley of the Merrimac, we cannot speak from personal observation; but from



the reports which we are receiving, we have no doubt of its entire feasibility; nor of the construction of a railroad over it to the Connecticut river, at or above Haverhill: which will eventually be continued to the Canada line, and to Montreal; or connect with the Portland road at some point near the line.

"We are glad to see," says the editor, "the increasing interest which the people of New Hampshire take in the projected railroads leading from Boston through that State to Vermont and Canada. A friend who called upon us yesterday, informs us that the 'Northern railroad,' commencing at Concord, and terminating at the mouth of White river, in Lebanon, was laid out by the railroad commissioners about a week since; and that their report has been accepted and ratified by the governor and council. The route, as laid out, passes through Boscawen, by the manufacturing establishment of the Messrs. Fishers, of this city, thence to Franklin, Andover, Wilnot, Danbury, Grafton, Orange, Canaan, Enfield and Lebanon. The route was surveyed by a very competent engineer, Mr. Thomas J. Carter. His report, showing the distance, grades, and estimated expense of the proposed railroad, has been for some time before the public. An address of the Northern Railroad Company to the friends of internal improvements in N. Hampshire, from the pen of Prof. Haddock, of Dartmouth College, disclosing the resources and obvious benefits resulting from this road, has also been published. Subscription books for the stock have been circulated on a portion only of the route of the road, and more than \$300,000 have been subscribed. Books for the last five days have been opened in Concord, Manchester, Nashua and Lowell, and about \$300,000 more of the stock has been secured. These subscriptions are not fictitious. Wherever the route is known it is appreciated, and the generous subscription of the business men, the farmers, and working men of New Hampshire, is in its favor, and establishes the fact, that the capitalist of any other region of country need not fear to make a permanent investment in this road. The charter divides its capital stock into 15,000 shares of \$100 each. The corporation is authorized to commence operations when one million of its stock is subscribed for, and more than one-half of this amount is already secured in the country."

"The friend before mentioned says:

"The liberal and tolerant feeling that pervades New Hampshire, at this time, on the subject of railroads, authorizes us to say, that at the ensuing June session of the legislature, modifications of some of our restrictive statutes will be obtained, thereby obviating the principal objections that are now raised against us. Our knowledge and faith on this subject must for the present be the pledge to the Boston capitalist, that, if he will permit us to become the trustees of some of his capital, we will not only protect it by law, but we will render a good profitable final account. It remains now with the sagacious and intelligent citizens

of Boston to decide, whether they will join hands with us, and help themselves by giving us a little aid. Will the liberal enterprise of this prosperous and growing city give additional facilities to their northern friends and business customers, at the same time adding an important link to the great chain that is eventually to bind this city with Montreal and Ogdensburgh.

"The subscription books for the stock of this corporation will, for a few days, be opened at the Lowell depot, and at Walker & Co.'s express office, No. 8 Court street.

"One of the officers of this corporation will be found at the American House, in this city, until Monday next, who will give any information in relation to this road that may be in his power."

So much for the Concord and Lebanon route, and now for the Concord, Plymouth and Haverhill, or the Merrimac valley route—in relation to which we take the following also from the Courier, with a request that some gentleman connected with it will send us a copy of the circular of the managers, that we may have all the facts before us, when we take up the subject of the merits of these several routes, from the Atlantic to Montreal.

"The board of managers of the Boston, Concord and Montreal railroad have published a statement of their doings, the prospects of the enterprise and their reliance upon its success. They make all their calculations and estimates upon the supposition that the "Northern" road from Concord to Lebanon is to be built, and they ask that the two roads may not be confounded together, as they in no wise interfere, and each has a different point for its terminus.

"The survey of this road was commenced in the spring, has been completed as far as Plymouth, and is still progressing under the direction of Mr. Wm. P. Crocker. We make the following extracts from the circular of the managers:"

"This road, it will be seen by looking at the map, passes through a central portion of our State—the towns of Canterbury, Northfield, Sandbornton, Gilmanton, Gilford, Meredith, New Hampton, Holderness, Bridgewater, Plymouth, Rumney, Wentworth, Warren and Benton, to Haverhill, with the right to extend up the Connecticut to any convenient crossing place between Haverhill and Littleton. The towns through which it passes, as far up as Haverhill, contain a population of 26,326. On the route there is already much manufacturing business carried on, and a vast amount of unoccupied water power. There are a number of flourishing villages, and a large extent of rich agricultural territory immediately upon the route; but in addition to these there are between forty and fifty other towns in our State, with a population of more than fifty thousand, whose business must necessarily pass over this road, making an aggregate of more than one-fourth of our entire population, and one-fifth of the valuation of the State, whose

interests are to be identified with the making of this road. We may mention as evidence of the demands of the public for the construction of the road, the fact that the present tonnage of the towns in New Hampshire that would naturally fall into this great thoroughfare, has been ascertained to be at least *thirty thousand tons per annum*—the number of passengers over the different stage roads embraced in the route exceeds thirty-seven thousand annually. With the prospective increase of business which may be anticipated with railroad facilities, in manufacturing business—in the working of the valuable copper, zinc, iron and other minerals which are known to abound upon the route—the lime, scythe stones, lumber, etc., together with the great increase of travel incident to an increase of business, and the pleasure travelling in the warm season to the Lake and Mountain scenery of this "Switzerland of America," we think this enterprise holds out sufficient inducements to secure the necessary capital for its construction, without looking further for a promise of an ample reward upon the investment.

"But this enterprise has other objects in view—other sources of reliance for a return of profits. The whole of Caledonia, Orleans and Essex counties in Vermont, and a portion of Orange, Washington and Lamoille, will, from necessity as well as choice, pass over this road when constructed. And we may mention the fact, that in prospective, this enterprise has in view a connection of the city of Boston with the city of Montreal. The whole line has now been surveyed, and charters are obtained for the construction of the road. The distance from Boston to Montreal over this route we state from the best information we have, as follows: from Boston to Concord, 75 miles; from Concord to Stanstead, 150; from Stanstead to Montreal, by the route recently surveyed, by the outlet of Lake Memphremagog, 92 miles; total, 317 miles. The route surveyed by Sherbrooke is 33 miles further. The distance in New Hampshire, which is to be constructed by this corporation, will be about 80 miles; but it is not contemplated at present to go further than Haverhill. That point reached, this corporation, while it affords facilities to the vast interests we have alluded to in our own State and in Vermont, may rely upon a rich return of profits upon their investment, while the more remote, but no less important desideratum of connecting the two great cities of Boston and Montreal shall be matured and carried into effect."

"It is stated that on this route the maximum of gradients will be 39'6, for the whole route from Concord to Haverhill, and but few planes will reach even that moderate grade. Books have been opened for subscriptions to the stock, and \$60,000 has been subscribed in Meredith, including \$10,000 taken by the town."

The commissioners of the North Branch canal company have advertised that the books will be opened at Wilkesbarre on the 17th of June, to receive subscriptions to the stock of the company.—[Pa. Int.]

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds, as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
							Per share.	Per cent.				
							£	s. d.	£			
Arboath and Forfar.....	15	102,000	35,000	138,870			0	12 6 2	10 0	25 27	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5 0 2	10 0	100 100	Barnsley Junction.....	200,000
Branding Junction.....	23	161,700	365,470	481,452					4 10 0	50 54	Belfast and Ballymena....	385,000
Bristol and Gloucester.....	37½	400,000	211,000						nihil.	30 36	Blackburn and Accrington.	400,000
Chester and Birkenhead.....	14½	750,000	143,170	518,989	5,856	13,148	0	8 6 1	14 0	50 32	Birk. and Ches. Junction...	1,000,000
Dublin and Drogheda.....	31	450,000	150,000	500,869					nihil.	55 72	Bolt., Wigan and Liverpool	800,000
Dublin and Kingston.....	6	200,000	152,200	359,000					6 0 0	6 0 0	Caledonian.....	1,800,000
Dundee and Arbroath.....	16½	100,000	49,445	153,416	2,989	6,993	1	5 0 5	0 0	25 29	Cambridge and Lincoln....	1,250,000
Durham and Sunderland.....	18½	169,350	124,055	270,392	9,889	17,702			nihil.	34 29	Chatham and Portsmouth..	5,000,000
East County and North and East.....	86½	4,443,200	1,341,155	3,931,905	47,385	118,726	1	6 6		45 57	Chester and Wrexham....	120,000
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1	2 6 4	10 0	50 57	Churnet valley.....	1,800,000
Glasgow, Paisley and Ayr.....	51	937,500	1,066,951	12,446	12,446	36,736	1	2 6 4	10 0	50 60	Direct Northern to York...	4,000,000
Glasgow, Paisley and Greenock.....	22½	650,000	216,666	787,884	11,572	23,177	0	5 0 2	0 0	25 12	Dublin and Belfast.....	950,000
Grand Junction.....	104	2,478,712	2,453,169	84,309	195,050	5	0	10 0	0 0	100 210	Dundee and Perth.....	250,000
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1	12 6	3 5 0	100 119	Edinburg and Northern...	800,000
Great Western.....	221½	4,650,000	3,679,343	7,272,539	132,235	369,904	3	10 0	7 0 0	75 138	Ely and Bedford.....	270,000
Hartlepool.....	15½	438,000	155,540	719,205					8 0 0	100 100	Glasgow, Dum. & Carlisle.	1,300,000
Leicester and Swannington.....	16½	140,000	140,000	2,207	6,317	1	5 0	5 0 0	50 50		Gt. South and West Ext....	1,200,000
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5	0 0	10 0 0	100 203	Gt. Grimby and Sheffield.	600,000
Llanelli.....	27	200,000	44,000	221,624					1 0 0	2 0 0	Harwich and E. coun. Jun.	160,000
London and Birmingham.....	12½	6,874,976	1,928,845	6,393,468	92,823	405,768			10 0 0	100 218	Huddersfield & M. r. l. & cl.	60,000
London and Blackwall.....	3½	804,000	266,000	1,315,640	15,978	23,870				16 6	Kendal and Windermere...	125,000
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0	12 0	2 8 0	50 47	Leeds and Dewsbury.....	400,000
London and Croyden.....	8½	550,000	229,000	761,885	7,583	10,545	0	5 0	2 10 0	14 17	Leeds and Thirsk.....	800,000
London and Greenwich.....	3½	759,383	233,300	1,040,930	15,193	28,933			nihil.	13 10	Liv. Ormskirk and Preston	600,000
London and South Western.....	92½	2,222,100	630,100	2,596,291	68,457	150,469	1	12 6	6 10 0	41 73	London and Portsmouth..	1,750,000
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1	0 6	5 0 0	40 48	London and York.....	5,000,000
Manchester and Bolton.....	10	778,100	197,730	787,743	8,585	21,140	2	2 0	4 10 0	93 110	Londonderry & Enniskillen	500,000
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761			7 1/2 & 10 1/2	60 88	Lynn and Ely.....	200,000
Midland railway.....	178½	5,158,900	1,719,630	6,279,056	76,983	281,898				100 96	Manchester, Bury and Ross	300,000
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947	4	0 0	4 0 0	100 105	Manchester and Buxton....	250,000
Newcastle and Darlington.....	23	500,000	405,728						nihil.	21 49	Mullingar and Athlone....	
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466			2 0 0	50 37	Newcastle and Berwick...	700,000
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2	10 0	6 16 8	100 104	Richmond & W. End Junc.	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415					0 16 0	8 0 0	Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000			31,247	91,171			8 0 0	20 38	Sheffield and Lincolnshire.	650,000
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066			nihil.	50 18	Shrewsbury and Gd. Junc.	400,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,855	14,876			nihil.	82 93	Shrew. Wolv. Dudly & B.	900,000
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0	10 6	2 2 0	50 39	Trent Valley.....	900,000
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1	0 0	6 5 0	100 55	West London Extension...	64,000
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0	15 0	5 1 8	29 37	West Yorkshire.....	1,000,000
Yarmouth and Norwich.....	20½	187,500	62,500	230,250					nihil.	16 25	Whitehaven and Maryport	100,000
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2	10 0	10 0 0	50 100	FRENCH RAILWAYS.	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15½	15½	Loughborough.....	70	142½	142½	70	1140	
Anti Dry Rot.....	10,000	10	18½		2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35		34½		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27½	27	Mersey and Irwell.....	500	100	100	10		
Gt Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2½	15	15
Metropolitan Wood Pav..	15,000	10	6	5	6½		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	11		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental..	11,493	50	50	7	64½	65	Regents or Loncon.....	21,418	33½	33½	2½	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution				6			Somerset coal.....	800	150	150	7½	123	123
Reversionary Int. Soc.....	5,329	100	100	4½	104	104	Stafford and Worcester...	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36½	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7½	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				SVERN & WHY & RAIL AV.	3,762	26½	26½	5½	30	30
Ashby de la Zouch.....	1,432	113	av.	4	70	70	Trent and Mersey.....	2,600	50	50	65	495	
Barnsley.....	720	100	100	14	180	180	Thames and Medway.....	8,149	19½	19½		10	10
Birmingham, 1-16 share	3,000	118½	79	10	150	160	Warwick and Birmingham.	2,000	100	100	10½	167	
Do. and Liverpool Junction	4,000	160	100		13½	13½	Warwick and Napton.....	980	100	100	8½	122	
Coventry.....	500	100	100	20	365	365							
Cromford.....	460	do.	do.	24	250	250							
Derby.....	600	do.	do.	9	105	105							
Erewash.....	231	do.	do.	32	440	440							
Forth and Clyde.....	1,297	400½	40½	4	440	440							
Grand Junction.....	11,600	100	100	7	162	161½							
Grand Surrey.....	1,500	do.	do.										
Gloucester and Rerkley...	5,000	do.	do.		8	8							
Grantham.....	749	150	150	8	185	185							
Lancaster.....	11,699	47½	47½	3	40	40							
Leeds and Liverpool.....	2,897	100	100	34	640	640							
Leicester.....	545	14	140	9	139	139							

Water Works.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.
Birmingham.....	4,800	25	25	3½	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7½	88	90
New River L. B. Ann.....	1,500			2½	57	57
Manchester and Salford...	6,486	av.	30	8½	55	55
Vauxhall, lt. S. London...	1,000			5	55	55
West Middlesex.....	8,294	av.	63½	6½	126	127

Docks.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.
Commercial Dock.....	1,065	100	100	3	137	115
East and West India.....		sto.		4½	114½	115
London.....	3,238,310	sto.		5	116	171
St. Katharine.....	1,352,752	sto.				
Southampton.....	7,000	50	50			

AMERICAN STATE WORKS AND CANALS, ETC.

STATE WORKS.	Length in miles.	Cost.	1843.		1844.		The State Canals are all 4 feet deep, and the locks are 13 to 17 feet wide, and 80 to 90 feet in length.
			Income.	Expend.	Income.	Expend.	
N. Y. 1 Black river canal.....	35	1,524,967	16,557	10,953	24,618	14,443	The six millions paid to the canal fund from auction and salt duties are not included in the estimate of cost. The Genesee valley and the Black river canals require large sums for their completion, the interest of which <i>additional</i> sum is much greater than the estimated gross income of these canals when finished. The sums required to complete these two canals are \$2,000,000 and \$600,000, making their total cost when finished \$5,553,000 and \$2,409,000; an expenditure incurred on estimated incomes (admitted to be liberal,) of \$39,000 and \$14,000 respectively. The total receipts from the works of Pennsylvania for 1843 were \$1,019,401; for 1844 \$1,164,326, and the cost about 30 millions. The receipts for 1844 were as follows: Canal tolls, 578,404 Railroad tolls, 252,855 Motive power, 319,590 Trucks, 13,477 of which \$585,922 is from 118 miles of railroad, and \$578,404 from 550 miles of canal. The canals of Ohio are supported by a property tax of 5¢ mills on the dollar. There are 853 miles of canal in the State, which yielded in 1843 \$471,623, and in 1844 \$515,393, the cost, 1st Jan. '43 being \$15,577,233. The increase of '44 over '43 is only \$43,770, though the year '44 has exhibited a greater increase throughout the country than ever before known. These 21 millions on sundry works yield no income whatever. The central railroad yields above 6 per cent., and is the only State work—the Erie canal excepted—which is able to stand alone.
2 Cayuga and Seneca.....	21	237,000	102,308	2,239	621	1,636	
3 Champlain canal.....	64	1,251,664	684,600	8,140	14,385	12,740	
4 Chemung.....	23	684,600	2,420,000	16,195	22,179	15,960	
5 Chenango.....	97	2,420,000	156,777	461	3,674	1,498	
6 Crooked lake.....	8	156,777	12,648,852	1,880,316	19,641	15,557	
7 Erie—enlargement of.....	363	12,648,852	3,739,000	12,292	13,819	19,641	
8 Genesee valley.....	120	3,739,000	50,000	225	2,239	621	
9 52 miles opened, cost \$1,500,000.....	.....	.....	50,000	225	2,239	621	
10 Oneida lake.....	6	50,000	565,437	29,147	22,742	56,165	
Pa. 11 Beaver division canal.....	38	565,437	.....	.....	7,381	5,386	
12 Delaware canal.....	25	.....	.....	.....	109,278	22,870	
13 French creek.....	60	.....	.....	.....	.....	.....	
14 Seneca river towing path.....	45	.....	69,276	.....	381	.....	
15 Columbia railroad.....	82	.....	.....	.....	443,336	205,067	
16 Eastern division.....	36	.....	.....	.....	179,781	138,915	
17 Juniata canal.....	93	.....	.....	.....	.....	.....	
18 Portage railroad.....	130	.....	.....	.....	351,102	348,943	
19 Western division canal.....	105	.....	.....	.....	.....	.....	
20 North branch Susquehanna canal.....	73	.....	.....	.....	101,949	57,633	
21 West " " " ".....	72	.....	.....	.....	.....	.....	
Ohio 22 Hocking canal.....	56	975,130	4,757	.....	5,286	4,139	
23 Miami canal.....	85	1,660,742	68,640	38,826	77,844	22,341	
24 Miami extension.....	105	2,856,636	8,291	.....	12,723	14,741	
25 Miami northern division.....	35	322,000	.....	.....	unfin'd.	.....	
26 Muskingum.....	91	1,627,318	23,167	.....	29,385	15,027	
27 Ohio.....	334	4,600,000	322,754	123,398	343,711	113,210	
28 Wabash.....	91	3,028,340	35,922	6,400	48,589	12,817	
29 Walhonding.....	25	607,269	838	39,005	1,977	1,238	
30 Western road.....	31	255,015	7,254	1,782	8,747	2,929	
Ind. 31 Sundry works.....	.....	11,000,000	.....	.....	.....	.....	
Ill. 32 Maume canal.....	.....	.....	.....	.....	.....	.....	
33 Sundry works.....	.....	10,000,000	.....	.....	.....	.....	
Mich. 34 Central railroad.....	110	1,842,308	149,987	75,960	211,170	89,420	
35 Southern railroad.....	68	936,295	24,064	7,907	60,341	70,000	

CANALS.	Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
			Gross.	Nett.		Gross.	Nett.			
Blackstone.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	We may, perhaps, at some future time be enabled to give the particulars of all these canals. The Chesapeake and Ohio canal is not yet completed to the coal mines, hence its trifling income. The enlargement of the Schuylkill canal has been commenced. The Morris canal was lately sold for one million, about one-fourth of its cost. It is said in the papers that it is to be enlarged. We have seen no report, nor heard of the appointment of any engineer.
Bald Eagle Navigation.....	25	400,000	.....	.....	.....	.....	.....	.....		
Beaver and Sandy, (part).....	.....	1,000,000	.....	.....	.....	.....	.....	.....		
Charleston, (S. C.).....	.....	.....	.....	.....	.....	.....	.....	.....		
Chesapeake and Ohio.....	184	12,370,470	47,637	.....	.....	.....	.....	.....		
Conestota.....	12	300,000	.....	.....	.....	.....	.....	.....		
Delaware and Chesapeake.....	13	.....	.....	.....	.....	.....	.....	.....		
Schuylkill.....	103	3,500,000	279,795	102,921	190,693	120,624	.....	.....		
Farmington.....	.....	.....	.....	.....	.....	.....	.....	.....		
James river and Kenhawa.....	.....	.....	.....	.....	.....	.....	.....	.....		
Middlesex.....	.....	.....	.....	.....	.....	.....	.....	.....		
Port Deposit.....	10	200,000	.....	.....	.....	.....	.....	.....		
Delaware and Raritan.....	43	2,900,000	99,623	53,327	131,491	84,455	.....	.....		
Southwark.....	.....	300,000	.....	.....	.....	.....	.....	.....		
Tide Water.....	45	2,900,000	.....	.....	.....	.....	.....	.....		
Union.....	80	2,000,000	.....	.....	.....	.....	.....	.....		
Morris.....	101	1,000,000	.....	.....	.....	.....	.....	.....		
Dismal Swamp.....	.....	.....	.....	.....	.....	.....	.....	.....		

CANADIAN CANALS.	Length in miles.	No. of locks.	Lockage in feet.	Size of locks.			Width of canal.		Estimate.	Expended to Sept. 1843.	Income.	
				Length of chamber.	Width.	Depth on mitre sill.	Bottom.	Surface.			1843.	1844.
The Welland canal.....	.....	.....	.....	feet.	feet.	feet.	feet.	feet.	3,948,572	2,485,572	64,658	.....
Main trunk from Port Colborne to Port Dalhousie.....	28	31	328	150	26 1-2	8 1-2	45	81	.....	.....	.....	.....
Junction branch to Dunville.....	21	1	6	150	26 1-2	8 1-2	35	71	.....	.....	.....	.....
Broad creek branch to Port Maitland.....	1 1-2	1	6	200	45	9	45	85	.....	.....	.....	.....
The St. Lawrence canal.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Galops and Port Cardinal.....	2	2	7	200	45	9	50	90	.....	.....	.....	.....
Rapid Plat.....	4	2	11 1-2	200	45	9	50	90	672,498	973	.....	.....
Farren's point.....	3-4	1	3 1-2	200	45	9	50	90	.....	.....	.....	.....
Cornwall, passing the Long Sault rapids.....	11 1-2	7	48	200	55	9	100	150	865,372	1,665,663	.....	.....
Beauharnois, do. Coteau, Cedars and Cascades road.....	11 1-4	9	82 1-2	200	45	9	80	120	1,190,087	275,426	.....	.....
Lachine, do. Lachine rapids.....	8 1-2	5	44 1-2	200	45	9	80	120	400,000	.....	29,288	.....
Elargement of do.....	.....	.....	.....	.....	.....	.....	.....	.....	1,001,333	64,439	.....	.....
Total from lake Erie to the sea.....	12	57	525	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chambly.....	66	9	74	120	24	6	36	60	200,000	440,000	1,409	.....

COAL COMPANIES.	Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
			Gross.	Nett.		Gross.	Nett.			
Delaware and Hudson.....	16	2,800,000	930,203	196,702	10	.....	.....	.....	130	.....
Lehigh.....	20	6,000,000	.....	.....	.....	.....	.....	.....	31	.....

AMERICAN RAILROADS.														SALES.	
Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	Week ending June 4th.	
							Gross.	Nett.		Gross.	Nett.			Shares.	Price
	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	124,497	74,841	6	113½	59	101½
N. H.	2 Concord.....	35	750,000									12	70½	8	65½
Mass.	3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	117		
"	4 Boston and Maine extension.....	17 1-4	455,703	unfin.											
"	5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120½		
"	6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	108½		
"	7 Boston and Worcester.....	44	2,914,078				4 0,141	162,000	6	428,437	195,163	7½	118½		
"	8 Berkshire.....	21	250,000	not stated				17,500							
"	9 Charlestown branch.....		280,260						13	34,654	13,971	5½	70½	20	75
"	10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	112		
"	11 Fitchburg.....	50	1,150,000	just op'n'd									120	11	122½
"	12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	122½		
"	13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
"	14 Northampton and Springfield.....		172,883	unfin.											
"	15 Norwich and Worcester.....	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	71½	9,853	72½
"	16 Old Colony.....		87,820	unfin.									109		
"	17 Stoughton branch.....	4	63,075	unfin.											
"	18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	118		
"	19 Vermont and Massachusetts.....														
"	20 West Stockbridge.....	3	41,516	200		100						4			
"	21 Western, (117 miles in Mass.,).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	104	131	104½
"	22 Worcester branch to Milbury.....		8,431	506											
"	23 Housatonic, (10 months,).....	74	1,244,123							150,000			30	115	29½
Con	24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	89	20	94
"	25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
"	26 Stonington, (year ending 1st Sept.,).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		35	2,634	32½
N. Y.	27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0			
"	28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	107½		
"	29 Auburn and Syracuse.....	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
"	30 Buffalo and Niagara.....	22	200,000		1,500								100		
"	31 Erie, (446 miles,).....		5,000,000										30½	669	28½
"	32 Erie, opened.....	53						48,000		126,020	59,075				
"	33 Harlem.....	26	1,206,231							140,685	62,399		71½	775	71½
"	34 Hudson and Berkshire.....	31	575,613			50				35,029	1,789	0	14		
"	35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	71½	6,335	70½
"	36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	60	556	59
"	37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
"	38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
"	39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	116	60	116
"	40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
"	41 Troy and Greenbush.....	6	180,000												
"	42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
"	43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	129		
N. J.	44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		110	14	110
"	45 Elizabethtown and Somerville.....	26											95	10	95
"	46 New Jersey.....	34	500,000									6	85	375	87
"	47 Paterson.....	16	2,000,000												
Pa.	48 Beaver Meadow.....	26	500,000										30		
"	49 Cumberland Valley.....	46	1,000,000												
"	50 Harrisburg and Lancaster.....	36	1,250,000												
"	51 Hazleton branch.....	10	860,000												
"	52 Little Schuylkill.....	29	120,000												
"	53 Blossburg and Corning.....	40	900,000												
"	54 Mauch Chunk.....	9	600,000												
"	55 Minehill and Schuylkill Haven.....	18	100,000						12				143½	25	77
"	56 Norristown.....	20	315,000										6½		
"	57 Philadelphia and Trenton.....	30	800,000										104		
"	58 Pottsville and Danville.....	29 1-2	400,000												
"	59 Reading.....	94	1,500,000	7,447,570	40,200	50				597,613	343,511		49	560	50
"	60 Schuylkill valley.....	10	9,457,570												
"	61 Williamsport and Elmira.....	25	1,000,000				20,000								
"	62 Philadelphia and Baltimore.....	93	400,000				43,043	200,000			210,000		18½	3,744	18½
Del.	63 Frenchtown.....	16	4,400,000												
Md.	64 Baltimore and Ohio, (1st Oct.).....	188	600,000				575,235	279,402		658,620	346,946		48½	125	50
"	65 Baltimore and Susquehanna.....	58	7,623,600										5	50	2½
"	66 Baltimore and Washington.....	38	3,000,000				177,227	71,691		212,129	104,529		84		
Va.	67 Greensville and Roanoke.....	11 1-2	1,800,000												
"	68 Petersburg and Roanoke.....	60	260,000							122,871	72,898	3			
"	69 Portsmouth and Roanoke.....	78 1-2	969,880												
"	70 Richmond and Fredericksburg.....	61 1-2	850,000												
"	71 Richmond and Petersburg.....	22 1-2	1,200,000												
"	72 Winchester and Potomac.....	32	700,000												
N. C.	73 Raleigh and Gaston.....	84 1-2	500,000												
"	74 Wilmington and Raleigh.....	161	1,360,000												
S. C.	75 South Carolina.....	136	1,800,000		34,410	75				532,871	140,196	5			
"	76 Columbia.....	66					201,464	77,456		328,425	180,704				
Ga.	77 Central.....	190	5,671,452				227,532	93,190							
"	78 Georgia.....	147 1-2	2,581,723				248,026	158,207		248,096	147,523				
"	79 Montgomery and West Point.....	89	2,650,000	170,000		100				35,000	15,000				
Ky.	80 Lexington and Ohio.....	40	500,000												
Ohio	81 Little Miami.....	40	450,000												
"	82 Mad river.....	40	400,000												
Ind.	83 Madison and Indianapolis.....	56	152,000												
Can.	84 Champlain and St. Lawrence.....	15	212,000							58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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 Thursday, June 5, 1845.

HIGH FARES—BALTIMORE AND WASHINGTON RAILROAD.

The remarks by the editor of the National Intelligencer, in another column, in relation to the rate of fare on this railroad, cannot, we believe, be necessary or appropriate; as we take it for granted—even though the editor had "made some inquiry on the subject"—that the reports that "the directors of the Baltimore and Ohio Railroad Company have determined not to reduce the fare of \$2.50 per passenger, now charged on the Washington branch," of thirty-eight miles—cannot be correct.

Loud and just complaints have long been made by the travelling community at the high charges on this road, but they have been submitted to with a better grace than would otherwise have been the case, in consequence of the bonus, fifty cents on each passenger, which they had to pay the State—a very *unwise and unjust* tax, as we think, upon travellers who have occasion to pass from Baltimore to Washington. This has, if we recollect right, been assigned by the directors as a reason for not reducing the fare, until voluntary legislation should allow them to do so without its falling entirely on the company—but prorata on the State and the company. There was legislation upon this subject during the late session of the legislature of Maryland, and we understood that the company was authorized—and we supposed that they were inclined—to act under it, and meet the loud calls, not only of the travelling community, but also, as we think, by their own interest, by a considerable reduction of their present charge. And we shall not believe that they are about to disappoint the reasonable expectations of the community, until their own acts compel belief. Such a course would, in our opinion, be exceedingly unwise on their part; nothing would tend more to raise up a strong and successful opposition by post coaches, which will surely be patronized by many who are the fast friends of railroads. *Low fares, high speed*, and an obliging and conciliating course to those who must—or from choice will—travel, is the true policy for railroad companies; and we have too much confidence in the sagacity of the managers of the Baltimore and Ohio Railroad, to credit these reports; but a few days will settle the question, as the 1st of June is the period, we believe, designated in the law, at which a reduction may be made.

CHEAP TRAVELLING NORTH.

The following statement of cheap travelling to Montreal is taken from the American Traveller—and this statement, low as it is, is higher on some part of the route than the reality. From New York to Albany the fare, or charge for passage, is only 25 cents! and a good berth included, only 50 cents!! From Albany northward we are not familiar, but

presume the Traveller is, as it is always, quite at home in such matters.

"CHEAP FARE.—Persons travelling now-a-days can go almost for nothing:  
 From New York to Albany, 150 miles per steamboat, first class. \$0 50  
 From Albany to Whitehall, steamboat to Troy and packet boat thence to Whitehall, 77 miles. 1 13  
 From Whitehall to St. Johns by steamboat, 150 miles. 0 25  
 From St. Johns to Laprairie, by railroad, 15 miles. 0 50  
 From Laprairie to Montreal, by steamboat, 9 miles. 0 50  
 Total, 401 miles ..... \$2 88

WARMING AND VENTILATING BUILDINGS.

We ask the attention of our readers to the following card; and bespeak for the gentlemen, whose names are attached to it, an examination of their mode of operations by those who desire to introduce a superior and economical system of warming and ventilating buildings.

JORDAN L. MOTT AND JOSEPH CURTIS—Offer to the public the application of their respective Patents for a Plenum and Vacuum Ventilation and Warming of hospitals, almshouses, prisons, churches, hotels, factories, ball and court rooms, dwelling houses of the first class, as well as those built for many families, (also, chimneys that smoke during variable winds,) ships' cabins, steam and canal boats, railroad cars and privies.

Orders received, and exhibitions of our means of operating, are to be seen at No. 264 Water street.

The editor of the Portland Advertiser has the following, headed "facts for railroads."

"The Troy Daily Whig says—'passengers who left Montreal on Monday morning, by the Francis Saltus, reached this city in time for the Albany on Tuesday morning.'

"Twenty-four hours from Montreal to Troy—36 hours to New York. We will put them through from Montreal to the ocean in ten hours."

UTICA AND SCHENECTADY RAILROAD COMPANY.

At an election for directors of the Utica and Schenectady Railroad Company, held on the 2d inst., the following persons were elected:

Erastus Corning, Albany; Nicholas Devereux, Utica; Nathaniel S. Benton, Little Falls; Alonzo C. Paige, Schenectady; John Townsend, Albany; Lewis Benedict, do.; James Hooker, Poughkeepsie; Thomas W. Olcott, Albany; Marcus T. Reynolds, do.; Gardner G. Howland, New York; J. Philips Phoenix, do.; E. T. T. Martin, Utica; Livingston Spraker, Montgomery county.

Erastus Corning was unanimously re-elected president, and Gardner G. Howland, vice president of the company.

BOSTON AND WORCESTER RAILROAD.

At the annual meeting of the stockholders of the Boston and Worcester Railroad, on Monday afternoon, the following gentlemen were chosen to be directors for the ensuing year: Nathan Hale, David Henshaw, Daniel Denny, Eliphalet Williams, Nathaniel Hammond, John Hathaway, Abraham T. Lowe, Benjamin F. White, Samuel Greele.

A vote passed at a special meeting of the stockholders of the Western Railroad, proposing a union of the two companies, and appointing a committee to confer on the subject with a committee to be appointed by the stockholders of the Boston and Worcester Road was communicated. This vote was referred to a committee of five, who were instructed to investigate the subject—to confer with the committee of the Western Road, and to report on the whole subject at a special meeting of stockholders to be held for the purpose.—[Bost. D. Adv.]

HOUSATONIC RAILROAD.

This road appears to be steadily and at a fair rate increasing its business and income. We shall be truly gratified to chronicle its entire recovery from its embarrassments, as well as its having undergone permanent repairs, so as to become what it should,

and will be, a source of great prosperity to the people of Bridgeport, whose public spirit deserves rich rewards.

The receipts of the Housatonic Railroad were in April, 1844.....\$10,176 37  
 April, 1845..... 11,650 00

Increase in 1845..... \$1,473 33  
 The receipts of the road were in  
 1842.....\$ 92,137 22  
 1843..... 124,506 38  
 1844..... 151,538 76  
 The business of the road thus far in 1845 renders it safe to assume that it will cover expenses and interest upon its debt of 7 per cent., leaving a net balance of 5 per cent. on the capital stock. Eighty-four per cent. of the business is said to be local, or way trade.

CANAL TOLLS.—The total tolls received to the 22d May, have been as follows:

	1844.	1845.
April 18 to May 23, 34 days.	\$501,085	\$515,842
Alb'y & W. Troy, (up-freight),	166,980	156,456

All other offices (on down-freight,) 334,105 359,396  
 The daily average of the receipts in each year, for the time given, is as follows:  
 On all canals, \$14,737 \$13,941  
 On up-freight, 4,911 4,238

On down-freight, 9,826 9,713  
 This shows that the decrease, equal for the 37 days to \$796 per day, is on up-freight or merchandise, \$683 per day, and on down freight, \$113 per day.—[Albany Argus.]

REDUCTION OF TOLLS.—We learn that at a meeting of the board of the Susquehanna and Tide Water Canal Company on Thursday, the following rates were established as tolls on iron through the canal:

On bar, rolled, slit and hammered iron, and also on nails and spikes,..... 75 cts. pr ton of 2000 lbs.  
 On castings, blooms and an-chories.....50 do. do.  
 On pig iron, scrap and broken castings.....35 do. do.  
 —[Baltimore American.]

THE COAL TRADE.—SCHUYLKILL VALLEY.

The demand for coal is increasing, and the red ash dealers are doing an unusually early business.

The business by railroad is still rapidly increasing, the shipments by that avenue, this week, reach 16,748-14 tons.

Sent by railroad from Pottsville and Port Carbon—total tons..... 74,206-85  
 From Schuylkill Haven—total tons..... 122,737-20  
 From Port Clinton..... 1,345-07  
 Total..... 198,289-12

BY CANAL.

From Pottsville and Port Carbon—total. 36,984-65  
 From Schuylkill Haven—total..... 7,540-14  
 From Port Clinton—total..... 12,006-46  
 Total by canal..... 56,531-05  
 Total by railroad..... 198,289-12  
 Total by railroad and canal..... 254,820-17

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.  
 Summit mines, - - - 36303  
 Room run do., - - - 10605—46908  
 Beaver Meadow railroad and coal co., 15264  
 From Penn Haven—Hazleton coal co., 13286  
 From Rock Port—Buck Mountain coal co., 4023  
 79481

WYOMING COAL TRADE—total..... 16133  
 MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons..... 129,672-05  
 MOUNT CARBON RAILROAD—total tons.. 76,871

## LONG ISLAND RAILROAD ROUTE TO BOSTON.

Passengers by this route leave New York, *South Ferry*, at 8½, and the depot at Brooklyn at 8½, A. M.; and returning, leave Boston at 6 A. M., for New York, via Norwich and Worcester railroad, daily, Sundays excepted; fare through, \$3 25—in second class cars, \$1 88.

This is certainly a very acceptable reduction, both in time and expense, to those who travel, and must induce many who pass from one city to the other, to take this route; and even travellers from west of Albany, who reach that city before 7 P. M., and desire to go to Boston direct, may now arrive there *via New York*, and the Long Island railroad, at less expense, and at as early an hour, as by the Western railroad; unless there is a night train from Albany over that road.

This company has overcome many difficulties, in carrying their road through to Greenport; and have some others yet to surmount, none, however, that may not, by a conciliating and liberal course, be gradually removed. But to do this, and make the local business of the Island—which, after all, is to be the greatest source of revenue—contribute its full share to the income of the road, there must be an accommodating spirit towards the inhabitants, and a desire evinced to consult and promote their convenience and interest. There should be at least one daily train through to Greenport; or the Boston train should take up way passengers from all the principal—yes, from all the stations on the line—which might, we should think, be done in less than one hour additional time. It is quite as important for some people to come to the city on Tuesday or Thursday, as for others to come on Monday, or Wednesday, and for others to go from the city on a fishing or hunting excursion, or return home on Mondays, Wednesdays and Fridays, as on Tuesdays, Thursdays and Saturdays, therefore it is the duty—inasmuch as the railroad has driven the stages off the roads—as well as the interest of the company to accommodate them; and they must do it too, or they will have an opposition line of stages on some parts of the Island, to accommodate those people who cannot conveniently go on the alternate days; and if the stages are once started, they will be sustained. And it will be found in this case, as in almost every other, the true interest of the company so to arrange their hours, trains and speed, as to afford the greatest accommodation possible, at the lowest remunerating rates of fare and freight. It is a peculiar feature of railroads, that they create their own business: even where very

little existed before, a brisk business will grow up along their line, and people who never or seldom travelled before, are sure to patronize a railroad, when passing near them, if it is managed on anything like an accommodating or liberal plan; but when their interest and convenience is disregarded, they are not slow to find it out, nor to put counteracting influences in operation.

The completion of the tunnel at Brooklyn has added greatly to the capacity and convenience of doing business at this end of the road; and we now hope to hear from the farmers and others on the line of the road, that the company has made ample and liberal provision for their accommodation—they will do it if they are wise, they must do it if they would succeed and pay good dividends.

We would call the attention of the directors to the following extract from the report of the Dublin and Kingstown railway. It is evidently the true policy to be pursued by the managers of railways from large cities into the agricultural districts. They should "endeavor to create a traffic, and increase it to the greatest extent, by affording to the public the utmost possible accommodation, and at very low rates." Here is the great secret of paying nine per cent. dividend on short roads.

The directors say in their last report, when speaking of the various causes of their eminent success, and which enables them to make a dividend of nine per cent., that

"There is one of those causes so peculiar, that we desire especially to call your attention to it, as it has grown out of that system which you have long since sanctioned, and which, after much discouragement, has led to such gratifying results in the management of our undertaking, namely, that of endeavoring to create a traffic, and to increase it to the greatest extent, by affording to the public the utmost possible accommodation, and at very low rates.

"One great object which we have steadily kept in view, was to encourage permanent residents along all parts of the line and the surrounding neighborhood. We have therefore continued to run the Dalkey trains every half hour, up to 9 o'clock at night, although very few passengers, indeed, have been conveyed after 6 o'clock, P. M., during the winter, and many of the trains have run without a single passenger.

"We are, however, confirmed in our conviction of the soundness of this policy by the preparations which are now being made in the district of Dalkey and Killiney, to which we have alluded, for building operations on a very large scale. It is a striking evidence of the disadvantageous manner in which this traffic has been carried on with reference to the proportion of expenses and income, that the average number of passengers in each carriage has been under four.

"Notwithstanding these apparent discouragements, our confidence is unshaken in the ultimate, complete and entire success of the atmospheric system, and a highly gratifying evidence of the extent to which public attention has been directed to it, has been lately evinced by the appointment of a select committee of the house of commons, consisting of some of the most distinguished members, to enquire into the system."

Now we ask, if such a system has been so exceedingly successful in the vicinity of Dublin, would it not be equally and even more successful in the vicinity of New York and Brooklyn, if adopted and carried out with a spirit of conciliation and mutual interest? Let the attempt be made, and we shall, at no distant day, seldom find Long Island railroad stock in the market—at any price. It will be too valuable to be handled in Wall street often.

## THE UNITED STATES MAIL AND THE RAILROADS.

We find the following very just remarks in the United States Gazette, in relation to the complaints of the post office department that the railroad companies are 'monopolies,' and that they are unreasonable in their demands for transporting the mail. It has become quite fashionable for many people to speak of associated enterprizes, or incorporated companies—where more capital is required than usually falls to the lot of one man—as "monopolies;" or that these associations enjoy advantages for which they render no equivalent, and that the people are not equally benefitted by their successful operation. That such remarks should be heard from some quarters is by no means surprising, but that intelligent practical business men should join in them is to us truly astonishing; and especially so in relation to railroads which have done, and are doing so much to facilitate business generally, and especially in the transportation of the mails, but more especially in the economy of time—the poor man's capital—to say nothing about the reduced cost to the traveller. We have sometimes, when listening to, or reading these complaints, asked whether those who made them would be any better pleased if these "monopolies" were to be struck entirely, and at once, out of use!!!

## "THE POST OFFICE DEPARTMENT—RAILROAD COMPANIES—JUSTICE AND MONOPOLIES.

"The Union intimates that the postmaster general will correct the evil of which the people in Baltimore and Washington complain, that of stopping the midnight mail from Philadelphia to Baltimore. The Union represents the postmaster general as indignant at the action of the Baltimore and Philadelphia railroad company, and declares that there was an agreement for two mails

a day, and that the full price was paid; and if the company think to extort *more*, they will be disappointed, as the postmaster general has no authority to add another dollar to the compensation, whatever may be the extra labor performed.

"Now every body knows that there are two mails a day between Baltimore and Philadelphia. One leaves the city at 8 o'clock, A. M., and the other at half past 3 o'clock, P. M. But it seems the postmaster general desired to have another mail at *midnight*, (not at 10 o'clock, P. M., as the Union says) and the railroad company tried the experiment, but found that passengers would not travel at that hour, and the price for carrying the mail would not pay for running the line. No contract, we imagine, has been broken—no faith violated. The truth is, the department has been, for a long time, managed without that enlarged view of usefulness that once distinguished its administration, and occasionally to achieve a little temporary popularity, in order to hide long existing evils, some sudden scheme of usefulness is broached, some rapid conveyance of the mails, or some unusual facility and multiplication of means. But while the department is planning and seeking to execute these schemes for its own credit, it has no disposition to compensate those who do the extra work; and after exciting expectations, and finding itself unable to continue to gratify them, it hears for a short time the complaints of the disappointed, and then attempts to throw the censure upon railroad companies, that are denounced as monopolists, extortioners, etc. Now let the postmaster general run a mail between any two great cities of the Union, at whatever hour he may say, and he will be sure to find some persons particularly gratified with the arrangements; and if the existing lines are not disturbed, none will complain. But to do this extra work demands extra means. A line of cars, or boats, or stages, between Philadelphia and Baltimore, cannot be run without a considerable expense. When men or departments talk of monopolies, let them think what were the means of conveyance before that monopoly existed. Nay, let the department remember that it is itself a great monopoly, existing to the total suppression, by special statutes, of private enterprise, and that individuals would run a mail from New Orleans to Portland, and take letters and newspapers for half what the department charges. We are not so ignorant as not to know that the department, with all its character of monopoly, is a great good, that it gives sanction and safety, and it supplies the extremities with correspondence. But then we also know, that the monopolies of which that department complains, are of immense, incalculable public benefit; that they convey three times as rapidly, and three times as often, passengers and packages, as could the old means; and, moreover, by their very rapidity, insure the *safety* which was guaranteed by the establishment of a post office department. We do not care how frequently the mail is conveyed between city and city,

nor does it concern us much at what hour; but we do protest against this habit of the department, of seizing upon the facilities of railroad companies, without regard to the immense cost of construction, and the continued expense of maintenance; and then, if twice the service agreed on is not performed, appealing to popular prejudice against monopolies, and sustaining itself by the silence of those who are indifferent, the clamor of those who are only concerned in the results, without being interested in, or caring for the *means* by which the end is obtained."

THE SUSPENSION AQUEDUCT.

We take the following account of the suspension aqueduct, over the Allegheny river at Pittsburgh, from the Baltimore American, because we do not receive the Pittsburgh Gazette, in which it was first published, and because we have not, as we had *reason to expect*, received a full description from the gentleman who has been so fortunate as to complete the work, in a manner so satisfactory to those interested and to be benefitted by his efforts. The American says, that

"This important and novel work, by which the Pennsylvania canal is carried over the Allegheny river from the city of Allegheny to that of Pittsburgh, is at length completed and about to be brought into use. We find the following account of this bold enterprise in the Pittsburgh Gazette of Saturday:"

The new structure is the only one of the kind in the United States, and, we believe, in the world. After many attempts had been made to repair the rickety old concern, the city (the canal commissioners refusing to do it) concluded to rebuild, and issued proposals limiting the cost to \$62,000; it being considered that the old piers and abutments with some repairs were nearly as good as new. A number of models were sent in, and after a long and laborious examination, that of Mr. John A. Roebling was adopted, and the present splendid monument of his genius is the result. We have taken the liberty of extracting a minute account of it from the appendix to Dr. Upfold's lecture before the Philomathean Literary Institute. This, we infer from its particularity, is from the pen of Mr. R. himself.

"The wire suspension aqueduct consists of seven spans, of about 160 feet each from centre to centre—supported by six piers of solid mason work and two abutments. The trunk is of wood, 14 feet wide at the bottom, and 16½ feet at the top, with its sides 8½ feet deep, conveying an average depth of 3½ feet of water. The sides and bottom are formed of a double course of 2½ inch plank, laid diagonally, the two courses crossing each other at right angles so as to form a solid lattice work of great strength and stiffness, sufficient to bear its own weight and resist the effects of the most violent storms. The whole of this trunk, with towing and foot paths at the sides, is supported, in addition, on strong beams placed transversely to its sides, and arranged in pairs at a distance of

four feet apart; each pair of beams is sustained by two suspension rods of iron, shaped like stirrups, and mounted on small cast iron saddles resting on the wire cables, which form reversed arches from pier to pier; and where the cables are strongly inclined, or dip considerably, the small saddles are prevented from slipping by connecting rods, the first of which is attached to the saddle.— There are but two cables, of 7 inches diameter each, suspended at the two sides of the wooden trunk. Each cable consists of 1900 lengths of wire of ¼ of an inch thick, and possesses an aggregate strength of over two millions of pounds.

"The two cables together are competent to sustain a weight of more than 2000 tons. The oxidation of the cables is prevented by durable varnish applied to each separate wire, in addition to which they are protected by a solid wrapping of annealed wire, well painted. The cables do not extend under ground. Their extremities connect with chains which pass under ground, and are anchored to large metal plates, covered with heavy masses of masonry, the weight of which resists any pressure of the chains. The chains are made of the best boiler scrap iron, each bar being forged in one piece without a weld. The links composing the chains average four inches, by one and a half inch, and are from four to twelve feet long. All the masonry forming the anchorage has been laid in cement and mortar, and the iron is embedded in cement. The preservation of the chains under-ground is rendered certain by the known property of lime and cement to prevent oxidation. If moisture should find its way to the chains, it will be saturated with lime, and add another calcareous coating to the iron. On the piers and abutments, the cables rest on cast iron saddles. The size of the cable is increased at the saddles in two points, by introducing a number of short wires. Swells are thus formed, which fit into corresponding recesses of the casting. The cable is then pressed down by three sets of strong wedges, which are driven through corresponding openings in the sides of the saddle. By this provision the cables are firmly connected with the saddles and prevented from slipping.

"The following table will show the principal weights and dimensions of the structure:

Length of trunk of the aqueduct,	1,140 ft.
" " cables,	1,175 ft.
Aggregate length of cable & chains,	1,283 ft.
Diameter of cables,	7 in.
Weight of both cables,	110 tons.
Total weight of water in aqueduct,	1764 tons.
Do. do. in one span,	252 tons.
Weight of one span including all,	380 tons.

"We hear it said that he has made little or nothing by the contract; however this may be, he has erected a work which will secure him a high reputation, and eventually, an ample return in a pecuniary sense.— His next contract is for the Monongahela bridge, which is also to be on the wire suspension plan, and we hope he may have 'room and verge enough' to construct a handsome thoroughfare across that stream."

We find in the Tribune the following statement:

**NEW YORK AND ERIE RAILROAD.**

"The following statements in relation to the cost of this road, its connection with tributary works, and its probable productiveness, are prepared for the information of those who may become subscribers to the capital stock.

**I. OF THE COST OF THE WORK.**

The cost of a single track, with heavy rails, from the Hudson to lake Erie, the State loan being relinquished, will be represented by.....\$8,100,000  
 Stock of comp'y heretofore issued 1,500,000  
 Existing debt..... 600,000  
 Subscriptions to be added to stock 3,000,000  
 Bonds to be issued for..... 3,000,000

Estimate for outfit of engines, cars and other furniture.....1,000,000

Total .....9,100,000  
 Equal to \$20,200 per mile, the length being 450 miles.

If under the provisions of the recent law, the old stock should be exchanged for new, then this sum of.....\$9,100,000 would be subject to a reduction of about 750,000

In which case the road would stand the stockholders in..... 8,350,000 or \$18,500 per mile

Cost as compared with other important and productive railroads, with heavy rails and adapted both to the transport of tonnage and passengers:

	Length.	Cost per mile.
1. Camden and Amboy railroad, 61 miles...		\$52,458
2. Boston and Worcester do. 44 do. ...		66,229
3. Worcester and Albany do. 156 do. ...		49,270
4. Norwich and Worcester do. 66 do. ...		32,826
5. New Jersey do. 34 do. ...		60,000
6. Reading do. 94 do. ...		100,600
7. Baltimore and Ohio do. 188 do. ...		40,550
8. Baltimore and Wash. do. 38 do. ...		47,368
8. Balt. and Susquehanna do. 50 do. ...		51,724

Of these the two first mentioned, and the Reading, have a double track.—The average cost per mile of the whole of these together is \$55,600.

The line of roads extending from Albany to Buffalo, as stated in the comptroller's late report, cost an average of \$30,700 per mile, though, excepting the first 16 miles, furnished only with flat bars.

It is apparent, therefore, that to the stockholders, the cost per mile of this road will be less than half that of the principal works of similar character.—Even those in the above list which have but a single track, making together over 500 miles, cost on an average but a trifle less than \$42,000 per mile.

The cost of this work, including the proceeds of the state loan, and the whole amount of the old stock, will not exceed \$26,000 per mile, completed and furnished.

If to this be added a reasonable estimate of the lands gratuitously ceded for the roadway, and for stations, depots, and other purposes, equal to at least \$2500 per mile, the total value of the investment is equal to \$28,500 per mile, or 40 per cent more than its cost to the stockholders at \$20,200 per mile as first stated, and over 50 per cent more than its cost at \$18,500 per mile, as stated in case of a reduction of the old stock.

This statement may reasonably satisfy those who have imbibed erroneous impressions upon the subject, that the funds heretofore employed in the construction of this work have not been squandered, or improvidently applied.

A statement derived from official documents, of the prices paid on several important public works in progress at the same time in this and adjoining states, conclusively shows that the prices paid on this work were lower than on those works by a per centage varying from 25 to 80, and in some items even more.

Those who are intimately acquainted with the facts as to what has been done, the character of the work performed, and the prices paid, have no hesitation in challenging a comparison of this with other works, and believe it may be safely affirmed that no similar amount of expenditure on other public works has produced an equal amount or value of results.

The cost of the eastern division of the road from Piermont to Goshen was \$29,000 per mile, that is, exclusive of the outfit and of the pier, docks, &c., which are constructed not for this division merely, but for the whole road, and cost about \$220,000.

**II.—IN RELATION TO THE PRODUCTIVENESS OF THE WORK WHEN COMPLETED.**

It may be advantageously compared with the railway extending from Boston to Worcester, and thence to Albany, 200 miles, which together cost an aggregate of \$10,600,280, averaging a trifle more than \$53,000 per mile. The rails are of heavy iron, and there is a double track from Boston to Worcester, nearly one-fourth of the whole distance.

The net earnings of the entire line in 1844 amounted to.....\$634,842  
 Equal within a fraction to 6 per cent. on the entire cost. The net income per mile averaged..... 3,174

Supposing the business on this road should only be equal in proportion to its length to that on the Boston and Albany line last year, yielding \$3,174 per mile, the result would be of net receipts \$1,423,300, which is over 17 per cent. on \$8,350,000, the cost in round numbers of this work, with its fixtures and equipment at \$18,500 per mile.

If the addition of a double track on this road for a like proportion of the distance, as on that from Boston to Albany, be allowed for at the rate of \$10,000 per mile, amounting to about \$850,000, and making the total cost as above stated, \$9,200,000; then the net earnings as above stated, would be equal to 15½ per cent.

But since the cost of this work to the company as stated, viz: \$8,350,000, comprises  
 Of existing debt..... \$600,000  
 Bonds to be issued..... 3,000,000  
 Stock for the construction....\$3,000,000  
 For outfit..... 1,000,000  
 Old stock..... 750,000—4,750,000

It results that the net income as above supposed, viz:.....1,423,300 will pay 6 per cent on the bonds and debt, amounting yearly to..... 216,000

and leave a balance of.....1,212,300 equal to 25½ per cent. (\$1,211,250) on 4,750,000 of stock.

If, therefore, the business of the road should, in proportion to its length, or in other words, if the net earnings per mile

should only be equal to the average net earnings of the road from Albany to Boston, the results would be as above stated.

The late Board estimated the annual net earnings at \$1,343,500, about 1 per cent. on the cost less than the result of the above comparison with the line from Albany to Boston. They, however, allowed nothing for any probable increase of inhabitants, products, or business, on the route during the time to elapse before the completion of the work, or for travel and traffic to and from the lakes, or for transporting the mails. They also guardedly avoided allowing all the advantage which is likely to result in respect to profits from the great length of the road.

The following works, tributary to this road, are in contemplation or completed:

Character of the work.	Length of intersection in miles.	Distance of point from this city.
1. R. R. from Albany to some point near Goshen, ...	90	65 miles.
2. Do. Utica to Binghampton.	85	200 "
3. Do. Ithaca, connecting with Cayuga lake.....	38	250 "
4. Do. Blossburg to Corning..	40	320 "
5. Do. Canad'gua ".....	75	320 "
6. Do. Buffalo to Hornellsville.	85	340 "
7. Chenango canal.....	97	220 "
8. Chemung & C. Lake canal.	100	320 "
9. Genesee Valley canal.....	120	400 "

Total length of these tributaries .....750  
 Aggregate distance on this road.....2,500 "

Besides the above, other branches are in contemplation, and likely, at no distant period, to be undertaken, sufficient to extend the lines of tributaries to 900 miles, or double the length of the main trunk, and the number of miles of this work to be passed over by them to more than 3000.

A glance at this statement cannot fail to produce conviction that the business of the main trunk, both in passengers and tonnage, must be greatly augmented by the intersecting railways and canals referred to, and especially in the case of the railways in the winter.

Let any one consider the probable yearly travel and traffic to and from Buffalo, passing, including the distance between this city and Piermont, 340 miles, on this road; and add to it that from Canandaigua, 320 miles, that from Ithaca and the steamboat route on Cayuga Lake 250 miles, and that from Utica 200 miles, and consider what proportion of the business which is to support these roads, and make them profitable as independent works, is thus to pass over this main trunk 3, 4, or 5 times as many miles as on them, and he must conclude that they will very essentially augment the profits of this work.

**THE PROPERTY OF THE COMPANY CONSISTS OF**

64 miles of Railway finished, viz.:  
 53 miles in operation from Piermont to Middletown.

7 miles double track at the western termination, from which the rails have been removed.

4 miles single track near Corning.



Pier, docks, machine shop, &c., at Piermont.

177 miles of roadway ready for superstructure, on about half of which the bridges are complete.

40 miles nearly prepared for the superstructure, and other portions commenced.

Timber for 250 miles of superstructure, and a large quantity of timber for piles, cross ties, bridges, &c.

The right of way for 325 miles of the road, and grants of land for the most important depots and stations.

Permanent settlements with the owners of adjoining lands for erecting and forever maintaining the fences on 220 miles of the road.

Surveys, maps, &c., of the whole line of the road, and final locations of 350 miles.

Locomotives, cars, &c., on 53 miles.

Pile driving machines, earth cars, engines, tools, and stock in machine shop, chairs, and other castings.

Cost under the present laws, \$1,350,000.

The net income of the eastern division for the current year is estimated at \$60,000.

It is sometimes amusing to read the arguments, or assigned reasons, in railroad controversies, for and against particular routes. The advantages of railroads are now so highly estimated, that it sometimes occurs that very candid and honorable men allow their fancy or their interest to place themselves or their rivals in an awkward or ridiculous light. Standing, as we do, in a position uninfluenced by local projects—looking, as we desire, and intend, upon every individual work as a link in a vast system—we are often amused by the controversies carried on between parties interested in rival lines. The following extract from a long communication in the Rutland Herald, signed "Mount Holly Gap," is of this class:—

*Vermont Railroad.*—The arguments used in Western Vermont in favor of the route, via Mount Holly Gap, are—

1st. That it would open to the Boston market a section of country bordering on Otter Creek, that now do their business at New York.

2d. That Western Vermont abounds in iron, marble, slate, manganese, and other articles not found on the central route.

3d. The population is greater to the square mile, on the western side of the mountains, than on the east. And that the grand list of the western counties is larger in proportion to the population and extent of territory, than that of the counties bordering on the central route.

4th. With the exception of the towns of Ludlow and Mount Holly, the whole line of the western route is seldom covered with snow more than six inches deep, while the whole line of the central route (which is twenty-eight miles longer than the western)

is generally at an average of four feet deep, and remains, as a matter of course, longer on the ground than on the western route.

The logic of the Vermont Watchman, in favor of the central route, would be, 1st, The road would pass in sight of a splendid State House, surrounded by lofty mountains, which render the scenery picturesque, awfully grand, and sublime. 2d. That the central route is peculiarly adapted to applying the motive power to runners on the bob-sled principle, thus avoiding the necessity of purchasing that expensive item in the construction of ordinary railroads, railroad iron at the present high prices. 3d. That the curves on the central route, like the Mississippi river, winding to all points of the compass, like *traverse sailing* on the ocean, would facilitate the onward course in a head wind; while with adverse winds, no alternative would be left, but to pull the *tap* at Rutland, run to the quarantine ground at New-York, via Whitehall and Saratoga, and there to ride until the Boston health officer arrived with a certificate of *All Well*. \* \* \*

We can assure those interested in these apparently rival routes, that it is hardly worth their while to expend their ammunition in efforts to disparage either—as they will ere long be convinced that both routes are exceedingly favorable for a railroad, and that both are sure to be built within a very few years. There cannot, it seems to us, be a doubt in the mind of any well-informed man, that there will be a railroad from Boston to Burlington, via Rutland. It will be seen on referring to the map, that a road via Rutland encloses a large section of the most productive part of New England, which now trades with New York. Is it to be supposed that Boston will leave this rich field out of her fold when she is cutting the ditches and erecting the barriers to turn the current of business to her doors? Not so, rest assured: therefore this line will receive largely of her liberal aid—even if the central route is not built; but it will be built—and Boston will also contribute liberally to its construction, because it will be a good investment—as it will open a region of country, not only rich in agricultural products, but possessing vast manufacturing resources, which has been always tributary to her.—We have not a doubt of the construction of both lines.

The construction of both these lines, however, will not secure to Boston the whole trade of that region, by a long way—as the Trojans, and the people south of Rutland, in the direction of Troy, will build a railroad to connect the *New York and Albany Railroad*,—or more properly the New York and Troy road, as it will actually terminate at Troy instead of Albany—at Rutland, with

the Boston and Burlington road, thus giving a choice of markets.

It may be said by some, that we are wild in our views, and visionary in our anticipations. Well, then, let it be so said—that will not prevent the rapid extension of the system, nor the construction of lines of railroad over natural routes, any more than the disbelief of many intelligent men in this city and state prevented the construction of the *Erie and Champlain* canals.

**NON-REDUCTION OF FARE ON THE RAILROAD BETWEEN WASHINGTON AND BALTIMORE.**—We have noticed for some time past intimations through the press, that, contrary to general and reasonable expectation on the part of the travelling public, the Directors of the Baltimore and Ohio Railroad Company have determined not to reduce the fare of \$2 50 per passenger, now charged to travellers on the Baltimore and Washington branch. Having made some inquiry upon this subject—one of great interest to the travelling public—we regret to learn, from a source entitled to respect, that, although there has not yet been any action by the Board of Directors, it is thought there will be no reduction of the fare between Washington and Baltimore. Now this, we take leave to say, will be not only a sore disappointment to the community, but a public grievance, the rate being now so much above all other rates of travelling by railroad in various parts of the Union. It is a fact, that persons can now travel from New York to Boston for \$3; and we have lately seen it advertised that persons may travel from New York to Montreal for a like sum! Now, it is most unreasonable as well as impolitic, on the part of the Washington and Baltimore Railroad Company, so we conceive, that they should charge so much higher than the rest; and we still indulge the hope that the Directors will make the expected reduction to take effect from the first of June. If this be not done, the Railroad Company may expect that travelling by the cars between this city and Baltimore will greatly fall off, and that an impetus will be given to the excellent line of stages now running between the two cities, which will place them on a permanent and sure basis.

**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y.  
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

## PROGRESS OF RAILWAYS.

The following remarks in relation to the Chester and Birkenhead railway will apply equally well to almost every railroad, either in this country or in England; and we know of no better mode of illustrating their steady advance than by giving similar statements of their comparative receipts during certain periods of each succeeding year.

"Nothing can be more conclusive," says the editor, "of the steady advance of railways, and the increasing favor which they meet from the public, than an unbiased review of their relative receipts for merchandize and passengers, during two or more distinct periods. As the census of a nation portrays at once its progress or decline, and the wealth of its commerce, as either enhanced or depreciated, so the statistics of a national undertaking may fairly be consulted as a criterion of its success. It is in taking the comparative increase of our several lines that we have, from time to time, presented a cheering account of the present position and future favorable prospects of railways generally, and we now furnish a few succinct and plain statements, respecting the progress of one line, not in itself of any great importance, as connected with enormous traffic, or immense through communication, but one of the minor projects, whose revenues are unaided by any impulse, but that of steady and sterling utility, and, therefore, a more satisfactory test of the general value of similar undertakings. The Chester and Birkenhead railway has a total number of 16,500 shares, 5,000 being original, at a price of 50*l.*, and issued at par; 5,000 half-shares at 25*l.* each, issued at 20*l.*; and 6,500 new 50*l.* shares, issued at 17*l.* The first are now in the market, at somewhat a shade better than par; the second at a premium of 4*l.*, and the last are quoted at no less than 44*l.* We will now consider how far the success of the undertaking has hitherto warranted this favorable quotation.—From the 1st of January to the 30th June, 1843, the number of passengers on the line had been 99,782, paying an amount of 9915*l.* 19*s.* 9*d.* From the 1st January to the 30th June, 1844, the number of passengers had been 126,055, and the amount paid by them 11,341*l.* 5*s.* 7*d.*, being an increase in the six months of 25,273 passengers, and 1425*l.* 5*s.* 10*d.* During the latter period the capital account presented an amount of disbursements of no less than 518,989*l.*, including 135,792*l.* for land and compensation, 209,957*l.* for works on roads, and nearly 200,000*l.* for parliamentary, law, and engineering expenses; while the revenue account showed a further disbursement of 8732*l.* 9*s.* 8*d.* for various incidental expenses. To meet these heavy preliminary demands, 514,585*l.* 18*s.* was raised by calls on the three several classes of shares, by mortgages, premiums, and loans, and a deduction of 21,318*l.* 5*s.* being made from the debt account for the sale of lands, and materials, and for the discharge of a turnpike bond, the original expenditure was reduced to 497,671*l.*

9*s.* 4*d.*—leaving 16,914*l.* 8*s.* 8*d.* in favor of the company on the capital account, and 4515*l.* 16*s.* 6*d.* on the revenue account.—Out of this a dividend was declared of 8*s.* 6*d.* per 50*l.* share, and 4*s.* 3*d.* per 25*l.* share; but 5*s.* 3*d.* being due on each of the new 50*l.* shares, the amount paid was only 3*s.* 3*d.* per share, requiring a sum of 4406*l.* 5*s.* which, deducted from the surplus, left a balance in hand of 1109*l.* 11*s.* 6*d.* Such was the position of the company on the 30th of June, 1844, having for the half-year then first ended, carried 126,055 passengers, receiving an amount of 11,341*l.* From that date to the 30th of January, 1845, the number of passengers had been 147,618½, being an increase of 21,563½, and an amount of 13,019*l.* 9*s.* 2*d.*; being also an increase of nearly 2000*l.* The merchandize for that half-year had realized 1684*l.* 1*s.* 6*d.* and the mails, 406*l.* 7*s.*, presenting a total receipt of 15,109*l.* 17*s.* 8*d.* For the corresponding period in 1843, the number of passengers had been 121,240, the amount for them 11,094*l.* 8*s.* 6*d.*; merchandize, 1164*l.* 11*s.* 11*d.*; mails, 283*l.* 9*s.* 6*d.*—in all, 12,442*l.* 9*s.* 11*d.*—showing an increase in favor of the succeeding half-year of 26,387 passengers, and 1925*l.* 0*s.* 8*d.* the amount they paid, 519*l.* 9*s.* 7*d.* for merchandize, 122*l.* 17*s.* 6*d.* for mails, and 2567*l.* 7*s.* 9*d.* on the total receipts. To the amount of 15,109*l.* 17*s.* 8*d.*, is also to be added 81*l.* 3*s.* 5*d.* for rents, etc.; giving a gross receipt of 15,191*l.* 1*s.* 1*d.*, while the expenses being only 8238*l.* 18*s.* 7*d.*, presented, with the balance of the preceding half-year, a surplus of 7833*l.* 3*s.* 8*d.* in favor of the company. Of this balance, 5906*l.* 6*s.* has been allotted for the payment of interest, being at the rate of 10*s.* per 50*l.* share and 5*s.* per 25*l.* share. We have now given these statistics in detail, because they present a very useful illustration of the advantages of the system, as contrasted with its preliminary difficulties, eventually overcoming them, and gradually, but steadily and satisfactorily, evidencing prospects of permanent future success.—*Mining Journal.*

## HEATING BUILDINGS WITH HOT WATER.

We take it for granted that every one—even railway proprietors, have an interest in all improvements designed to render dwellings or other buildings comfortable in winter—although to economise fuel may reduce transportation on some of our railroads; therefore we give place to the following description of an improvement in the apparatus for heating buildings with hot water, by Benjamin Blaney, Boston, Mass.:

This is for an improvement in the method of heating air for heating buildings, by the circulation of hot water through a series of tubes in a hot air chamber. The patentee says—"My apparatus consists in part, of a furnace and a vertical boiler. To the upper part of this boiler is attached a box, which I denominate a water trap, said water trap being intended to receive the water which, by its ebullition, is caused to flow into it from the boiler. From the bottom

of the water trap, the heated water passes along and ascends through a series of re-curved pipes, contained in an air-heating chamber, and from the lower part of these it again passes into the lower end of the boiler, and is thus kept constantly circulating while ever a fire is maintained in the furnace. The whole apparatus is to be contained within a suitable chamber, made perfectly close, excepting where provision is made for giving access to the furnace, and the opening or openings made for the admission of the air from without, which is to be heated, for the purpose of being conveyed through tubes into the apartments to be warmed."

Claim—"What I claim therein as new, is the manner in which I have connected the boiler with the series of tubes or pipes, through which the heated water is to circulate, by combining therewith a box or vessel, which I denominate a water trap, into which the boiling water is to pass, in consequence of its ebullition, and through which, as well as through the tubes connected therewith, and through the boiler, said water is to circulate for the purpose and substantially in the manner set forth."—*Jour. Frank. Ins.*

**W. R. CASEY, CIVIL ENGINEER, NO. 23** Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

**TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY.** The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. **THOMAS & EDMUND GEORGE,** ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**PATENT RAILROAD, SHIP AND BOAT** Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

**HENRY BURDEN, Agent.** Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\* \* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

**NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.**

Length of Road, 33 96-100 miles. Capital, \$2,000,000.  
 JOHN S. DARCY, Esq., President. ROBERT SCHUYLER, Esq., Vice President.  
 J. P. JACKSON, Esq., Secretary. J. WORTRINGTON, Esq., Treasurer.

Leave New York, foot of Courtland street.	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
For Newark.....	9, 11, 12.....	2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4 3-4, 6.....				
" New Brunswick.....	9.....	3, 4 3-4.....				
Leave New Brunswick...	6, 7 1-2, 11 1-2.....	8 3-4.....	11 1-2	8 1-2		
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	1 1-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4		
For New York.						

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

**TABLE OF DISTANCES AND FARES.**

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Supt Hartford and New Haven Railroad; W. R. McKee, Supt Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Supt New Jersey Railroad Trans. Co.; J. Elliott, Supt Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Supt Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Supt Macon Railroad, Macon, Ga.; J. H. Cleveland, Supt Southern Railroad, Monroe, Mich.; M. F. Chittenden, Supt M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

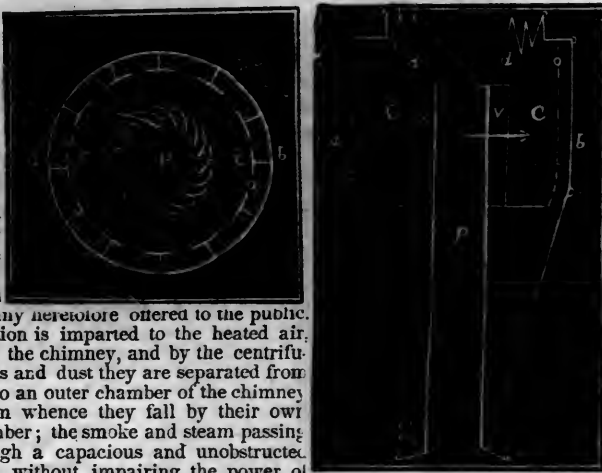
\* \* \* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

**SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me.** Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES. —  
 Boston, { Col. James F. Baldwin, Civil Engineer.  
 { Col. J. M. Fessenden, " "  
 Wm. Parker, Esq., Engineer and Superintendent Boston and Worcester railroad. ja45

**SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars.** The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent, 35a3 Albany Iron and Nail Works, Troy, N. Y.



**FOR SALE, AT A SACRIFICE—A LOCOMOTIVE Engine, 4 wheels and Tender.** Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine. 2 8-horse " " " "

1 Upright Hydraulic Press.  
 All of which will be sold low, on application to T. W. & R. C. SMITH.

Founders and Machinists, Alexandria, D. C.  
 May 12th

**RAILROAD IRON AND FIXTURES. THE** Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO., 21 Broad st., N. York. ja45

**MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Patterson, N. J.** The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.  
 Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

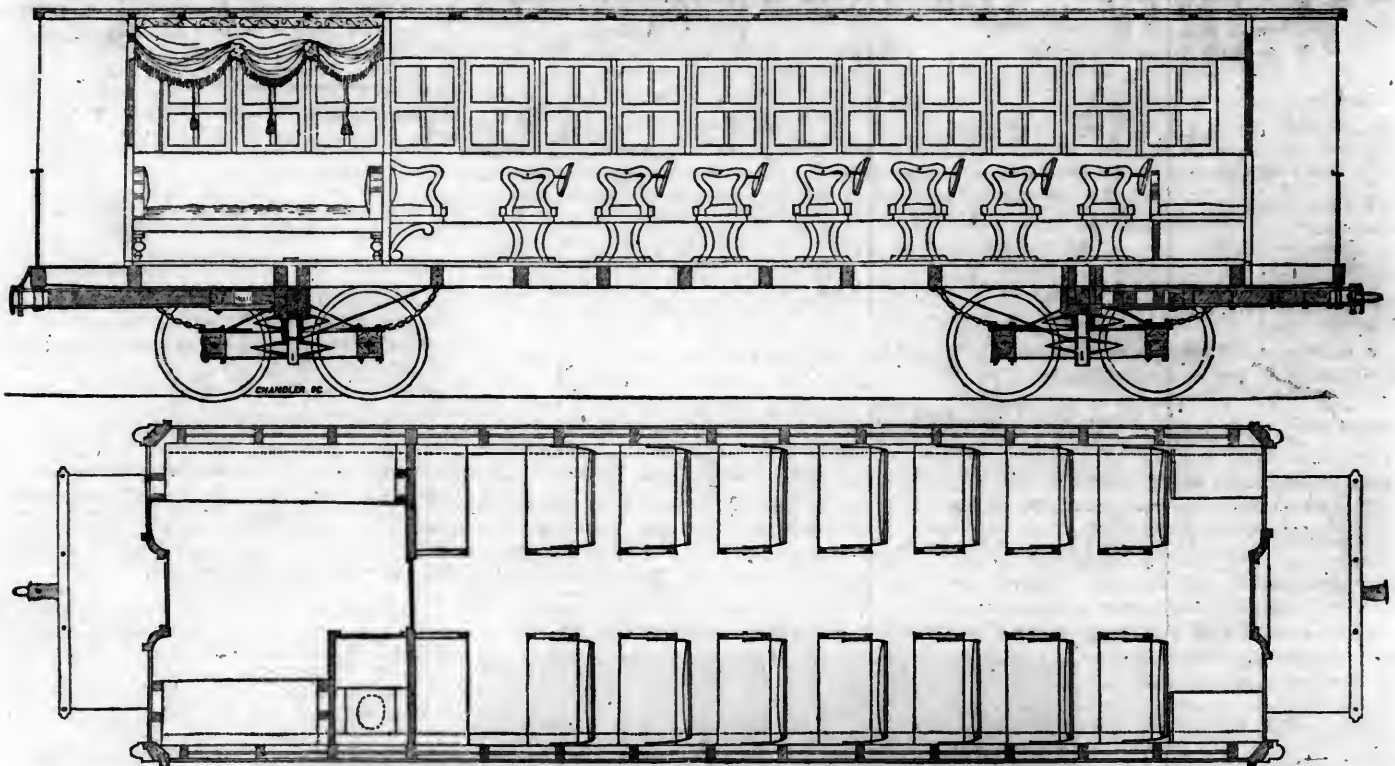
It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, ja45 Reading, Pa.

**GEORGE VAIL & CO., SPEEDWELL IRON** Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/2 in. to 2 1/2 in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions. ja45



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All orders punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

Fig. 1.

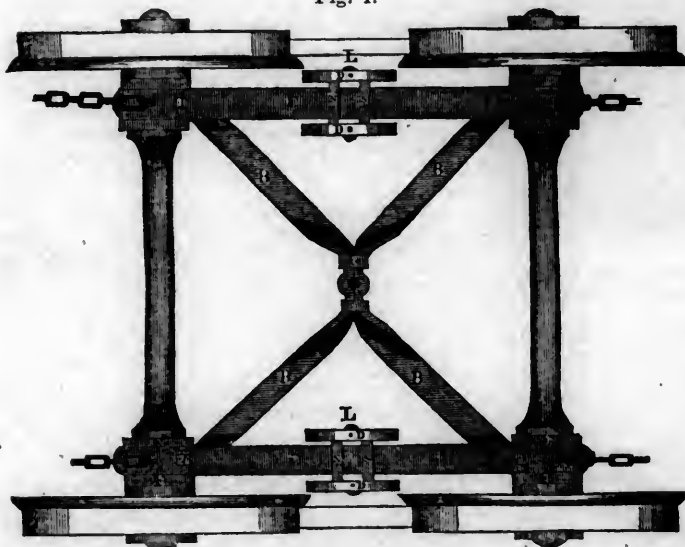
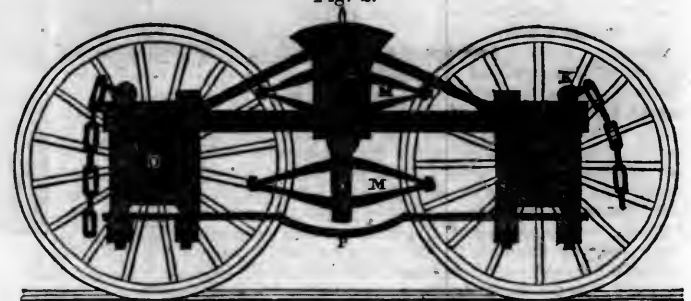


Fig. 2.



DAVENPORT & BRIDGES' IMPROVED PATENT IRON TRUCK FOR RAILROAD CARS, is presented above, and the attention of Railroad Companies is respectfully invited to the following description of their justly-celebrated invention:

Fig. 1 of the drawing above represents a top view or plan of our Improved Railroad Truck. Fig. 2 is a central, longitudinal, and vertical section. C, Fig. 1 and 2, represents the arched bars of the side trusses; they consist of two long bars of plate iron (about three inches wide by seven-eighths of an inch thick,) bent into the shape as seen in drawing 2. Each of them is placed directly over a flat and straight tie bar, A, which extends from one end to the other, as seen in Fig. 2. These parts, so arranged, receive between their ends the ends of diagonal cross bars or braces, B, which are united at their centres

by being clasped and welded, as seen in Fig. 1. The bars so composing what may be considered as side trusses and diagonal cross braces, rest at their ends upon four pedestals, F, F, which receive the bearings or boxes for the axles to run on. Another flat tie bar, P, extends from the under side of one of the pedestals to that of the other, on the same side of the frame, and the whole is secured together by eight bolts, J, J, passing down through the ends of the several bars, A, B, C, and the pedestals, and on each side of the journals of the axles, O, O, in the positions represented in the drawings. From the above it will be seen that there are two bolts to each pedestal, and that this number is all that is requisite for the full security of the bars and pedestals together. The body rests and moves upon two sectional supports, D D, arranged on the sides of the truss frames, as seen in Fig. 2; they extend somewhat, or a sufficient distance above the truss frames, and are jointed at their lower ends by means of a bolt, L, which rests upon the top of the lower spring, M, which spring rests upon a bolt passing through the lower part of the inverted strap, E, which strap passes over and rests upon the top part of the upper spring, M, which is placed within the truss frame, and rests upon the top of the bar, A.

Two bands, N, N, are passed entirely around the central part of each truss frame, the object of the same being to transfer the strain, or a portion thereof, of the spring, from the tie bar, A, to the arched bar, C.

These Trucks are adapted as well for eight-wheeled passenger cars as for baggage and freight cars, giving to each a more agreeable and easy motion than any other Truck heretofore constructed or in use. They are simple in their construction, combining strength and great durability, although weighing at least twelve hundred pounds less than the common Trucks. Besides these excellences, by reason of the elasticity of the braces, B, B, B, B, as seen in the drawing, and the other peculiarities of construction, the weight is equalized upon all the wheels, and yet any one may be raised so as to pass any inequality on the rails without lifting either of the other wheels from the track, thus rendering it almost impossible to run a car off. Being bound, and having as it were but four joinings, they are protected from injury by lateral strains, and in case of damage are easily repaired.

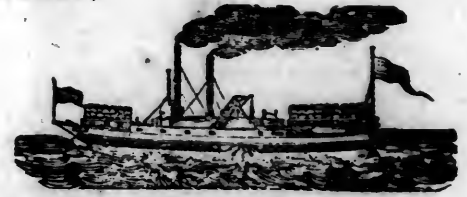
These excellences have been fully tested by use, for a long time, on the Eastern, the Fitchburg and Long Island railroads; and for proof of the above stated superiority of these Trucks over all others, we refer to the experience of those who have used and run them.

CAMBRIDGEPORT, April 1, 1845.

DAVENPORT & BRIDGES.

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 24]

THURSDAY, JUNE 12, 1845.

[WHOLE No. 467, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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 R. HOE & Co. N. Y.  
 J. F. WINSLOW, Albany Iron and Nail Works,  
 Troy, N. Y. (See Adv.)  
 TROY IRON AND NAIL FACTORY, H. Burden  
 Agent. (See Adv.)  
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 S. VAIL, Speedwell Iron Works, near Morristown,  
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 NORRIS, BROTHERS, Philadelphia, Pa.  
 KITE'S Patent Safety Beam. (See Adv.)  
 FRENCH & BAIRD, Philadelphia, Pa. [See Adv.]  
 BALDWIN & WHITNEY, Philadelphia, Pa.  
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 NEWCASTLE MANUFACTURING COMPANY,  
 Newcastle, Del. [See Adv.]  
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 THOMAS & EDMUND GEORGE, Philadelphia.  
 [See Adv.]

## KITE'S PATENT SAFETY BEAM.

MESSEURS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

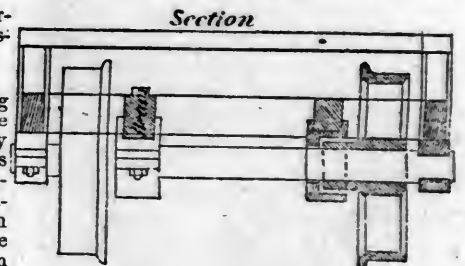
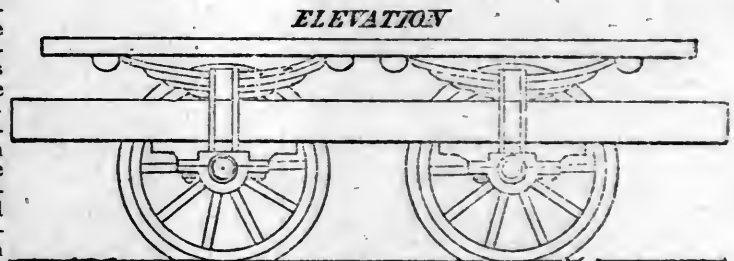
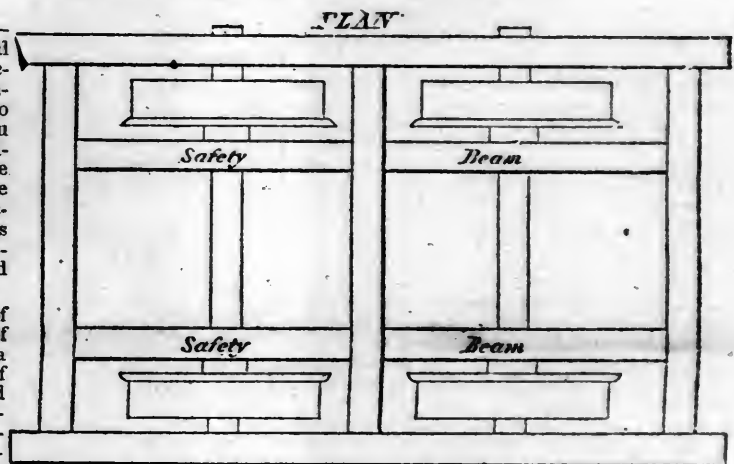
The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
 GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
 W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**TO IRON MANUFACTURERS.** THE SUBscribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO.,  
ja45 No. 4 Sout Fronth st., Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer,*

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS**, 48 State st., or to **CURTIS, LEAVENS & CO.**, 106 State st., Boston, or to **A. & G. RALSTON & Co.**, Philadelphia.  
ja45

**RAILROAD IRON AND LOCOMOTIVE** Tyres imported to order and constantly on hand by  
A. & G. RALSTON  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING** Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

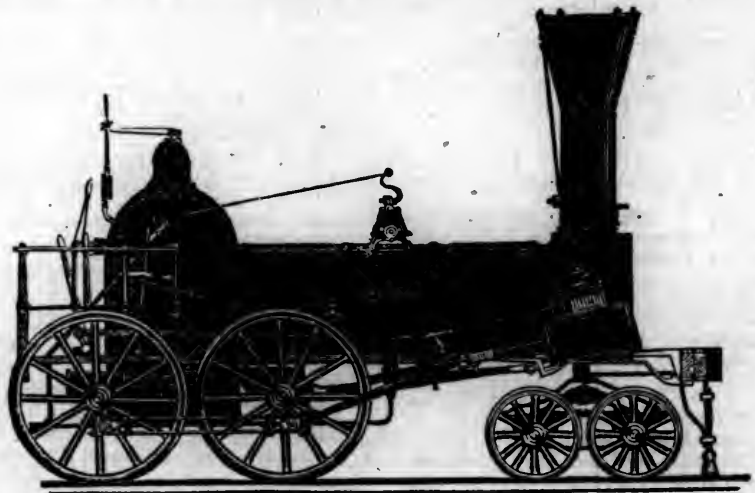
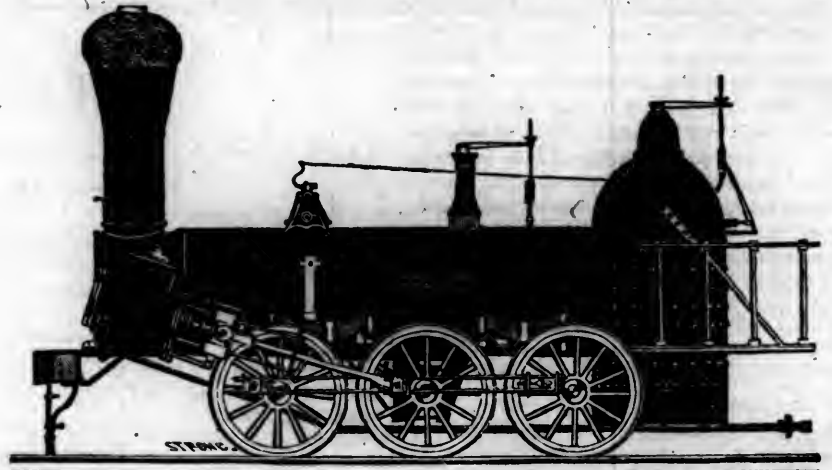
The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
ANDREW C. GRAY,  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS** etc. The Subscriber having made important improvements in the construction of rails, mode n guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, *Civil Engineer,*  
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NORRIS' LOCOMOTIVE WORKS**  
BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	15 inches Diameter of Cylinder,	× 20 inches Stroke.
" 2,	14	" × 24 " "
" 3,	14 1/2	" × 20 " "
" 4,	12 1/2	" × 20 " "
" 5,	11 1/2	" × 20 " "
" 6,	10 1/2	" × 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

## THE RAILWAY SYSTEM AND ITS PROJECTOR.

We find in the London Mining Journal, of 19th April, the following in relation to the first projector of railways for travelling. It says that,

"The claim to the projectorship of railway travelling, and its adaptation to international and social communication in its present successful state, is contended for with as much energy as other inventions of similar magnitude have invariably elicited. For some considerable period, Mr. Stephenson monopolised the entire credit; but lately his claims have been strenuously contested, if not shaken, by the rival claims of more than one competitor. The Scotsman newspaper, in no diffident terms, asserts itself the first public expositor and advocate of the present railway system, and, without detracting from the merits of Mr. Stephenson, as a successful practical engineer, fearlessly denies his title to being the promulgator of the idea, 'that locomotives might be made to travel at the rate of twenty miles an hour.' It proves that in the year 1824 it published in its columns a series of articles in which that opinion and the specific development of railway travelling was broached, and contends that, previously to that date, no public advocacy or defence of the system had appeared. Again, a pamphlet has lately been published by a Mr. Wilson, in which he warmly espouses the cause of a friend, Mr. Thomas Gray, whom he declares to have been, as far back as the year 1818, the great originator of the railway scheme. The pretensions of Mr. Gray certainly appear to us well founded, and even superior to any yet advanced; we have before us an address which he circulated in the great commercial districts of Manchester, Liverpool, Leeds, Birmingham and the metropolis, in the year above mentioned; and there can be no doubt but that in it he explicitly proposes the very same system of railway communication which is now generally adopted; its advantages, now tested by experience, he then prognosticated; he illustrated the benefits accruing, in a commercial, agricultural, and social view, by the application of *mechanic power* for the purpose of *land conveyance*, and he detailed the method of carrying out his propositions in a very elaborate work, which passed through five editions. In this more comprehensive publication, Mr. Gray opened out his masterly and expansive system, urged the establishment of one direct trunk line throughout the country, and, at intervals, diverging to localities whose connection was indisputably desirable. Such was Mr. Gray's theory in 1818, and such, after perceiving their own errors in neglecting it, Sir R. Peel and Mr. Gladstone, in 1845, pronounced the only correct principle. This alone would establish the foresight and the claims of Mr. Gray, but other collateral circumstances still more fully confirm them, and we think that for that gentleman alone has been advanced any decisive proof of title to the authorship of the system. Many other candidates have now sprung up, aspir-

ing to the honor; but the above are the only claims worth canvassing or recording."

We are inclined to believe that the late COL. STEVENS, of Hoboken, N. J., was the earliest projector of railways for passengers. We are not sure of the date of his first publication on the subject, but we find on page 36 of the first volume of the Railroad Journal, a communication from him, accompanying a pamphlet of his, bearing date May 15, 1812, which sets forth, in his usually clear and forcible manner, the superiority of railroads over canals; not only for travel, but also for transportation of agricultural products, and other heavy articles of traffic. The claims of Mr. Stephenson are not dated; and those of the "Scotsman" go back only to the year 1824—and those of "Mr. Thos. Gray" to the year 1818—while the views of COL. STEVENS were laid before Congress in May, 1812! full six years earlier than the earliest claim referred to in the Mining Journal.

We are not disposed to claim for a countryman, credit to which he is not justly entitled; nor are we willing to see him deprived of honors to which he has just claims; especially in a matter of such vast importance as that under consideration—a discovery which is to work greater results than almost any other of modern days.

That his claim may be fairly appreciated, we re-publish, from the Railroad Journal of January 14th, 1832, the introduction to the pamphlet of Col. Stevens, explanatory of the system of internal improvement, which he, at that early day, conceived, and urged upon the General Government as a national work. How truly prophetic! or what far-reaching sagacity!! Few men have lived in this country who possessed equally accurate views of the rapid advancement and future greatness of these States. It is possible that other claimants may come forward, who can show prior claims; if so, it will then be time enough to give the early speculations of Col. Stevens on the subject, which we shall probably be able to do by the aid of his gifted sons, who probably have his papers, which will doubtless sustain his claims to even earlier period.

"DOCUMENTS TENDING TO PROVE THE SUPERIOR ADVANTAGES OF RAILWAYS AND STEAM CARRIAGES OVER CANAL NAVIGATION.—N. YORK, T. & J. SWORDS, 1812."

Under the above title a pamphlet appeared in this city just twenty years ago—from which we extract, in this place, the introduction, referring to a subsequent page for explanation of, and comments on it. It may be well to premise that the documents here alluded to, were propositions submitted

by Col. J. Stevens, of Hoboken, New Jersey, to the canal commissioners of New York, before a spade had been struck in the ground, for connecting lake Erie with the Hudson by a railroad in preference to a canal:

"INTRODUCTION.—The following documents, on a subject calculated, I should suppose, to attract public attention, are committed to the press from an estimation of their importance, and from a full conviction of the practicability of the proposed improvement. On a subject of such deep interest to the community at large, I presume no apology will be necessary for the liberty I now take of laying before the public private communications.

"Had the subject matter of this publication been exhibited to public view in the shape of an entire, and connected essay, written expressly for the purpose, numerous repetitions and inaccuracies, both in style and matter, would not have occurred. But I am inclined to believe, that the desultory manner in which it is now handled, and the unavoidable repetitions necessarily resulting therefrom, will render it more generally impressive.

"Although my proposal has failed to gain the approbation of the commissioners for the improvement of inland navigation in the State of New York, yet I feel by no means discouraged respecting the final success of the project. The very objections their committee have brought forward serve only to increase, if possible, my confidence in the superiority of the proposed railways to canals.

"So many and so important are the advantages which these States would derive from the general adoption of the proposed railways, that they ought, in my humble opinion, to become an object of primary attention to the national government. The insignificant sum of two or three thousand dollars would be adequate to give the project a fair trial. On the success of this experiment a plan should be digested, 'a general system of internal communication and conveyance' adopted, and the necessary surveys made for the extension of these ways in all directions, so as to embrace and unite every section of this extensive empire. It may then indeed be truly said, that these States would constitute one family, intimately connected, and held together in indissoluble bonds of union.

"Should the national government be induced to make an appropriation to the amount above stated, an experiment could soon be made, either in the vicinity of this city or at Washington, as may be deemed most expedient.

"But the attention of the general government is urged more imperatively to this object from the consideration of the great national importance in a fiscal point of view. If any reliance can be placed on the calculations I have made, the revenue which this mode of transportation, when brought into general use, would be capable of producing, would far exceed the aggregate amount of duties on foreign importations. However

extravagant this position may at first appear, I contend that it is capable of the strictest demonstration. It is an indisputable fact, that the aggregate amount of internal commerce is vastly greater than that of external commerce. But one half of the latter, viz: exports, are, by the constitution, exempt from the payment of duties; the other half, foreign imports only, are subject to the payment of duties.

"The far greater part of domestic commerce consists of bulky articles, many of which now pay fifty per cent. on transportation to market. By the introduction of the proposed railways, nine-tenths, at least, of this enormous tax would, in many instances, be saved, and the expense of transportation reduced from fifty to five per cent. A toll of five per cent. would raise it to ten per cent. But still the farmer remotely situated would save four-fifths of his present expense in the transportation of his produce to market. An average toll then of five per cent. would constitute a very moderate impost. But the product of such an impost would, at no distant period, be immense. That it would far exceed any amount which could possibly be derived from duties on foreign imposts, cannot admit of doubt.

"At a period like the present, when the ordinary sources of revenue continue no longer to pour into the treasury of the United States their tributary streams, and when too we are called upon to make 'arrangements and exertions for the general security;' at such a period the merits of a system promising, not merely to facilitate most astonishingly 'internal communication and conveyance,' but to furnish new and abundant sources of revenue, ought surely to command the attention of the general government, and cannot fail to 'be seen in the strongest lights.'

"The extension and completion of the main arteries of such a system of communication would by no means be a work of time. It would be exempted totally from the difficulties, embarrassments, casualties, interruptions and delays incident to the formation of canals. Requiring no supply of water—no precision and accuracy of level, the work could be commenced and carried on in various detached parts—its progress would be rapid, and its completion could be ascertained with certainty. Innumerable ramifications would from time to time be extended in every direction. Thus would the sources of private and public wealth, going hand in hand, increase with a rapidity beyond all parallel. For every shilling contributed towards the revenue, a dollar, at least, would be put into the hands of individuals.

"But there remains another important point of view in which this improvement demands the attention of the general government. The celerity of communication it would afford with the distant sections of our widely extended empire, is a consideration of the utmost moment. To the rapidity of the motion of a steam carriage on these railways, no definite limit can be set. The fly-

ing Proas, as they are called by voyagers, belonging to the natives of the islands in the Pacific ocean, are said to sail at times at the rate of more than twenty miles an hour.—But as the resistance of the water to the progress of a vessel increases as the squares of her velocity, it is obvious that the power required to propel her must also be increased in the same ratio. Not so with the steam carriage—as it moves in a fluid 800 times more rare than water, the resistance will be proportionably diminished. Indeed the principal resistance to its motion arises from friction, which does not even increase in a direct ratio with the velocity of the carriage. If, then, a Proa can be driven by the wind (the propulsive power of which is constantly diminishing as the velocity of the Proa increases,) through so dense a fluid as water, at the rate of twenty miles an hour, I can see nothing to hinder a steam carriage from moving on these ways with a velocity of one hundred miles an hour.\*

"I will now just observe, that should it be considered an object of sufficient importance, sails might be used whenever the wind was favorable. Van Braam gives a curious account of the peasantry in the country round Pekin availing themselves of sails, when the wind favored them, for propelling the wheelbarrows in which their products are carried to market.

"In a military point of view, the advantages resulting from the establishment of these railways and steam carriages, would be incalculable. It would at once render our frontiers on every side invulnerable. Armies could be conveyed in twenty-four hours a greater distance than it would now take them weeks or perhaps months to march.

"Thus, then, this improvement would afford us prompt and effectual means, not only of guarding against the attacks of foreign enemies, but of expeditiously quelling internal commotions; and thus securing and preserving forever domestic tranquillity.

"Whatever constitutional doubts may be entertained respecting the power of Congress to cut and form canals, there can be none about the power to lay out and make roads.

"I shall now close this topic with an extract of a message from President Madison to the Senate and House of Representatives of the United States:

"The utility of canal navigation is universally admitted, and it is not less certain, that scarcely any country offers more extensive opportunities for that branch of improvement than the United States; and none, perhaps, inducements equally persuasive, to make the most of them. The particular undertaking contemplated by the State of New York, which marks an honorable spirit of enterprize, and comprising objects of national, as well as more limited

\* "This astonishing velocity is considered here as merely possible. It is probable that it may not in practice be convenient to exceed twenty or thirty miles per hour. Actual experiments, however, can alone determine this matter, and I should not be surprized at seeing steam carriages propelled at the rate of forty or fifty miles per hour."

importance, will recall the attention of Congress to the signal advantages to be derived to the United States from a general system of internal communication and conveyance; and suggest to their consideration whatever steps may be proper on their part towards its introduction and accomplishment. As some of those advantages have intimate connection with arrangements and exertions for the general security, it is a period calling for these, that the merits of such a system will be seen in the strongest lights.

"JAMES MADISON.

"Washington, Dec. 2, 1811."

"From local circumstances, these railways are calculated to become pre-eminently beneficial to the southern States. The great predominance of sand, and the deficiency of gravel or stone, precludes the practicability of making good turnpike roads; but the level surface, and great abundance of pine timber throughout this district of country, would not only render the construction of these railways very cheap, but peculiarly advantageous. By preserving nearly a horizontal level, the power requisite for the transportation of heavy bodies would be reduced astonishingly. The cheapness of fuel would reduce too the expense of supporting this power to almost nothing. Articles would be transported one hundred miles on these ways, at less expense than they could now be carried one mile on a deep sandy road. This projected improvement is surely then an object worthy of the most serious attention of the inhabitants of southern states. It would at once more than double the value of their products. It appears to me calculated to hold out the most flattering prospects of gain to such enterprising individuals or companies as might be induced to embark a capital in this object.

"But I consider it, in every point of view, so exclusively an object of national concern, that I shall give no encouragement to private speculations, until it is ascertained that Congress will not be disposed to pay any attention to it.

"Should it, however, be destined to remain unnoticed by the general government, I must confess I shall feel much regret, not so much from personal as from public considerations. I am anxious and ambitious that my native country should have the honor of being the first to introduce an improvement of such immense importance to society at large, and should feel the utmost reluctance at being compelled to resort to foreigners in the first instance. As no doubt exists in my mind, but that the value of the improvement would be duly appreciated and carried into immediate effect by trans-Atlantic governments, I have been the more urgent in pressing the subject on the attention of Congress. Whatever then may be its fate, should this appeal be considered obtrusive and unimportant, or from whatever other course or motive, should it be suffered to remain unheeded, I still have the consolation of having performed what I conceive to be a public duty. JOHN STEVENS.

"New York, May 15, 1812."



## ROAD TO ALBANY.

We learn that the old managers in this laudable project, although defeated at Albany, have not lost sight of this important project. New interests are moving to form a combination with the Erie railroad company to carry this road on a joint stem up to Yonkers—extended to Dobbs Ferry and to Sing Sing.

How important to this city that these two roads should unite in the application to the present council to confirm the report of the last council in favor of appropriating Hudson street, from Chambers street to the 8th avenue, by Abingdon square, to McCombs dam, and then to the points above indicated. We learn with pleasure that the managers of the New York and Erie railroad company offer to foot half the expense of this project, and we trust it will not be long ere the west side of this city has a railway. Its advantages to real estate will be incalculable.

"The time has arrived," says the Vermont (Montpelier) Patriot, "for the friends of the Central railroad to do something besides talk—to show their faith by their works—to subscribe for the stock. Matters have verged to that point where no man the least informed upon the subject can doubt that a road will be built through Vermont as soon as may be; within a short period, considering the magnitude of the enterprise. The question now is, *where shall it go?* In determining this question, something, perhaps much, may depend upon the spirit and ability manifested in subscribing for the stock, for foreign capitalists will not feel much like building a road where there is no evidence that it is wanted by the people. \* \* \*

*The iron is hot, and now is the time to strike the blow.* At a little meeting, holden on short notice at the court-house, in this village, on Monday evening, over \$60,000 were subscribed, and we are informed that something like \$20,000 more were added on Tuesday. We are satisfied that Montpelier will do her duty."

This looks well. What will the people on the line from Lebanon to Montpelier do?—We shall see.

## OLD COLONY RAILROAD.

"This new avenue to our city," says the Traveller, "which is to connect us with one of the most interesting spots upon this continent, is now rapidly progressing towards its completion, and but a few months will elapse before it will be opened for public travel. The contracts made for its construction and equipment have been singularly fortunate, and the arrangements for its accommodation in this city satisfactorily adjusted with the directors of the Worcester road.

"The length of the road is a little more than 37 miles. The estimated cost about \$800,000, including engines, cars, depot buildings, &c. It is to be laid with a single track, with a rail of the most approved pattern, weighing 56 lbs. to the yard. The passenger depot is to be located on Albany street, near Beach street. The freight depot will be at South Boston, nearly opposite the southerly end of the lower bridge. The cheapness of its construction, and the successful contracts for iron and for land

damages, have caused the stock to rise to 8 per cent. advance, and holders are disinclined to sell at that. The grading and masonry are to be done by the first of August. A considerable portion of the iron is already shipped, and one cargo of 700 tons is expected to arrive in a few days. The engines will be furnished by Messrs. Hinckley & Drury of this city, and every thing will be in readiness for the opening of the road in the ensuing autumn, should there be no disappointment in the reception of the iron.

This road, for more than half its length, passes through one of the most densely populated portions of the State, having a large manufacturing interest. The associations connected with the ancient town of Plymouth will ever have a deep and increasing interest, and the facilities of a railroad will make it a pleasant and agreeable pilgrimage, and undoubtedly attract a large number of visitors annually. Steps have been taken, as we understand, to secure the erection of a hotel in that town, and an eligible site procured. This is a very discreet measure, and one we hope to see accomplished.—We have been quite amused of late to notice the number of persons who are awaiting the completion of this enterprise to make their first visit to the Rock of the Pilgrims. The next anniversary of the Landing will complete another quarter of a century. We intend to pay our first visit there on that occasion."

**RAILROAD TRAVEL.**—We learn that the number of passengers which pass over the railroad between this city and Springfield—exclusive of way and through passengers—is over 3000 per month.—*Hartford Courant.*

**ATLANTIC STEAM SHIPS.**—We fully concur with the editor of the Journal of Commerce, in the following remarks upon this important subject: We are fully impressed with the truth of the remark, that "individual enterprise, having the necessary means and business capacity, can accomplish more in a given time, and for the same amount, than an incorporated company; and a company with competent directors, than a government"—and we have no doubt of the correctness of the policy of the government aiding in the construction of steam ships, suitable for war ships, and at the service of the government when needed—to be used as packets and merchant ships in *time of peace.*

Says the Editor: We observe some remarks on American steam ships in the Evening Post of Wednesday, expressive of a sense of the great want of such ships, and the opinion that while "individual enterprise and associated capital cannot be relied upon for this purpose," Congress should contribute to the construction of a fleet of steamers, leaving them to be employed "as merchantmen in peace, and yet have an armament ready for their immediate equipment in case of war."

It strikes us, that the measures already adopted by Congress, empowering the Post

Master General to contract for the conveyance in American steamers of the foreign mails, connected with a provision that such steamers shall be at the command of the government in case of necessity,—and the establishment of the Atlantic Steam Navigation Company, with a charter from our Legislature, conferring exclusive privileges for twenty-four years,—are exactly those now required; and we see no reason to distrust private enterprise as sufficient, with a reasonable contract from government for the conveyance of the mails, to effect the enterprise. The capital of the company, should the stock be taken, is sufficient to build six or eight steamers; quite enough for a good commencement, if not as many as may be required for several years. That our capitalists will hesitate to advance means, (with the fair prospects of profit which the company opens,) at least for the construction of two or three steamers, we shall be slow to believe; and we have no doubt, the whole plan will be more economically and efficiently conducted, by sagacious and active individuals, relying mainly upon their own resources and energy; than by any government action beyond that specified in the recent act of Congress. Let the Atlantic Steam Navigation Company have public confidence, and that support which the Post Office department is authorised to grant, and it is all that can be necessary.

**IRON STEAM SHIP BANGOR.**—We learn from the Bangor Mercury, that an iron steamer is now building at Wilmington (Del.) intended for a passenger and freight boat between Bangor and Boston. Her length on deck is 120 feet, beam 23 feet, depth of hold 9½ feet. Her cabin is on deck, and has berths for 87 passengers, and room for 43 cots. She is to be rigged with three masts, and fore and aft sails. She has two engines of about 60 horse power, and Loper's patent propellers of 8½ feet diameter. It is expected that she will run 13 miles an hour, and will make the passage from Bangor to Boston in 24 hours,—leaving Bangor in the morning, and reaching Boston the next morning. She is expected here in the course of this month to begin her regular trips.

A collier schooner, of 120 tons burthen, and capable of carrying 200 tons of coal, was launched at Philadelphia on Thursday. She draws, when loaded, only six and a half feet of water; was built for an Eastern firm, and is to be employed in carrying coal from Philadelphia to the doors of an extensive factory on one of the rivers of Maine.

We mention the construction of this vessel in the hope that similar ones may be built in this city for the transportation of the Cumberland coal to the Eastern cities, where it is in general demand. We have no doubt that the Legislature of Maryland, at its next session, will adopt measures by which coasting collier vessels will be relieved from the heavy charges of pilotage now imposed on them.

This is the true plan. Vessels expressly for coal will reduce freight.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.		Total sums, in pounds, authorized to be raised by loan or mortgage.		Total sums, in pounds, expended at date of latest balance sheet.		Cost of working in pounds for six months as stated in latest balance sheet.		Total earnings, in pounds, for six months as stated in latest balance sheet.		Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.			
		£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.					£	s.	d.
Arboath and Forfar.....	15	102,000		35,000		138,870						0	12	2	10	25	27	Aberdeen.....	1,600,000	
Birmingham and Gloucester.....	55	1,187,500		407,336		1,500,806		39,261	53,203	1	5	0	2	10	0	100	100	Barnsley Junction.....	200,000	
Branding Junction.....	23	161,700		365,470		481,452						4	10	0	50	54	50	Belfast and Ballymena.....	385,000	
Bristol and Gloucester.....	37	400,000		211,000								nihil.			30	36	36	Blackburn and Accrington.....	400,000	
Chester and Birkenhead.....	14	750,000		143,170		518,989		5,856	13,148	0	8	6	1	14	0	50	32	Birk. and Ches. Junction.....	1,000,000	
Dublin and Drogheda.....	31	450,000		150,000		500,869						nihil.			55	72	72	Bolt, Wigan and Liverpool.....	800,000	
Dublin and Kingston.....	6	200,000		152,200		359,000						6	0	6	0	100	166	Caledonian.....	1,800,000	
Dundee and Arbroath.....	16	100,000		49,445		153,416		2,989	6,993	1	5	0	5	0	25	29	34	Cambridge and Lincoln.....	1,250,000	
Durham and Sunderland.....	18	169,350		124,055		270,392		9,889	17,702			nihil.			34	29	29	Chatham and Portsmouth.....	7,000,000	
East County and North and East.....	86	4,443,200		1,341,155		3,931,905		47,385	118,726	1	6	6			45	57	57	Chester and Wrexham.....	120,000	
Edinburgh and Glasgow.....	46	1,125,000		375,000		1,649,523		29,429	55,866	1	2	6	4	10	0	50	57	Churnet valley.....	1,800,000	
Glasgow, Paisley and Ayr.....	51	937,500				1,066,951		12,446	36,736	1	2	6	4	10	0	50	60	Direct Northern to York.....	4,000,000	
Glasgow, Paisley and Greenock.....	22	650,000		216,666		787,884		11,572	23,177	0	5	0	2	0	25	12	12	Dublin and Belfast.....	950,000	
Grand Junction.....	104	2,478,712		2,453,169		84,309		195,080	5	0	10	0	0	0	100	210	110	Dundee and Perth.....	250,000	
Great North of England.....	45	969,000		581,017		1,262,518		12,201	36,189	1	12	6	3	5	0	100	119	Edinburg and Northern.....	800,000	
Great Western.....	221	4,650,000		3,679,343		7,272,539		132,235	369,904	3	10	0	7	0	75	138	138	Ely and Bedford.....	270,000	
Hartlepool.....	15	438,000		155,540		719,205						8	0	0	100	100	100	Glasgow, Dum. & Carlisle.....	4,300,000	
Leicester and Swannington.....	16	140,000				140,000		2,207	6,317	1	5	0	5	0	50	50	50	Gt. South and West Ext.....	1,200,000	
Liverpool and Manchester.....	32	1,209,000		497,750		1,739,835		57,239	117,559	5	0	10	0	0	100	203	203	Gt. Grimsby and Sheffield.....	600,000	
Llanelly.....	27	200,000		44,000		221,624				1	0	0	2	0	87	87	87	Harwich and E. coun. Jun.....	160,000	
London and Birmingham.....	12	6,874,976		1,928,845		6,393,468		92,823	405,768			10	0	0	100	218	218	Huddersfield & M. rl. & cl.....	600,000	
London and Blackwall.....	3	804,000		266,000		1,315,640		15,978	23,870						16	6	6	Kendal and Windermere.....	125,000	
London and Brighton.....	56	1,793,800		998,350		2,630,451		29,372	84,880	0	12	0	2	8	0	50	47	Leeds and Dewsbury.....	400,000	
London and Croyden.....	8	550,000		229,000		761,885		7,583	10,545	0	5	0	2	10	0	14	17	Leeds and Thirsk.....	800,000	
London and Greenwich.....	3	759,383		233,300		1,040,930		15,193	28,933			nihil.			13	10	10	Liv. Ormskirk and Preston.....	600,000	
London and South Western.....	92	2,222,100		630,100		2,596,291		68,457	150,469	1	12	6	6	10	0	41	73	London and Portsmouth.....	1,750,000	
Manchester and Birmingham.....	31	2,100,000		690,586		3,293,639		15,397	58,162	1	0	6	5	0	40	48	48	London and York.....	5,000,000	
Manchester and Bolton.....	10	778,100		197,730		773,743		8,585	21,140	2	2	0	4	10	0	93	110	Londonderry & Enniskillen.....	500,000	
Manchester and Leeds and Hull.....	81	2,937,500		1,943,932		3,921,593		46,653	156,761			7	10	0	60	86	86	Lynn and Ely.....	200,000	
Midland railway.....	178	5,158,900		1,719,630		6,279,056		76,983	281,898						100	96	96	Manchester, Bury and Ross.....	300,000	
Newcastle and Carlisle.....	61	878,240		188,563		1,135,069		26,499	73,947	4	0	0	4	0	100	105	105	Manchester and Buxton.....	250,000	
Newcastle and Darlington.....	23	500,000				405,728						nihil.			21	49	49	Mullingar and Athlone.....		
Newcastle and North Shields.....	7	150,000		153,876		309,629		8,943	18,466			2	0	0	50	37	37	Newcastle and Berwick.....	700,000	
North Union.....	39	739,201		308,306		1,015,447		9,071	37,794	2	10	0	6	16	8	100	104	Richmond & W. End Junc.....		
Paris and Orleans.....	82	1,600,000		400,000		1,978,415						0	16	0	8	0	20	39	Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000						31,247	91,171						8	0	20	38	Sheffield and Lincolnshire.....	650,000
Preston and Wyre.....	19	830,000		179,852		355,161		4,191	7,066			nihil.			52	18	18	Shrewsbury and Gd. Junc.....	400,000	
Sheffield and Manchester.....	19	1,150,000		311,759		951,455		11,895	14,876			nihil.			82	93	93	Shrew. Wolv. Dudly & B.....	900,000	
South Eastern.....	88	2,996,000		1,530,277		3,464,172		40,993	81,482	0	10	6	2	2	50	39	39	Trent Valley.....	900,000	
Taff Vale.....	30	465,000		154,785		590,006		8,509	18,414	1	0	0	6	5	100	55	55	West London Extension.....	64,000	
Ulster.....	25	519,150		20,000		348,626		5,401	13,856	0	15	0	5	1	29	37	37	West Yorkshire.....	1,000,000	
Yarmouth and Norwich.....	20	187,500		62,500		230,250						nihil.			16	25	25	Whitehaven and Maryport.....	100,000	
York and N. Mid. and Leeds and Selby	28	1,062,500		167,500		676,644		27,132	55,752	2	10	0	10	0	50	100	100	FRENCH RAILWAYS.		

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15	15	Loughborough.....	70	142	142	70	1140	
Anti Dry Rot.....	10,000	10	18		2		Monmouthshire.....	2,400	100	100	10	160	160
Australian Trust Company	5,700	100	35		34		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27	27	Mersey and Irwell.....	500	100	100	10		
Gt. Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental..	11,493	50	50	7	64	65	Regents or Loncon.....	21,418	33	33	2	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....				6			Somerset coal.....	800	150	150	7	123	123
Reversionary Int. Soc.....	5,3	100	100	4	104	104	Stafford and Worcester.....	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Severn & Why & Rail Av.....	3,762	26	26	5	30	30

Canals.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Ashby de la Zouch.....	1,432	113	av.	4	70	70
Barnsley.....	720	100	100	14	180	180
Birmingham, 1-16 share	3,000	118	79	10	150	160
Do. and Liverpool Junction	4,000	160	100		13	13
Coventry.....	500	100	100	20	365	365
Cromford.....	460	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forth and Clyde.....	1,297	400	40	4	440	440
Grand Junction.....	11,600	100	100	7	162	161
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Rerkley.....	5,000	do.	do.		8	8
Grantham.....	749	150	150	8	185	185
Lancaster.....	11,699	47	47	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	640
Leicester.....	545	41	140	9	139	139

Water Works.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Birmingham.....	4,800	25	25	3	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41	2-3	7	88
New River L. B. Ann.....	1,500			2	57	57
Manchester and Salford.....	6,486	av.	30	8	55	55



AMERICAN RAILROADS.													SALES.		
Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	Week ending June 11th.	
							Gross.	Nett.		Gross.	Nett.			Shares.	Price.
N. H.	1 Portland, Saco and Portsmouth.	50	1,200,000				89,997	47,166	7	131,404	62,172	6	101½	27	102
Mass.	2 Concord.	35	750,000									12	65½	38	65½
	3 Boston and Maine.	55	1,485,461				178,745	68,499	6	233,101	86,401	6½	117		
	4 Boston and Maine extension.	17 1-4	455,703	unfin.											
	5 Boston and Lowell.	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120½	6	121½
	6 Boston and Providence.	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	108½	15	113
	7 Boston and Worcester.	44	2,914,078				4 0,141	102,000	6	428,437	195,163	7½	118½	3	119½
	8 Berkshire.	21	250,000	not stated				17,500	7	17,737					
	9 Charlestown branch.		280,260						13	34,654	13,971	5½	75	25	75½
	10 Eastern.	54	2,388,631				279,563	140,595	6	337,238	227,920	8	112	17	112½
	11 Fitchburg.	50	1,150,000	just op'n'd									122½		
	12 Nashua and Lowell.	14 1-2	380,000				84,079		8	94,588	34,944	10	122½	10	124
	13 New Bedford and Taunton.	20	430,962				50,671	24,000	6	64,998	24,000	6			
	14 Northampton and Springfield.		172,883	unfin.											
	15 Norwich and Worcester.	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	72½	6,135	73
	16 Old Colony.		87,820	unfin.									109	10	108½
	17 Stoughton branch.	4	63,075	unfin.											
	18 Taunton branch.	11	250,000					20,000	8	96,687	20,000	8	118		
	19 Vermont and Massachusetts.														
	20 West Stockbridge.	3	41,516	200		100						4			
	21 Western, (117 miles in Mass.)	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	104½	29	104½
	22 Worcester branch to Milbury.		8,431	506											
	23 Housatonic, (10 months.)	74	1,244,123							150,000			29½	365	27½
Con	24 Hartford and New Haven.	38	1,100,000	100,000	10,000	100						6	94	10	95
	25 Hartford and Springfield.	25 1-2	600,000	400,000	2,000	100									
	26 Stonington, (year ending 1st Sept.)	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		32½	2,575	32
N. Y.	27 Attica and Buffalo.	31	326,211				45,896	7,522		73,248	48,032	0			
	28 Auburn and Rochester.	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	107½	31	108
	29 Auburn and Syracuse.	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
	30 Buffalo and Niagara.	22	200,000		1,500								100		
	31 Erie, (446 miles.)		5,000,000										28½	840	30½
	32 Erie, opened.	53						48,000		126,020	59,075				
	33 Harlem.	26	1,206,231							140,685	62,309		71½	700	70½
	34 Hudson and Berkshire.	31	575,613			50				35,029	1,789	0	14		
	35 Long Island.	96	1,610,221	392,340	29,846					153,456	58,996	0	70½	6,310	72
	36 Mohawk and Hudson.	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	59	356	59
	37 Saratoga and Schenectady.	22	303,658				42,242	3,000	1	34,666	8,455	0			
	38 Schenectady and Troy.	20 1-2	640,800				28,043			32,616	6,365	0			
	39 Syracuse and Utica.	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	116	500	135
	40 Tonawanda.	43	727,332				76,227			114,177	75,865	5			
	41 Troy and Greenbush.	6	180,000												
	42 Troy and Saratoga.	25	475,801				44,325	21,000		38,502	9,971	2½			
	43 Utica and Schenectady.	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	129		
N. J.	44 Camden and Amboy.	61	3,200,000				682,832	383,880		784,191	404,956		110	4	110
	45 Elizabethtown and Somerville.	26													
	46 New Jersey.	34	500,000										95	410	94
	47 Paterson.	16	2,000,000									6	87		
Pa.	48 Beaver Meadow.	26	500,000												
	49 Cumberland Valley.	46	1,000,000												
	50 Harrisburg and Lancaster.	36	1,250,000										30		
	51 Hazleton branch.	10	860,000												
	52 Little Schuylkill.	29	120,000												
	53 Blossburg and Corning.	40	900,000												
	54 Mauch Chunk.	9	600,000												
	55 Minehill and Schuylkill Haven.	18	100,000						12				77		
	56 Norristown.	20	315,000										6½		
	57 Philadelphia and Trenton.	30	800,000										104		
	58 Pottsville and Danville.	29 1-2	409,000												
	59 Reading.	94	1,500,000	7,447,570	40,290	50				597,613	343,511		50	1,058	51½
	60 Schuylkill valley.	10	9,457,570												
	61 Williamsport and Elmira.	25	1,000,000				20,000								
	62 Philadelphia and Baltimore.	93	400,000				43,043	200,000			210,000		18½	6,577	17½
Del.	63 Frenchtown.	16	1,400,000												
Md.	64 Baltimore and Ohio, (1st Oct.)	188	600,000				575,235	279,402		358,620	346,946		50	35	50
	65 Baltimore and Susquehanna.	58	7,623,600										2½		
	66 Baltimore and Washington.	38	3,000,000				177,227	71,691		212,129	101,529		84		
Va.	67 Greenville and Roanoke.	17 1-2	1,800,000												
	68 Petersburg and Roanoke.	60	950,000							122,871	72,898	3			
	69 Portsmouth and Roanoke.	78 1-2	969,880												
	70 Richmond, Fredericksbg and Potomac.	76	1,454,171							185,243	85,688	6			
	71 Richmond and Petersburg.	22 1-2	800,000												
	72 Winchester and Potomac.	32	700,000												
N. C.	73 Raleigh and Gaston.	84 1-2	500,000												
	74 Wilmington and Raleigh.	161	1,360,000												
S. C.	75 South Carolina.	136	1,800,000		34,410	75				532,871	140,196	5			
	76 Columbia.	66					201,464	77,456		328,425	180,704				
Ga.	77 Central.	190	5,671,452				227,532	93,190							
	78 Georgia.	147 1-2	2,581,723				248,026	158,207		248,096	147,523				
	79 Montgomery and West Point.	89	2,650,000	170,000		100				35,000	15,000				
Ky.	80 Lexington and Ohio.	40	500,000												
Ohio	81 Little Miami.	40	450,000												
	82 Mad river.	40	400,000												
Ind.	83 Madison and Indianapolis.	56	152,000												
Can.	84 Champlain and St. Lawrence.	15	212,000					12,000		58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Thursday, June 12, 1845.

THE COAL TRADE.—SCHUYLKILL VALLEY.

The shipments this week amount to 24,668-13 tons; 18,871-08 by railroad, and 5,597-08 by canal, showing a considerable increase over last week's shipments. In the course of two or three weeks, the shipments will reach 30,000 tons per week from this region.

The shipments from this region last year, to June 8th, were by railroad, 120,896-17—by canal, 90,741—total, 211,637-17. This year, to the same period, by railroad, 217,191—by canal, 62,329—total, 279,520. Increase over last year's shipments, 66,882-03 tons.

The increase from the Lehigh region over last year so far, is about 24,000 tons.

The retail price of coal has advanced 25 cents per ton in Philadelphia.—[Miners' Journal.] Sent by railroad from Pottsville and Port

Carbon—total tons.....	38,842-04
From Schuylkill Haven—total tons.....	131,750-16
From Port Clinton.....	1,598-00
Total.....	217,191-00

BY CANAL.

From Pottsville and Port Carbon—total.....	40,322-15
From Schuylkill Haven—total.....	8,766-15
From Port Clinton—total.....	13,239-10

Total by canal.....	62,329-00
Total by railroad.....	217,191-00

Total by railroad and canal.....279,520-00

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines,	36303
Room run do.,	-10605-46908
Beaver Meadow railroad and coal co.,	15264
From Penn Haven—Hazleton coal co.,	13286
From Rock Port—Buck Mountain coal co.,	4023
	79481

WYOMING COAL TRADE—total.....16133

PINE GROVE COAL TRADE.—total.....18,748

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....130,778-05

MOUNT CARBON RAILROAD—total tons.. 94,126

RECEIPTS OF THE LONG ISLAND RAILROAD COMPANY.

	1843-44.	1844-45.	Increase.
August.....	\$7,788 57	\$34,702 90	
September.....	7,225 09	30,177 64	
October.....	4,629 10	27,562 78	
November.....	3,669 89	13,145 73	
December.....	4,139 03	14,706 68	
January.....	3,256 13	18,859 06	
February.....	2,849 47	14,311 12	
March.....	4,823 54	18,505 47	
April.....	4,448 33	23,669 74	
May.....	4,162 76	32,496 81	
	46,991 91	228,137 93	\$181,146 02

The above table gives the receipts of the road for ten months, from 1st August, 1843, to June 1, 1844,

being \$46,991 91; and for the corresponding ten months, in the subsequent year, or from August 1, 1844, to June 1, 1845, being \$228,137 93—showing an increase during the latter period of \$181,146 02—the road being only half completed during the first term, and completed when earning the income of the second. If we estimate the receipts of the remaining two months, viz: June and July of this year, in the same ratio as that of the month of May, just received, viz: \$32,496 81, it will give \$64,992 62, making the annual income of the road from August 1, 1844, to August 1, 1845, \$293,130 55.

READING RAILROAD.

The coal tonnage passed over this road the last week, exceeded 18,000 tons; and during the month, 60,000 tons. Arrangements are made to bring down 80,000 tons this month. Should there be no disappointment with the miners, it is calculated to transport 100,000 tons per month, by the month of September. At this rate the wishes of the most sanguine friends of this important railway will be more than realized.

EASTERN RAILROAD.—The annual meeting of the stockholders of the Portland, Saco and Portsmouth railroad was held at Portsmouth on Monday last.—The directors of the last year were re-chosen, viz: D. A. Neale and Stephen A. Chase, of Salem; B. T. Reed, of Boston; Ichabod Goodwin, of Portsmouth; John D. Lang, of North Berwick; Josiah Calef, of Saco; Charles E. Barrett, of Portland.

A statement, signed by the president, shows that the total receipts for the year ending May 31, were \$131,404-18; the total expenditures, excluding interest, were \$51,822-26. The interest paid was \$19,410-06. So that the net profits were \$62,171-86. Of this, \$51,594 have been paid in dividends. The net earnings have been 72-10ths per cent. Those of the preceding year were 4 93-100ths.—[Port. Adv.]

[Correspondence of the Railroad Journal.]

Philadelphia, June 8th, 1845.

I have made a visit to, or had "a day at RICHMOND," the far-famed coal depot of the Reading Railroad Company, by which I have learned its wonderful capacity for business. They are getting their piers all nearly ready for use—at which may be moored, and receive loading at the same time, 78 vessels! and from which may be discharged ten thousand tons of coal, on shipboard daily!!

It is gratifying to see the order, regularity and precision with which the cars are distributed from the main track, upon the 14 different piers, and to the different vessels; and again collected upon the main track, and taken off by the different engines to the mines; to be again brought back loaded, and discharged, and thus keep up a continued circuit between the mines and the depot at Richmond.

There were 780 loaded cars brought in on Friday night, and an equal or greater number unloaded and sent out again on Saturday, 7th inst, before 2 P. M. But I will leave all description until I obtain the drawing, or ground plan of the depot—which is promised me by the very gentlemanly engineer, Mr. Manning, who has charge of the depot.

I have also visited a new vessel built here

for carrying coal to Hartford, Ct., and furnished with the Loper—instead of the Ericsson—propeller. It appears that Ericsson's propellers are all giving place to Loper's improvement—which bids fair to become extensively used. Two of the government revenue iron steamers—the Spencer, with Hunter's submerged wheel, and the Legare, with Ericsson's, have been supplied with Loper's in place of those first introduced; and the prospect now is, that there will be a large number of vessels built with this apparatus as colliers, or to carry coal from here, and from Pottsville also—as they design to have them pass through the enlarged Schuylkill canal, to the mines, and there take on board 100 to 150 tons of coal, and then proceed directly to their port of destination, either through the Delaware and Raritan canal, or by sea, as may be preferred.

The vessel visited is called the "Col. John Stevens," after the late venerable Col. John Stevens, of Hoboken, who was one of the earliest projectors, not only of railroads for commercial purposes, but also of propellers for vessels. Indeed, he was among the earliest and most enlightened patriots of our country, who foresaw, and at an early day predicted, its rapid advancement and future greatness, in consequence of the introduction of steam power, canals and railroads; and few, very few indeed, have contributed more than he did to the present advanced state of those improvements. The Col. John Stevens is 100 feet in length, 23-feet 8 inches beam and 6 feet draught of water, and of 156 tons, custom-house measurement, but she will carry in addition to her machinery, fuel and necessary apparel, 170 tons of coal. She is schooner-rigged, and well fitted for a sea boat, and therefore as safe as any other vessel, even should her machinery give out.

It is believed that boats of her class can perform the voyage, via the canals, to Hartford, her port of destination, unload, take in return freight, if any offers, and be back here and ready to take in coal in a week, or eight days at the extent; which, at present rates, \$2 per ton, will give large returns upon the capital invested.

She has one of Merrick & Towne's vibrating engines, and a tubular, or what is usually denominated the Locomotive boiler, which are exceedingly compact, occupying very little space, and, apparently, do credit to their manufacturers; and the vessel itself appears to be built in the most substantial manner. It is estimated that 15 tons of coal will be sufficient for her trip to and from Hartford; which, at \$5 per ton on board, will amount to only \$75—leaving a very handsome amount over and above expenses.

## OGDENSBURG AND CHAMPLAIN.

We find the following communication from several members of the legislature and the commissioners of the Northern, or Ogdensburg and Champlain Railroad, in the last number of the Burlington Free Press. As the needle to the pole, so are those engaged in important enterprises, in the northern and western parts of this country, naturally attracted towards Boston by the enterprise and liberal foresight of its citizens.

The editor of the Free Press says:

"We have always regarded this enterprise as naturally identified with our own favorite project of railroad communication with Boston, and as the time approaches when fruition is about to crown our hopes, so intimate does this relation become that every pulsation which quickens and animates the one necessarily gives life and energy to the other. To a man of the far-reaching sagacity and enterprise of Abbot Lawrence, the considerations urged are doubtless not altogether new, but they must nevertheless be felt and appreciated as of very great importance at the present moment, and we take the liberty of calling the particular attention of Mr. Lawrence, and through him, the business men of Boston, to the subject."

To the Honorable Abbot Lawrence, Boston:

SIR—The New York Legislature, at its recent session, has granted a charter for a corporation to construct the "Northern Railroad," from the foot of lake navigation at Ogdensburg to "some point" upon lake Champlain.

To you, sir, and, through you, to those interested in eastern railways, who may feel an interest in connecting our work with their own, we beg to make a few suggestions.

The local friends of the Northern Road, after several ineffectual attempts to procure its continuation by the state, have become satisfied that the condition of our public finances, and probably sound policy also, forbid its accomplishment as a state work. But they do consider the present a favorable time to procure an incorporation of individuals to construct this desirable link in our internal communications. They deem it of high *present* importance, because—

1st. The efforts of our New England neighbors for the extension of the Massachusetts railways to Burlington, Vt., appear very likely to be crowned with success, and it is highly important that the Vermont road should be located and built upon a plan looking to its virtual extension across Northern New York to Ogdensburg. In our view, the Vermont road should not only be constructed on the most feasible route, but also with a permanency and capacity requisite to effect a heavy transportation business be-

tween the western lakes and the Atlantic. Hence it was desirable that our project should be brought into view in the aspect of its ultimate connection.

2d. The success which has followed the bold experiment of your state, in the extension of her railway to the Hudson, in spite of the most forbidding natural obstacles, has awakened our commercial metropolis to the necessity of a railway connection with lake Erie, in order to prevent a diversion of business to the eastern coast. It was early known that the legislature at its recent session would release the \$3,000,000 loan to the N. Y. and Erie Railroad Co., to insure its completion, and would probably grant one or more charters to connect N. Y. city with the central line at Albany. The companies once having obtained these grants, would be interested in preventing facilities for the construction of the shorter and more feasible route at the North;—but, pending their own applications, could not with any grace resist like legislation for the Northern route. It was deemed wise to press our application for a charter at the recent session, and the result has justified our calculations.

New York city has obtained the desired legislation for the N. Y. and Erie road; for the extension of the Harlaem road to Albany; and also of the Erie road from Goshen to Albany, on the west side of the Hudson; and with these grants, we have obtained a highly favorable act of incorporation for the northern road. We consider the extension of the railway to Burlington so intimately connected with our work, that all well considered efforts for the one, cannot fail to promote the success of the other.

A well-constructed road to Burlington will call for our extension as a matter of necessity, and the present business aspects of the whole East, North, and West, give a prominence to our Northern route which it never before attained.

In the first place, the vast products of the West, and its required supplies of merchandise, are evidently leaning toward Lake Ontario as a channel of communication, since the enlargement of the Welland Canal, connecting the ship navigation of the lower lake with the upper lake. Vessels of 350 tons burden can now sail from Chicago to Ogdensburg without unloading. To show that this inclination of trade is not over-rated, your attention is called to recent reports of the Canal Committee of our Assembly, upon this tendency, as affecting the tolls of our canals. The minority report of the committee contains undoubted statistical information of much interest, as connected with our railway project.

Secondly,—the present state of the iron market, and the recent improvements in our northern bloomerics, with the great reduction in the cost of producing charcoal iron, tend to the rapid increase in production of that important article of trade. It is well known that the largest deposits of the best iron ores in the world extend from lake Champlain to the St. Lawrence, through the primitive region, along the northern

boundary of which is the location of the proposed railroad. It is no exaggeration to say, that the mines of this region, at no distant day, must render it the richest and most productive portion of New York. In no part of the world can charcoal iron (the best quality of iron must be reduced by charcoal,) be manufactured so cheaply and so extensively. At present prices, well managed forges are making larger profits upon proportionate capital employed, than any other branch of manufacture. In 1823, the iron masters of New-York, New-Jersey and Pennsylvania testified before a Committee of Congress, that bar iron reduced by charcoal could not be made for less than \$75 to \$80 per ton. Now the whole expense, at the North, is but \$40, and some say \$35, yielding a better article than ever before produced; and all agree that improvements in progress must reduce the cost still lower.

The raw material, ore and charcoal, are inexhaustible. No limit, but the demand, can be fixed to the production, and there is no article so little likely to reach this limit as *iron made by charcoal*. When the price of the article, delivered at sea-ports, can be brought down to \$40 per ton, as it reasonably may be with profit to the manufacturer, it will have the commercial world for a market. The anthracite iron of Pennsylvania and New Jersey can never supply the place of the bloomed iron of Northern New-York. It need not be suggested that the transportation tonnage supplied by this article, when its manufacture shall reach the annual value of \$3 or \$4,000,000, will be enormous. The supply required for the manufactories in the vicinity of Boston alone, would afford no small income to the channel of transport; and the increasing West will call not only for a large portion of the iron from the forges and rolling mills, but for all the shapes it takes in the factories of Lowell, Worcester, &c.

The ultimate extent of this trade in our northern region cannot be calculated, nor the amount of transportation it will require. Our state has just located a new prison in Clinton Co., near the line of railway, where where 500 convicts will soon be employed in raising the ore, and improving the manufacture of it. Capital, hitherto so much needed there, is now flowing to that section for investment in the iron business. Two years more will see the quantity produced more than trebled, even without any new facilities for transportation.

Thirdly. Our canals, now the sole means of transport to market, are closed by frost five months of the year. During the frozen period, a good railway would take the *whole* transportation, West, as well as East. Navigation upon the lakes is open at least three weeks *earlier* and *later* than upon our canals. The Welland Canal enters Lake Erie 30 miles further up the lake than Buffalo, at a point not closed by ice more than  $2\frac{1}{2}$  months; whilst the harbour at Buffalo is closed by ice, sometimes as late as May. With a railway to Boston, Western wheat could be floured and sent to Boston through

the whole winter, a great advantage to business.

We admit that, during the season of canal navigation, the western produce crossing our railroad, and destined for *foreign consumption*, would, when afloat on Lake Champlain, go to New York via the Northern Canal and the Hudson, but even during the summer, flour for domestic consumption, would seek its best market, the manufacturing districts of New England, over Eastern railways.

The distance of railway from Boston via Burlington to Ogdensburg, is but from 320 to 340 miles (as the route through Vermont may be located.) From Boston to Buffalo, over our central railway line, is 525 miles—near 200 miles further.

The New York roads, located along the line of our canal, are compelled to pay tolls of the canal upon all freight passing over them—equal to 35 cents for each barrel of flour—and on the average \$5 per ton for merchandise.

The New York and Erie Road will be 590 miles in length, and from its high grades and curvatures, can never compete with our northern route.

We are informed that an excellent route with low grades may be located through Vermont. Upon our northern route the curves are large, and grades under 40 feet per mile at the maximum. For a description of our route we refer to the report of the state engineer made to the legislature in 1841. This survey was made by the state at a cost of \$30,000. Maps of all the sections, in detail, with drafts of the structures, are deposited in the office of the secretary of state at Albany.

When the Harlaem railroad shall be extended to Albany, as *it will be within two years*, can it be expected that the Western Railway over the Berkshire mountains will take much of the freight coming over the central railway of our state? We think not—freight could pass on a railway from Ogdensburg via Burlington and Boston to Springfield, at less cost than from Buffalo to the same point, considering the tolls paid by the central line.

The railroad connecting the lakes Champlain and Ontario, would take a large portion of the passenger travel in the summer. Merchandise by the Cunard steamers for Canada West, under the late law of Congress, would take our route to its destination, as 60 days' time would be gained over a passage through the Gulf of St. Lawrence.

There is another view entitled to consideration. The New York city capitalists have their hands full to build rival roads, and will not to any great extent take our stock. If the road be built very soon, a majority of the stock must be held by eastern business men. Our citizens will subscribe for all within their ability—enough to interest them fully in the successful construction and operation of the road—but they have little capital to spare, and even that little is needed for our iron manufactures. Is it not desirable that owners of New-Eng-

land railways should control the direction of our road, and thus have the power to conduct the whole line to the western lakes. They can never expect an identity of interest between themselves and the proprietors of the central line from Albany to Buffalo.

The charter of our northern railway is highly favorable and exempt from all tolls to the state. No legislature will venture to impose charges and restrictions upon it. The northern section has had no share in the large state expenditures for public improvements, and would always successfully resist any such imposition. Besides, numerous other railroads in the state would have a common interest in preventing such a precedent.

If the views presented by us are deemed worthy of consideration, we hope that the Northern Railroad will have a high place in connection with the road to Burlington, and that a common unity of interest will promote the speedy construction of both.

Very respectfully, your ob't servants.

HIRAM HORTON,

JNO. LESLIE RUSSELL,

N. P. GREGORY,

Of the N. Y. Legislature.

A. C. MOORE,

S. C. WEAD,

Com'rs of Northern Railroad.

Malone, N. Y., May 23, 1845.

Here we find our own citizens, and members of our own Legislature, proposing to put the control, or "direction" of this road into the hands of the capitalists of a rival city! This is, however, the *natural* course for them to pursue, when they have not the means among themselves, and can neither obtain aid from their own State Legislature, in proportion to that granted—grudgingly, we admit—to the southern tier of counties, and profusely squandered in the more favored sections of the State—nor from the capitalists of their own favored city of New York, to whose prosperity and greatness they have contributed their full share. It is natural that they should, under the circumstances, look abroad for aid, and to no place so naturally as to Boston, where enterprises of this kind are estimated valuable in proportion to the benefits they are likely to confer on their city, rather than for the prospect of speculation in their stocks in State street.

The people of Boston however have the sagacity to see that the stocks of their roads which promise most benefit to the trade of their rapidly growing city, are also the most sure to give them liberal and *steadily increasing* returns upon their investment. Hence the readiness and liberality of their aid in the construction of well located railroads.

#### THE OREGON RAILROAD.

The Baltimore American, one of the best conducted papers in the country, has the following remarks upon this magnificent project. We have refrained from expressing an opinion upon it, that we might listen to the echo, from the far off hills of the great west, the north, the east and the south; as many a man, *now living*, will hereafter—while standing upon the most elevated points of the Rocky Mountains, in the vicinity of the most favorable pass—listen to that unearthly sound, the *steam whistle* of the locomotive, as the engineer gives warning to the astonished herds of buffalo that are grazing upon the track in advance of the train, which only a few days before left the falls of the Willametta, or the mouth of the Columbia river.

The proposition of Mr. Whitney was, and is still, deemed by many considerate people, as an *idle visionary scheme*; and so, within our recollection, was an emigration to that out-of-the-world place, called *Ohio!* "The New Connecticut"—as that part of it bordering on lake Erie was called but a few years since—was a place to be talked of by *many*, but visited only by a few adventurous spirits, who were given up, when once fairly on their way, as lost to their friends, and never to return! Where *now* is "the *New Connecticut?*"—*not three days' time* from the very *heart* of New England!! Where will Oregon be a quarter of a century hence? *Only twenty-five days' distant!!!* Let those who doubt recollect this. *Why*, it will be asked, should it be so? Let the answer be found in the *enterprise*, the *energy* and the *indomitable* love of freedom and adventure, of the *American* people, together with the thirst for more territory by her politicians, and consequently the necessity imposed upon the Government of providing for the defence of our territory on the Pacific, which is to be the *great battlefield of universal freedom* to mankind. It is, in our opinion, from the shores of the Pacific ocean that the monarchical governments of the old world will attempt, if they design *ever to make the effort*, to arrest the progress, or to suppress the existence of republican institutions—hence the necessity for early action in opening an easy, rapid and ample mode of inland communication, to act in concert with our navy, which ought, and is to be speedily increased by the construction of steam ships.

"*Railroad to the Pacific.*—Mr. Whitney's plan for a continuous railroad from lake Michigan to the Pacific ocean proposes that the Government shall grant of the public lands a strip sixty miles wide along the route,

or thirty miles on each side of the road for the whole distance from point to point; the proceeds of this land to constitute the fund for building the road. The proposed grant would include about ninety-two millions of acres; the cost of the road is estimated at \$20,000 per mile; making for the whole work an aggregate cost of some fifty millions of dollars.

"At the first view this seems like a fanciful project, fit only to amuse the imagination. But when it is considered more closely, it appears to be simply a mode of disposing of a certain amount of Government land, in a manner which proposes to secure a work stupendous in design, and calculated, if accomplished, to secure the most important results. The specified grant of the public domain would be regarded as well disposed of, if it could be exchanged for such a work as is here suggested. The chief matter of concern to the Government, then, in respect to this project, would be to provide that the lands should not be parted with except as the road progressed—in other words, to take care that for every sixty square miles of land a mile of road should be secured.

"The object of the road of course would be, not to develop in so mature a fashion the resources of the wilderness through which it would run, but to open a communication with China and the east, by which New York and Canton could be brought within a few weeks of each other. It does not matter then that the whole route of the road would be through an unsettled country, because the work would derive its value and importance from the points connected, and not from the region traversed by it. The great extent of prairie between the Mississippi and the Rocky Mountains would be favorable to the construction of a road—provided the deficiency of timber could be supplied.

"Mr. Whitney's plan was submitted to the last Congress, and a report on the subject came from the committee on roads and canals through the chairman, Mr. R. D. Owen, of Indiana. They reported that the project was worthy of the most serious attention, but that, as sufficient time was not then allowed for due examination of it, they could not recommend any immediate specific action. The committee added, that while they should not advise over-hasty action upon it, yet, as the road would be constructed by an appropriation of the public domain, and not of money from the treasury, as the public domain was rapidly appropriated in each succeeding year, the plan, if practicable and expedient, should not be delayed."

We agree fully with the editor of the People's Advocate, that it is necessary for the interest of the company to consult the safety and good will of the travelling community; and their duty as well as their interest. We should be better satisfied if we could feel that the safety and comfort of travellers would be as well cared for, when there is *not*, as when there is "great competition on

the various routes." We can assure the managers that their permanent interest would be promoted by always evincing a disposition to ensure the safety and good will of the *whole* community as well as those who travel.

"We understand that the Norwich and Worcester Railroad Co. have it in contemplation to effect an alteration in the location of the road at Norwich, to avoid the acute radius now objected to. The cost of the change will be about \$25,000. The great competition on the various routes makes it necessary to consult the safety and good will of the travelling community to obtain a fair share of the travel."

#### BALTIMORE AND WASHINGTON RAILROAD.

It is much to be regretted that some of our railroad companies are by an illiberal and exacting course of policy, doing much to foster prejudices against a description of improvement, the benefit of which in general, no one can reasonably deny. They in this way not only injure themselves, but all similar works, which suffer in public estimation, from the extortion or unaccommodating spirit of a few. We have in our eye at the moment the case of the Baltimore and Washington railroad, which, at a time when all the other railroads in the country are, in consequence of the increased value of money, and a conviction of the policy of low rates, reducing their charges, still obstinately adheres to its extortion, the greatest which we know of in the annals of railroad charges, of two dollars and fifty cents per passenger for the short distance (38 miles at the utmost) between Baltimore and Washington. How the intelligent head of the company controlling this work can fail to see that he is rendering it *odious* to the public, and that its prosperity under these circumstances, must, in a country where public opinion has so much influence, be endangered by such a course, we cannot conceive. With the immense travel on the route, at a moderate charge, the increasing prosperity of the Baltimore and Washington railroad would seem as certain as any event can be. But the excessive charge now made exciting indignation against it on the one hand, and tempting the ingenuity of our countrymen to devise some substitute for the railroad on the other, will, we predict, if long continued, bring about results which the company will regret not having avoided, by making their charge more in accordance with public opinion, and the interests of other railroads which are necessarily seriously injured by it.

Take, for example, the lines of railroad between New York and Baltimore. A traveller may go by the Camden and Amboy

railroad to Philadelphia for three dollars, and thence to Baltimore by the New Castle and French-town railroad and steamboat line for two dollars, in all 200 miles for *five* dollars, but when he reaches Baltimore he is obliged to pay half the sum for thirty-eight miles more, or a distance which at a fair charge in proportion to the railroads north of it, should not exceed a *dollar*. Of course the additional charge of one and a half dollar, is to that extent an exaction on the railroads north of Baltimore, diminishing in proportion their travel whilst the benefit from the high rate, (if there be any to any party, which we do not believe) accrues exclusively to the Baltimore and Washington branch.

The public, it seems, has already adopted a remedy, which may be to some extent efficacious. We allude to the line of stages lately started between Baltimore and Washington, which are taking a large amount of travel from the Washington railroad. We would be the last to wish success to such a scheme, did we not believe that the prosperity of the railroad system in our country was best promoted by *checking its abuses*. We trust most sincerely that the patronage which the stage line is experiencing may cause the directors of the Baltimore and Washington railroad to look more closely to *their true interests*, which we have no doubt will be found to consist in reducing their charge to a dollar and fifty cents at the utmost.

If they do not, the companies between Baltimore and New York—we might say between Baltimore and Boston—will probably find out, ere long, that they, as well as those who travel on their roads, are interested in reducing the extravagant charge on the Washington branch, and that it is in their power to do so, that by giving through-tickets in connection with the stage lines on the Washington turnpike, they will be enabled to divert so much of the travel from the railroad, as to compel the latter to reduce its charge, but with the disadvantage to it, compared with a reduction at present, of having raised up and established stage lines which it will be difficult hereafter to put down.

The Journal of Commerce says: "The amended charter of the Harlem company authorizes them to extend their road to Albany, on condition that they expend \$500,000 the first year, complete fifty miles of road in two years, in addition to their present road to White Plains, and finish the entire road in three years. Their capital stock, viz; 2,950,000, and of which about one and a half millions has been issued, is not increased by the new bill.



"The bill to incorporate the New York and Albany Railroad Co. passed the senate on the last day of the session, by a vote of 27 to 2. A powerful combined influence arrested it in the house, and laid it on the table. The old New York and Albany charter has still about two years to run, and it is possible the new applicants will make use of it for the accomplishment of their object. They are men of wealth and influence, and if a charter had been granted them, we have no doubt that an excellent railroad would soon have been built.

"The bill authorizing the New York and N. Haven Railroad Company, (incorporated by the legislature of Connecticut) to extend their road to this city, was lost in the assembly on Monday, although only 17 votes were given against it. Two-thirds of the whole number of members, including absentees, are necessary for the passage of such bills, viz: 86 out of 128; and as 32 members were absent when the vote was taken, there only remained 79 besides the 17 who voted in the negative. The failure of this bill is much to be regretted, as it will delay for another year the construction of a road of great public importance; and there is no other obstacle to its being immediately commenced. Men of substantial means stand ready to take the stock."

The defeat of the application of the New York and Albany and the New York and New Haven companies deserves, and will receive, further notice than has yet been given to the subject by the press.

The Monroe Democrat has found "another leakage"—we suppose in the Erie canal—and we are also of the same opinion.

The movements of the Boston people are certainly very significant; and speak as plainly as a sagacious people ought to require—that if the *New Yorkers* do not mean to retain, the Boston people mean to obtain, the business, or a good part of it, from the West.

AN IMPORTANT RAILROAD ROUTE—ANOTHER LEAKAGE.

"Boston is stretching out her long arms in every direction. She has her Albany road already, inviting the trade of the west. She has for some time enjoyed the advantages of avenues to Rhode Island, Connecticut, New Hampshire and Maine. She is now directing her energies for the trade and travel of Montreal; and the stock of the Vermont and Massachusetts road is all taken up, with a surplus of \$75,000 more than the charter allows.

"It is supposed that this road will be built to Bellows Falls, on the Connecticut river, in eighteen months. From thence the Vermont railway will be carried on to Burlington and lake Champlain, and the Ogdensburgh people are now exerting themselves to the utmost to complete the line to the lake. When this is done, the Troy Whig says:

"Freight of every description can be

landed at Ogdensburgh from Chicago, Milwaukee and the farthest west, at low rates, through the Welland canal. The distance from Ogdensburgh to Boston is 150 miles less than from Buffalo to Boston. In the transportation of freight, therefore, between Boston and the west, the Northern road would have the preference over the Hudson and lake Erie route.'

"We state these things as they are, that our citizens may see what is going on in the railroad world. It is possible that facts like these may have an influence upon other movements now in agitation."

WORCESTER AND NASHUA RAILROAD.

The Nashua Gazette makes the following remarks on the prospects of this contemplated road:—

"We are glad to perceive that the importance of this route is as highly appreciated in New York as in this State and in Massachusetts. We have ever considered this route one of the most important ones in New England, and rejoice to learn that a sufficient amount of stock has been subscribed upon the route to insure its speedy construction. Nearly \$400,000 has been already subscribed in Worcester, Nashua, and the intermediate towns upon the route, thus manifesting the great confidence which those concerned have in the prospects and profitability of the road. We learn that distinguished gentlemen of Worcester are now in New York city negotiating with the capitalists of that place to take up the remainder of the stock. There can be but little doubt that their efforts will be successful, as the Norwich and Worcester Co. have signified their willingness to become subscribers to a large amount of the stock."

THE RUTLAND RAILROAD.

The following article from the Bunker Hill Aurora, a paper we are glad to find an advocate for railroads, gives a good account of the mineral resources of the part of Vermont through which the proposed lines of railroad pass.

We cheerfully give insertion to the following interesting letter, and commend it to the attention of our readers; for whether the great line of railroads from Boston shall extend through Rutland or through Montpelier, to Burlington and Montreal, we think no one can doubt that a railroad to Rutland, and perhaps to Whitehall and Vergennes, is exceedingly desirable.

Bellows Falls, May 18, 1845.

MY DEAR SIR,—I am obliged to you for your paper of the 10th inst., and am glad to see that you have commenced a comparison of the two routes. The distance from Bellows Falls to the mouth of White River, by Twining's survey, is 41 miles; by Hutchinson's survey of Connecticut river, in 1825, 42 miles. The distance from the mouth of White River to Burlington, may be shortened 5 or 6 miles, by very materially changing the line, and going through East Randolph, Brookfield, East Williamstown, and Barre, to

Montpelier, instead of Bethel, West Randolph, Braintree, Roxbury, Northfield, and Berlin, to the mouth of Dog River, 170-100 miles below Montpelier. The change would be to follow up from Royalton in the valley, through which what is there called the Gulf road passes, but the grades, feasibility or expense are not ascertained, as that route has not been surveyed. Distance being a very important consideration, I suspect it has been given up after an examination. The curves, too, in some places must be very severe.

While a road on the Montpelier route would give Boston a certain portion of the trade of Vermont, it would still leave to New York the business of the most important part of the State. Rutland and Addison counties, in their iron, manganese and marble, connected with their agricultural products, have the material to furnish a greater export tonnage than all the rest of Vermont. A road through Montpelier would not affect these counties at all, while a road through Rutland encloses as in a net the whole country east of it, and gives Boston as much control over the business upon the Montpelier route, as if a road was built upon it. It cuts it off from any other market. Consistent with distance and expense, the best route to Burlington, so far as the interests of Boston are concerned, is the most westerly. Boston is the natural market of all Vermont, because all which Vermont produces is worth more in Boston than in any other market convenient to her people. A railroad, too, on this route would make Boston the best market for the New York counties bordering upon Lake Champlain. If a railroad were built from Boston to Rutland, even without a branch to Whitehall, the surplus produce of the north half of Washington county, New York, would be carted to Rutland, and there put on the cars for Boston. One individual in Hartford, in that county, living within six miles of the Champlain canal, has, since August last, carried and sent more than 100 tons of freight across the country to Boston and vicinity.

Generally, in Rutland and Addison counties, the Green Mountains upon the west side present a uniform face, not branching out into spurs, and only broken through by the streams which come from their summits. The rock upon the east base of these mountains is generally silicious mica slate, but as we cross them and approach their west base, it gradually runs almost entirely into quartz. Directly at their west base the quartz meets the limestone of the Otter Creek valley.—At or near this line are the extensive beds of iron ore and manganese, and nearly parallel with the iron ore, west of it, are the immense deposits of marble, which give so much importance, in connection with its other peculiar resources, to this valley.—Where the quartz and limestone meet, upon this line, good iron ore can be found within every mile from the south line of Vermont to the north line of Addison county, and perhaps to Onion river. For a distance of nearly 60 miles from Dorset to Monkton, the iron made would go to market on the

Rutland road. With the Green Mountains on one side, providing an almost unlimited supply of fuel, and the richest soil in New England upon the other, furnishing all the necessities of life, this will become one of the most important iron manufacturing regions in the world. These ores are all secondary, easily mined, and most of them make excellent metal. The most extensive beds now worked are in Brandon, Pittsford, Chittenden and Wallingford. The Wallingford ore may properly be called a steel ore, as very good edge tools have been made directly from the bars, as they were taken from the forge. This bed is but 7 miles from the surveyed line; most of the others are yet nearer to it.

Vermont has almost a monopoly in manganese—probably having that mineral in greater abundance than it can be found any where else. This article is chiefly exported; indeed, one of the principal beds in the town of Chittenden, near Rutland, is owned in Great Britain. This important article is dug out of the mountains of Vermont, carried to Scotland, and returned to us in the shape of bleaching salts. If the people of Boston, will not manufacture these salts, they might at least contrive to have the advantage of exporting the manganese. This mineral is only found on the east side of the Green Mountains, in Plymouth, within four miles of the Rutland route.

In Plymouth are three varieties of iron ore, all abundant, and of good quality—the magnetic, the micaceous, and the common secondary ore of other parts of the State. In that town, and in Pittsford and Brandon, are extensive blast furnaces, and in Wallingford, Bristol and Vergennes, the forge-fires are in active operation.

There is much lime, very white and pure, not air-slacking easily, made in Plymouth. As an evidence of the high estimation in which it is held, I saw in our village to-day, two large wagons loaded with it, on their way to Fitzwilliam, N. H., 65 miles from the kilns, and within 25 miles of Fitchburg.—Plymouth, formerly considered one of the poorest towns in the State, would furnish more freight for a railroad than any five oth-

er towns in Windsor county. There is also an abundance of very good marble in Plymouth. The great marble range of Vermont commences in Dorset, and passing north through the whole of Rutland county, terminates, I believe, in New Haven, in Addison county. It can only be delivered cheaply in Boston by a railroad to Rutland. The deposits of marble in this range are inexhaustible, and superior in quality to any found in the United States, and present almost every variety that fancy or necessity may require. This marble section has not yet been fully explored. You have seen some of the Rutland, and, I believe, a specimen of the statuary marble from Middlebury. A good deal of this marble, particularly the Rutland and Danby, is every year sent by Troy and New York to Boston.

Vergennes is a very important point; in reality, so far as freight is concerned, it will be almost as important as Burlington. All the Lake craft can ascend Otter Creek to Vergennes. Most of the iron made in Essex and Clinton counties, N. Y., would come upon the road there, particularly in winter, as opposite that place the ice crossing is safer than almost any where else upon the Lake. From Shrewsbury to Burlington there is every year a less fall of snow than between Boston and Lowell.

They call the meadows about Northampton the garden of Massachusetts. For fifty miles in length, and an average of more than six miles in width, the valley of Otter Creek possesses a yet more productive soil; and indeed, most of the country between this valley and Lake Champlain is equally rich. Combining this richness of soil with the mineral wealth—the iron, marble, and manganese—and you have a country which will furnish enough way-business to pay ten per cent. upon the whole cost of a road from Belows falls to Burlington, at cheaper rates for freight than is now charged on any railroad in Massachusetts. I have said nothing about the serpentine of Cavendish and Ludlow, the flagging-stone of Cavendish and Chester the soap-stone of Chester, and the hydraulic limestone of Rockingham, all directly upon the Rutland route.

W. F. H.

**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

**TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY.** The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE,

ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*.\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All orders punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles.  
 JOHN S. DARCY, Esq., President.  
 J. P. JACKSON, Esq., Secretary.

Capital, \$2,000,000.  
 ROBERT SCHUYLER, Esq., Vice President.  
 J. WORTHINGTON, Esq., Treasurer.

Leave New York, foot of Courtland street.	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
For Newark.....	9, 11, 12.....	2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4 3-4, 6.....				
" New Brunswick.....	9.....	3, 4 3-4.....				
Leave New Brunswick.....	6, 7 1-2, 11 1-2.....	8 3-4.....	11 1-2	8 1-2		
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	1 1-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4		

For New York.  
 9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitcomb, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

REFERENCES.

Boston, { Col. James F. Baldwin, Civil Engineer.  
 { Col. J. M. Fessenden, "  
 Wm. Parker, Esq., Engineer and Superintendent  
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SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/4 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,  
 ja5a3 Albany Iron and Nail Works, Troy, N. Y.

FOR SALE, AT A SACRIFICE—A LOCOMOTIVE Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine.  
 2 8-horse "  
 1 Upright Hydraulic Press.

All of which will be sold low, on application to  
 T. W. & R. C. SMITH,  
 Founders and Machinists,  
 Alexandria, D. C.

RAILROAD IRON AND FIXTURES. THE Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO.,  
 21 Broad st., N. York.

MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.  
 Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,  
 a45 Paterson, N. J., or 60 Wall street, N. York.

NICOLL'S PATENT SAFETY SWITCH for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.  
 G. A. NICOLLS,  
 ja45 Reading, Pa.

GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/4 in. to 2 1/2 in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served accordingly to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions.  
 ja451y

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS.	A M.	P. M.	MILES.	FARE.
Boston	Portland		Eastern,	Daily,	7 $\frac{1}{2}$	2 $\frac{1}{2}$	106	\$3 00
"	Portsmouth		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	54	2 00
"	Newburyport		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	35	1 25
"	Salem		"	"	7 $\frac{1}{2}$ , 9, 11 $\frac{1}{2}$	2 $\frac{1}{2}$ , 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14	50
Portland	Portland		Boston and Maine,	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	109	3 00
Boston	Boston		"	"	7 $\frac{1}{2}$	3	109	3 00
Lowell	Lowell		Boston and Lowell,	"	7, 11	2, 5	26	75
Boston	Boston		"	"	7 $\frac{1}{2}$ , 11	2, 4 $\frac{1}{2}$ , 5 $\frac{1}{2}$	26	75
Boston	Concord		Concord,	"		3 $\frac{1}{2}$	76	2 00
Concord	Boston		"	"		3 $\frac{1}{2}$	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11	5	41	
Nashua	Boston		"	"	6 $\frac{1}{2}$	1 $\frac{1}{2}$ , 5	41	
Boston	Worcester		Boston and Worcester,	"	7, 9	2 $\frac{1}{2}$	44	1 25
Worcester	Boston		"	"	7, 10	6	44	1 25
"	"		"	Sundays,	7			
Boston	Worcester		"	"		2		
Boston	New York via Norwich		"	Mon., Wed. & Fri.,		4		
"	" " L. Island railroad		"	Tues., Thur. & Sat.,	7			
"	" " New Haven		"	Daily,	9	2 $\frac{1}{2}$		
"	Albany		Western,	"	9	2 $\frac{1}{2}$	200	6 00
Albany	Boston		"	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	200	6 00
Springfield	Boston and Albany		"	"	7	3		
Boston	New York via New Haven		"	"	7	2 $\frac{1}{2}$		
Charlestown	West Acton		Fitchburg,	"	8	1, 4 $\frac{1}{2}$		
West Acton	Charlestown		"	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	5		
Boston	New York, via Steamboat trains		Boston and Stonington,	Tues., Thur. & Sat.,		4 $\frac{1}{2}$		
"	" " " "		Boston and Newport,	Mon., Wed. & Fri.,		4 $\frac{1}{2}$		
"	Providence		"	Daily,	7 $\frac{1}{2}$	4	41	1 50
Providence	Boston		"	"		On arrival of the mail	41	1 50
Taunton	"		"	"	8	4		
New Bedford	Boston		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$		
Boston	Dedham		"	"	8 $\frac{1}{2}$	3, 6 $\frac{1}{2}$		
Dedham	Boston		"	"	7, 10	5 $\frac{1}{2}$		
New York	Greenport		Long Island,	"	7 $\frac{1}{2}$		95	2 25
Brooklyn	Hicksville & intermediate places		"	"	9 $\frac{1}{2}$		26	56 $\frac{1}{2}$
"	Greenport		"	Tues., Thur. & Sat.,	9 $\frac{1}{2}$		95	2 25
"	Hicksville, (Satard'y to Suffolk)		"	Daily,		4	26	56 $\frac{1}{2}$
Greenport	Brooklyn, (Boston train)		"	"		1	95	2 25
"	" (accommodation do.)		"	Mon., Wed. & Fri.,			95	2 25
Hicksville	" & intermediate places.		"	Daily,	7	1 $\frac{1}{2}$	26	56 $\frac{1}{2}$
New York	Albany & Boston via N. Haven		Steamer,	"	6 $\frac{1}{2}$			5 00
"	Middletown		New York and Erie,	"	8, 3		53	
Middletown	New York		"	"	6 $\frac{1}{2}$	3 $\frac{1}{2}$	53	
Philadelphia	Pottsville		Reading,	"	9		94	3 50
Pottsville	Philadelphia		"	"	9		94	3 50
New York	Newark		N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4 $\frac{1}{2}$ , 6, 7 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Newark	New York		[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 9, 11	1 $\frac{1}{2}$ , 4, 5 $\frac{1}{2}$ , 7, 9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	"		"	Sundays,	9	4 $\frac{1}{2}$	9 $\frac{1}{2}$	25
New York	Newark		[9 A. M. and 4 $\frac{1}{2}$ P. M., trains connect with Somerville Railroad.]	Daily,	11 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	Elizabethtown		"	"	9, 11	2, 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14 $\frac{1}{2}$	31 $\frac{1}{2}$
Elizabethtown	New York		"	"	7, 7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 10 $\frac{1}{2}$ , 12	3 $\frac{1}{2}$ , 5	14 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	Rahway		N. J. railroad and trans. co.,	"	9, 11	3, 4 $\frac{1}{2}$ , 6	19 $\frac{1}{2}$	31 $\frac{1}{2}$
Rahway	New York		"	"	6 $\frac{1}{2}$ , 7, 8 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$ , 9 $\frac{1}{2}$	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New Brunswick		"	"	9	3, 4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New Brunswick	New York		"	"	6, 7 $\frac{1}{2}$ , 11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
"	"		"	Sundays,	11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New York	New Brunswick		"	"	9	4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
Philadelphia	New York		Camden and Amboy,	Daily,	7		91	3 00
New York	Philadelphia		"	"	5 $\frac{1}{2}$		91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	9		30	75
Bristol	Philadelphia		"	"		4	30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"	8		93	
Baltimore	Philadelphia		"	"	9		93	
"	Washington		Baltimore and Washington,	"	9	5, 11 $\frac{1}{2}$	41	2 50
Washington	Baltimore		"	"	6	5 $\frac{1}{2}$	41	2 50
Baltimore	Cumberland and inter. places		Baltimore and Ohio,	"	7 $\frac{1}{2}$			
"	Frederick		"	"		4		
Cumberland	Baltimore		"	"	8			
Hancock	"		"	"	10 $\frac{1}{2}$			
Martinsburg	"		"	"	11 $\frac{1}{2}$			
Harper's Ferry	"		"	"		12 $\frac{1}{2}$		
Frederick	"		"	"		2		
"	"		"	Sundays,	8			
Ellicott's Mills	"		"	Daily,	7 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$		
Richmond	Petersburg		Richmond and Petersburg,	"	10 $\frac{1}{2}$	1 $\frac{1}{2}$		
Petersburg	Richmond		"	"	5 $\frac{1}{2}$			
Albany	Schenectady		Mohawk and Hudson,	"	8	5 $\frac{1}{2}$		
Schenectady	Albany		"	"	9	3 $\frac{1}{2}$		
Albany	Saratoga		"	"	7 $\frac{1}{2}$	2		
Saratoga	Albany		"	"	7	12 $\frac{1}{2}$ , 5		
Troy	Saratoga		Troy and Saratoga,	"		3 $\frac{1}{2}$		
Saratoga	Troy		"	"	7 $\frac{1}{2}$			
Auburn	Rochester		Auburn and Rochester,	"	8 $\frac{1}{2}$			
Rochester	Auburn		"	"	8	3		
"	Buffalo		Rochester and Buffalo,	"		3		
Buffalo	Rochester		"	"				
"	Falls		Buffalo and Falls,	"	9			
Falls	Buffalo		"	"		1 $\frac{1}{2}$		
Buffalo	Albany		Albany and Buffalo	"	8 $\frac{1}{2}$			

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

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[WHOLE No. 468, VOL. XVIII

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)  
TROY IRON AND NAIL FACTORY, H. Burden Agent. (See Adv.)  
ANDREW MENEELY, West Troy. (See Adv.)  
ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
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## KITE'S PATENT SAFETY BEAM.

Messrs. Editors.—  
As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.  
Wilmington, Del., Sept. 28, 1840.

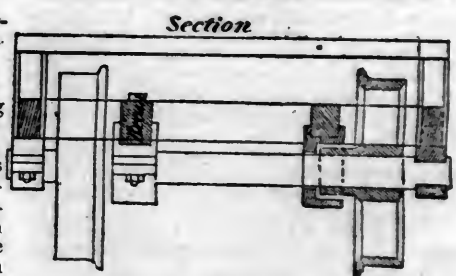
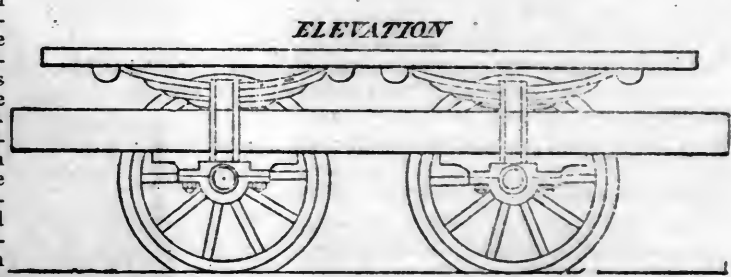
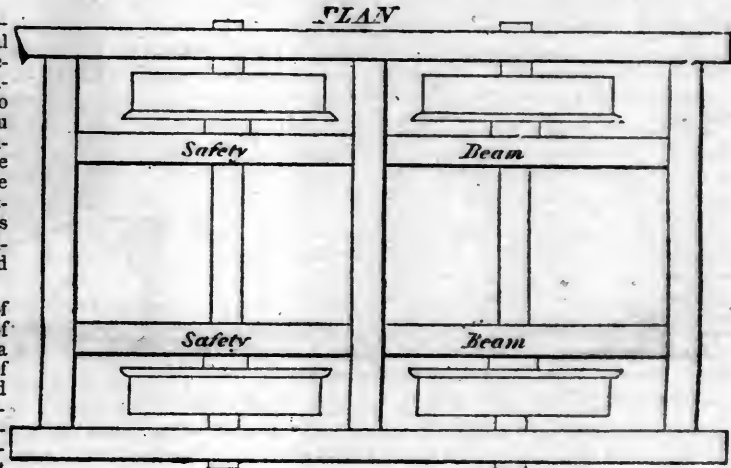
The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**TO IRON MANUFACTURERS.** THE SUBscribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO.,  
ja45 No. 4 South Front st., Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

From 4 inches to 7 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal* and *Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer,*

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS,** 48 State st., or to **CURTIS, LEAVENS & CO.,** 106 State st., Boston, or to **A. & G. RALSTON & CO.,** Philadelphia. ja46

**RAILROAD IRON AND LOCOMOTIVE** Tyres imported to order and constantly on hand by **A. & G. RALSTON,** 4 South Front St., Philadelphia. Mar. 20th

**THE NEWCASTLE MANUFACTURING** Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

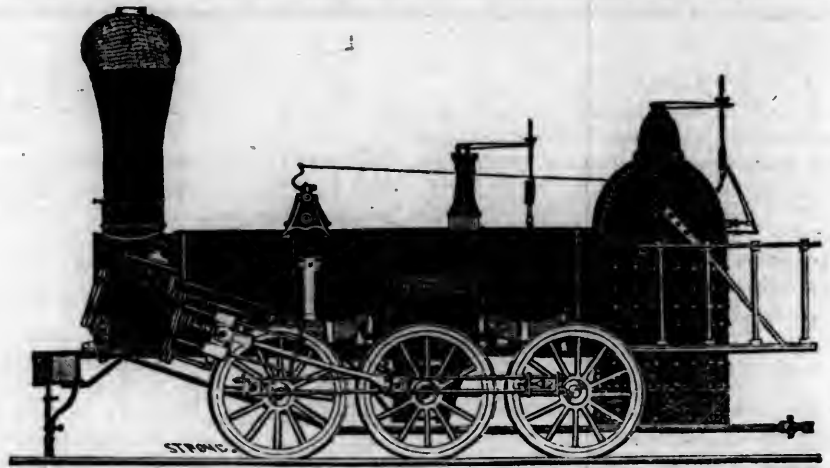
The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention. **ANDREW C. GRAY,** President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS** etc. The Subscriber having made important improvements in the construction of rails, mode n guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN,** *Civil Engineer,* Albany, N. Y. Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NORRIS' LOCOMOTIVE WORKS**

BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
" 2,	14	"	"	×	24	" "
" 3,	14 1/2	"	"	×	20	" "
" 4,	12 1/2	"	"	×	20	" "
" 5,	11 1/2	"	"	×	20	" "
" 6,	10 1/2	"	"	×	18	" "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

## RAILWAYS IN ENGLAND AND THE BOARD OF TRADE.

There is much pleasure and profit to be derived from reading the reports of the "Railway Department of the English Board of Trade." The gentlemen who compose this department, or committee, appear from their reports to be men of intelligence and character, who look at the subject of railway extension with an eye solely to the general good of the people at large—not as interested parties, or *partizans*—and it does one good, in these times of selfish and local controversies, in relation to rival lines, to read their reports. We shall therefore make occasional extracts from them, for the purpose of giving our readers an opportunity to avail themselves of what may be found in them useful in this country.

The subject under consideration is mainly for "the extension of railway communication between London and York"—and thence northward, of course, into Scotland. The distance to York by the present lines of railway, is 219 miles, and as the *crow* flies 175½ miles, but by the proposed direct Northern railway, it will be 185½.

The committee oppose connecting it with other roads, or rather with the *North Midland*, which now has a large amount of business. The route recommended by the committee is from London to Cambridge, by the "Northern and Eastern railway," and thence to Lincoln, Bawtry, Doncaster, Selby and York; being somewhat at variance with the line projected, which passed through Huntington and Peterborough, and thence to Lincoln, or Newark and Bawtry, etc., to York.

The committee thus speak in relation to the proposed connection with the *North Midland*:

"We consider it improper that the traffic of any new line should open upon the York and North Midland Railway, with which so many lines are already in connection, as to render delay unavoidable, and collision not improbable. In consequence of the numerous trains of luggage and passengers using this line, nearly two hours are sometimes occupied in passing over a little more than 30 miles from York.

"We may add, that the position of the York and North Midland line as part of the existing link of communication, with which a new eastern line between London and York would compete, renders it peculiarly undesirable that any portion of this latter line should be dependent upon a small length of the former. In the case of the Northern and Eastern line, the adoption of which to Cambridge we have recommended, the most thorough identity of interest exists between it and the proposed new lines for completing

the communication northwards. But the effect would be very different of placing a short link of a few miles at the York end of this great scheme, under the control of a company having distinct, and to a certain extent, conflicting interests.

"For these reasons, we conclude that the chain of communication from London to Lincoln, should be completed by a direct and independent line northwards from Lincoln to York.

"The only two schemes, as we have said, which present themselves for this purpose, are the direct Northern, and the Lincoln, Leeds and York.

"The former scheme has the advantage of having, as it is stated to us, a subscription deed executed for £4,000,000 of capital, and the requisite deposits lodged in the Bank of England.

Independently, however, of this consideration, there are other reasons which make it obvious that a preference must be given to the line of the Direct Northern. This line keeps on the west of the river Ouse, and thus avoids the necessity of having any swing-bridges, while the Lincoln, Leeds, and York line crosses that navigable river twice—once near Selby, and again close to York. Where the navigation of vessels with fixed masts is not considerable, we are not disposed to think that the existence of a swing-bridge, under proper regulations and arrangements, is a very serious objection, and if any considerable advantage in respect of distance or otherwise had been attained by crossing and re-crossing the Ouse, we should have been prepared to balance these advantages against any probable amount of interruption to the navigation or to the traffic upon the railway. But this is not the case in the present instance; the difference of length of the two lines between Selby and York is not above a quarter or half a mile, and we are aware of no public advantage whatever which is attained by keeping on the east side of the river. This being the case, there can be no doubt that the swing-bridges are in themselves a decided objection, since, under the most favourable circumstances, it is impossible altogether to avoid delay and some risk of accident.

In another respect also, the Direct Northern scheme appears to be decidedly preferable. It is the only one of the proposed schemes which complies with the recommendation of the Commissioners above quoted, and which avoids all interference with existing lines at York. It proposes to form an independent station for York, at a convenient spot upon the Tadcaster road, a short distance from Micklegate, and thence crosses with the main line over the York and North Midland Railway, running into the Great North of England line, about a mile beyond York. The advantages of this arrangement for all through traffic from the north are obvious, since trains may thus be run past York with no more stoppage than is required at an ordinary first-class station; while in case the whole traffic had to cross

the York and North Midland line on a level, close to the station, where it is most crowded, the loss of time could not, under the most favourable circumstances, amount to less than 20 minutes or half an hour. With the prospect of a great increase of traffic in the already crowded York station, from the opening of the Scarborough and other lines, and with the collision of interest that must, to a certain extent, be expected to prevail among some of the companies using that station, and whose rails are proposed to be crossed on the level, it appears to us that such an arrangement would be in the highest degree inconvenient and even dangerous. *The inconvenience and delay of such arrangements upon great lines of through communication have been already felt; and one of the great objects proposed by the Trent Valley line now before Parliament, is to get rid of the delay incurred at Birmingham in the journey between London and Liverpool and London and Manchester.* With such instances before us, it appears to us that it would be unwise to incur voluntarily a similar interruption of an aggravated character in the great line of communication between London and Edinburgh.

It is also highly desirable, with a view to the coal traffic from the north, that a through communication with the country to the south of York should be afforded without the necessity of passing the waggons across the other lines, and interfering with their passenger and goods traffic. With such a communication it is confidently anticipated by the Durham coal-owners that they will be able to send their coal in large quantities down to Goole and Selby, and even into the north of Lincolnshire.

For these reasons we have arrived at the conclusion that the line of the Direct Northern, north of Lincoln, affords decidedly the best means of completing the main line of communication to York; and we are glad to be able to state that the parties themselves have taken this view, and that the Direct Northern Company have stated their readiness to enter into arrangements by which, in the event of Parliament considering that the Cambridge route should be adopted, the Cambridge and Lincoln, in conjunction with the northern portion of the Direct Northern, would be presented as an integral scheme for carrying this purpose into effect.

The most important of these are the lines proposed for connecting the main line and Lincolnshire with the Manchester and Sheffield, the Manchester and Leeds, and the Midland Railways, and through them with the coal fields and manufacturing districts.

Taking Sheffield as the first point, we find no fewer than five schemes proposed, with the object of extending railway communications from this town and from the Sheffield and Manchester Railway eastwards.

We now proceed to recapitulate briefly the conclusions at which we have arrived, and the leading results, with reference to a great national system of railway communi-

cation, which we have had in view in submitting for the consideration of Parliament the recommendations contained in this report.

The adoption of the Cambridge and Lincoln and northern portion of the direct northern lines, in connection with the line of the northern and eastern, which will shortly be opened to Cambridge, and with the Tottenham and Farringdon-street Extension, will afford an integral and independent trunk line to the north, which, having regard to gradients, is probably *as short, in point of time, as could possibly be constructed, with a first-rate metropolitan terminus*; passing through the principal towns on the eastern side of the kingdom between London and York, by the route, the first stage of which has been already sanctioned by Parliament, and which has been always considered as the most natural and desirable.

By this line, from the completion of the portion as far as Cambridge, and from the extreme facility of execution of the remainder, all the public advantages that can reasonably be anticipated from economy of construction will be insured. The completion of the whole undertaking within a moderate period, and whatever may be the state of the money market, or rise in the price of labour and iron, may, from this cheapness of construction, be rendered certain by the introduction of proper clauses. The existence of the undertaking in a state of independence, affording to the public whatever benefits may be justly expected to result from the existence of a second trunk line from London northwards, and from the indirect effects of competition, will be also rendered much more probable than could possibly be the case if an expensive line were sanctioned, less capable of carrying at low fares and sustaining competition. *At the same time no thing will be created that can be considered as unfair and injurious competition, or that will tend to depreciate the large amount of capital that has been invested (hitherto unproductively) in the existing eastern counties and Midland lines.*

The extreme cheapness of construction of the new lines from Cambridge to York will render it both practicable and equitable to secure by legislative provisions a lower system of fares and charges, and greater advantages than have hitherto been contemplated. Indeed, the parties themselves voluntarily offer such advantages, and, what is more material, are in a condition to carry their offers into effect.

The Direct Northern Company have stated their intention of offering to introduce clauses into their act, binding themselves to carry passengers at the following rate:—

First class.....at 2d. per mile.  
Second class.....1½d.  
Third class.....1d.

“To run at the least two third-class trains per day each way between London and York; that the carriages shall be properly seated and covered in, and the passengers completely protected from the weather, and that all the ordinary attentions and

privileges as to baggage, &c., afforded to the other passengers, shall be given to the third-class passengers.

“To run, besides the through trains, short trains for the accommodation of the local traffic, at times best suited to the convenience and interests of the intermediate population.

“To carry coals at seven-eighths of 1d. per ton per mile, and fish, by first-class trains, at 4d., and by third-class trains, at 3d. per ton per mile.”

And they state that they offer these advantages to the public in the most perfect confidence that they are justified in doing so, commercially speaking.

The traffic estimate of the Cambridge and Lincoln Company has been taken at an average of 1½d. per passenger per mile; 1½d. per ton, or 1½d. per quarter per mile on corn and flour; 1d. per head per mile on fat cattle, and one-fifth of 1d. per head per mile on sheep; with rates low in proportion on wool, coals and general merchandise, and it shows a profit of 9 per cent. on the estimated capital.

There appears, therefore, no reason to doubt that a tariff of charges somewhat similar to the above might be safely and fairly enforced, with ample provision for securing good accommodation for all classes of passengers, and also for securing the running of one or two quick trains daily, between London and York, at whatever speed was adopted upon other railways, *or was consistent with safety, which would certainly reduce the time of the journey to less than six hours.*

The advantages resulting from the establishment of such a system of low charges would not merely be confined to the railway in question between London and York, but would indirectly extend an influence over many other parts of the general railway system. A fair participation, also, in whatever further advantages might result from the increase of traffic and population, or from increased economy in working, owing to further improvements, would be secured to the public by the operation of the option of revision, which, in this case, owing to the smallness of the original outlay, would hold out an unusual prospect of becoming the means of insuring important advantages for the future.

In the mean time, however, the result would be, that first-class passengers would be enabled to travel from London to York for a charge not exceeding 30s., or 35s., in a time not exceeding six or seven hours, while passengers, to whom economy was an object, would be conveyed in comfortable covered carriages at charges proportionably less.

With regard to the other main object, that of affording a ready communication between the great food-producing districts of the east of England, and the great food-consuming markets—viz., the metropolis and the manufacturing districts, an inspection of the map will show that very complete provision is made by the lines whose sanction we have recommended.

By the last mentioned line a ready access is afforded for such of the agricultural produce of the east as may have been collected by water conveyance to the great entrepot of Wakefield, and thence to the manufacturing districts.

It would be difficult to overrate the advantages that may be expected to result from the establishment of a system under which coals shall be carried over all this scheme of railways at rates not exceeding (except for short distances) ¾d. per ton per mile for toll and locomotive power, a rate which is already adopted on the Midland Railway, and which might, under the circumstances of the lines in question, be very properly enforced. The best Derbyshire and Yorkshire coals could thus be brought even to the metropolis at rates which would allow of their being sold at prices little, if at all, exceeding 20s. per ton, while they would be disseminated over the whole of the midland and eastern agricultural districts at prices proportionably less, according to the reduced distance.

The benefits thus conferred on these districts, in addition to those resulting from the means of cheap and expeditious intercourse for passengers, and for the transport of corn, cattle, and other agricultural produce, being afforded in every direction, and to all the principal markets of the kingdom, would, we are convinced, be of the greatest importance—and it appears to us, that by the combination of schemes which we have described, these great objects would be attained as securely, as completely, and as economicaly as it is possible to expect, and much more so than would be the case if any of the other combinations which now present themselves should be preferred.

In conclusion, we beg to draw attention to the passage of the Fifth Report of the Select Committee of last year, in which it is stated, in recommending that Reports should be made to Parliament by this department upon railway schemes—

“That no such Report should be held to prejudice the claims of private persons, the examination of which should be altogether reserved to the Houses of the Legislature.”

In submitting to Parliament, in conformity with the recommendations of that Committee, the results at which we have arrived, with a view to the information and assistance of Parliament in forming a judgment upon the schemes in question, in so far as our Report may be available for that purpose, we are anxious that it should be distinctly understood that we have arrived at these results solely upon public grounds, and to the exclusion of all considerations how far such results might require to be modified by a due regard for private rights and interests:

Applicants for new railways in England are willing to accept charters with greatly reduced rates of fare and freight, as compared with previous charters granted, as will be seen from the two following statements,



which we copy from the Supplement to Herapath's Journal of 26th April.

The promoters of the Bolton, Wigan, and Liverpool line, have offered to secure the usual accommodation and advantages to the public at the following maximum charges:—

Passengers, 1st class, 2d. per mile.  
 " 2d " 1½d.  
 " 3d " 1d.

Coal, minerals, &c. .1d. per ton per mile.  
 Cotton, wools, sugar, &c. . . . .2½d.

Manufactured goods. . . . .3d.

and are also willing that a clause should be inserted in their bill whereby the power of revision vested in the Government by the Act 7 and 8 Vict. c.85, s. 1, should come into operation immediately on the profits of the railway amounting to 10 per cent., instead of at the expiration of 21 years from the passing of their act.

The Birkenhead, Manchester, and Cheshire Junction Railway Company offer to bind themselves in their act to a maximum tariff for

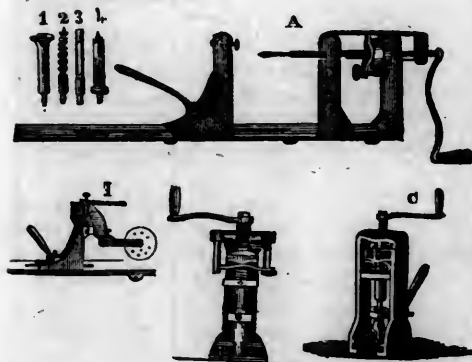
1st class passengers. . . . .2d. per mile  
 2nd ditto. . . . .1½d.  
 3rd ditto. . . . .1d.

Two trains of the third class to run at the ordinary speed.

Coals and minerals to be carried 1d. per ton per mile.

[For the American Railroad Journal.]

JOHN R. GROUT'S SELF-FEEDING FRICTION DRILL FOR DRILLING IRON AND OTHER METALS.



I herewith send you the engraved plates of two forms of my friction drill, for drilling iron and other metals, of which I have made some mention to you. A is the bench form for the general purposes of the blacksmith. The frame consists of a bottom plate with a sliding poppet-head and two fixed standards. These two standards are connected at top by a bar which extends out from them, and dropping down, forms an arm parallel with them. The mandril passes through the standards and arm, one third of it at each end being round and bearing only in the arm and standard farthest from the arm, the middle portion having a screw cut on it and playing through

the other standard without touching it. On the screw part there is a nut, one face of which bears against the latter standard or an intervening washer, and the other face is acted on by a friction spring. The spring is connected to the bar at top, and is acted on at its lower end by a thumb-screw, which taps into the standard next to the arm. The spring is elliptical in form, receives the mandril through it, and equals in width the diameter of the nut. The face of the nut next to the spring is undulating, or made with four high parts and four low ones, passing smoothly into each other at equal distances, the high parts, only, in revolving the nut, touching the spring. The nut inclines to revolve with the mandril, and does so revolve, if not acted on by the spring; but when the spring is brought to bear against it by the action of the thumb-screw, its motion is retarded,—the friction of each high part, in passing over the convex part of the spring, stopping it for an instant. In each of these retardations of the nut, the mandril advances through it, and presses its bit into the object to be drilled against the poppet-head, with any required degree of force. The drill is self-feeding by the use simply of the spring and nut, thus constructed and operated; it is set to any feed by simply turning the thumb-screw; it is self regulating in its feed, which preserves the bit; and it requires only the reverse motion of the mandril to withdraw the bit. In place of the bit, which the cut shows in the mandril, the mandril receives fig. 1, which is a hollow auger for tenoning spokes; fig. 2, a common auger for boring; and figures 3 and 4, chisels for morticing hubs and other stuff—to all of which purposes the machine is minutely adapted. I is the frame for holding the hub in morticing it. It attaches to the poppet-head, and has all the motions necessary for its purposes.

C is the railroad form of the drill, and is used for drilling the flat bar on the track, in place of taking it up and getting it punched. It is 8 inches in height to the top of the frame, and weighs 10 lbs. The frame is cast iron, and consists of two standards, connected by a plate at top, by a bar 2½ inches below the plate, and by a bolt 2½ inches below the bar. The right hand standard is connected with the plate by a joint; with the bar, by a pin in the end of the bar, setting into it; and with the bolt, by the latter passing through it and receiving a tightening nut on the outside of the standard. The foot of each standard is made with a jaw for receiving the iron to be bored. The mandril passes down through the centre of

the plate and bar and bolt, and receives in the lower end of it a bit so formed as to cut through the iron for the body of the spike, and at the same time countersink for the head. The nut and spring and thumbscrew are formed and operate precisely as in the bench drill. To put the drill on the bar, turn off the tightening nut, swing out the right-hand standard till the bar is taken into the jaws, then draw the standards together with the tightening nut, till the bar is fast held between them. The drill is then worked as in the bench form of it. If the bar is not sufficiently up from the rail to enter the jaws, it is readily raised for that purpose. This drill is found to be a most useful little tool on flat bar roads. The hole which it makes in railroad iron, the quality of which is usually poor, is better than the punched hole; and it can be made and the bar spiked with a saving of at least four-fifths of the cost of taking the bar from the track, getting it punched, &c. It is much saving also in preserving the iron and the wood rail, it being a means in the hands of the repairer which enables him to fasten down the iron without delay whenever he finds it loose.

D is a sectional view of this drill, having the right-hand standard removed.

I sell the drill at \$8, or at that rate for any number, and the right of using it for \$2 per mile of road. I have the testimony of the superintendents of several roads, that its use has proved a saving to them of its cost and the cost of the right, in from four to five months.

I make the drill in several forms besides those here shown. The parts by which the feeding action is obtained are so simple and compact, that the drill may be made in any form which is adapted to the work to be done with it. Very respectfully, &c.

J. R. GROUT.

Birmingham, Oakland Co. Mich.

Models of the above improvements may be seen at the office of the R. R. Journal, 23 Chambers street, where further information may be obtained, or of Mr. Paul Grout, 27 Stanton street, who will dispose of the drill and patent as agent for the inventor.

ENGLISH RAILROADS.—One of the last London papers states that the aggregate receipts, since the first of January, on the principal public railways, amount, in round numbers, to £1,210,000, while last year it only reached £1,054,000, being an increase of £156,000 or about \$780,000, on the quarter.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
							Per share.	Per cent. per annum.				
Arboath and Forfar.....	15	102,000	35,000	138,870			0	12 6 2	10 0	25 27	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5 0 2	10 0	10 100	Barnsley Junction.....	200,000
Branding Junction.....	23	161,700	365,470	481,452					4 10 0	5 54	Belfast and Ballymena....	385,000
Bristol and Gloucester.....	37 1/2	400,000	211,000						nihil.	30 36	Blackburn and Accrington.	400,000
Chester and Birkenhead.....	14 1/2	750,000	143,170	518,989	5,856	13,148	0	8 6 1	14 0	50 32	Birk. and Ches. Junction..	1,000,000
Dublin and Drogheda.....	31	450,000	150,000	500,869					nihil.	55 72	Bolt., Wigan and Liverpool	800,000
Dublin and Kingston.....	6	200,000	152,200	359,000			6	0 0 6	0 0	100 166	Caledonian.....	1,800,000
Dundee and Arbroath.....	16 1/2	100,000	49,445	153,416	2,989	6,993	1	5 0 5	0 0	25 29	Cambridge and Lincoln....	1,250,000
Durham and Sunderland.....	18 1/2	169,350	124,055	270,392	9,889	17,702			nihil.	34 29	Chatham and Portsmouth...	5,000,000
East County and North and East.....	86 1/2	4,443,200	1,341,155	3,931,905	47,385	118,726	1	6 6		45 57	Chester and Wrexham.....	120,000
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1	2 6 4	10 0	50 57	Churnet valley.....	1,800,000
Glasgow, Paisley and Ayr.....	51	937,500	1,066,951	1,244,666	11,572	23,177	0	5 0	2 0 0	25 12	Direct Northern to York...	4,000,000
Glasgow, Paisley and Greenock.....	22 1/2	650,000	216,666	787,884	84,309	195,080	5	0 10 0	0 0	100 210	Dublin and Belfast.....	950,000
Grand Junction.....	104	2,478,712	2,453,169		12,201	36,189	1	12 6	3 5 0	100 119	Dundee and Perth.....	250,000
Great North of England.....	45	969,000	581,017	1,262,518	132,235	369,904	3	10 0	7 0 0	75 138	Edinburg and Northern...	800,000
Great Western.....	221 1/2	4,650,000	3,679,343	7,272,539	68,457	150,469	1	12 6	6 10 0	41 73	Ely and Bedford.....	270,000
Hartlepool.....	15 1/2	438,000	155,540	719,205	15,397	58,162	1	0 6	5 0 0	40 48	Glasgow, Dum. & Carlisle.	1,300,000
Leicester and Swannington.....	16 1/2	140,000	140,000		26,499	73,947	4	0 0	4 0 0	100 105	Gt. South and West Ext....	1,200,000
Liverpool and Manchester.....	32	1,200,000	497,750	1,739,835	8,585	21,140	2	2 0	4 10 0	93 110	Harwich and E. coun. Jun.	160,000
Llanelli.....	27	200,000	44,000	221,624	9,071	37,794	2	10 0	6 16 8	100 104	Huddersfield & M. r. & c.	60,000
London and Birmingham.....	12 1/2	6,874,976	1,928,845	6,393,468	46,653	156,761			7 1/2 & 10 1/2	60 88	Kendal and Windermere...	125,000
London and Blackwall.....	3 1/2	804,000	266,000	1,315,640	8,509	18,414	0	0 0	6 5 0	100 55	Leeds and Dewsbury.....	400,000
London and Brighton.....	56	1,793,800	998,350	2,630,451	8,943	18,466			2 0 0	50 37	Leeds and Thirsk.....	800,000
London and Croyden.....	8 1/2	550,000	229,000	761,885	9,071	37,794	2	10 0	6 16 8	100 104	Liv. Ormskirk and Preston	600,000
London and Greenwich.....	3 1/2	759,383	233,300	1,040,930	15,397	58,162	1	0 6	5 0 0	40 48	London and Portsmouth...	1,750,000
London and South Western.....	92 1/2	2,222,100	630,100	2,596,291	40,993	81,482	0	10 6	2 2 0	50 39	London and York.....	5,000,000
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	8,509	18,414	0	0 0	6 5 0	100 55	Londonderry & Enniskillen	500,000
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2	2 0	4 10 0	93 110	Lynn and Ely.....	200,000
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761			7 1/2 & 10 1/2	60 88	Manchester, Bury and Ross	300,000
Midland railway.....	178 1/2	5,158,900	1,719,630	6,279,056	76,933	281,898			7 1/2 & 10 1/2	60 88	Manchester and Buxton....	250,000
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947	4	0 0	4 0 0	100 105	Mullingar and Athlone....	
Newcastle and Darlington.....	23	500,000	405,728		26,499	73,947	4	0 0	4 0 0	100 105	Newcastle and Berwick....	700,000
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466			2 0 0	50 37	Richmond & W. End Junc.	
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2	10 0	6 16 8	100 104	Scottish Central.....	700,000
Paris and Orleans.....	82	1,600,000	400,000	1,978,415	31,247	91,171			8 0 0	20 38	Sheffield and Lincolnshire.	650,000
Paris and Rouen.....	84	1,440,000	179,852	355,161	4,191	7,066			nihil.	50 18	Shrewsbury and Gd. Junc.	400,000
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066			nihil.	50 18	Shrew. Wolv. Dudley & B..	900,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876			nihil.	82 93	Trent Valley.....	900,000
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0	10 6	2 2 0	50 39	West London Extension...	64,000
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	0	0 0	6 5 0	100 55	West Yorkshire.....	1,000,000
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0	15 0	5 1 8	29 37	Whitehaven and Maryport	100,000
Yarmouth and Norwich.....	20 1/2	187,500	62,500	230,250					nihil.	16 25	Boulogne and Amiens....	1,500,000
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2	10 0	10 0 0	50 100	Central of France.....	1,280,000

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15 1/2	15 1/2	Loughborough.....	70	142 1/2	142 1/2	70	1140	
Anti Dry Rot.....	10,000	10	18 1/2		2	2	Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35		34 1/2	34 1/2	Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27 1/2	27	Mersey and Irwell.....	500	100	100	10		
Gt Western Steam Pav.....			100		25	25	Macclesfield.....	3,000	100	100	2 1/2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6 1/2	6 1/2	Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1 1/2	1 1/2	Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental..	11,493	50	50	7	64 1/2	65	Regents or Loncon.....	21,418	33 1/2	33 1/2	2 1/2	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....				6			Somerset coal.....	800	150	150	7 1/2	123	123
Reversionary Int. Soc.....	5,300	100	100	4 1/2	104	104	Stafford and Worcester	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36 1/2	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7 1/2	10	15	15	Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Seyern & Why & Rail Av.	3,762	26 1/2	26 1/2	5 1/2	30	30
							Trent and Mersey.....	2,600	50	50	65	495	
							Thames and Medway.....	8,149	19 1/2	19 1/2		10	10
							Warwick and Birmingham.	1,000	100	100	10 1/2	167	
							Warwick and Napton.....	980	100	100	8 1/2	122	

Canals.

Ashby de la Zouch.....	1,432	113	av.	4	70	70
Barnsley.....	720	100	100	14	180	180
Birmingham, 1-16 share..	3,000	118 1/2	79	10	150	160
Do. and Liverpool Junction	4,000	160	100		13 1/2	13 1/2
Coventry.....	500	100	100	20	365	365
Cromford.....	460	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forth and Clyde.....	1,297	400 1/2	40 1/2	4	440	440
Grand Junction.....	11,600	100	100	7	162	161 1/2
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Rerkley....	5,000	do.	do.		8	8
Grantham.....	749	150	150	8	185	185
Lancaster.....	11,699	47 1/2	47 1/2	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	640
Leicester.....	545	41	140	9	139	139

Water Works.

Birmingham.....	4,800	25	25	3 1/2	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7 1/2	88	90
New River L. B. Ann.....	1,500			2 1/2		
Manchester and Salford....	6,486	av.	30	8 1/2	57	57
Vauxhall, lt. S. London....	1,000		100	5	55	55
West Middlesex.....	8,294	av.	63 1/2	6 1/2	126	127

Docks.

Commercial Dock.....	1,065	100	100	3	10	10
East and West India.....		sto.		5 1/2	137	
London.....	3,238,310	sto.		4 1/2	114 1/2	115
St. Katharine.....	1,352,752	sto.		5	116	171
Southampton.....	7,000	50	50			

AMERICAN STATE WORKS AND CANALS, ETC.

STATE WORKS.	Length in miles.	Cost.	1843.		1844.		REMARKS.
			Income.	Expend.	Income.	Expend.	
N. Y. 1 Black river canal.....	35	1,524,967	.....	.....	.....	.....	The State Canals are all 4 feet deep, and the locks are 13 to 17 feet wide, and 80 to 90 feet in length. The six millions paid to the canal fund from auction and salt duties are not included in the estimate of cost. The Genesee valley and the Black river canals require large sums for their completion, the interest of which <i>additional sum</i> is much greater than the estimated gross income of these canals when finished. The sums required to complete these two canals are \$2,000,000 and \$600,000, making their total cost when finished \$5,553,000 and \$2,409,000; an expenditure incurred on estimated incomes (admitted to be liberal,) of \$39,000 and \$14,000 respectively. The total receipts from the works of Pennsylvania for 1843 were \$1,019,401; for 1844 \$1,161,326, and the cost about 30 millions. The receipts for 1844 were as follows: Canal tolls, 578,404 Railroad tolls, 252,855 Motive power, 319,590 Trucks, 13,477 of which \$585,922 is from 118 miles of railroad, and \$578,404 from 550 miles of canal. The canals of Ohio are supported by a property tax of 5¢ mills on the dollar. There are 853 miles of canal in the State, which yielded in 1843 \$471,623, and in 1844 \$515,393, the cost, 1st Jan. '43 being \$15,577,233. The increase of '44 over '43 is only \$43,770, though the year '44 has exhibited a greater increase throughout the country than ever before known. These 21-millions on sundry works yield no income whatever. The central railroad yields above 6 per cent., and is the only State work—the Erie canal excepted—which is able to stand alone.
" 2 Cayuga and Seneca.....	21	237,000	16,557	10,953	24,618	14,443	
" 3 Champlain canal.....	64	1,251,664	102,308	.....	116,739	.....	
" 4 Chemung.....	23	684,600	8,140	14,486	14,385	12,740	
" 5 Chenango.....	97	2,420,000	16,195	15,967	22,179	15,960	
" 6 Crooked lake.....	8	156,777	461	3,674	1,498	3,951	
" 7 Erie—enlargement of.....	363	12,648,852	1,880,316	.....	.....	.....	
" 8 Genesee valley.....	120	3,739,000	.....	.....	.....	.....	
" 9 52 miles opened, cost \$1,500,000.....	.....	.....	12,292	13,819	19,611	15,557	
" 10 Oneida lake.....	6	50,000	225	2,239	621	1,636	
" 11 Oswego.....	38	565,437	29,147	22,742	56,165	28,599	
Pa. 12 Beaver division canal.....	25	.....	.....	.....	7,381	5,386	
" 13 Delaware canal.....	60	.....	.....	.....	109,278	22,870	
" 14 French creek.....	45	.....	.....	.....	.....	.....	
" 15 Seneca river towing path.....	.....	69,276	.....	.....	381	.....	
" 16 Columbia railroad.....	82	.....	.....	.....	443,336	205,067	
" 17 Eastern division.....	36	.....	.....	.....	179,781	138,915	
" 18 Juniata canal.....	93	.....	.....	.....	.....	.....	
" 19 Portage railroad.....	130	.....	.....	.....	351,102	248,943	
" 20 Western division canal.....	105	.....	.....	.....	.....	.....	
" 21 North branch Susquehanna canal.....	73	.....	.....	.....	101,949	57,633	
" 22 West " ".....	72	.....	.....	.....	.....	.....	
Ohio 23 Hocking canal.....	56	975,130	4,757	.....	5,286	4,139	
" 24 Miami canal.....	85	1,660,742	68,640	38,826	77,844	22,341	
" 25 Miami extension.....	105	2,836,636	8,291	.....	12,723	14,741	
" 26 Miami northern division.....	35	322,000	.....	.....	unfin'd.	.....	
" 27 Muskingum.....	91	1,627,318	23,167	.....	29,385	15,027	
" 28 Ohio.....	334	4,600,000	322,754	123,398	343,711	113,210	
" 29 Wabash.....	91	3,028,340	35,922	6,400	48,589	12,817	
" 30 Walhonding.....	25	607,269	838	39,005	1,977	1,238	
" 31 Western road.....	31	255,015	7,254	1,782	8,747	2,929	
Ind. 32 Sundry works.....	.....	11,000,000	.....	.....	.....	.....	
" 33 Maumee canal.....	.....	.....	.....	.....	.....	.....	
Ill. 34 Sundry works.....	.....	10,000,000	.....	.....	.....	.....	
Mich 35 Central railroad.....	110	1,842,308	149,987	75,960	211,170	89,420	
" 36 Southern railroad.....	68	936,295	24,064	7,907	60,341	70,000	

CANALS.	Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
			Gross.	Nett.		Gross.	Nett.			
Blackstone.....	.....	.....	.....	.....	.....	.....	.....	.....	We may, perhaps, at some future time be enabled to give the particulars of all these canals. The Chesapeake and Ohio canal is not yet completed to the coal mines, hence its trifling income. The enlargement of the Schuylkill canal has been commenced. The Morris canal was lately sold for one million, about one-fourth of its cost. It is said in the papers that it is to be enlarged. We have seen no report, nor heard of the appointment of any engineer.	
Bald Eagle Navigation.....	25	400,000	.....	.....	.....	.....	.....	.....		
Beaver and Sandy, (part).....	.....	1,000,000	.....	.....	.....	.....	.....	.....		
Charleston, (S. C.).....	.....	.....	.....	.....	.....	.....	.....	.....		
Chesapeake and Ohio.....	184	12,370,470	47,637	.....	.....	.....	.....	.....		
Conestoga.....	12	300,000	.....	.....	.....	.....	.....	.....		
Delaware and Chesapeake.....	13	.....	.....	.....	.....	.....	.....	26		
Schuylkill.....	108	3,500,000	279,795	102,221	190,693	120,624	.....	31		
Farmington.....	.....	.....	.....	.....	.....	.....	.....	.....		
James river and Kenhawa.....	.....	.....	.....	.....	.....	.....	.....	.....		
Middlesex.....	.....	.....	.....	.....	.....	.....	.....	.....		
Port Deposit.....	10	200,000	.....	.....	.....	.....	.....	.....		
Delaware and Raritan.....	43	2,900,000	99,623	53,327	131,491	84,455	.....	.....		
Southwark.....	.....	300,000	.....	.....	.....	.....	.....	.....		
Tide Water.....	45	2,900,000	.....	.....	.....	.....	.....	.....		
Union.....	80	2,000,000	.....	.....	.....	.....	.....	.....		
Morris.....	101	1,000,000	.....	.....	.....	.....	.....	28		
Dismal Swamp.....	.....	.....	.....	.....	.....	.....	.....	.....		

CANADIAN CANALS.	Length in miles.	No. of locks.	Lockage in feet.	Size of locks.			Width of canal.		Estimate.	Expended to Sept. 1843.	Income.	
				Length of chamber.	Width.	Depth on mitre sill.	Bottom.	Surface.			1843.	1844.
The Welland canal.....	.....	.....	.....	feet.	feet.	feet.	feet.	feet.	3,948,572	2,485,572	64,658	.....
{ Main trunk from Port Colborne to Port Dalhousie.....	28	31	328	150	26 1-2	8 1-2	45	81	.....	.....	.....	.....
{ Junction branch to Dunville.....	21	1	6	150	26 1-2	8 1-2	35	71	.....	.....	.....	.....
{ Broad creek branch to Port Maitland.....	1 1-2	1	6	200	45	9	45	85	.....	.....	.....	.....
The St. Lawrence canal.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
{ Galops and Port Cardinal.....	2	2	7	200	45	9	50	90	.....	.....	.....	.....
{ Rapid Plat.....	4	2	11 1-2	200	45	9	50	90	672,498	973	.....	.....
{ Farren's point.....	3-4	1	3 1-2	200	45	9	50	90	.....	.....	.....	.....
Cornwall, passing the Long Sault rapids.....	11 1-2	7	48	200	55	9	100	150	865,372	1,665,663	.....	.....
Beauharnois, do. Coteau, Cedars and Cascades road.....	11 1-4	9	82 1-2	200	45	9	80	120	1,190,087	275,426	.....	.....
Lachine, do. Lachine rapids.....	8 1-2	5	44 1-2	200	45	9	80	120	old canal.	400,000	29,288	.....
Elargement of do.....	.....	.....	.....	.....	.....	.....	.....	.....	1,001,333	64,439	.....	.....
Total from lake Erie to the sea.....	12	57	525	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chambly.....	66	9	74	120	24	6	36	60	200,000	440,000	1,409	.....

COAL COMPANIES.	Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
			Gross.	Nett.		Gross.	Nett.			
Delaware and Hudson.....	16 108	2,800,000	930,203	196,702	10	.....	.....	.....	130	.....
Lehigh.....	20 72	6,000,000	.....	.....	.....	.....	.....	.....	31	.....

AMERICAN RAILROADS.													SALES.		
Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843. Income.		Div. per cent.	1844. Income.		Div. per cent.	Previous prices.	Week ending June 15th.	
							Gross.	Nett.		Gross.	Nett.			Shores.	Price.
N. H.	1 Portland, Saco and Portsmouth.	50	1,200,000				89,997	47,166	7	131,404	62,172	6	102	58	103
"	2 Concord.	35	750,000									12	65½	5	65
Mass.	3 Boston and Maine.	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	117		
"	4 Boston and Maine extension.	17 1-4	455,703	unfin.											
"	5 Boston and Lowell.	26	1,863,746				277,315	144,000	8	316,909	147,615	8	121½		
"	6 Boston and Providence.	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	113	20	113
"	7 Boston and Worcester.	44	2,914,078				40,131	162,000	6	94,588	34,944	7½	119½	5	119½
"	8 Berkshire.	21	250,000	not stated.				17,500	7	17,737					
"	9 Charlestown branch.		280,260						13	34,654	13,971	5½	75½		
"	10 Eastern.	54	2,388,631				279,563	140,595	6	337,238	227,920	8	112½	20	112½
"	11 Fitchburg.	50	1,150,000	just opn'd						42,759	26,835		122½	18	123½
"	12 Nashua and Lowell.	14 1-2	380,000				84,079		8	94,588	34,944	10	124		
"	13 New Bedford and Taunton.	20	430,962				50,671	24,000	6	64,998	24,000	6			
"	14 Northampton and Springfield.		172,883	unfin.											
"	15 Norwich and Worcester.	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,461	3	73	7,290	72½
"	16 Old Colony.		87,820	unfin.									108½	10	106½
"	17 Stoughton branch.	4	63,075	unfin.											
"	18 Taunton branch.	11	250,000					20,000	8	96,687	20,000	8	118		
"	19 Vermont and Massachusetts.														
"	20 West Stockbridge.	3	41,516	200		100						4			
"	21 Western, (117 miles in Mass.).	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	104½	2	103½
"	22 Worcester branch to Milbury.		8,431	506											
"	23 Housatonic, (10 months).	74	1,244,123							150,000			27½	315	29½
Con	24 Hartford and New Haven.	38	1,100,000	100,000	10,000	100						6	95		
"	25 Hartford and Springfield.	25 1-2	600,000	400,000	2,000	100									
"	26 Stonington, (year ending 1st Sept.).	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		32	4,060	30½
N. Y.	27 Attica and Buffalo.	31	336,211				45,896	7,522		73,248	48,033	0			
"	28 Auburn and Rochester.	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	108		
"	29 Auburn and Syracuse.	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
"	30 Buffalo and Niagara.	22	200,000		1,500								100		
"	31 Erie, (416 miles.)		5,000,000										30½	830	29½
"	32 Erie, opened.	53						48,000		126,020	59,075				
"	33 Harlem.	26	1,206,231							140,685	62,399		70½	960	67½
"	34 Hudson and Berkshire.	31	575,613			50				35,029	1,789	0	14		
"	35 Long Island.	96	1,610,221	392,340	29,846					153,456	58,996	0	72	3,234	71½
"	36 Mohawk and Hudson.	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	59	680	57½
"	37 Saratoga and Schenectady.	22	303,658				42,242	3,000	1	34,666	8,455	0			
"	38 Schenectady and Troy.	20 1-2	640,800				28,043			32,646	6,365	0			
"	39 Syracuse and Utica.	53	1,115,897	none.	16,000	63½	163,701	72,000		192,061	120,992	8	135	50	115½
"	40 Tonawanda.	43	727,332				76,227			114,177	75,865	5			
"	41 Troy and Greenbush.	6	180,000												
"	42 Troy and Saratoga.	25	475,801				44,325	21,000		38,502	9,971	2½			
"	43 Utica and Schenectady.	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,091	8	129	242	131
N. J.	44 Camden and Amboy.	61	3,200,000				682,832	383,880		784,191	404,956		110		
"	45 Elizabethtown and Somerville.	26													
"	46 New Jersey.	34	500,000										94		
"	47 Paterson.	16	2,000,000									6	87		
Pa.	48 Beaver Meadow.	26	500,000												
"	49 Cumberland Valley.	46	1,000,000												
"	50 Harrisburg and Lancaster.	36	1,250,000										30		
"	51 Hazleton branch.	10	860,000												
"	52 Little Schuylkill.	29	120,000												
"	53 Blossburg and Corning.	40	900,000												
"	54 Mauch Chunk.	9	600,000												
"	55 Minehill and Schuylkill Haven.	18	100,000						12				77		
"	56 Norristown.	20	315,000										6½		
"	57 Philadelphia and Trenton.	30	800,000										104		
"	58 Pottsville and Danville.	29 1-2	400,000												
"	59 Reading.	94	1,500,000	7,447,570	40,200	50				597,613	343,511		51½	4,618	54
"	60 Schuylkill valley.	10	9,457,570												
"	61 Williamsport and Elmira.	25	1,000,000				20,000								
"	62 Philadelphia and Baltimore.	93	400,000				43,043	200,000			210,000		17½	6,940	17½
Del.	63 Frenchtown.	16	4,400,000												
Md.	64 Baltimore and Ohio, (1st Oct.)	188	600,000				575,235	279,402		558,620	346,946		50		
"	65 Baltimore and Susquehanna.	58	7,623,600										2½		
"	66 Baltimore and Washington.	38	3,000,000				177,227	71,691		212,129	104,529		84		
Va.	67 Greensville and Roanoke.	17 1-2	1,800,000												
"	68 Petersburg and Roanoke.	60	950,000							122,571	72,898	3			
"	69 Portsmouth and Roanoke.	78 1-2	969,880												
"	70 Richmond, Fredericksb'g and Potomac.	76	1,454,171							185,243	85,688	6			
"	71 Richmond and Petersburg.	22 1-2	800,000												
"	72 Winchester and Potomac.	32	700,000												
N. C.	73 Raleigh and Gaston.	84 1-2	500,000												
"	74 Wilmington and Raleigh.	161	1,360,000												
S. C.	75 South Carolina.	136	1,800,000							532,871	140,196	5			
"	76 Columbia.	66	5,671,452		34,410	75	201,464	77,456		328,425	180,704				
Ga.	77 Central.	190					227,532	93,190							
"	78 Georgia.	147 1-2	2,581,723				248,026	158,207		248,096	147,523				
"	79 Montgomery and West Point.	89	2,650,000	170,000		100				35,000	15,000				
Ky.	80 Lexington and Ohio.	40	500,000												
Ohio	81 Little Miami.	40	450,000												
"	82 Mad river.	40	400,000												
Ind.	83 Madison and Indianapolis.	56	152,000												
Can.	84 Champlain and St. Lawrence.	15	212,000							12,000	58,000	24,000	110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.

Thursday, June 19, 1845.

FOREIGN RAILWAY PERIODICALS.

We avail ourselves of the earliest opportunity to acknowledge the receipt of several numbers of the London Railway Record,—a valuable work, and an efficient laborer in the cause—in exchange for the Journal. We are the more desirous to acknowledge the favor, as it is not common for English papers and periodicals, we believe, to send in exchange to those of similar character on this side of the water, from the fact, perhaps, that they always pay a duty on each sheet sent out by them, equal to 1d. sterling, or more than some of our papers are sold for. We shall be gratified to exhibit the numbers to engineers and others who desire to read them; and we will cheerfully order them for such as would have them regularly as published, and forwarded by the steamers or packets.

In our efforts to obtain the French railway paper, the Journal des Chemins de Fer, we have been less fortunate, even though requested by its editor to send ours, and offering to send his in exchange. We wrote to him in reply, accepting his polite offer, and have sent ours, every number, since 1st of March last. Yet we have neither received his paper nor any acknowledgment of our letter; but it will come yet, we are sure. There must be some mistake, not design, in the delay: therefore we shall continue to send ours.

READING RAILROAD

The following interesting view of the increase of the coal trade over this important railway must gratify every friend of the railway system, particularly in this State, where this class of intercommunication, as compared with canals, has been abused in legislative reports in no measured terms. Even the capacity of a railway to carry bulky freight has been doubted. It may sound strange, at this day, to state that there have been men in this State, who should have known better, and some occupying the situation of directors, who have gravely contended that "railways were only fit to carry passengers,—they could not carry heavy or bulky freight." But how is the fact? It is notorious that the first railway established in England, was to carry bulky freight—coal of little comparative value. The stock of this road, (the Stockton and Darlington,) is now the most profitable in Great Britain, and divides 15 per cent. annually. In this country the case is much stronger. The first railway we constructed was to transport large masses of granite at Quincy, and is very profitable. There was also, we believe, a short road in this State, in Orange or Ulster county, to transport iron ore. Col. Stevens, in 1812, proposed to Gov. Morris, Gen. Schuyler and Gov. Clinton, a railway from the Hudson to Lake Erie, in preference to a canal, to carry

freight, and gave substantial reasons for his opinions, and made a near estimate of its cost. He was looked upon as little better than crack-brained. The Boston and Worcester, Lowell, Providence, and New Haven and Springfield railroads superseding as many canals in their day, tells the story of the onward march of this better improvement of intercommunication to carry freight as well as passengers. It has remained however for the Reading railway to demonstrate the superiority of a railway over one of the best canals in this country, which formerly divided above 20 per cent. For three years, we believe, it has intermitted its dividend, and cannot draw coal from the railroad, although it takes off all toll, in its competition with the railway, and guarantees freight at 65 cents per ton, 108 miles. J. E. B.

"The monthly report of the Reading Railroad Company for May, 1843, '44 and '45, presents the annexed statement of the receipts and business of the road.

PHILADELPHIA AND READING RAILROAD.

	May, 1843.	May, 1844.	May, 1845.
Receipts . . .	\$31,447 54	47,763 34	79,822 82
Coal transported, tons . . .	15,205	35,684	64,698

The business for May, 1845, has been considerably more than the maximum estimate. Up to June 1st, the coal tonnage is over the estimate—800,000 tons for the year—rising nine thousand tons. In connection with this very favorable report and the immense improvement these increased receipts must produce in the affairs of the railroad company, we give a report of the business on the Schuylkill canal, for one week in each of the past three years.

BUSINESS ON THE SCHUYLKILL CANAL.

Week ending June 10, '43.	June 8, '44.	June 7, '45.	
Coal transported, tons . . .	18,095	11,869	5,796

For the same week the coal transportation of the Reading Railroad was as follows:—

	1843	1844	1845.
Coal transported, tons . . .	2,388	8,796	18,871

It will be seen that these two works have changed places in the coal carrying trade of Eastern Pennsylvania. What the Schuylkill canal was, the Reading railroad will be, and judging from these returns, the Schuylkill canal will soon be what the Reading road was."

THE COAL TRADE.—SCHUYLKILL VALLEY.

The shipments this week amount to 25,940-01 tons; 20,191-07 by railroad, and 5,748-14 by canal, showing an increase by the former of 1,319-19, and by the latter 150-06 tons.

BY RAILROAD.

From Pottsville and Port Carbon—total.	94,879-10
From Schuylkill Haven—total . . . . .	140,227-11
From Port Clinton—total . . . . .	2,275-06

Total by railroad. . . . . 237,382-07

BY CANAL.

From Pottsville and Port Carbon—total..	43,516-19
From Schuylkill Haven—total tons . . . . .	9,818-06
From Port Clinton . . . . .	14,742 13

Total by canal. . . . . 68,077-18

Total by railroad and canal . . . . . 305,450-05

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.	
Summit mines, - - - - -	49300
Room run do., - - - - -	14889—61189
Beaver Meadow railroad and coal co.,	21088
From Penn Haven—Hazleton coal co.,	17835
From Rock Port—Buck Mountain coal co.,	5606
	108718

WYOMING COAL TRADE—total . . . . . 22,310

PINE GROVE COAL TRADE.—total . . . . . 18,748

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons. . . . . 149,514-17

MOUNT CARBON RAILROAD—total tons.. 90,699

GROUT'S FRICTION-DRILL.—We give in this number a description of an exceedingly useful and convenient instrument for railroad companies who have the flat bar rail in use—which may require additional holes to be made in it. Mr. John R Grou't, who has been for many years engaged as engineer on some of our western railroads, has made a Drill which can be carried in one hand anywhere, and by raising the rail half an inch, and turning a thumb-screw, it is made fast to the rail, when, with one hand upon a crank, a hole may be drilled through the rail in half the time required by the ordinary mode of doing such jobs.—A model may be seen at this office.

HARTFORD AND NEW HAVEN RAILROAD.—The receipts on this road (exclusive of mails) for May, 1845, were \$16,870 34  
 " " 1844, " 8,456 51

Receipts for the first six months since the completion of the extension road to Springfield, ending June 9th, 1845 . 100,291 80  
 Receipts for the corresponding months in 1844 . . . . . 48,060 66  
 Showing an increase of more than 100 per cent.—Hartford Courant.

The receipts on the Norwich and Worcester road for the first six days in June, show a gain of over six hundred dollars in the same six days of last year, although the fare now is about half what it then was. Very good evidence in favor of low fares.

At a meeting of the shareholders of the Norwich and Worcester Railroad Company, held in Norwich on the 2d instant, the following were chosen directors, viz.—John C. Holland, William P. Greene, and John A. Rockwell of Norwich; Alexander De Witt of Oxford; William Ward of Boston; Jacob Little, Alfred Brooks, Elihu Townsend, John Rankin, Samuel R. Brooks and David Groesback of New York; and A. W. H. Clapp of Portland. At a subsequent meeting of the Board, John C. Holland was chosen President of the company.

NORTHAMPTON RAILROAD.—The annual meeting of the stockholders of the Northampton and Springfield railroad was held at Boston, on Wednesday last. James K. Mills, E. H. Robbins, and Samuel Henshaw of Boston, Philip Ripley of Hartford, John Chase of Cabotville, Eliphalet Williams and Erastus Hopkins of Northampton, were unanimously re-elected directors.

We learn that the business of the road to Cabotville has fully answered all reasonable expectations. About 22,000 passengers were carried over the road in the first three months; and the net income of the road, after deducting the expenses of running, including all the expenses for repairs, &c. which, of course, must have been large, as they always are on a new road—was a little over nine per cent. on the cost of the road. These three months cannot, certainly, be regarded as more than a fair average of the business of the year. And it should be borne in mind, in estimating the net income of this road, that it is much more expensive, per mile, to run so short a stretch of road, than it is a road of fifteen or twenty miles in length.

It is hoped that the road will be completed to Northampton by "Thanksgiving-time." The grading and bridging is going on rapidly. The completion of the road, however, will depend upon the success of the directors in obtaining iron.—Hampshire Gaz.

Providence Railroad.—The report of its financial condition is flattering, exhibiting a net income of \$177,590 for the year past, or nearly ten per cent. on the capital. In the last six months there has been an increase over same period of 1844, of \$16,860 in receipts, and \$8,698 in expenses, so that the net increase is \$7,962.

*English Railroad Receipts.*—By the comparative weekly statement of twenty-four English railways, which we find in the New-York Herald,—being from home, and not having access to our own English papers,—we find but one, (the Glasgow, Paisley and Ayr.) which does not show a very fair increase; and some of them show a large increase, amounting to from £2500 to £3000 for the week.

The Herald very justly remarks, that

"The weekly returns of the railroads of Europe afford the best evidence of the productiveness of these works. The receipts of nearly every company in operation are very large, but the weekly increase is sufficient to create in the minds of those interested the most favorable anticipations for the future.

"The principal lines in Great Britain regularly declare the following dividends:

The Grand Junction Railroad 10 per cent. per annum.

The Great North of England, 6 per cent. per annum.

The Great Western, 8 per cent. per annum.

The Liverpool and Manchester, 9 per cent. per annum.

The London and Birmingham, 10 per cent. per annum.

The Midland, 6 per cent. per annum.

The York and North Midland, 10 per cent. per annum.

The Manchester and Birmingham, 5 per cent. per annum.

"These roads have been constructed at an expense far beyond any thing of the kind in this country, and notwithstanding the enormous running expenses, the dividends of some of them are very large.

"Very few of the railroads of the United States pay dividends equal to these, notwithstanding the great difference in the cost and current expenses in our favour, but in time, as our country improves, as population and business increases, as our resources become developed, the dividends of our works must steadily increase, until they become as large as those of similar works in any part of the world."

It is singular that, with such evidence constantly repeated before our eyes, we can be restrained from an immediate completion of the two great roads north and west from New-York. We see capitalists competing with each other for the State loan, at 6 per cent., reimbursable in seven or eight years, while they hesitate to take stock in a work which, when it shall have been completed two years, will not only pay 6 per cent. interest, but also, at the same time, reduce the cost of many of the necessaries of life, and greatly enhance the value of real estate in and around the city. "It is truly astonishing," as the Editor of the Herald says, "that we have diverging from this city two rail-

roads in an unfinished state, which might be made the most profitable lines in the Union. We refer to the Harlem and Erie railroads. The benefits this city would derive from a completion of these works are immense, and have been repeatedly and particularly represented, but so far without much effect." We hope, however, that the thousands, aye, the tens of thousands, will come forward now, and give these works a lift. One united effort only is requisite to put them in train. Let every man who has an interest at stake, come forward and take stock,—one or more shares, as he may be able—but one share at least,—and then they will be completed, when all will wonder how they could have been so long delayed.

#### FOREIGN CORRESPONDENCE OF THE RAILROAD JOURNAL.

The following letter from MAJOR POUSSIN, a distinguished engineer of France, and formerly, if we recollect correctly, a member of the U. S. Engineer Corps, under GEN. BERNARD, will be read with peculiar interest by our numerous subscribers, as it has been by ourselves, as the *introduction* to what we anticipate will prove to the Railroad Journal a valuable correspondence.

We are the more gratified in giving this, and promising more from the same source, as we hope thereby to become better acquainted, not only with the present condition and future prospects of the railway system in France, but also in Belgium, Holland, Prussia and Russia, and, indeed, in Europe generally. We are aware that the writer has as much upon his hands as ought to be asked of any man, yet when so much good may result to the cause in both countries, from a free interchange of reports, experiments, and results in each, through the columns of the Railroad Journal, we shall feel justified in, and cannot well refrain from adding to the labors of the gallant Major, to the extent, we hope and trust, of *at least one letter each month*, and as many more as he can favor us with.

In thus acknowledging our obligation to Major Poussin for his very acceptable letter, we desire also to acknowledge our indebtedness to Mr. S. W. Saltonstall, to whose kindness we are indebted for the favor.

[Foreign Correspondence of the Railroad Journal.]

PARIS, May 8th, 1845. }

No. 25 Boulevard Bonne Nouvelle. }

D. K. MINOR, New-York:

Sir—I have received your letter of the 29th March last, accompanied by numbers of the American Railroad Journal, for which I return you my most sincere thanks.

I shall endeavor, at my first leisure mo-

ment, to prepare for you a communication on our French railroads, and on the progress in general of the cause of railway concerns throughout Europe; and thus far, as much as it lies in my power, satisfy my friend Mr. Saltonstall's promise to you in my behalf.

I am for the present very much engaged with several lines of railroad in France, which take all my time, and oblige me to make frequent and long absences from the capital. Thus I am leaving town in a few days, for an absence of three weeks, but will try in the mean time to collect some matters that may prove interesting to you.

The railroad system, by private enterprise, has gained considerably in France of late, and there is all probability that this remarkable fever of the public for railway investment will not abate for some time to come.

This remarkable change in the French opinion is due in a great measure to the influence of the results obtained in England and in America. In these days, millions of francs are readily subscribed for these schemes, whereas, a few years ago, they were unwilling to enter into the support of them. There are not less than four or five companies already organized, each with a capital of from 165 to 200 millions of francs, to bid for the charter, or privilege, of making and working lines from Paris to Belgium; to Lyons and Marseilles; to Bordeaux and Cette; to Tours and Nantes; to Chartres, Laval and Brest; to Rouen, Le Havre and Dieppe, and many other lines of minor importance.

The Chambers, at their present session, will decide on the main lines; and most likely the secondary lines will be conceded at the next session, in 1846.

Meantime, great efforts are making among practical engineers to improve the mode of locomotion, by the introduction of various new systems; namely, the atmospheric, with French modifications for the valves; the compressibility of air, with stationary engines, two systems; in dilatation of hot air, with comparatively small expense of fuel, etc. Some attempts are also making for renewing the experimentation of locomotion by steam on common roads; and important improvements are offered for the *solidity* and security of trains on passing on small curves at high speed.

I call the particular attention of your readers to the scheme of running a line of railway from Paris to Brest, as interesting, directly, our American friends in various

points of view, but most particularly as offering a means of uniting more closely the interests of the two people, by the successful operation of steam navigation across the Atlantic, from a port of the United States to this great sea port of France—the only one facing to the western world which is completely out of all British influence in the eventuality of a war with that nation.

Renewing you my most sincere thanks for the interesting numbers of your valuable Journal, I remain, sir, very respectfully,

Your obedient servant,

GUILLAUME TELL POUSSIN,  
Major du Genie.

The Editor of the Portland Advertiser, under the head of "Facts for the Railroad", says:

We quote with interest further statements respecting the position and progress of the various railroads and canals in the Western States, or rather in those regions which constitute the basin of the St. Lawrence. This Basin is one of those vast receptacles of waters and streams, which distinguish the American continent almost beyond any similar geographical features on other parts of the globe. The fact that the natural outlet of this basin is by the far northern course of the St. Lawrence, sweeping away almost to the frozen regions of the arctic zone, shows plainly enough, that the products of the temperate and fertile region around its upper waters could never find a profitable nor convenient transit by that channel. The arrangements of creative Providence have fixed that natural course of the mighty river, unchangeable while the earth endures; but the same Providence has given to man the inventive genius and the creative power to open other channels and avenues for the supply of his wants, by which a secondary Providence, if we may so phrase it exalts art above nature itself. There is scarcely any subject of an industrial nature, which has more occupied the whole mind of the Northern States and of the chief British possessions for the last twenty years, than the efforts and contrivances to open artificial access to the basin of the St. Lawrence. The invention of railroads is all that was wanting to perfect those efforts and now it has become impossible to prevent the creation of an artificial outlet from that valley to the sea. The enterprize of making Portland the seaport of the St. Lawrence, has not been put off too long. The time had not come until now. Invention had not gone far enough before. Men had not before obtained the wisdom, which experience only can give, nor the creative energy, which the success of bold experiments inspires. The struggle, now going on throughout New England and New York—a struggle worthy of the time, and worthy of the noble prize, is to find and to have the best point and line, and to bring out and to pour out—not the waters of the St. Lawrence—but its vast and countless products, to the highway of the nations.

In the calculations and hopes of this effort, the position of Portland cannot be mistaken nor shaken, and the day is near at hand, when our own city will be a point of important interest to the settlers and traffickers upon the farthest waters of the Western Lakes. This is not—it cannot be—a fiction nor a speculation, nor a dream. The same power that has scooped the beds of the lakes, and marked out the channel of the St. Lawrence, has planted the rocky barrier which embosoms Portland harbor, and there they are, all in their great relation, which he who is wise may understand. Latitude and longitude cannot be falsified. Geographical distances are facts. "To the line and the plummet," is enough for us to say, and and none can gainsay it.

All the various efforts, therefore, which are making to perfect the communications in the regions of the lakes are of importance to us. In reference to the great work of the Illinois canal, connecting lake Michigan with the Illinois river, and thence with the Mississippi, we find the statement that effective operations will be immediately commenced under the new arrangement with the English bond holders, and a speedy completion of the work is expected. The Express says:—

"The trustees appointed by the bondholders of Illinois stock, to superintend the disbursement of the money contracted to be advanced by them for the completion of the Illinois and Michigan canal, will leave New York for Illinois on Monday next, the 9th inst. They will reach Chicago, the northern terminus of the work, in eight days thereafter. The trustees will remain on the ground till lettings are made, and the contractors commence operation. The work will be prosecuted with great energy and dispatch. Sixty miles of the line, from Juliet to the southern terminus at Peru, on the Illinois river, will be completed and in operation within six months; and it is expected that the whole line, from the Illinois river to lake Michigan, will be navigable within one year from November next."

When this work is completed, the central portions of Illinois will have a double outlet—to New Orleans or to New York and New England. Which way will their products go? Not all to the South, by any means.

We have before noticed the project for a railroad on the Canada side of lake Erie, from its eastern end near Niagara to a point near Detroit. Although we have expressed the opinion that this work is not of a primary class, either as regards its necessity or its value, traversing, as it would, a line parallel and near to lake Erie itself, yet it is proper to show what is thought of it by the responsible inhabitants of that region themselves. We have seen the proceedings of a public meeting at Hamilton, which indicate a good deal of interest, not only in Canada, but in Michigan, and a letter appears in the New York papers, conveying the following statements:—

"Among the many facilities and routes afforded at the present day in travelling from the eastern cities to the west, a new route is now in progress; I allude to the Great Western Railroad from the Niagara river to this place. You are probably aware that at the late session of the Canadian Parliament a charter was granted for the construction of a railroad "from the Niagara river to the Detroit river." A public meeting was held at Hamilton, Canada West, on the 15th inst., and the stock was at once eagerly taken up. No public work ever yet undertaken, either in this state, or leading to it, promises to be so advantageous as this railroad through Canada. In the winter the entire western travel to and from the east, will make this city the great thoroughfare.

"Another advantage which will accrue upon the completion of this road, will be the great increase of travel; thousands of families are every year deterred from coming West, by the dangers of our lakes; this route will be a short cut over land, and all dangers of shipwreck, &c. avoided."

The same writer has the annexed statements respecting another important work farther up the lakes:

"It is a matter of deep regret that the Government of the United States has not long ere this made the ship canal around the falls of Sault de Ste. Marie—the rapids in the river constitute the only impediment to the connection of the vessel navigation of lake Superior with that of lakes Huron, Michigan and Erie. In 1837, a survey was made by the Hon. John Almy, an engineer in the employ of the state of Michigan, and the estimated cost was \$112,544. Another was made in 1843 by Col. J. J. Albert, of the United States Topographical Department, amounting to \$454,107.

"The difference between the two estimates arose principally from difference of dimensions in the two plans, and from those considerations which belong to a canal adapted to steam navigation, and to the active trade which the canal would have to accommodate.

"The total length of the canal from water to water is about 4400 feet. The difference of level between lake Superior and lake Huron is about twenty-one feet—which can easily be overcome by three lifts. The deep interest which is now awakened by the success of the copper mines on lake Superior, and the increase of shipping in this great inland sea, will, it is hoped, induce the next Congress to make an appropriation for a ship canal deep enough to admit our largest lake craft, &c."

☞ Cattle now ride to market and thus save quite a per centage of fat, which, under the old process of driving, was walked off.

RAILWAY BUSINESS.—No one who does not pass frequently over the Worcester or Western railroad, or visit the immense merchandise depot at South Cove, can have any conception of the amount of freight, of almost every description, which daily passes

over the great western line of railway. Figures give an inadequate impression of this traffic; and nothing short of actual observation can convey any idea of the vast capacity of a railway, both for speedy and extensive transportation. Notwithstanding the quantity of freight and the amount of passengers which at present constitute the traffic of the Worcester and Western railway, the Business in both respects might easily be doubled or quadrupled, with but, comparatively, a trifling increase of motive power. Even the great business already done upon this line of communication with the western interior, has hardly begun to develop the capacity or expansive power of a railway.

We do not know the average quantity of freight which is daily carried over the Worcester railroad; but we have every day occasion to be astounded at the moving masses of matter, inanimate and animate, which are constantly changing locality, in utter defiance of time and space. The long trains of merchandize cars—often numbering fifty—which are almost constantly passing and repassing upon this road, are unceasing objects of amazement. The downward trains teem with the products of the great west, which in increasing quantities are finding their way to our market; the *living* merchandize—horned cattle, sheep, and hogs, which in the march of improvement now *ride* to the slaughter—forming a very considerable item of transportation. The upward trains are loaded with the fruits of our manufactures, among which we daily notice large quantities of eastern lumber, coal &c.; and lately the western trains are returning their compliment of animate matter. The merchandize cars may now frequently be seen stocked with foreign emigrants, Boston having become the best landing place for them, in consequence of the ease, cheapness and rapidity with which they can hence be conveyed westward, towards the great goal of emigration.—*Boston Traveller.*

#### RAILROAD CONVENTION.

• We find in the Windsor, Vt., Journal of last week, the following account of the proceedings of the convention held at that place on the 11th inst. There can be no mistaking the spirit of the people of the Connecticut river valley on this subject. But they have now talked, and assembled, and resolved enough, and they must now, every man of them, put their hands into their *own*, not their neighbor's pocket; select a competent and faithful engineer, who will locate the road where it *should* be, rather than where it will serve this or that particular interest, at the expense for all time of the public interest and convenience. Look first for the *best* location—then to individual interest afterwards.

“In pursuance of notice previously given, a convention of delegates from the several towns interested in the construction of a

railroad along the valley of the Connecticut river, was held at the court-house, in this village, June 11th, 1845.

The business committee made the following report and recommended the passage of the accompanying resolutions, which, after being discussed by Messrs. Hopkins, Elliot, and Price, were unanimously adopted:

Your committee, as preliminary to a recommendation of business for the specific action of this convention, would respectfully submit the following facts and inferences for its consideration:

The legislature of Vermont, at its session in the autumn of 1836, with a view to facilitate communication in the valley of the Connecticut, various schemes having this for their object having previously failed, incorporated a company under the title of the Connecticut and Passumpsic rivers railroad company, with a more than usual liberal grant of power, to construct a railroad from the south to the north line of the state of Vermont, up the valley of the Connecticut and Passumpsic rivers.

At the same session, a grant of \$3,000 was made for a survey of the route, and commissioners were appointed to superintend the same. During the following year, a survey was commenced and completed by Prof. Twining, of New Haven, and the route found to be favorable for a road, both in regard to grade and cost of construction. In the mean time, active and vigorous measures were taken by the citizens of the valley to procure the accomplishment of this enterprize.

Immediately followed the commercial derangement of 1837, and under the pressure of the distress and embarrassment of that eventful period this enterprize, with most others of a similar character, was for the time suspended.

In the mean time, and before the revival of trade, a line of road from Boston, already completed to Nashua, N. H., was extended to Concord, in that state, and another line of road from Boston to Fitchburg, Mass., was determined upon, both reaching towards the valley of the Connecticut, and seeking an extension thence to lake Champlain and the vast regions of country north and west of that lake, and each endeavoring to anticipate the other in extension, hoping thus to secure to itself the travel and freight, not only of western New Hampshire, Vermont, and northern New York, but also that of the Canadas and the far north-west, and each relying for the means of extension upon the capital of Boston, which city, long distinguished for unity of purpose and far-sighted enterprize on the part of its citizens, under the impulse of a business vastly increased by the opening of the Western road and the establishment of the Cunard line of steamers, was pushing forward enterprises of this description with a boldness, a method, and a munificence alike wonderful and praiseworthy.

In view of this state of things, it was not wonderful that the citizens of the valley of the Connecticut, laboring under the great

disadvantages to which they had been subjected by the opening of the Western road, should naturally look to the extension of one or both of these roads, as likely to afford, most speedily, an opening to market, and that, too, in point of distance, sectional ties, and consequent sympathy to the market of their choice.

It became at once a matter of great importance to determine what extension should be made. Four great routes—two from Concord and two from Fitchburg—were warmly advocated by their friends respectively. One of these routes was from Concord, via Haverhill and Stanstead, to Montreal. Another from the same terminus, via Lebanon and Montpelier, to lake Champlain. Another from Fitchburg, via Keene and Rutland, to the lake; and the fourth, was from Fitchburg, via Brattleboro' and Rutland, to the lake. The legislatures of Massachusetts, New Hampshire, and Vermont granted charters under which either or all of such extensions might be made; and until very recently, public attention in the states of Vermont and New Hampshire has been wholly absorbed in the various schemes for the extension of these two lines of road.

During last year, an extension of the Fitchburg road was secured, on the more southern route, as far as Brattleboro', and within the last two months the capital stock has been taken in another extension of the same road, via Keene, to Bellows Falls, with a confident expectation on the part of the public that the same line, if extended at all, would be extended to the lake, via Rutland. In the mean time, the river line of road was progressing north, from New Haven, by reaches. It had been extended to Springfield. From thence to Northampton it was in progress of construction, and from Northampton to Greenfield, a company had been incorporated and the stock nearly all subscribed, which last extension, in connection with the extension of the Fitchburg road to Brattleboro', will furnish a continuous line of road from New Haven to Brattleboro', wanting, at most, some 6 or 7 miles. Thus, then, about two months since, a line of road from New Haven to Brattleboro', and also a line of road from Boston to Bellows Falls, had become matters of certainty, with a probable extension of the latter to Burlington, via Rutland.

Such was the aspect of railroad movements in the valley of the Connecticut, at the origin of the movement of which this convention is the result. It was believed, with a line of road from the valley below to Boston, reaching towards western Vermont, in connection with the line from New York, it only needed a road from Brattleboro', up the valleys of the Connecticut and Passumpsic to perfect the system, accommodate the entire state of Vermont, as well as western New Hampshire, and give to both an opening east and south, and of consequence to the principal markets in the United States.

It was in view of such a state of things, and to secure, if possible, such results, that



an appeal was made to the various interests in the valley of the Connecticut, to reunite their energies and to co-operate in a general movement to effect this great enterprise, with what success the call for this convention bears testimony. Hitherto, there have been strong indications along almost the entire valley to press forward to the accomplishment of this object.

But your committee would further report, that within the last few days our prospects have assumed a new aspect. Arrangements have been entered into, which, if carried into effect, will materially affect the enterprise which this convention has met to promote.

The legislature of Vermont, at its session in 1843, incorporated a company under the title of the "Vermont Central Railroad Company," to construct a road from lake Champlain up Onion river to Connecticut river, to connect with either the Concord or Fitchburg line, extended, and with a grant of power and privilege, in the opinion of your committee, unprecedented in the legislation of New England. In public estimation, until recently, this charter was to be used in the extension of the Concord line. The efforts of the friends of the Vermont central route have, until a very late date, favored that extension. By a circular, addressed to the public, signed by committees of the Fitchburg and Vermont Central companies, and respectively, by several gentlemen connected with the Pittsburg and Cheshire companies, and other prominent railroad men, it appears, that by a bold and wise stroke of policy on both sides, an arrangement has been entered into, in terms to effect a connection direct between the Cheshire and Vermont Central companies, having for its object the extension of the Fitchburg line, via Montpelier, instead of Rutland. If this arrangement is carried into effect, it will give a road along the banks of the Connecticut for a distance of fifty miles, viz., between Westmoreland, N. H., and Hartford, Vt., occupying so far the route of the river road, and during a very considerable part of the distance, the very ground upon which the river road would of necessity be constructed, and if both projects should be pushed forward, resulting in a conflict of interests.

The committee would, therefore, respectfully recommend to the convention the assumption of no idle ground of opposition to the proposed arrangement; but that it take such action as to place the friends of a river road in such position as hereafter, at any time, most readily to avail themselves of circumstances favorable to their favorite project.

The committee would, therefore, beg leave to report the following resolutions:

Resolved, That the commissioners under the Connecticut and Passumpsic railroad charter be requested to take all measures necessary to the opening of books for subscriptions to its capital stock, according to the notice given.

Resolved, That a committee of six persons be appointed, with power to add indefinitely to their number, and with full authority, in connection with said commis-

sioners, if a connection shall not be formed between the Cheshire and Vermont Central companies, as proposed, to take such measures as they may deem best, to secure the accomplishment of the Connecticut and Passumpsic enterprise.

VERMONT CENTRAL RAILROAD.

The engineer of the Fitchburg railroad (says the Bunker Hill Aurora,) having reported to the board of directors in favor of the Vermont Central Railroad, from Connecticut river to lake Champlain, after the discussion of the subject for one week, and a full hearing of the question, the board voted on Wednesday last, unanimously, to accept said report, and accordingly recommend the construction of that road to the public. The reasons given for this decision will be found in the following

CIRCULAR.

Great Central Route from Boston, via Fitchburg, Keene and Montpelier, to Lake Champlain, Northern New York and Montreal.

The proposed railroad routes, designed to connect the city of Boston with Vermont, lake Champlain and Canada, having been examined, with a view to concentrate public opinion on one route and insure its completion with all possible despatch, the undersigned have come to the conclusion that the Fitchburg, Vermont and Massachusetts, and Cheshire railroads, with the Vermont Central railroad, extending from the Cheshire railroad, on Connecticut river, via Montpelier, to Burlington, is the best and most feasible route, and we recommend it to the public for the following reasons, viz:

1st. Because the Fitchburg railroad is finished and in successful operation; the Stock of the Vermont and Massachusetts and Cheshire railroads, (continuous lines) actually subscribed, so far as to insure their completion, and an entrance into Vermont, and under the SINGLE CHARTER of the Vermont Central railroad, the line may be extended from such entrance to Lake Champlain.

2d. Because the Central railroad is the most practicable route through Vermont, having through its whole extent no gradient exceeding fifty feet to the mile, while the soil is of such a character that it may be constructed with more facility, than any other line, and at a very moderate expense.

3d. Because the Green Mountain summit on this line is depressed more than four hundred feet below the summit of the other lines surveyed.

4th. Because the line traverses one of the most fertile and productive sections of the valley of the Connecticut, abounding in wealth, manufactures, and unoccupied water power.

5th. Because it opens in addition a large and populous district of country, abounding in minerals, agriculture and industrial resources.

6th. Because the local business of the route is sufficient to insure the success of the undertaking.

7th. Because its route, easy gradients,

moderate cost, and large local traffic, aiding its through business, must insure its extension to Montreal, and secure to it the immense through business between northern N. Y., Canada and Boston, which bids fair to exceed the traffic of the Western railroad.

8th. Because the route will open communication to Boston without forming a common line towards a rival market.

9th. Because its charter is equally favorable to those embarking their wealth in the proposed enterprise, authorizing, as it does, dividends of over ten per centum per annum, exempting the stock and property of the company forever from taxation, besides presenting other important advantages.

Because, for the foregoing reasons, it is certain the capital necessary for its construction may be easily obtained, as it must prove one of the most productive railroads in the country.

*Safety of French Railroads.*—An exact return from the office of the Minister of Public Works, relating to accidents on railroads, exhibits these results of the first six months of 1844. On the six railroads terminating in Paris, and of which the total length is 340 kilometres—about 220 miles—there passed, from 1st January to 30th June, 18,426 trains, conveying 1,889,718 persons; the distances travelled were 510,523 kilometres, or about 127,254 leagues; and during that time and on these long routes, not a single traveller sustained any injury. Only three persons were hurt, and they were all agents of the company.

This certainly presents a remarkable illustration of the security to human life of this mode of locomotion. It is rendered still more remarkable by the comparative statement subjoined, of the disasters in Paris during a period of seven years caused by carriages:

Year.	Wounded.	Killed.
1834.....	134.....	4
1835.....	214.....	12
1836.....	220.....	5
1837.....	361.....	11
1838.....	366.....	19
1839.....	334.....	0
1840.....	394.....	14

*Important Discovery in Manufacturing Iron.*—The New Haven Palladium states that Mr. W. C. Green, of New Jersey, at the Boston iron works, has made an improvement in the process of puddling the iron from the pig to the bar. Instead of using the pig iron, which costs about \$35 the ton, he is enabled to use a large portion of the ore which costs but \$2 50 per ton, by which he effects, in labor and material, a saving of more than 33 per cent., and he gives a far better quality of iron than that which is obtained from the pig; as much better in appearance as China is better than earthenware. Mr. Green's secret consists chiefly in mixing a composition with his ore, and while in a molten state, by which the carbon is more rapidly exhausted than it is under the old process, and the iron is thus, in half the time, left tougher and finer.

AN IMPROVED TURN-TABLE is said to have been introduced into use on several of the English railways; and as every improvement of the kind is of equal importance here as there, we give the following description of it from the "Transactions of the Society of Arts":

DESCRIPTION OF ELLIS'S TURN-TABLE.

BY B. ROTCH, ESQ. V. P.

This ingenious invention obviates one of the greatest objections to the turn-table, which is, its being supported on numerous small friction-rollers under its outer edge, as well as on a central pillar. The object of these rollers is to facilitate the turning of the table when the heavy weight of an engine or carriage is upon it; but this weight is so excessive, that coming, when passing over the table unequally, first on one edge as it enters upon it, and then on the other, as it passes from it, the table gets pressed down, first on one side, and then on the other, with such rapidity and violence of strain as to cause a great noise of successive jarring blows, and a constant derangement and damaging of the rollers.

Ellis's turn-table prevents all this, by doing away with these rollers, and allowing the outer edge of the table to rest firmly, and without rollers, on a solid support, or circular bed, made to receive it. It is also supported on a central pillar, on which the centre of the table bears firmly and steadily at the same time. When the table is left in this condition, which may be called its position of rest, the bearings are so firm that the engines and carriages roll steadily over it without noise or jar, just as if it were a part of the railway itself; but the central pillar is so arranged as to be easily acted upon by a compound lever, on the principle of the lever of a weighing machine, and the table may, in fact, be made into a weighing machine by adapting a steelyard and weights to this compound lever; and, when it is required to turn a carriage or engine on the table, it is rolled on to it while remaining firmly and steadily in its rest position, and, when the weight is placed on its centre, and has an equal bearing over the table, the table is lift-

ed from its circular bearing all round the outer edge by the compound lever, and thrown entirely on the centre pillar, with the greatest ease the distance required, and the table then let firmly down again on its solid circumferential and central bearing, or to what is called its rest position.

This plan is very simple, very effective, and saves an immense amount of wear and tear in the items of turn-tables. It has already been extensively adopted.

The project of building a railroad up the valley of the Connecticut to Windsor, Vermont, is attracting a good deal of attention. The Caledonian, published at St. Johnsbury, in reference to the object of the meeting to be held at Windsor on the 10th June, says:—"We have known for some short time that this project was on foot—that men of large capital, enterprize and intelligence were engaging in it, and determined to push it onward. The stock of a road is already taken up to Greenfield, Mass., we believe—and there is sufficient wealth in the valley to build a road to Wells River, &c., with the aid men below Greenfield interested in securing the trade of the valley, can furnish."

The Boston Courier in alluding to the plans for railroads up the valley of the Connecticut, remarks:—

"Who will not fail to perceive that the projects alluded to will add nothing to the business of this city, *unless* the Connecticut river railroads should be *tapped* in more places than one by Boston enterprize and capital."—*Connecticut Courant*.

*Cayuga Lake*.—Captain Wilcox has this week put upon the lake the large and elegant steam-packet Simeon De Witt and Ithaca, continually in service, and leaving Ithaca and the Cayuga Bridge twice each day in the week, except Sunday.

This route is of importance to the entire southern tier of counties, and were it only for the intrinsic beauty of the lake, and its combination of cultured farms and beautiful villages, it would be worthy the attention of the traveller.—*Alb. Jour.*

**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN P. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

**TO RAILROAD COMPANIES AND MANUFACTURERS of railroad Machinery.** The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

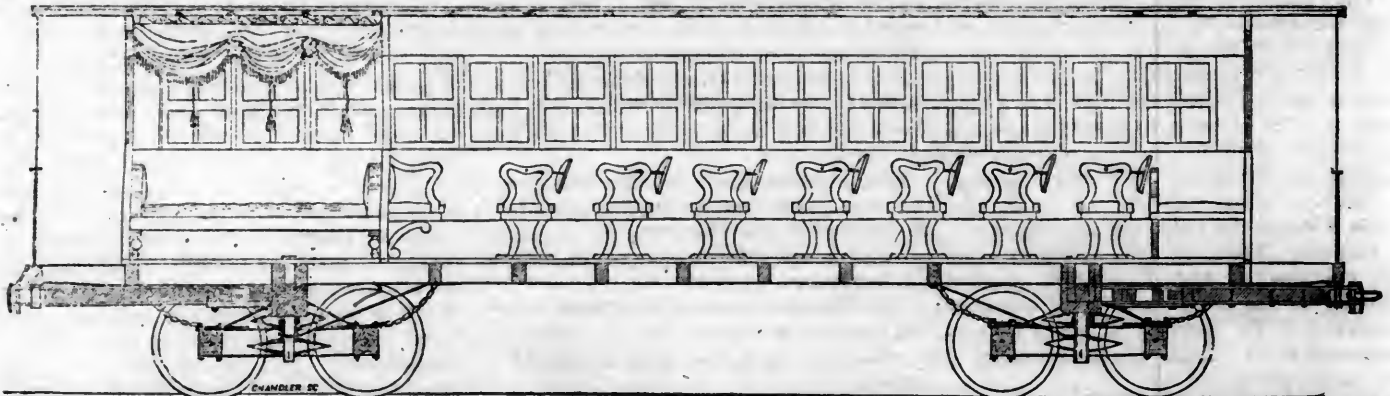
**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent. Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\* \* \* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All orders punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.**

Length of Road, 33 96-100 miles. Capital, \$2,000,000.  
 JOHN S. DARCY, Esq., President. ROBERT SCHUYLER, Esq., Vice President.  
 J. P. JACKSON, Esq., Secretary. J. WORTHINGTON, Esq., Treasurer.

	DAILY.						SUNDAY.	
	A. M.			P. M.			A. M.	P. M.
Leave New York, foot of Courtland street.							9.....	4 3-4
For Newark.....	9, 11, 12.....				2, 3, 4 3-4, 6, 7 1-2			
" Elizabethtown.....	9, 11.....				2, 3, 4 3-4, 6.....			
" Rahway.....	9, 11.....				3, 4 3-4, 6.....			
" New Brunswick.....	9.....				3, 4 3-4.....			
Leave New Brunswick...	6, 7 1-2, 11 1-2.....				8 3-4.....	11 1-2	8 1-2	
Rahway.....	6 3-4, 7, 8 1-4, 12.....				4 3-4, 9 1-4.....			
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12				3 1-2, 5.....			
Newark.....	7 1-2, 8 1-4, 9, 11.....				11 1-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4	

For New York. 9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

**TABLE OF DISTANCES AND FARES.**

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. McKee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

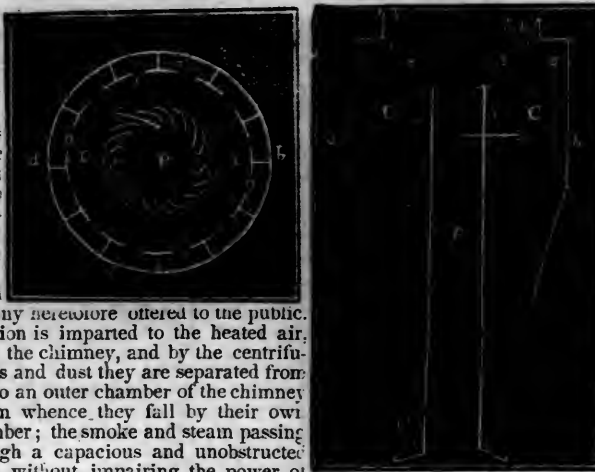
\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

**SAMUEL NOTT, CIVIL ENGINEER, SURVEYOR and General Agent, Bangor, Me.** Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES —  
 Boston, { Col. James F. Baldwin, Civil Engineer.  
 { Col. J. M. Fessenden, "  
 Wm. Parker, Esq., Engineer and Superintendent  
 Boston and Worcester railroad. ja45

**SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars.** The Subscriber is engaged in manufacturing Spring Steel from 1 1/4 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,  
 ja5a3 Albany Iron and Nail Works, Troy, N. Y.



**FOR SALE, AT A SACRIFICE—A LOCOMOTIVE Engine, 4 wheels and Tender.** Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine.  
 2 8-horse "  
 1 Upright Hydraulic Press.

All of which will be sold low, on application to

T. W. & R. C. SMITH.  
 Founders and Machinists,  
 May 12th Alexandria, D. C.

**RAILROAD IRON AND FIXTURES. THE** Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO.,  
 ja45 21 Broad st., N. York.

**MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, PATTERSON, N. J.** The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.  
 Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,  
 a45 Paterson, N. J., or 60 Wall street, N. York.

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.  
 G. A. NICOLLS,  
 ja45 Reading, Pa.

**GEORGE VAIL & CO., SPEEDWELL IRON** Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/4 in. to 2 1/2 in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions.  
 ja451y

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS.	A. M.	P. M.	MILES.	FARE.
Boston	Portland		Eastern,	Daily,	7 $\frac{1}{2}$	2 $\frac{1}{2}$	106	\$3 00
"	Portsmouth		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	54	2 00
"	Newburyport		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	35	1 25
"	Salem		"	"	7 $\frac{1}{2}$ , 9, 11 $\frac{1}{2}$	2 $\frac{1}{2}$ , 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14	50
"	Portland		Boston and Maine,	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	109	3 00
Portland	Boston		"	"	7 $\frac{1}{2}$	3	109	3 00
Boston	Lowell		Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston		"	"	7 $\frac{1}{2}$ , 11	2, 4 $\frac{1}{2}$ , 5 $\frac{1}{2}$	26	75
Boston	Concord		Concord,	"		3 $\frac{1}{2}$	76	2 00
Concord	Boston		"	"		3 $\frac{1}{2}$	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11	5	41	
Nashua	Boston		"	"	6 $\frac{1}{2}$	1 $\frac{1}{2}$ , 5	41	
Boston	Worcester		Boston and Worcester,	"	7, 9	2 $\frac{1}{2}$	44	1 25
Worcester	Boston		"	"	7, 10	6	44	1 25
"	"		"	Sundays,	7			
Boston	Worcester		"	"		2		
Boston	New York via Norwich		"	Mon., Wed. & Fri.		4		
"	" " L. Island railroad		"	Tues., Thur. & Sat.	7			
"	" " New Haven		"	Daily,	9	2 $\frac{1}{2}$		
"	Albany		Western,	"	9	2 $\frac{1}{2}$	200	6 00
Albany	Boston		"	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	200	6 00
Springfield	Boston and Albany		"	"	7	3		
Boston	New York via New Haven		"	"		2 $\frac{1}{2}$		
Charlestown	West Acton		Fitchburg,	"	8	1, 4 $\frac{1}{2}$		
West Acton	Charlestown		"	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	5		
Boston	New York, via Steamboat trains		Boston and Stonington,	Tues., Thur. & Sat.		4 $\frac{1}{2}$		
"	" " " "		Boston and Newport,	Mon., Wed. & Fri.		4 $\frac{1}{2}$		
"	Providence		"	Daily,	7 $\frac{1}{2}$	4	41	1 50
Providence	Boston		"	"		On arrival of the mail	41	1 50
Taunton	"		"	"	8	4		
New Bedford	Boston		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$		
Boston	Dedham		"	"	8 $\frac{1}{2}$	3, 6 $\frac{1}{2}$		
Dedham	Boston		"	"	7, 10	5 $\frac{1}{2}$		
New York	Greenport		Long Island,	"	7 $\frac{1}{2}$		95	2 25
Brooklyn	Hicksville & intermediate places		"	"	9 $\frac{1}{2}$		26	56 $\frac{1}{2}$
"	Greenport		"	"	9 $\frac{1}{2}$		95	2 25
"	Hicksville, (Satur'dy to Suffolk)		"	Tues., Thur. & Sat.		4	26	50 $\frac{1}{2}$
Greenport	Brooklyn, (Boston train)		"	Daily,		1	95	2 25
"	" (accommodation do.)		"	"		1	95	2 25
"	" & intermediate places		"	Mon., Wed. & Fri.		7	26	56 $\frac{1}{2}$
Hicksville	"		"	Daily,		1 $\frac{1}{2}$	26	
New York	Albany & Boston via N. Haven		Steamer,	"	6 $\frac{1}{2}$			5 00
"	Middletown		New York and Erie,	"	8, 3		53	
Middletown	New York		"	"	6 $\frac{1}{2}$	3 $\frac{1}{2}$	53	
Philadelphia	Pottsville		Reading,	"	9		94	3 50
Pottsville	Philadelphia		"	"	9		94	3 50
New York	Newark		N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4 $\frac{1}{2}$ , 6, 7 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Newark	New York		[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 9, 11	1 $\frac{1}{2}$ , 4, 5 $\frac{1}{2}$ , 7, 9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	"		"	Sundays,	9	4 $\frac{1}{2}$	9 $\frac{1}{2}$	25
New York	Newark		[9 A. M. and 4 $\frac{1}{2}$ P. M. trains, connect with Somerville Railroad.]	Daily,	11 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	Elizabethtown		"	"	9, 11	2, 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14 $\frac{1}{2}$	31 $\frac{1}{2}$
Elizabethtown	New York		N. J. railroad and trans. co.,	"	7, 7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 10 $\frac{1}{2}$ , 12	3 $\frac{1}{2}$ , 5	14 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	Rahway		"	"	9, 11	3, 4 $\frac{1}{2}$ , 6	19 $\frac{1}{2}$	31 $\frac{1}{2}$
Rahway	New York		"	"	6 $\frac{1}{2}$ , 7, 8 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$ , 9 $\frac{1}{2}$	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New Brunswick		"	"	9	3, 4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New Brunswick	New York		"	"	6, 7 $\frac{1}{2}$ , 11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
"	"		"	Sundays,	11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New York	New Brunswick		"	"	9	4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
Philadelphia	New York		Camden and Amboy,	Daily,	7		91	3 00
New York	Philadelphia		"	"	5 $\frac{1}{2}$		91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	9		30	75
Bristol	Philadelphia		"	"		4	30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"	8		93	
Baltimore	Philadelphia		"	"	9		93	
"	Washington		Baltimore and Washington,	"	9	5, 11 $\frac{1}{2}$	41	2 50
Washington	Baltimore		"	"	6	5 $\frac{1}{2}$	41	2 50
Baltimore	Cumberland and inter. places		Baltimore and Ohio,	"	7 $\frac{1}{2}$			
"	Frederick		"	"		4		
Cumberland	Baltimore		"	"	8			
Hancock	"		"	"	10 $\frac{1}{2}$			
Martinsburg	"		"	"	11 $\frac{1}{2}$			
Harper's Ferry	"		"	"		12 $\frac{1}{2}$		
Frederick	"		"	"		2		
"	"		"	Sundays,	8			
Ellicott's Mills	"		"	Daily,	7 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$		
Richmond	Petersburg		Richmond and Petersburg,	"	10 $\frac{1}{2}$	1 $\frac{1}{2}$		
Petersburg	Richmond		"	"	5 $\frac{1}{2}$			
Albany	Schenectady		Mohawk and Hudson,	"	8	5 $\frac{1}{2}$		
Schenectady	Albany		"	"	9	3 $\frac{1}{2}$		
Albany	Saratoga		"	"	7 $\frac{1}{2}$	2		
Saratoga	Albany		"	"	7, 7 $\frac{1}{2}$	12 $\frac{1}{2}$ , 5		
Troy	Saratoga		Troy and Saratoga,	"		3 $\frac{1}{2}$		
Saratoga	Troy		"	"	7 $\frac{1}{2}$			
Auburn	Rochester		Auburn and Rochester,	"	8 $\frac{1}{2}$			
Rochester	Auburn		"	"	8	3		
"	Buffalo		Rochester and Buffalo,	"		3		
Buffalo	Rochester		"	"				
"	Falls		Buffalo and Falls,	"	9			
Falls	Buffalo		"	"		1 $\frac{1}{2}$		
Buffalo	Albany		Albany and Buffalo	"	8 $\frac{1}{2}$			

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

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THURSDAY, JUNE 26, 1845.

[WHOLE No. 469, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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 TROY IRON AND NAIL FACTORY, H. Burden Agent. (See Adv.)  
 ANDREW MENEELY, West Troy. (See Adv.)  
 ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
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 NORRIS, BROTHERS, Philadelphia, Pa.  
 KITE'S Patent Safety Beam. (See Adv.)  
 FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)  
 BALDWIN & WHITNEY, Philadelphia, Pa.  
 JOHN F. STARR, Philadelphia, Pa.  
 MERRICK & TOWNE, do.  
 NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. [See Adv.]  
 ROSS WINANS, Baltimore, Md.  
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W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM. PLAN

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 23, 1840.

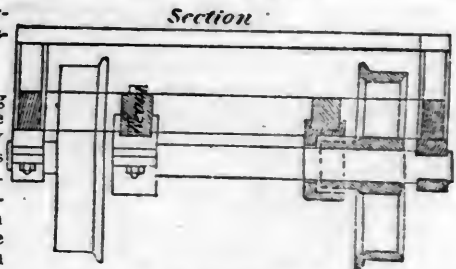
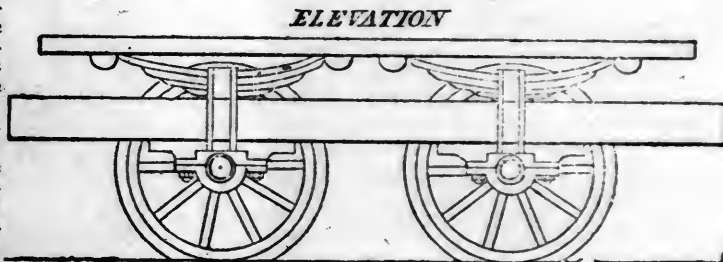
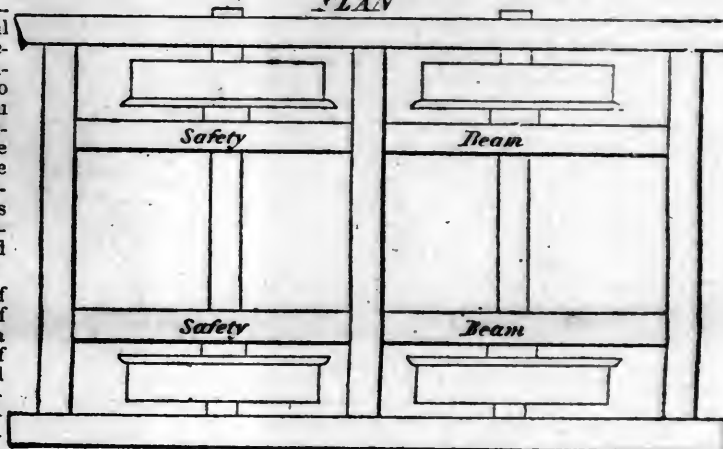
The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
 GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
 W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**TO IRON MANUFACTURERS. THE SUB-**scribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.  
A. & G. RALSTON & CO.,  
ja45 No. 4 South Front st., Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

From 4 inches to 1 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lycoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer,*

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—a lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia.  
ja45

**RAILROAD IRON AND LOCOMOTIVE** Tyres imported to order and constantly on hand by  
A. & G. RALSTON  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING** Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

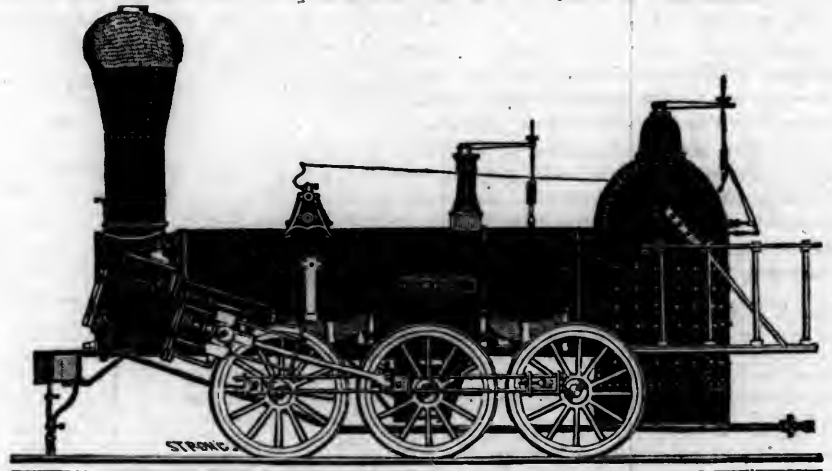
The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
ANDREW C. GRAY,  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS** etc. The Subscriber having made important improvements in the construction of rails, mode n guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, *Civil Engineer,*  
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NORRIS' LOCOMOTIVE WORKS**  
BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches	Diameter of Cylinder,	× 20 inches	Stroke.
" 2,	14	"	× 24	" "
" 3,	14½	"	× 20	" "
" 4,	12½	"	× 20	" "
" 5,	11½	"	× 20	" "
" 6,	10½	"	× 18	" "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

REPORT OF THE BUFFALO AND NIAGARA RAILROAD COMPANY.

We have received and cheerfully give place to the following report of the directors to the stockholders of the *Buffalo and Niagara Falls railroad* for the year ending May 31st, 1845.

The board of directors of the Buffalo and Niagara Falls railroad company, in submitting their annual report to the stockholders, congratulate them upon the improved condition of the affairs of the corporation, as also that the important improvements designed by stockholders at their last annual meeting have been nearly finished, and will be entirely so in two or three weeks hence.

In view of the fact, that at the re-organization of the company in June last, new stockholders became interested, with the design of putting the road in an effective state, the board of directors have deemed the present time a suitable one to lay before them full and minute details as to the original organization of the company, its past earnings, the present condition of the road and its appurtenances, and their views of its future prospects, so that each stockholder may be possessed of accurate and minute information, and be enabled thereby to form an estimate of the *intrinsic* value of the stock.

The act to incorporate the Buffalo and Niagara Falls railroad company was passed by the legislature of the State of New York, May 3, 1834, and a copy of said act is annexed, whereby the stock to be created was limited to 1100 shares of \$100 each, or \$110,000.

By an act passed February 27, 1837, a copy of which is annexed, liberty was given to create 400 shares of stock additional, making the whole capital stock 1500 shares of \$100 each, or \$150,000.

Subsequently on the 27th March, 1841, the legislature of New York passed an act, copy annexed, authorizing the corporation to increase their capital stock to \$200,000, "by an addition of 33 1/3 per cent. to the amount of each of the several shares, so that the said stock, which at present consists of 1,500 shares of \$100 each, shall hereafter consist of the same number of shares, each of which shall represent and be estimated at one hundred and thirty-three dollars and thirty-three cents."

By the same act the corporation is authorized to borrow such sums as may be necessary to improve the road, not exceeding the sum of \$50,000, and to secure such loans by pledging or mortgaging the property of the said company, or in such other manner as the directors may deem expedient.

Under the two first laws the sum of \$150,000 was expended on the road, and in the fall of 1836 it was opened. The original cost of construction being about as follows:

Grading.....	\$32,000
Bridges.....	10,500
Railway superstructure.....	63,000
Land houses and shops.....	7,500
Cars, locomotives and horses.....	29,000

Engineering, repairs and contingencies.....14,000

156,000  
gross cost of 22 miles of railroad—including real estate, locomotive power, etc., between Buffalo and Niagara Falls.

Under the law of March 27, 1841, the new holders of stock have paid this year \$33 33 per share in cash, to the extent of 1431 shares, or in gross, say, \$47,695 23.

The remaining 69 shares of \$100 stock, are in the possession of old stockholders, who have not yet paid down the instalment of \$33 33-100 per share, and there is consequently due on them \$2,299 77.

It may reasonably be expected that the holders of these shares will pay down the instalment, or sell their \$100 stock to those who are ready to do so; it being manifestly for their interest to adopt one course or the other.

With a view to form some estimate of the probable future revenue of the road, the board of directors submit a statement, showing the gross receipts of the road since its opening in 1836:

Year ending 1st April, 1838,	\$26,620 29
“ “ “ 1839,	29,399 13
9 months, “ 31st Dec. 1839,	31,492 88
Year ending 31st Dec. 1840,	29,740 79
“ “ “ 1841,	26,788 37
“ “ “ 1842,	21,257 15
“ “ “ 1843,	17,175 30
“ “ “ 1844,	22,000 54
	204,474 45

Average annual gross receipts about \$26,480.

As explaining the decrease in receipts during the last four or five years, it should be borne in mind that the road was during that period in an inefficient state, as the iron rails originally put down were but a half inch thick, and after being run over four years, were weakened, and thus partially rendered unfit for use. The time occupied in passing over the road varies from two to two and a half hours—sometimes even more—and altogether it had a bad reputation with the travelling public. In addition to these disadvantages, the expenses of running were greatly increased by reason of the extra wear and tear, and the outlay necessary from year to year to keep it in a state barely suitable for running over.

The iron was bought last fall in England, at a cost of £5 15s. sterling per ton there, which was a very fortunate purchase, as at last dates the same description of iron was quoted at £10 10s. per ton. The old rails have been well sold for re-manufacture.

The new rail laid down is 2 1/2 by 7/8 inch in thickness—tongue and groove—bars 18 feet long, and made from No. 2, or merchant English bar iron. Spike holes 18 inches apart.

The car house is built of brick, (upon the company's ground on the Terrace Buffalo,) in a substantial manner, at a cost of \$2,300, and is 140 feet by 38 feet broad.

The bridges across the Erie canal and

Tonawanda creek are of a substantial character, and were built at a cost of \$3,000.

The motive power of the company, so essential to its vigorous action, is as complete as can be desired—consisting of three engines, all effective and in good order: and one of them has just been finished by Hinkley & Drury, of Boston.

Last summer a new long car, capable of carrying 52 passengers, was made by Eaton & Gilbert, of Troy, at a cost of \$1,650, and a second one to contain 56 passengers was ordered from the same makers this spring, at a cost of \$1,600, and is now on the way to Buffalo. These, with six of the best of the old reserved cars, (24 passengers,) three commodious baggage and freight cars, completed the motive power of this road, and is sufficient for its wants.

The result of the business of the past year, which the board of directors submit to stockholders, although favorable, they do not regard as a fair criterion to form an estimate of the future earnings of the road; inasmuch as until the present date, the road has not been in an effective state, and as now organized, the trips will be increased during the pleasure travelling season, will be run with regularity, and in about an hour's time; and it may reasonably be assumed that these causes will tend to increase the gross earnings, the more so as by reason of slow rate of travel over the road, steamboats running down the river from Buffalo to the Falls have been enabled to land passengers nearly at the same time, although in returning up the river to Buffalo against the current, the railroad time has been much shorter than the steamers, even at our previous slow rate of speed. The time fixed upon for running our trips in future over the road, will of course prevent competition as to time, as passengers cannot be conveyed to the Falls by steamboat in less than two hours.

The board of directors, in order to enable stockholders better to comprehend the true financial condition of the company, submit herewith a copy of the balance sheet taken from the books of the corporation, this 31st May, 1845, from which it results, that

Between 31st May, 1844, and 31st May, 1845, the gross earnings of the company, for passengers, extra baggage, U. S. mail, etc., has been .....\$22,172 84

And during the same period all expenses have been as follows:

Repairs of engines, cars and machinery.....	2,315 95
Salaries and clerk hire.....	2,009 94
Running expenses.....	1,581 05
Repairs of railroad and super-structure.....	753 90
Taxes and rent.....	710 13
Horse power.....	685 28
Fuel.....	500 18
Contingent expenses.....	398 92
Office expenses.....	309 07
Interest on \$5000 bond and mortgage on real estate, to 31st May, 1845.....	350 00
Stationery.....	209 92
Oil.....	198 47

Printing and advertising.....	100 95
Total earnings.....	10,183 76
Total expenses.....	11,989 08
From which amount there should be deducted the interest accrued on the bonds for \$14,670 due in 1854, which interest is payable on the 1st July, 1845, say 11 months, at 7 per cent.....	941 32

11,047 76

or say \$7½ per share, (the whole number of shares being 1,500) net profit for the year ending 31st January, 1845, equal to say 5½ per cent. net upon a capital of \$200,000.

The whole debt of the company amounts to \$19,670, viz :

\$14,670 in bonds issued, payable in 1854, interest annually at 7 per cent.

\$5000 due on bond and mortgage, on the depot at Buffalo, due in 1854, interest at 7 per cent. payable annually.

This latter debt it is proposed gradually to pay off, and subsequently to create an annual sinking fund for the payment of bonds due in 1854.

The board of directors have had under consideration the subject of a dividend from these nett earnings; and after mature deliberation, have concluded that it is more prudent to divide only a portion of them, inasmuch as there remains due and payable, during the ensuing month, for lumber and ties furnished, and to be furnished, as also for labor to be done.....\$2,591 16

Besides which, the available assets of the company are not all immediately convertible into cash, and may be thus classified:—  
164 tons old iron rails sent to New-York, and sold there, on which there is a balance due by Davis, Brooks & Co., subject to the company's draft, as per balance sheet.....\$3,391 52

90 tons additional of old rails now shipping to New-York, to Davis, Brooks & Co., to be drawn for from hence..... 3,150 00  
10,000 lbs. new spikes, at 5½ cts. per lb..... 550 00  
Three old wagons..... 120 00  
Old spikes..... 100 00

\$7,311 52

Which amount is the same as cash.

Added to the above, there are other items, as follows :

Cash in hands of treas'r,	\$561 68
Due from Messrs. Holly & Porter, on demand,	97 20
Bills receivable per balance sheet.....	135 00

793 38

Available as cash.....\$8,105 40

Leaving to be realized during the summer months, (exclusive of receipts for ordinary business,) from property not required by the company, as follows :

4 horses, estimated value, \$300 00	
2 sleighs.....	100 00
4 old passenger cars,....	200 00
1 small horse car & wag'n	115 00
	715 00

Gross assets..... 9,070 40  
From which is to be deducted, 2,591 16

Surplus.....\$6,479 24

During the summer, it is contemplated building two new turn tables, house for wood and watering station, and a new brick engine house, at a cost of \$1,650 for all.

The board of directors have declared a dividend of four dollars per share, payable on the 10th July next, from the nett earnings of the company, and have directed the treasurer to give to stockholders the notice at foot.

In conclusion, the board of directors have satisfaction in expressing to stockholders their opinion, that there is reasonable ground for belief, that the receipts for future years will exhibit an increase upon those of the past year, and that there is a fair prospect of a yet further diminution in the expense of running the road, as the most rigid economy will be practised consistent with the true interest of the company. Apart from the sources from which this road draws its travel, new channels may soon be opened calculated to increase the business over this road; and with a knowledge of these projects, each stockholder can better estimate for himself the ratio of increase likely to accrue. A proposal has lately been made by several Boston capitalists to extend the Lockport and Niagara Falls railroad to Rochester, as originally designed by its charter; and negotiations have been, and are now pending on this subject. A charter was granted at the last session of the legislature for the construction of a railroad from Oswego, on lake Ontario, to Syracuse;—which, if carried out, would doubtless add to the travel via the lakes to Buffalo.

There are other works, which, if built, will serve to connect the western part of our state more closely with the Atlantic seaboard, rendering more accessible the great wonder of the new world, lessening the time requisite to reach it, and diminishing the cost of transport.

The completion of these works are dependent, it is true, upon many contingencies; and although the safer course is to estimate the value of the road by its receipts, yet it may not be amiss, in connection with these, to weigh well the influence likely to be produced by the opening of these new avenues, and the probability of their completion within a given period.

By order of the board,  
WM. A. BIRD, Treasurer, &c.

DIRECTORS.

- Albert H. Tracy, of Buffalo, President.
- William A. Bird, of Black Rock, Treas. & Supt.
- Israel T. Hatch, of Buffalo.
- Peter B. Porter, of Niagara Falls.
- Rufus H. King, of Albany.
- Edward Whitehouse, of New-York.
- Theodore Dehon, do.

Extract from Minutes of Board of Directors.

Since the above report was prepared, in view of the negotiations now pending relative to the continuation of the road from Lockport to Rochester, and at the solicitation of those charged with negotiation, the following resolution was adopted at a meeting of the directors on the 7th of June :

Resolved, That the board recommend to the stockholders of the corporation to surrender ten per cent. of their stock to such persons as shall furnish and expend an amount necessary to build a railroad with iron rails from Niagara Falls via Lockport to Rochester, provided an amount necessary to build such road be subscribed within sixty days; and that said road be completed by the 1st of January, 1847.

Statement of the Condition of the Buffalo and Niagara Falls Railroad Company, May 31st, 1845.

Cost of construction, (this account embraces the original amount of capital stock, say \$150,000; also the debt of the old company, amounting to \$14,670. All items expended since 1st June, 1844, on the road, bed, and superstructure, such as timber, wooden rails, iron, spikes, &c., in fact, every item expended on road, bed, and superstructure, of a permanent character, as likewise car house, machine shop, tools, and real estate at Buffalo, Niagara Falls, and Tonawanta. As soon as the old rails are realized, the amount to the credit of that account per contra, will be so much in the reduction of the account, and will be credited accordingly.) \$222,623 58

Repairs engines, cars, and machinery, (embraces ordinary repairs, and the making of machinery at workshop,)	2,315 95
Locomotive and car power, (cost of locomotives, cars, &c., since 1st June, 1844,)	9,002 38
Repairs railroad and superstructure, (keeping the railroad and superstructure in order,)	753 90
Salaries and clerk hire, (embraces salary of treasurer and superintendent of clerks at Niagara Falls and Buffalo,)	2,009 94
Office expenses, (expenses of office at Buffalo and Niagara Falls,)	369 07
Horse power, (hay and grain, drivers' wages, repairs of harness, &c., &c.,)	685 28
Running expenses, (engineers' and conductors' wages, firemens, blacksmiths, runners, &c.,)	1,581 05
Taxes and rent, (state tax and rent of ticket office in Buffalo,)	710 13
Stationery, (books, paper, quills, &c.,)	209 92
Contingent expenses, (killing cattle, and other items, which are not classified under any other head,)	398 92
Fuel, (for engines and offices,)	500 18
Oil, (for engines, cars, &c.,)	198 47
Printing and advertising, (advertising in public journals, printing cards, &c.,)	100 95
Interest, (on debt, or discounts allowed on notes received,)	350 00
Wm. A. Bird, treasurer, (cash in his hands and lodged with bank)	561 68
Davis, Brooks, & Co., (arising from proceeds old iron, and subject to treasurer's draft,)	3,391 52



Profit and loss, (various items arising out of old road prior to June 1st, 1844. These will be more than balanced by proceeds of old property, referred to in report.)	993 10
Fulton foundry, (a current acc't.,)	256 48
E. M. Stagg, (secured by 16 shrs. full stock,)	433 28
H. W. Clark, (clerk at the Falls. This amount is lodged with him to make change,)	30 05
Jewett, Foot, & Co., (a current account,)	10 63
R. Truman, do. do.,	87 00
J. S. Williams, do. do.,	60 00
Manchester & Brayman, do. do.,	14 25
Cash, (on hand in drawer,)	113 41
G. W. Holley, (a current acc't,)	31 77
A. H. Porter, " "	65 43
Bills receivable, (proceeds of some of the old stock sold,)	135 00
Moses Cherry, (a current acc't,)	75 18
R. H. Boughton, " "	39 30
	<hr/>
	\$248,107 80

Stockholders, (represented by the first issue of stock, for \$150,000, and by the second issue of \$33 33 per share so far as made,)	\$198,458 66
Bonds due in 1854, (issued payable in New-York, bearing 7 per cent. interest, negotiated at par,)	14,670 00
Passenger earnings, Freight earnings, Post-office Department, (receipts from passengers, extra baggage, U. S. mail, &c.,)	22,172 84
Old iron, (proceeds old rails as shipped and when completed to be carried to credit cost of construction,)	7,494 75
Augustus Porter, (current acc't,)	311 55
Bond and mortgage, (on real estate at Buffalo,)	5,000 00
	<hr/>
	\$248,107 80

Wm. A. Bird, Treasurer.  
Buffalo, June 6, 1845.

The board of directors of the Buffalo and Niagara Falls railroad corporation have declared a dividend of 3 per cent. upon the capital stock, and payable on the 10th July next, from the nett earnings for the year ending 21st May, 1845.

The dividend on the stock registered at the transfer agency, at the Bank of the State of New-York, will be payable in the city of New-York; that registered on the books in Buffalo, is payable here.

W. A. Bird, Treasurer.

**THE OSWEGO AND SYRACUSE RAILROAD.**  
—We desire to call the attention of our citizens to the subject of this work. It is acquiring great importance from the connexion it holds with the railroad in progress from the head of lake Ontario to the Detroit river, on the Canada side. The Commissioners for opening the subscription books are to meet here in a day or two, and we think we can hardly do a better service at this time than to publish the several acts in relation to this road, in a compact form. We cannot permit ourselves to doubt, that the Oswego road will be speedily quit, and that it will

be a good paying stock.—When the new track is laid on the eastern roads, the passengers by the morning run will dine here, and take the boat at Oswego the same evening. The distance from New York to Detroit will then be accomplished in two days, and to Chicago in three days.—*Syracuse Jour.*

“A word to the wise is sufficient.” A column of comment upon this paragraph would not add anything to its force. It should, however, have the effect to open the eyes of our citizens, and all others interested in having the western travel preserved to the route which it now takes, through this state.—*Monroe Co. Dem.*

**THE CAPACITY OF THE PHILADELPHIA AND READING RAILROAD.**—*Morse's Telegraph.*—A correspondent of the Washington Union, writing from Pottsville, says: “The capacity of this road for the transportation of coal may be vastly augmented. Messrs. Baldwin & Whitney, of Philadelphia, offer to supply engines which they will guarantee to haul down this road 100 iron cars with 5 tons of coal in each, or 500 tons in the whole, at the rate of 9 miles per hour! Now, it would be practicable to start down a train every hour; this would give, for 24 hours, 12,000 tons per day, and for the year of 313 days would give an aggregate transportation of 3,756,000 tons. They think, however, by the aid of extra engines and the use of Morse's telegraph, they might, by possibility, be able to start a train every thirty minutes. This would enable them to send to the Delaware twenty-four thousand tons per day, or the enormous quantity of seven millions five hundred and twelve thousand tons per annum. The cost of transportation of coal on this road the present year. Mr. Nicolls, the efficient engineer and superintendent of the transportation, machinery, and motive power, estimates at from 35 to 38 cents per ton for the whole distance, one hundred miles. He thinks, by the gradual improvements constantly making, this rate will be greatly reduced. It is thought the motive power alone will not exceed 15½ cents, and may ultimately be reduced to 10 cents per ton. Under these circumstances, no canal, with lockages and delays, can ever be made to compete with such a road.”

**RAILWAYS IN CANADA.**

*The Quebec Gazette* states, on the authority of its London correspondent, that several propositions have been brought before English capitalists, for the purpose of raising capital by shares, to form railways in this province. The project is favorably entertained by monied men; and further, it is believed that the Colonial Secretary, having had his attention directed to it, is disposed to give every facility that can be legitimately extended by the Government.

One company has been actually announced, the Western Canada, Ontario and Huron Junction, with a capital £300,000: and we have much pleasure in stating that intelligence has been received by the last packet,

to the effect that a warm interest has been excited in London on our behalf, and that arrangements are in progress of formation to co-operate with the Canadian people in effecting this great undertaking. The prospectus has been received by Mr. Sheriff Jarvis, printed in London, accompanied by a map of the proposed line, with distances marked, running from Toronto to Goderich. Several meetings have been held in this city to carry into operation this much desired object—one that cannot fail to increase the value of property in this vicinity, and the line of country through which it may pass, to an extent that cannot at this moment be easily calculated. The commencement of such a work in Canada would prove of incalculable benefit and importance, hardly to be exceeded by their utility after completion. Employment would be afforded to our poorer settlers, and emigrants of that class newly arriving; new tracks of country would be opened up, new settlements formed, and the impetus given to trade by the facilities of railroad transport, would, in a brief space of time, work a wondrous change in our mercantile world.—*Toronto Herald.*

**NORTH BRANCH CANAL, PA.**—A slip from the office of the Wilkesbarre Democrat says that the books were opened for subscription to the stock of the North Branch canal, the whole amount of capital (\$1,000,000) subscribed, and the first instalment paid, on Tuesday last.

This work was originally known in the Legislation of Pennsylvania as one extending from Northumberland on the Susquehanna river, to the New York State line, in the county of Bradford, near the village of Athens. From Northumberland the Susquehanna canal extends to Duncannon, where it unites with Pennsylvania's main line of canal and railroad terminating at Pittsburgh, and with the line of canal extending to Havre de Grace, the outlet of the Susquehanna river.—*Jour. Com.*

**MIAMI CANAL—CINCINNATI AND TOLEDO.**  
—We learn from Mr. Ruffner, says the editor of the Cincinnati Gazette, of the 12th instant, that water will be let into the canal on Friday evening next. It is now in to Middletown. When opened, we shall have communication with Toledo! A fleet of lake boats may be looked for in our city by next Tuesday! If our friends mean to have a celebration—to do anything—they must bestir themselves. There is no time to be lost.

**EXTRAORDINARY PERFORMANCE OF A LOCOMOTIVE ENGINE, AND UNPARALLELED IN ITS DAY.**—The locomotive *MANATAWNEY*, on the Reading railroad, during the months of August and September, 1844, ran 8841 miles,—equal to 166,43 miles for each working day,—and hauled over that road 10,064 tons of coal, and returned with the empty cars—and costing for repairs during that period only \$97,04! Weight of engine 1308 tons, with four 48 inch drivers—cylinders 12½ inch diameter, with 20 inch stroke. Norris & Brothers, Philadelphia, manufacturers!!

This was certainly taxing the machine at a high rate, yet not beyond its powers, as it is now one of the most efficient engines on the road of its class.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.			Total sums, in pounds, authorized to be raised by loan or mortgage.			Total sums, in pounds, expended at date of latest balance sheets.			Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
		£	s.	d.	£	s.	d.	£	s.	d.			£	s.				
Arboath and Forfar.....	15	102,000			35,000			138,870					0	12	6	25	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500			407,336			1,500,806			39,261	53,203	1	5	0	100	Barnsley Junction.....	200,000
Branding Junction.....	23	161,700			365,470			481,452						4	10	50	Belfast and Ballymena....	385,000
Bristol and Gloucester.....	37½	400,000			211,000									nihil.	30	36	Blackburn and Accrington.	400,000
Chester and Birkenhead.....	14½	750,000			143,170			518,989			5,856	13,148	0	8	6	50	Birk. and Ches. Junction..	1,000,000
Dublin and Drogheda.....	31	450,000			150,000			500,869						nihil.	53	72	Bolt., Wigan and Liverpool	800,000
Dublin and Kingston.....	6	200,000			152,200			359,000					6	0	6	100	Caledonian.....	1,800,000
Dundee and Arbroath.....	16½	100,000			49,445			153,416			2,989	6,993	1	5	0	25	Cambridge and Lincoln....	1,250,000
Durham and Sunderland.....	18½	169,350			124,055			270,392			9,889	17,702		nihil.	34	29	Chatham and Portsmouth..	5,000,000
East County and North and East.....	86½	4,443,200			1,341,155			3,931,905			47,385	118,726	1	6	6	45	Chester and Wrexham....	120,000
Edinburgh and Glasgow.....	46	1,125,000			375,000			1,649,523			29,429	55,866	1	2	6	50	Churnet valley.....	1,800,000
Glasgow, Paisley and Ayr.....	51	937,500			1,066,951			12,446			12,446	36,736	1	2	6	50	Direct Northern to York...	4,000,000
Glasgow, Paisley and Greenock.....	22½	650,000			216,666			787,881			11,572	23,177	0	5	0	25	Dublin and Belfast.....	950,000
Grand Junction.....	104	2,478,712			2,453,169			84,309			195,080	5	0	10	100	Dundee and Perth.....	250,000	
Great North of England.....	45	969,000			581,017			1,263,518			12,201	36,189	1	12	6	25	Edinburgh and Northern...	800,000
Great Western.....	121½	4,650,000			3,679,343			7,272,539			332,235	369,904	3	10	0	75	Ely and Bedford.....	270,000
Hartlepool.....	15½	438,000			155,540			719,205						8	0	100	Glasgow, Dum. & Carlisle.	1,300,000
Leicester and Swannington.....	16½	140,000			140,000			2,207			6,317	1	5	0	50	Gt. South and West Ext....	1,200,000	
Liverpool and Manchester.....	32	1,209,000			497,750			1,739,835			57,239	117,559	5	0	10	100	Gt. Grimby and Sheffield..	600,000
Llanelli.....	27	200,000			44,000			221,624					1	0	0	87	Harwich and E. coun. Jun.	160,000
London and Birmingham.....	112½	6,874,976			1,928,845			6,393,468			92,823	405,768		10	0	100	Huddersfield & M. rl. & cl.	600,000
London and Blackwall.....	3½	801,000			266,000			1,315,640			15,973	23,870				16	Kendal and Windermere...	125,000
London and Brighton.....	56	1,793,800			998,350			2,630,451			29,372	84,880	0	12	0	50	Leeds and Dewsbury.....	400,000
London and Croyden.....	8½	550,000			229,000			761,885			7,583	10,545	0	5	0	14	Leeds and Thirsk.....	800,000
London and Greenwich.....	3½	759,383			233,300			1,040,930			15,193	25,933		nihil.	13	10	Liv. Ormskirk and Preston	600,000
London and South Western.....	92½	2,222,100			630,100			2,596,291			68,457	150,469	1	12	6	41	London and Portsmouth...	1,750,000
Manchester and Birmingham.....	31	2,100,000			690,586			1,923,699			15,397	58,162	1	0	5	40	London and York.....	5,000,000
Manchester and Bolton.....	10	778,100			197,730			773,743			8,585	21,140	2	2	0	110	Londonderry & Enniskillen	500,000
Manchester and Leeds and Hull.....	81	2,937,500			1,943,932			3,921,593			46,653	156,761		7	10	60	Lynn and Ely.....	200,000
Midland railway.....	178½	5,158,900			1,719,630			6,279,056			26,933	281,898		4	0	100	Manchester, Bury and Ross	300,000
Newcastle and Carlisle.....	61	878,240			188,563			1,135,069			76,499	73,947	4	0	0	100	Manchester and Buxton...	250,000
Newcastle and Darlington.....	23	500,000			405,728									nihil.	21	49	Mullingar and Athlone...	700,000
Newcastle and North Shields.....	7	150,000			153,876			309,629			8,943	18,466		2	0	50	Newcastle and Berwick...	700,000
North Union.....	39	739,201			308,306			1,015,447			9,071	37,791	2	10	0	100	Richmond & W. End Jun.	
Paris and Orleans.....	82	1,600,000			400,000			1,978,415					0	16	0	20	Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000									31,247	91,171		8	0	20	Sheffield and Lincolnshire.	650,000
Preston and Wyre.....	19	830,000			179,852			355,161			4,191	7,066		nihil.	50	18	Shrewsbury and Gd. Jun.	400,000
Sheffield and Manchester.....	19	1,150,000			311,759			951,455			11,895	14,876		nihil.	82	93	Shrew. Wolv. Dudly & B.	900,000
South Eastern.....	88	2,996,000			1,530,277			3,464,172			40,993	81,482	0	10	6	50	Trent Valley.....	900,000
Taff Vale.....	30	465,000			151,785			590,006			8,509	18,414	1	0	0	100	West London Extension...	64,000
Ulster.....	25	519,150			20,000			348,626			5,401	13,856	0	15	0	29	West Yorkshire.....	1,000,000
Yarmouth and Norwich.....	20½	187,500			62,500			230,250						nihil.	16	25	Whitehaven and Maryport	100,000
York and N. Mid. and Leeds and Selby	28	1,062,500			167,500			676,644			27,132	55,752	2	10	0	50	FRENCH RAILWAYS.	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.	
Anglo Mexican Mint.....	10,000	10	10		15½	15½	Loughborough.....	70	142½	142½	70	1140		
Anti Dry Rot.....	10,000		18½		2		Monmouthshire.....	2,409	100	100	10	160	160	
Australian Trust Company	5,700	100	35		34½		Melton Mowbray.....	250	100	100	10	117	117	
General Steam Navigation	20,000	15	14	10	27½	27	Mersey and Irwell.....	500	100	100	10			
Gt Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2½	15	15	
Metropolitan Wood Pav..	15,000	10	6	5	6½		Neath.....	247	100	100	17	365	365	
Patent Elastic Pav.....	10,000	1	1	5	1½		Oxford.....	1,756	100	100	30	505		
Peninsular and Oriental..	11,493	50	50	7	64½	65	Regents or Loncon.....	21,418	33½	33½	2½	25	25	
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120	
Polytechnic Institution.....				6			Somerset coal.....	800	150	150	7½	123	123	
Reversionary Int. Soc.....	5,387	100	100	4½	104	104	Stafford and Worcester.....	700	140	140	25	480	480	
R. Mail Steam Packet.....	15,000	100	60		36½	37	Shrewsbury.....	500	125	125	12	230	230	
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360	
Ship Owners' Towing.....	3,000	10	7½	10	15		Stroudwater.....	200	150	150	19			
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240	
University College.....	1,500	100	100				Severn & Why & Rail Av.	3,762	26½	26½	5½	30	30	
							Trent and Mersey.....	2,600	50	50	65	495		
							Thames and Medway.....	8,149	19½	19½		10	10	
Ashby de la Zouch.....	1,432	113	av.	4	70	70	Warwick and Birmingham.	1,000	160	100	10½	167		
Barnsley.....	720	100	100	14	180	180	Warwick and Napton.....	980	100	100	8½	123		
Birmingham, 1-16 share	3,000	118½	79	10	150	160								
Do. and Liverpool Junction	4,000	160	100		13½	13½	Water Works.							
Covenry.....	500	100	100	20	365	365	Birmingham.....	4,800	25	25	3½	28	28	
Cromford.....	460	do.	do.	24	250	250	East London.....	4,433	100	100	8	223	225	
Derby.....	600	do.	do.	9	105	105	Grand Junction.....	5,500	av.	41	2-3	7½	88	90
Erewash.....	231	do.	do.	32	440	440	New River L. B. Ann....	1,500			2½			
Forth and Clyde.....	1,297	400½	40½	4	440	440	Manchester and Salford...	6,486	av.	30	8½	57	57	
Grand Junction.....	11,600	100	100	7	162	161½	Vauxhall, lt. S. London...	1,000		100	5	55	55	
Grand Surrey.....	1,500	do.	do.		20		West Middlesex.....	8,294	av.	63½	6½	126	127	
Gloucester and Rerkley...	5,000	do.	do.		8	8								
Grantham.....	749	150	150	8	185	185	Docks.							
Lancaster.....	11,699	47½	47½	3	40	40	Commercial Dock.....	1,005	100	100	3	10		
Leeds and Liverpool.....	2,897	100	100	34	640	640	East and West India.....		sto.		5½	137		
Leicester.....	545	140	140	9	139	139	London.....	3,238,310	sto.		4½	114½	115	
							St. Katharine.....	1,352,752	sto.		5	116	171	
							Southampton.....	7,000	50	50				

AMERICAN STATE WORKS AND CANALS, ETC.

STATE WORKS.	Length in miles.	Cost.	1843.		1844.		REMARKS.
			Income.	Expend.	Income.	Expend.	
N. Y. 1 Black river canal	35	1,524,967	.....	.....	.....	.....	The State Canals are all 4 feet deep, and the locks are 13 to 17 feet wide, and 80 to 90 feet in length.  The six millions paid to the canal fund from auction and salt duties are not included in the estimate of cost. The Genesee valley and the Black river canals require large sums for their completion, the interest of which <i>additional</i> sum is much greater than the estimated gross income of these canals when finished. The sums required to complete these two canals are \$2,000,000 and \$600,000, making their total cost when finished \$5,553,000 and \$2,400,000; an expenditure incurred on estimated incomes (admitted to be liberal,) of \$39,000 and \$14,000 respectively.  The total receipts from the works of Pennsylvania for 1843 were \$1,019,401; for 1844 \$1,164,326, and the cost about 30 millions. -The receipts for 1844 were as follows: Canal tolls, - - - - - 578,404 Railroad tolls, - - - - - 252,855 Motive power, - - - - - 319,590 Trucks, - - - - - 13,477 of which \$585,922 is from 118 miles of railroad, and \$578,404 from 550 miles of canal.  The canals of Ohio are supported by a property tax of 5¢ mills on the dollar. There are 853 miles of canal in the State, which yielded in 1843 \$471,623, and in 1844 \$515,393, the cost, 1st Jan. '43 being \$15,577,223. The increase of '44 over '43 is only \$43,770, though the year '44 has exhibited a greater increase throughout the country than ever before known.  These 21 millions on sundry works yield no income whatever. The central railroad yields above 6 per cent., and is the only State work—the Erie canal excepted—which is able to stand alone.
" 2 Cayuga and Seneca	21	237,000	16,557	10,953	24,618	14,443	
" 3 Champlain canal	64	1,251,664	102,308	.....	116,739	.....	
" 4 Chemung	23	684,600	8,140	14,486	14,385	12,740	
" 5 Chenango	97	2,420,000	16,195	15,967	22,179	15,960	
" 6 Crooked lake	8	156,777	461	3,674	1,498	3,951	
" 7 Erie—enlargement of	363	12,648,852	1,880,316	.....	.....	.....	
" 8 Genesee valley	120	3,739,000	.....	.....	.....	.....	
" 9 52 miles opened, cost \$1,500,000	.....	.....	12,392	13,819	19,641	15,557	
" 10 Oneida lake	6	50,000	225	2,239	621	1,636	
" 11 Oswego	38	565,437	29,147	22,742	56,165	28,599	
Pa. 12 Beaver division canal	25	.....	.....	.....	7,381	5,386	
" 13 Delaware canal	60	.....	.....	.....	109,278	22,870	
" 14 French creek	45	.....	.....	.....	.....	.....	
" 15 Seneca river towing path	.....	69,276	.....	.....	381	.....	
" 16 Columbia railroad	82	.....	.....	.....	443,336	205,067	
" 17 Eastern division	36	.....	.....	.....	179,781	138,915	
" 18 Juniata canal	93	.....	.....	.....	.....	.....	
" 19 Portage railroad	130	.....	.....	.....	351,102	248,943	
" 20 Western division canal	105	.....	.....	.....	.....	.....	
" 21 North branch Susquehanna canal	73	.....	.....	.....	101,949	57,633	
" 22 West "	72	.....	.....	.....	.....	.....	
Ohio 23 Hocking canal	56	975,130	4,757	.....	5,286	4,139	
" 24 Miami canal	85	1,660,742	68,640	38,826	77,844	22,341	
" 25 Miami extension	105	2,856,636	8,291	.....	12,723	14,741	
" 26 Miami northern division	35	322,000	.....	.....	unfin'd.	.....	
" 27 Muskingum	91	1,627,318	23,167	.....	29,385	15,027	
" 28 Ohio	334	4,600,000	322,754	123,398	343,711	113,210	
" 29 Wabash	91	3,028,340	35,922	6,400	48,589	12,817	
" 30 Walhonding	25	607,269	838	39,005	1,977	1,238	
" 31 Western road	31	255,015	7,254	1,782	8,747	2,929	
Ind. 32 Sundry works	.....	11,000,000	.....	.....	.....	.....	
" 33 Maume canal	.....	.....	.....	.....	.....	.....	
Ill. 34 Sundry works	.....	10,000,000	.....	.....	.....	.....	
Mich. 35 Central railroad	110	1,842,308	149,987	75,960	211,170	89,420	
" 36 Southern railroad	68	936,295	24,064	7,907	60,341	70,000	

CANALS.	Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
			Gross.	Nett.		Gross.	Nett.			
Blackstone	.....	.....	.....	.....	.....	.....	.....	.....	.....	We may, perhaps, at some future time be enabled to give the particulars of all these canals. The Chesapeake and Ohio canal is not yet completed to the coal mines, hence its trifling income. The enlargement of the Schuylkill canal has been commenced. The Morris canal was lately sold for one million, about one-fourth of its cost. It is said in the papers that it is to be enlarged. We have seen no report, nor heard of the appointment of any engineer.
Bald Eagle Navigation	25	400,000	.....	.....	.....	.....	.....	.....	.....	
Beaver and Sandy, (part)	.....	1,000,000	.....	.....	.....	.....	.....	.....	.....	
Charleston, (S. C.)	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Chesapeake and Ohio	184	12,370,470	47,637	.....	.....	.....	.....	.....	.....	
Conestoga	12	300,000	.....	.....	.....	.....	.....	.....	.....	
Delaware and Chesapeake	13	.....	.....	.....	.....	.....	.....	.....	.....	
Schuylkill	108	3,500,000	279,795	102,221	.....	190,693	120,624	.....	.....	
Farmington	.....	.....	.....	.....	.....	.....	.....	.....	.....	
James river and Kenhawa	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Middlesex	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Port Deposit	10	200,000	.....	.....	.....	.....	.....	.....	.....	
Delaware and Raritan	43	2,900,000	99,623	53,327	.....	131,491	81,455	.....	.....	
Southwark	.....	300,000	.....	.....	.....	.....	.....	.....	.....	
Tide Water	45	2,900,000	.....	.....	.....	.....	.....	.....	.....	
Union	80	2,000,000	.....	.....	.....	.....	.....	.....	.....	
Morris	101	1,000,000	.....	.....	.....	.....	.....	.....	.....	
Dismal Swamp	.....	.....	.....	.....	.....	.....	.....	.....	.....	

CANADIAN CANALS.	Length in miles.	No. of locks.	Lockage in feet.	Size of locks.		Depth on mitre sill.	Width of canal.		Estimate.	Expended to Sept. 1843.	Income.	
				Length of chamber.	Width.		Bottom.	Surface.			1843.	1844.
The Welland canal	.....	.....	.....	feet.	feet.	feet.	feet.	feet.	3,948,572	2,485,572	64,658	.....
Main trunk from Port Colborne to Port Dalhousie	28	31	328	150	26 1-2	8 1-2	45	81	.....	.....	.....	.....
				150	26 1-2	8 1-2	35	71	.....	.....	.....	
				200	45	9	45	85	.....	.....	.....	
Junction branch to Dunville	21	1	6	.....	.....	.....	.....	.....	.....	.....	.....	.....
				.....	.....	.....	.....	.....	.....	.....	.....	.....
Broad creek branch to Port Maitland	1	1	6	.....	.....	.....	.....	.....	.....	.....	.....	.....
				.....	.....	.....	.....	.....	.....	.....	.....	.....
The St. Lawrence canal	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Galops and Port Cardinal	2	2	7	200	45	9	50	90	.....	.....	.....	.....
				200	45	9	50	90	672,496	973	.....	.....
Rapid Plat	4	2	11 1-2	200	45	9	50	90	.....	.....	.....	.....
Farren's point	3-4	1	3 1-2	200	45	9	50	90	.....	.....	.....	.....
Cornwall, passing the Long Sault rapids	11 1-2	7	48	200	55	9	100	150	865,372	1,665,663	.....	.....
Beauharnois, do. Coteau, Cedars and Cascades road	11 1-4	9	82 1-2	200	45	9	80	120	1,190,087	275,426	.....	.....
Lachine, do. Lachine rapids	8 1-2	5	44 1-2	200	45	9	80	120	old canal	400,000	29,288	.....
Elargement of do.	.....	.....	.....	.....	.....	.....	.....	.....	1,001,333	64,439	.....	.....
Total from lake Erie to the sea	12	57	525	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chambly	66	9	74	120	24	6	36	60	200,000	440,000	1,409	.....

COAL COMPANIES.	Length in miles.		Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
	R. rd.	Canals.		Gross.	Nett.		Gross.	Nett.			
Delaware and Hudson	16	108	2,800,000	930,203	196,702	10	.....	.....	.....	130	.....
Lehigh	20	72	6,000,000	.....	.....	.....	.....	.....	.....	31	.....

AMERICAN RAILROADS.													SALES.		
Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on hare	1843. Income.		Div. per cent.	1844. Income.		Div. per cent.	Previous prices	Week ending June 25th.	
							Gross.	Nett.		Gross.	Nett.			Shares.	Price
N. H.	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	103	150	103½
Mass.	2 Concord.....	35	750,000										12	65	
"	3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	117		
"	4 Boston and Maine extension.....	17 1-4	455,703	unfin.											
"	5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	121½	6	123
"	6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,368	110,823	6	282,701	156,109	6	113	4	114
"	7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	119½	8	120½
"	8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
"	9 Charlestown branch.....		280,260						13	34,654	13,971	5½	75½	25	77½
"	10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	112½	90	113½
"	11 Fitchburg.....	50	1,150,000	just opn'd						42,759	26,835		123½	40	121½
"	12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	124		
"	13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
"	14 Northampton and Springfield.....		172,883	unfin.											
"	15 Norwich and Worcester.....	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	72½	4,348	73½
"	16 Old Colony.....		87,820	unfin.									106½		
"	17 Stoughton branch.....	4	63,075	unfin.											
"	18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	118		
"	19 Vermont and Massachusetts.....														
"	20 West Stockbridge.....	3	41,516	200		100						4			
"	21 Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	103½	137	104
"	22 Worcester branch to Milbury.....		8,431	506											
"	23 Housatonic, (10 months,).....	74	1,244,123							150,000			29½	195	31
Con	24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	95		
"	25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
"	26 Stonington, (year ending 1st Sept.).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		30½	1,450	30
N. Y.	27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0			
"	28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	108		
"	29 Auburn and Syracuse.....	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
"	30 Buffalo and Niagara.....	22	200,000		1,500								100		
"	31 Erie, (446 miles,).....		5,000,000										29½	481	29½
"	32 Erie, opened.....	53						48,000		126,020	59,075				
"	33 Harlem.....	26	1,206,231							140,685	62,399		67½	400	67½
"	34 Hudson and Berkshire.....	31	575,613			50				35,029	1,789	0	14	10	11½
"	35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	71½	3,025	71½
"	36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	57½	287	58
"	37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
"	38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
"	39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	115½		
"	40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
"	41 Troy and Greenbush.....	6	180,000												
"	42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
"	43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	131	12	132
N. J.	44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		110	20	115
"	45 Elizabethtown and Somerville.....	26	500,000												
"	46 New Jersey.....	34	2,000,000										94		
"	47 Paterson.....	16	500,000									6	87		
Pa.	48 Beaver Meadow.....	26	1,000,000												
"	49 Cumberland Valley.....	46	1,250,000												
"	50 Harrisburg and Lancaster.....	36	860,000										30		
"	51 Hazleton branch.....	10	120,000												
"	52 Little Schuylkill.....	29	900,000												
"	53 Blossburg and Corning.....	40	600,000												
"	54 Mauch Chunk.....	9	100,000												
"	55 Minehill and Schuylkill Haven.....	18	315,000						12				77	50	80
"	56 Norristown.....	20	800,000										6½		
"	57 Philadelphia and Trenton.....	30	400,000										104		
"	58 Pottsville and Danville.....	29 1-2	1,500,000												
"	59 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		54½	8,438	56
"	60 Schuylkill valley.....	10	1,000,000												
"	61 Williamsport and Elmira.....	25	400,000				20,000								
"	62 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		17½	9,450	18
Del.	63 Frenchtown.....	16	600,000												
Md.	64 Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		658,620	346,946		50	192	49½
"	65 Baltimore and Susquehanna.....	58	3,000,000										2½		
"	66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	67 Greensville and Roanoke.....	17 1-2	950,000												
"	68 Petersburg and Roanoke.....	60	969,880							122,871	72,898	3			
"	69 Portsmouth and Roanoke.....	78 1-2	1,454,171												
"	70 Richmond, Fredericks'g and Potomac.....	76	800,000							185,243	85,688	6			
"	71 Richmond and Petersburg.....	22 1-2	700,000												
"	72 Winchester and Potomac.....	32	500,000												
N. C.	73 Raleigh and Gaston.....	84 1-2	1,360,000												
"	74 Wilmington and Raleigh.....	161	1,800,000												
S. C.	75 South Carolina.....	136	5,671,452		34,410	75	201,464	77,456		532,871	140,196	5			
"	76 Columbia.....	66								328,425	180,704				
Ga.	77 Central.....	190	2,581,723				227,532	93,190		248,096	147,523				
"	78 Georgia.....	147 1-2	2,650,000				248,026	158,207			15,000				
"	79 Montgomery and West Point.....	89	500,000	170,000		100									
Ky.	80 Lexington and Ohio.....	40	450,000												
Ohio	81 Little Miami.....	40	400,000												
"	82 Mad river.....	40	152,000												
Ind.	83 Madison and Indianapolis.....	56	212,000												
Can.	84 Champlain and St. Lawrence.....	15						12,000		58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Thursday, June 26, 1845.

CORRECTION OF OUR TABLES.

We publish the following extract from a letter, with the hope of eliciting other similar corrections when errors are detected. We find it exceedingly difficult to obtain accurate information in relation to many railroads, and are therefore the more indebted to those who oblige us.

We also acknowledge the receipt of a letter from "a subscriber," pointing out the subtraction of 100 miles from the length of the "London and Birmingham," and the addition of an equal number of miles to the length of the "Great Western" railroad in England. We are truly obliged to him for his civility in enabling us to correct these errors—and equally so for his liberality in doing it without subjecting us to expense, when he might, with much propriety, have done so.

"While I think of it, I will correct the statement in relation to the road over which I preside, and two additional roads, in your list of 'American Railroads.'

"Instead of Richmond and Fredericksburg, it should be 'Richmond, Fredericksburg and Potomac.'

"Its length is 76 miles, instead of 61½.

"Its gross income for the fiscal year, ending the 1st of April last, was - - - \$185,243

"Its net income was - - - 85,688

"Its whole cost, - - - 1,454,171

"Its dividend, - - - 6 per cent.

"The 'Richmond and Petersburg' railroad cost \$800,000, instead of \$1,200,000, as stated in your list—as yet it pays no dividend.

"The 'Petersburg and Roanoke' railroad cost about \$950,000, instead of \$260,000, as stated, and pays 3 per cent. The gross and net income in the list are right."

We are obliged to the editor of the "Free Press," of Detroit, for his prompt reply to our request, editorially, for an exchange—as it enables us to learn the condition and prospects of the railroads in Michigan. We hope he will find the Railroad Journal worth the exchange, and useful to the cause in which Detroit and Michigan especially has so deep an interest. We shall keep an eye upon their movements—sustain the right—expose, where we can, the plans of speculators—and endeavor always to promote the success of the cause of railroads, which is destined to produce results in this country, as well as elsewhere, little anticipated by the many, and scarcely imagined by the few.

By the annexed statement, it appears that the freighting business on the Central railroad of Mich-

igan fell off largely during the month of May, this year, as compared with 1844; and was even less than in 1843. This is very different from the reports of most other railroads in this country and in Europe, and has probably been produced by short crops in 1844.

CENTRAL RAILROAD.

Receipts for May, 1845:

Passengers,	\$8,888 55
Freight, - - - - -	6,736 00
	15,624 55

Do. for May, 1844:

Passengers,	\$8,682 94
Freight, - - - - -	13,459 87
	22,142 81

Do. for May, 1843:

Passengers,	\$5,409 02
Freight, - - - - -	7,995 76
	13,404 78

We find in the Burlington Free Press, the following comparative statement of the grades on the Rutland and Central, or Windsor and Montpelier routes to Burlington, Vt., credited to the "Atlas"—"Boston Atlas" we presume—an excellent paper, with which we, unfortunately, are not favored; though possibly we might be, if we published a rabid political sheet. Can this statement be correct? [From the surveys: the survey of the Rutland route not having been published, the grades of that route have been taken from the manuscript report of the engineer.]

Central route, from Connecticut river to lake Champlain.		Rutland route, from Connecticut river to lake Champlain.	
Grades, feet	Miles to the mile.	Grades, feet	Miles to the mile.
Level.....	40-54	Level.....	17
5 to 20.....	19-81	5 to 20.....	12
20 to 30.....	15-93	20 to 30.....	7
30 to 40.....	12-01	30 to 40.....	13
40 to 50.....	14-55	40 to 50.....	9
		50 to 60.....	13
		60 to 70.....	45
	102-84		116

This shows a very decided preference for the Central grade; but there is doubtless something wrong in this matter—and we learn that a new survey of the Rutland route is being made under the direction of Edwin F. Johnson, Esq.

NEW YORK RAILROADS.

The following railroad charters were renewed, amended and granted by the legislature at its last session, while the application of the New York and Albany and the New York and New Haven companies were defeated:

"Syracuse and Oswego railroad, (renew); Western lakes to lake Champlain, (renew); Troy and Greenbush; New York and Erie, (relinquishes \$3,000,000 lien, etc.); New York and Harlem, (authorizes extension to Albany); Watertown and Rome, (renew); Watertown and Cape Vincent, (renew); Goshen and Albany, (amend); Canandaigua and Corning; Attica and Hornelville; Seneca lake to New York and Erie railroad."

HARTFORD AND NEW HAVEN RAILROAD.

The receipts on this road (exclusive of mails) for May, 1845, were - - - \$16,870 34

Do. do. do. 1844, - - - 8,456 51

Receipts for the first 6 months since the completion of the Extension road to Springfield, ending June 9th, 1845, 100,291 80

Receipts for the corresponding months, in 1844, - - - 48,060 66

Showing an increase of more than 100 per cent.

We take the above from the Courant to show the influences upon roads now in use, of extensions and connections with other roads.

CONCORD (N. H.) RAILROAD.

"The report of the directors of the Concord rail-

road to the stockholders at their late annual meeting, shows that the amount of capital stock of the road is \$750,000, and the cost of the road and its appendages, \$756,444. The length of the road is 34 3-5 miles, and the maximum grades, 15 8-10 feet per mile.

"The income of the road the last year amounted to \$181,842, of which the passenger department afforded \$90,545; freight \$90,099; and rents and interest \$1,196. The expenses amounted to \$82,928; of which \$11,528 were for road repairs; \$9,708 for wood and oil; \$6,393 for taxes, and \$55,302 for cars and engines and other expenses. Net income \$98,913. Two dividends were declared, one of six and the other of seven per cent.—[Bost. D. Adv.]"

If this road gives such returns when the line of which it forms a part is only 75 miles in length, what will it give when that line is extended to Burlington and to Canada—and when the Ogdensburg and lake Champlain road shall have been completed—as they surely will be? The question may be answered by demonstration within five years.

MADISON AND INDIANAPOLIS RAILROAD.

The following, from the Indianapolis Journal of 12th inst., is as gratifying to us, as it will be beneficial to the company and the people, for whose use the loan has been made. We had an introduction to Mr. Lanier, when in New York, and anticipated much pleasure from making his acquaintance; but were under the necessity of being absent from the city, and therefore missed the opportunity. It affords us, however, much pleasure to say that we were impressed with the opinion that the company were fortunate in their selection of an agent, under the peculiar circumstances in which the noble State of Indiana is at this time placed—and we are therefore truly gratified to learn that he has been successful in his mission.

"GOOD NEWS.—We have just received intelligence that J. F. D. Lanier, Esq., has succeeded in obtaining a loan, in the cities of New York and Philadelphia, on favorable terms, of \$50,000, for the Madison and Indianapolis railroad company. This intelligence is from a source entitled to reliance."

DIVIDEND.—The Boston and Providence railroad company have declared a dividend of three and a half dollars per share, payable 1st of July at the Phoenix bank.

THE COAL TRADE.—SCHUYLKILL VALLEY.

The shipments this week amount to 28,342 11 tons; 22,105-03 by railroad, and 6,237-08 by canal.

BY RAILROAD.

From Pottsville and Port Carbon—total	107,214-12
From Schuylkill Haven—total.....	143,542 01
From Port Clinton—total.....	2,730 07
Total by railroad.....	259,487-10

BY CANAL.

From Pottsville and Port Carbon—total..	46,940-06
From Schuylkill Haven—total tons.....	11,204-09
From Port Clinton.....	16,172 13
Total by canal.....	74,135-06

Total by railroad and canal..... 333,622-16

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk, Lehigh coal and navigation co.

Summit mines, - - - - -	59117
Room run do., - - - - -	17818-73935
Beaver Meadow railroad and coal co.,	24271
From Penn Haven—Hazleton coal co.,	20083
From Rock Port—Buck Mountain coal co.,	6267
	124556

WYOMING COAL TRADE—total..... 42,248

PINE GROVE COAL TRADE—total..... 23,466

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons..... 160,364-00

MOUNT CARBON RAILROAD—total tons.. 97,632

## RAILWAYS OF NEW YORK.

We copy the following exceedingly just and timely article from the *Onondaga Standard*—for a copy of which paper we are indebted to the kindness of a friend, not having been able with several efforts, to obtain an *exchange* with either of the Syracuse papers—and it is but just to this Journal to say that it would have been re-published immediately after its receipt, but for the absence of the editor.

It is gratifying to feel that more just and accurate views in relation to railroads are obtaining with the people of this country. We are, however, in *this* State, behind the age. There is not, as there should be here, enlarged and liberal views entertained by the masses, and consequently our legislation is short-sighted and oppressive. Restrictions upon, rather than encouragement to the construction of railroads, seems to be the order of the day—or the policy of politicians. It is therefore with the more pleasure that we find able and experienced practical pens engaged in diffusing the right spirit and more just views of this important improvement—as well as of the duty of our legislators in relation to it. It is much to be desired that the writer will not cease his efforts in so good a cause, but rather continue them with new energy, not only through the press in his own *city*—as *city* it will *soon* be—but also in this Journal, which will be ever ready to sustain and promote the cause by giving place to such communications.

“A late article in the *Argus* entitled ‘the railways of New England—their progress and the character of their system,’ quite naturally induces reflection upon the railways of New York, and upon their progress and system.

“The railway is one of the great improvements that will give a distinctive character to the period in which it had its origin. It is destined to occupy all the great avenues of travel in the civilized world. Disregarding the nominal boundaries between States and nations, by stretching its iron bands across them, it will, by the freedom of intercourse, make different nations friends. It will in our country, when stretched across the boundaries of States, soon make us all familiar with the varied interests, and present and prospective advantages of each section. What a complete change has in three years resulted from the extension of the railway from Buffalo to Boston. Who is there upon this line, that is not much better informed as to the whole extent of country along this railway, than he was before? How much more familiar have we become with New England generally than we were before this great avenue was opened? A line of railway is in progress of completion from lake Erie to Cincinnati. Is extension

has been contemplated from the Ohio river to Charleston in South Carolina. Suppose this line completed and in daily use. The inhabitants of the various sections, mingling with each other, will find their prejudices giving way, their knowledge and capacity extending, and their sympathies assimilating and uniting them. It is proposed that a line of railway shall be constructed from Hamilton in Upper Canada, to Windsor, opposite Detroit. There it would connect with the Central road in Michigan, which is pushing onward towards Chicago. A short link in our State from Syracuse to Oswego, would, by a pleasant steamboat route of a few hours from the latter place to Hamilton, make a continuous direct line from Boston to St. Josephs, opposite Chicago. Again, suppose this line open and in daily use. How soon would the prejudices that may now be entertained in any portion of the country traversed, give way to the more enlightened views which would be flying upon the iron tracks, and disseminated from every town along their line. Such results follow as certain as the existence of the causes which produce them. In various portions of our State, attention is strongly turned towards the construction of railroads, and this formed a considerable part of the business of the legislature at its last session. The more the system is extended, the better will it be for the country. Each and all participate in the benefits. It is supposed that it has added to the wealth of Boston more than the whole expenditure for railroads in New England. We all gain by the diffusion of knowledge—by the spread among us of useful inventions, and by varied improvements which skill and enterprize produce. These are all stimulated by the railway. It should be considered not with reference merely to the proprietors, or conductors; but in respect to those who save comfort, health, time, money, and enjoy ease in being transported from one place to another. It should be looked upon in a liberal manly spirit, and must be sustained by an intelligent, generous, and sound public sentiment. This is the feeling towards railways in Massachusetts, and hence their success. In all New England like views seem now to prevail. For a while, New Hampshire seemed behind the age, and the system was checked. But more enlightened views have prevailed there also, and the Granite State is soon to be threaded by this great modern improvement. It is worthy of consideration whether the proper sentiment yet prevails among us, or rather perhaps whether there are not some lingering errors, or hallucinations, in the heads of politicians in regard to monopolies, etc., which render them not quite able to look upon the railway system as generously as they ought. Why should a member of the legislature of the great State of New York object to the construction of a railway, wherever the capitalist chooses to invest his property? What generous man will avow so narrow a policy as to use his place and influence, and vote to stop the construction of a railway because it does not specially advance his individual inter-

ests, or those of his immediate constituents? We must act upon broader and more manly principles. As there are no applications for the construction of railways by the State, we should aid their completion by individual enterprize wherever it will make the effort. We should not only aid their construction by this generous sentiment, but should in the same spirit sustain the proprietors in the enjoyment of the gains which can only be realized by the largest accommodation to the public. This they will most certainly seek, and avail themselves of experience as their guide.

“The influence of the different sentiment prevailing in Massachusetts and in this state, is exemplified in the legislation in regard to railways. We have just passed a law by which the directors of railways in construction will be required to exercise great care to escape indictment; and the officers concerned in their management must often consider under the terrors of the jail, whether they can substitute improved motive power or purchase new cars. What good reason can there be why the individual who is disposed to invest his property in a railway, by selling to the company an outfit of engines and cars at a price for which he can afford to give a credit of one, two or more years, should be better protected than another who practically gives the same credit to the project by subscribing to and paying up the stock? Both seem willing to look for their profits in the success of the measure. Why should not each be permitted to do so? No man is compelled to give credit to a railway company. The act is entirely voluntary. The creditors ask no such protection. Why not extend it, and make the lawyer, the merchant, the miller, the manufacturer, in short, all men, liable to indictment if they contract a debt beyond the amount of their personal property? This provision is hardly consistent with the general spirit of the age. It is calculated when extended; to keep down exertion, and is contrary to the good sense of the day. There is little hazard in predicting, while this statute continues, that the legislature will be applied to by every railway company, for authority to make loans by which they may be taken out of the penal provisions of the law. The same practical good sense will regulate the credit to railroad companies.—A price or profit upon an article is generally fixed, bearing proportion to the length of credit and the certainty of payment.

“In Massachusetts the rates of fare are not limited—there is no restriction as to the transportation of property, nor are there tolls reserved by the State. Here a mistaken sentiment prevails, which induces many to suppose that it is necessary for the legislature to watch these corporations, that they shall not receive beyond a reduced rate per mile of passengers, though they may be acting within the terms upon which they invested their property in the enterprize, and though the managers themselves are most anxious to reduce their rates as fast as their business will justify it. Upon the only com-

pleted long line of railway in our State, there is a practical prohibition of the privilege of carrying freight—being allowed to do this only in winter, when transportation is the most expensive, and the business is most restricted. For whose benefit is this restriction? If the railway can compete with the canal, why should it not be permitted to do so? If it cannot, that will be soon ascertained. It is the opinion of the writer, that it cannot compete successfully with the canal in the transportation of property. On the other hand, there are some valuable light articles that would bear transportation upon the railways, and which, if permitted, would often be an important convenience. Does this restriction show an enlarged policy worthy of the age? Should not owners of property be as free to send it by any avenue they please to market, as they are to enter into any business or production? Why should toll be required from one railway company more than from another? The proprietors of the railway construct their work and maintain it at their own cost. It pays its full share of taxes, equal to any other property in the State. The cost of the transportation of an article to market forms an element of its value at the place of sale. If it comes one way, why should it be more taxed than if it reached market by another? Why should the means of transportation be any more taxed, than the means of growth or production? We shall be slow to justify the toll, by claiming the right to exact it in the shape of a bonus, and equally difficult will it be if we apply to it any of the liberal principles by which we should wish to be governed.

“In Massachusetts all domestic animals are very carefully excluded from the railway by means of severe penalties against the owners. It is there justly considered as a matter of the first importance that the business should not be interrupted, and the lives of passengers shall not be put in peril by the allowances of cattle upon the railways. In England, men are not allowed to walk upon the line of the railway, and a prosecution is sure to follow a violation of the rule.

“The great hazard that is incurred by the lax custom in our State, in that respect, is often imminent. A morbid feeling prevails here, and the owners of cattle seem to feel no special anxiety whether their animals are interrupting the railway or not. If killed by the trains, no matter what peril they may have subjected the passengers to, the owner claims compensation, and the railway company, to avoid a suit, feel constrained to pay his damages. This, upon many of our railways, furnishes an important item of disbursement.

“In our own State, there is abundance of means that would seek investment in railways more readily than at present, if capitalists could feel confidence in being sustained by a correct and generous public sentiment, and if our legislation can be stable in regard to railways, and to the proper rights of proprietors. Very many persons who have solicited subscriptions in New

England for projects in this state will bear witness that they often meet the objection that we are unstable in our legislation; that we do not pay sufficient attention to the regulations necessary to the protection and success of such property, and in short that they do not for such reasons feel entirely safe in investing their money with us.

“That New York may not be behind her sister States in the prosecution and perfection of the railway system, is to be desired. There are pending many railway projects in the State deserving of favor, and which, when completed, will add largely to the business, and contribute much to the comfort of our people. There ought to be, as direct, and as good a railway from Albany to New York as can be made. This has been delayed by various reasons, and it is now to be feared that the plan, and execution of this work, may not be worthy of its position. The railway that shall connect the capital of the first State in the Union, with the first city on the continent, should be of the most perfect character.”

[From the London Mining Journal of 17th May.]

PRESENT STATE AND PROSPECTS OF THE IRON TRADE.

SIR,—In your Journal of the 3d inst., two ably written letters appeared, taking very opposite views of the prospects of the iron trade: in both these letters some very important causes, which must affect the iron trade, as well as the immediate progress of the railway system in this country, are entirely overlooked—in fact, both your correspondents are, on paper, erecting stupendous machinery, forgetting where the power is to be found to drive it, or to set it in motion at once; the views both take are right in part, but, by as much as the one is too sanguine, by so much is the other too limited, in his views. Any statement, in figures, as to the quantity of iron to be made and to be consumed in perspective, must, of course be liable to error; but that statement which is founded on the most minute and unprejudiced examination of the causes now at work, and the effect of like causes in past time, will be the statement most likely to approximate nearest to the truth. How nearly correct the following statement may be, time only can decide:—

Total make of pig-iron in Great Britain for 1844 .....	tons 1,210,000
Increase of make for 1845, about one-fourth .....	302,500
Probable supply for 1845 .....	1,512,500
Railways to be completed, 400 miles, 270 tons per mile .....	108,000
Chairs for the same, 80 tons per mile .....	32,000
Iron for waggons, &c., say 300 tons per mile .....	120,000
Allow 1-5th, usually deducted for conversion of pigs, extra iron consumed in waggons, roofs, &c. Exports (foreign) for 1844 .....	460,000
Increase for railways now in progress more than 1844, say 300 miles .....	195,000
Consumption of home market for 1844, computed at .....	480,000
Increase of ship-building, new for mines and collieries, and increased consumption by extend-	

ing iron works, &c., already in operation..... 75,000  
 ----- 1,470,000

Probable excess of make for 1845.....42,500

You will, I believe, on closer inquiry, find that both your correspondents are far under the true estimate of the increased make for this year; in the earlier part of 1844, about one-fifth of the furnaces in Great Britain were out of blast; we admit that many of these, as the trade revived, were in again at the latter end of the year. Early in 1845, all the furnaces possible were in blast, and by the end of this year (1845) so many new ones additional will be in, as fully to compensate for the increase towards the end of 1844. You will also bear in mind that superior skill in the management is constantly increasing the make from each furnace, at almost every work in the kingdom, and you will find the increase from this cause alone will average from 5 to 8 per cent. on the gross. The make of pigs in 1839-1840 was nearly 1,400,000, and since that time, if no new works had been erected, the improved system of management would greatly increase this quantity.

The statements of your correspondents, as to the consumption for railways, have been made somewhat hastily. They appear to assume, that having gained the sanction of the legislature, to a number of railway projects, and raised the money for carrying out or completing the work, nothing more is necessary, the rails may be purchased, and, as soon as delivered, laid down. Experience will soon undeceive us in these visionary demands. No genii can be conjured into existence, to tunnel through mountains—fill vallies with immense mounds of earth—span rivers with massive bridges of iron or stone: to accomplish these works, thousands of human hands, directed by genius and mind, must toil and labour. Machinery at present can do but little to expedite or lighten the operation in this work; no invention, as yet, supersedes in this—the muscle and sinew of the human form. Although I have, in this statement, assumed 400 miles of railway, as probable to be completed in 1845, I fear we have not anything near enough surplus labour in the country, to accomplish this work in the time. For a great portion of the work skilled labour is necessary; and most of this has hitherto been procured from the manufacturing counties of the kingdom, and principally from the iron districts. In these departments, such activity now prevails as to have increased the demand above the supply; some of the works in Staffordshire are actually prevented from increasing their operations; because of the great difficulty of securing labour to carry them on. It is quite true, that in the agricultural districts, we have surplus hands; but these are not skilled, and will require long training to be of effectual assistance. The increase in the price of skilled labour (an unerring test of the demand), instead of immediately procuring more, has, to some extent, the reverse effect. With the great increase of wages in Staffordshire (from 50 to 80 per cent.), most of the

men now work no more than three or four days in the week.

The home consumption of iron for general purposes will at least equal that of last year; because, although, as stated by the correspondent, "Justus," the high price will cause wood and other materials to be used, in many cases, instead of iron, still this will be amply counterbalanced by the increased use of iron for ship-building, and requirements for new works consequent on the increased demand for manufactures and the improved state of trade: the same causes will nearly, in like manner, affect the foreign exports; for, although this trade has been checked for a time by the rapid rise here, we must remember the stocks abroad are exhausted, and, as shown by the late orders of the United States, the merchants in this country are now authorized to buy at times' prices. The want of labour to complete the earthwork of railways on the continent, especially in Russia, will not apply to the same extent as in this country; it is also prudent to have the rails ready abroad, some time before they are actually waiting to lay them—this will, probably, greatly increase our exports in a few months; and, although the weight set down for this purpose is far greater than either of the statements before given, I think it will not be very far from correct. If these views and statements are correct, then there is no just reason for iron rising to an excessive price, the supply being fully equal to the demand; it is fortunate for all really interested in the business, that the present panic is likely to bring the trade again to a healthy state.

E. R.

May 15.

**SALE OF THE MONROE, GA., RAILROAD.**—It has been generally rumored, (says the Macon Messenger,) that the sale would be suspended by an appeal from the decree of the jury. The time having passed by in which an appeal could be entered, without its being made, the sale will proceed according to the notice given by the commissioners.

Such notices always give rise to sad reflections—but it is to be hoped that the purchasers will put the road in good working order—that profit and convenience may result to those who travel over it—even though severe loss must fall upon those who have expended their money on it. It is not unfrequently the case that public spirited and enterprising individuals sacrifice themselves in the completion of works from which others derive great benefit—in which the projectors never participate.

We understand, (says the editor of the "Miner's Journal"), that the Mine Hill and Schuylkill Haven railroad company contemplate extending their road across to the head waters of Swatara, and forming a junction with the Swatara railroad near Tremont. This will require about five miles of new road, and furnish an outlet from one of the richest sections of coal land in this region, embracing what is generally called the Good Spring Creek portion of the Swatara coal fields. This improvement is, no doubt, the precursor of more extended enterprise, and we apprehend that before many years, this road will be extended through Spring Creek Valley, to the Bear Mountain coal basin, and

thus open an avenue to market, in this direction, from those valuable fields.

The same company are relaying with iron rails the track on the Muddy Branch lateral of their road.

This is a natural consequence of the facilities for transporting coal from the Schuylkill region. There will be hundreds of miles of lateral, or branch roads, terminating at, and connecting with, the Reading railroad. The period is not distant when the transportation of coal from this region will be stated at millions, instead of hundreds of thousands of tons!

At a meeting of the board of managers of the Boston, Concord and Montreal railroad, in Concord, June 10, it was ascertained that the following prominent facts are likely to appear in the forthcoming report of the Engineer, who has now nearly completed the survey, and the committee appointed to collect and arrange statistical information, as to the amount of business to be relied on over said road.

This survey has now been completed to the summit height, in Warren. It has been ascertained that there will be no grade on the whole line exceeding forty-five feet to the mile—there will be no heavy road cutting—there will be an unusual proportion of straight line—there will be no short curves. A very large proportion of the line is along the streams, bays and lakes, requiring light grades and moderate expenditures, that the grading of the whole line will be less in amount than any other road of equal length in New England.

The seventy-two towns in New Hampshire upon the line, or tributary to the road, according to the inventory returned to the Secretary of State, for the year 1844, present an aggregate valuation of more than seventeen millions of dollars, or one fourth part of the whole inventory of the State—that the agricultural, manufacturing, and other resources of these towns, will furnish more than 50,000 tons of freight over the road annually—that the counties of Caledonia, Orleans, Essex, and half of Orange, in Vermont, must of necessity pour into this road at Haverhill, more than forty thousand tons of freight annually, even supposing the road to go no farther than that point—that the different line of stages through this territory already carry more than fifty thousand passengers annually. The population of the towns in New Hampshire and Vermont, which must be tributary to this road, exceeds one hundred and forty thousand. That no section of the country promises a greater prospective increase of business from the opening of railroad facilities than this—that the facts and illustrations which these reports will exhibit will prove beyond all doubt that this railroad will afford to the stockholders full and ample reward for their investments.

The survey has been made final, ready for the construction of the road. In a few weeks the report will be published, with full estimates, plans, statistics, &c. The board have opened subscriptions for the stock, which will remain open in the country till the surveys and reports are completed, when they will be taken to the cities where such assurances have been given as to induce the belief that they will be filled readily, and the work commenced.—*NewHamp. Patriot.*

**PONTIAC RAILROAD.**—We are glad (says the Express), to see this road doing a good business this summer, both in the passenger and freight line. The stockholders are striving to do all that is possible for the accommodation of the public. They have run two daily trains since the 12th

ultimo, leaving Detroit at 8 1-2 A. M., and 4 1-2 P. M.; Pontiac at 5 A. M. and 1 o'clock, P. M. Running in connection with the railroad is a line of stages to Flint River, Saginaw, and the Grand River country.

This "striving all that is possible to accommodate the public" will ensure "a good business" to almost any road in this country. The public will cheerfully pay well for good accommodation, especially when furnished in a cheerful obliging manner.

**PORTLAND, SACO, AND PORTSMOUTH RAILROAD.**—We are favored with a copy of the report of the directors of this road, submitted at the recent meeting of the stockholders. It is the fifth annual report, but presents the results of only the second entire year of its traffic—results which are certainly very encouraging for a road which was so peculiarly an experiment as this. As a fact, likely to strike the common mind with some distinctness, we may mention that although the road has been in full use but just about two years, it has already paid upwards of \$80,000 in dividends, and has \$23,000 profits on hand, which will probably be divided at an early day.

This has been accomplished in addition to the payment of interest on a very considerable loan, which was negotiated for the completion of the road. Such a profitable management of the enterprise, under the disadvantage of a capital stock not completely filled up, exhibits not only the ability of the directors, but the actual and certain public utility of the investment. The company now holds 2487 shares of its capital stock, being that amount of its original capital which has not yet been subscribed for and paid up.

The directors state that "no accident has occurred since the last annual meeting, by which personal injury has been sustained by passengers, or any material loss of property incurred by the company."

"From the statement, No. 1, it appears that the road, which is 51 miles long, has cost, without interest while building, about \$23,100 per mile, or with interest till in operation, \$24,250, including engines, cars, wharf in Portland, machine shop, and all the usual equipments of a first class road."

An aggregate view of the whole receipts and expenditures is given as follows:

Since the 1st December, 1842, to which time the stockholders received interest on assessments, the whole earnings of the road have been	\$207,669 36
The current expenditures about 44 per cent.,	118,852 78
The net earnings, Am't interest paid and accrued on loans, \$44,615 42	148,816 58
Am't dividends, \$9,50 per share,	80,245 00—124,860 42

Balance on hand, June 1, 1845, \$23,956 16

Equal to about \$2,50 per share.

Compelled as this company has been to cope with a powerful competition from various sources, and the disadvantages of a pioneer road, deriving as yet no aid from branches or extensions, and obliged to wait for experience, to point out its facilities, this result is as good as could have reasonably been expected, and the promise it holds out in the gradual increase of the business, more especially from the way travel, is certainly not discouraging.

The whole number of passengers transported



the last year was, for the 6 months ending May 30th, 1844, 108,743—for the 6 months ending May 31st, 1845, 41,535, making a total of 150,279, exhibiting, as was to be expected, a much greater number in the summer half, than in the winter half of the year.

The directors have taken a particular and gratifying notice of the new undertakings now contemplated in this state. Their view of the capabilities and resources of Maine is comprehensive and intelligent, and the suggestion is made, that the weighty interest and influence of the stockholders of this road may hereafter be applied to the advancement of the new railroad enterprises among us.—*Portland Advertiser.*

**ANOTHER RAILROAD PROJECT.**—The Black River Journal, published at Sackett's Harbor, New York, says:

"The people of Boston, with a far-reaching enterprise, are desirous of securing the trade of Canada and that of the far west, and this projected road to St. Lawrence county is a part of their system.

Now, what we wish to suggest is this, that a railroad from Crown Point, on Lake Champlain, to connect with our proposed railroads at this place, would accomplish the objects of the people of the East, much more effectually than the route to Ogdensburg.

1. The road from Boston would terminate opposite Kingston, the most important point in Upper Canada.

2. The distance to Lake Ontario would be much shorter than by the way of Ogdensburg.

3. Lake Champlain being quite narrow at Crown Point, could be readily crossed at all seasons of the year, whereas from Burlington to Plattsburg, the travel would be subject to many delays in the winter.

4. This route would open to settlers a tract of land almost as extensive as the state of Massachusetts, that needs some such facility more than other sections of our state.

5. This line being further from the frontier, would be much better protected in time of war from being destroyed or interrupted by an enemy.

6. Passing, as it would, through lands belonging to the state, it would have some of the stock subscribed by the citizens of the state. Let our citizens put these and other facts before the people of the east, and endeavor to call their attention to our county. We are told that the route has been explored by competent surveyors, and found to be level all the way.

**RAILROAD FROM LAKE ERIE TO CHARLESTON AND SAVANNAH.**—The distance from Sandusky via Cincinnati, Louisville, and Knoxville in Tennessee, to Charleston, is 1056 miles. The Cincinnati-Chronicle states the distances along the route as follows:

Charleston to Augusta,	139 miles.
Augusta to Social Circle,	122 "
Remainder to Ross's Landing, about	100 "
Hiwassee railroad,	98 "
Knoxville to Kentucky river,	197 "
Kentucky river to the Ohio,	100 "
Thence to Cincinnati,	80 "
Cincinnati to Sandusky,	220 "
<b>Total,</b>	<b>1,056 "</b>

It will be seen that it is proposed to use in the line 80 miles of the Ohio river, and 100 of the Kentucky. Including this river navigation and the railways soon to be completed on the route, from Sandusky to Cincinnati, from Savannah and Charleston to the northern bounds of Georgia, and the Hiwassee railroad from Georgia

line to Knoxville in Tennessee, two-thirds or three-fourths of the whole work will shortly be in successful operation. The only material obstacle in the way is the making of a road from Knoxville to the Kentucky river. The distance is 197 miles, and the pass is through the Cumberland Gap. A tunnel will have to be made about one mile through a sand rock formation which could be easily perforated. With this exception, the whole route from Knoxville to Slack Water navigation on the Kentucky is very favorable to the construction of a railroad.

The cost of completing this great and truly national work from lake Erie to the Atlantic seaboard in Georgia and South Carolina, is thus estimated by the Chronical:

On the Hiwassee, about	\$1,000,000
From Knoxville to the Kentucky river, 197 miles, at \$25,000 per mile, with heavy T or H rails,	4,925,000

Total cost, \$5,925,000  
Or in round numbers, \$6,000,000, as the Georgia railroad might need some aid. This is certainly a very moderate sum for a work of such vast importance. All of the iron can be made on the route; and it can be made there cheaper than in Wales.

If the difficulties to be encountered in passing the Cumberland mountains have not been under-estimated, we doubt not the work will be undertaken and completed. Tennessee is now the most insulated state in the Union. This road would soon double her wealth and population, and develop her vast mineral resources. To create a *oneness* in feeling and interest between the North and the South, nothing will contribute more than the construction of an iron way from lake Erie to Savannah and Charleston.—*Buffalo Com. Advertiser.*

**RAILROAD IMPROVEMENTS.**

It will be seen by reference to the proceedings of a convention held at Windsor, Vt. on the 11th instant, that the business men of the Connecticut River Valley, are awake and awakening to a sense of the value and importance of these great public improvements.

An union of effort and interest has been agreed on by the Fitchburg, Keene, and Cheshire Railroad companies with the Central Vermont company. This will carry a road from Boston via Keene, N. H. reaching the Connecticut River, between Westmoreland and Walpole, and crossing it between that point and the north line of Charlestown, N. H. From thence the Vermont "Central" company take it through Weathersfield and Windsor to White River, and thence by Montpelier to Burlington and Lake Champlain.

To further this object, funds will be subscribed without difficulty. The Cheshire company have already eighty thousand dollars more than their charter allows. In two days after the convention at Windsor, 22,000 dollars was subscribed in that place, and the amount in Montpelier had reached \$100,000, and would go up to \$125,000.

The Vermont and Massachusetts Railroad, it is believed by its friends, will be constructed from Fitchburgh to Brattleboro' by way of Greenfield, and the space from Brattleboro' up the river to the crossing of the Cheshire road, a distance of less than thirty miles at the utmost, can be made under a very liberal charter granted in 1843 by the Legislature of Vermont, on which the commissioners have given notice of opening the books for its stock, on the 1st July.

The Northampton and Greenfield stock is all taken up, and \$4000 over. The stockholders meet for organization on the 17th inst. (to-day)

at Greenfield. All the heavy grading and masonry will be done the present year, and the road opened early in 1846.

The Northampton road to Springfield is well advanced in grading, the deep foundations of the heavy masonry are now being laid and the whole line will be opened in December next. During the first three months of the running of this line to Cabotville, its passengers have exceeded 22,000, and averaged nearly 8000 per month. The net earnings amount to 10 per cent. on the cost of the road thus far, which is the most expensive section on the whole line.

The greatly augmented earnings of the Hartford and New Haven road, since its opening to Springfield, and the additions it will receive, on the successive sections up the valley being opened to its business, which will greatly exceed any estimates which have or can be made, will place this among the most valuable stocks in the country, even should a part of the business be diverted hereafter from the south end of the road, by any other route.

These great public improvements are all tangible, and manifest already, great moral and physical influence upon the business and prosperity of the sections of country within their reach.

Let the business men of Hartford awaken to the deep and abiding concern *they have* (or ought to have) in these things. Let them arise in their native strength and energy, and by every means in their power, encourage, promote and ACCOMPLISH these important advantages now offered for their acceptance and peculiar benefit. Let the "men of means" now come *willingly* forward, and unite their wealth and their efforts, in the construction of a railroad from the bank of our river, to the west line of the State, under the charter just granted by an unprecedented majority in both Houses of our Legislature, which has been literally *fought* into general public favor by the inveterate warfare waged upon it, during its passage, by a few deeply self-interested individuals. Let this outlet of all the great thoroughfares of the valley above us be opened at the earliest practicable period, and while its way travel alone will insure fair returns to its constructors and share-holders, it will command the long travel from Boston, Albany, Windsor, Burlington, and MONTREAL.

In connection with the roads up the Valley, it will occasion the occupation and profitable use of our immense water power at Windsor Locks. It will fill our river with navigation from every city on the coast and from abroad. Our wharves and streets will be vocal with renewed and enlarged activity—and within five years the business and population of Hartford will be increased an hundred fold. L. V.

**GREENFIELD AND NORTHAMPTON RAILROAD.**

In the organization of the Greenfield and Northampton Railroad Company, June 17th, the following gentlemen were chosen directors, viz:

- HENRY W. CLAPP, } Greenfield.
- CEPHAS ROOT, }
- HENRY W. CUSHMAN, Bernardston.
- ERASTUS HOPKINS, Northampton.
- SAMUEL HENSHAW, } Boston.
- JAMES K. MILLS, }
- PHILLIP RIPLEY, Hartford.

A vote instructing the directors to arrange a connection with the Northampton and Springfield Railroad Company so as to form one corporation, under the name of the "Connecticut River Railroad Company," was passed without a dissenting voice.

The stock having been over-subscribed, 45 shares were relinquished.—*Hart. Cour.*

**WOODEN RAILROADS.**—We lately published an account of a process for the conversion of wood into a substance supposed to be fully as hard and durable as iron. The discovery possesses peculiar interest and importance for this country, where the greatest obstruction to the construction of railroads that are wanted, is the cost of iron for rails; and particularly worthy of attention, as the discovery appears to have been tested, and thus approved as a discovery worthy of adoption, wherever economy can be promoted by it. As an example of its importance, perhaps no better could be furnished than the contemplated road from Belfast to Quebec. On the whole length of the route, there is wood in abundance, applicable by this metalized process to the construction of rails, but there is no iron. Iron rails would have to be imported from England, which could not be done at less than about \$70 a ton for T rails, or \$7000 a mile. The N. York railroads (about 600 miles in extent) cost \$30,700 a mile; the Eastern railroad, about \$23,000 a mile. By the following, it will be noticed that the cost of preparing the wooden rails in England is about \$400 a mile. Placing the whole cost at \$2,000 a mile, the saving between the two kinds of rails would be, from Belfast to Quebec, a distance of 227 miles, about \$1,000,000; or from this place to the line, a distance of 133 miles, \$565,000.

The following simple statement of the new process, we find extracted into the last report of the Commissioner of Patents:

"A good deal is said lately about wood; and a patent has been taken (in England) for converting it into iron—I should rather say into stone, by means of iron. This metalized (or rather fossilized) wood has been used in constructing the terminus of the Dover railway, and it really seems to have both the properties of stone and iron. Rails of it laid down at Vauxhall, for experiment, endured a travel equal to that of a year on the most thronged railway, without any perceptible wear: not even the saw marks of the timber being removed. It is supposed that timber thus prepared will not be subject to rot or decay of any kind.

"This, time will test. If this proves true the invention will be of immense importance to the United States, where timber is yet plentier, and iron scarcer, than in England'. The process of preparing timber, is simply this. The pieces after having been fitted by the carpenter and joiner for their places, are introduced into an immense iron cylinder, which is then exhausted by an air pump.

"A solution of the sulphate of iron is then injected, which immediately enters into the exhausted pores of the wood. The wood is then withdrawn, and placed again in a similar vacuum, in a solution of muriate of lime, which coming into contact with the sulphate of lime, or gypsum, within the wood! and the muriate of iron, the other compound goes about its business. So the wood becomes thoroughly impregnated with stone as hard as a rock, and yet is as tough as it was before. The expense of preparing 2000 sleepers, enough for a mile of railway, is said not to exceed \$400. Some of the greatest engineers have expressed their confidence in the invention, and the process is employed on many of the government works. What an invention for our Mississippi valley! Railways built of light porous wood—the more porous the better, probably—may be, for less than a thousand dollars per mile, converted into roads nearly, if not quite as durable as iron.—*Balbert Republican.*

The bridge that it will be necessary to erect over the Tweed, for the connection of the North British and the intended Newcastle and Berwick railways, should the latter obtain the sanction of Parliament, will be 726 yards in length, and 100 feet above high water mark. It will consist of thirteen arches (the present bridge has fifteen,) each of seventy feet span, nine or ten abutments being in the river. The expense of this undertaking, inclusive of the viaduct which must be formed on the south of the bridge will be £65,000, while to the south again of the viaduct it will be necessary to construct an embankment fifty-six feet high and half a mile long, the expense of which will amount to £30,200.

**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

**TO RAILROAD COMPANIES AND MANUFACTURERS** of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

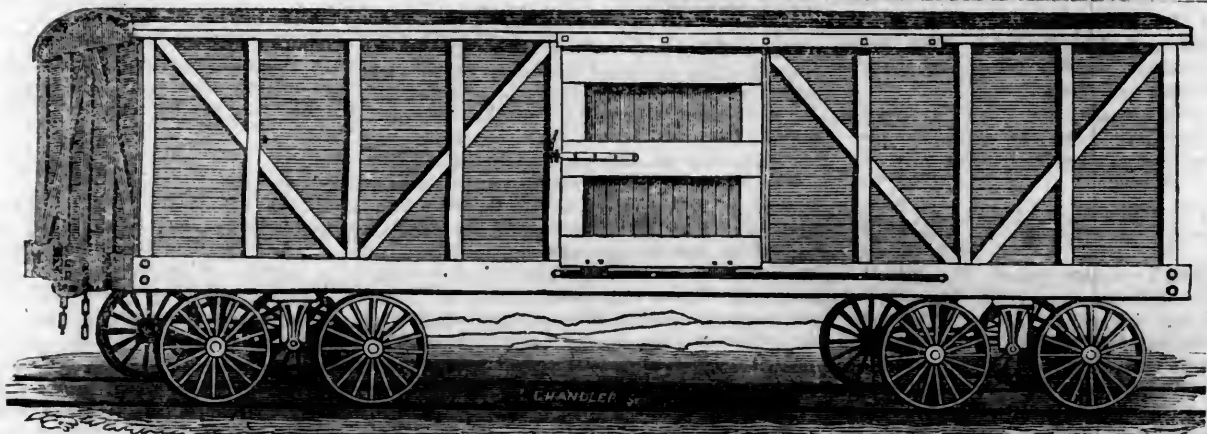
**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent. Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*.\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45



**DAVENPORT & BRIDGES** CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.

Length of Road, 33 96-100 miles. Capital, \$2,000,000.  
 JOHN S. DARCY, Esq., President. ROBERT SCHUYLER, Esq., Vice President.  
 J. P. JACKSON, Esq., Secretary. J. WORTHINGTON, Esq., Treasurer.

Leave New York, foot of Courtland street.	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
For Newark.....	9, 11, 12.....	2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4 3-4, 6.....				
" New Brunswick.....	9.....	3, 4 3-4.....				
Leave New Brunswick...	6, 7 1-2, 11 1-2.....	8 3-4.....	11 1-2	8 1-2		
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	1 1-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4		

9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

TABLE OF DISTANCES AND FARES.

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....	.....	.....	9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25	.....	.....	5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2	.....	.....	5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2	.....	.....	11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2	.....	.....

FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. McKee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cayler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

REFERENCES.

Boston, { Col. James F. Baldwin, Civil Engineer.  
 { Col. J. M. Fessenden, "  
 Wm. Parker, Esq., Engineer and Superintendent  
 Boston and Worcester railroad. ja45

SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,  
 ja53 Albany Iron and Nail Works, Troy, N. Y.

FOR SALE, AT A SACRIFICE—A Locomotive Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine.  
 2 8-horse "  
 1 Upright Hydraulic Press.

All of which will be sold low, on application to T. W. & R. C. SMITH.

Founders and Machinists,  
 May 12th Alexandria, D. C.

RAILROAD IRON AND FIXTURES. THE Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO.,  
 ja45 21 Broad st., N. York.

MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, PATTERSON, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.  
 Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,  
 a45 Paterson, N. J., or 60 Wall street, N. York.

NICOLL'S PATENT SAFETY SWITCH for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.  
 G. A. NICOLLS,  
 ja45 Reading, Pa.

GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/2 in. to 2 1/2 in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wrought Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wrought Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions.  
 ja451y

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS.	A. M.	P. M.	MILES.	FARE.
Boston	Portland		Eastern,	Daily,	7½,	2½,	106	\$3 00
"	Portsmouth		"	"	7½,	2½, 4½,	54	2 00
"	Newburyport		"	"	7½,	2½, 4½,	35	1 25
"	Salem		"	"	7½, 9, 11½,	2½, 3½, 4½, 6,	14	50
"	Portland		Boston and Maine,	"	7½,	2½,	109	3 00
Portland	Boston		"	"	7½,	3,	109	3 00
Boston	Lowell		Boston and Lowell,	"	7, 11,	2, 5,	26	75
Lowell	Boston		"	"	7½, 11,	2, 4½, 5½,	26	75
Boston	Concord		Concord,	"		3½,	76	2 00
Concord	Boston		"	"		3½,	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11,	5,	41	
Nashua	Boston		"	"	8½,	1½, 5,	41	
Boston	Worcester		Boston and Worcester,	"	7, 9,	2½,	44	1 25
Worcester	Boston		"	"	7, 10,	6,	44	1 25
Boston	Worcester		"	Sundays,	7,			
Boston	New York via Norwich		"	Mon., Wed. & Fri.,		4,		
"	" " L. Island railroad		"	Tues., Thur. & Sat.,	7,			
"	" " New Haven		"	Daily,	9,	2½,		
Albany	Albany		Western,	"	8½,	2½,	200	6 00
Boston	Boston and Albany		"	"	7,	3,	200	6 00
Springfield	New York via New Haven		"	"				
Boston	New York via New Haven		"	"				
Charlestown	West Acton		Fitchburg,	"	8,	1, 4½,		
West Acton	Charlestown		"	"	7½, 10½,	5,		
Boston	New York, via Steamboat trains		Boston and Stonington,	Tues., Thur. & Sat.,		4½,		
"	" " " "		Boston and Newport,	Mon., Wed. & Fri.,		4½,		
"	Providence		"	Daily,	7½,	4,	41	1 50
Providence	Boston		"	"		On arrival of the mail	41	1 50
Taunton	"		"	"	8,	4,		
New Bedford	Boston		"	"	7½,	2½,		
Boston	Dedham		"	"	8½,	3, 6½,		
Dedham	Boston		"	"	7, 10,	5½,		
New York	Greenport		Long Island,	"	7½,		95	2 25
Brooklyn	Hicksville & intermediate places		"	"	9½,		26	56½
"	Greenport		"	Tues., Thur. & Sat.,	9½,		95	2 25
"	Hicksville, (Satur'dy to Suffolk)		"	Daily,		4,	26	56½
Greenport	Brooklyn, (Boston train).		"	"		1,	95	2 25
"	" (accommodation do.)		"	Mon., Wed. & Fri.,			95	2 25
Hicksville	" & intermediate places.		"	Daily,	7,	1½,	26	56½
New York	Albany & Boston via N. Haven		Steamer,	"	6½,			5 00
"	Middletown		New York and Erie,	"	8, 3,		53	
Middletown	New York		"	"	6½,	3½,	53	
Philadelphia	Pottsville		Reading,	"	9,		94	3 50
Pottsville	Philadelphia		"	"	9,		94	3 50
New York	Newark		N. J. railroad and trans. co.,	"	9, 11, 12,	2, 3, 4½, 6, 7½,	9½	25
Newark	New York		[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7½, 8½, 9, 11,	1½, 4, 5½, 7, 9½,	9½	25
"	"		"	Sundays,	9,	4½,	9½	25
New York	Newark		[9 A. M. and 4½ P. M., trains, connect with Somerville Railroad.]	Daily,	11½,	9½,	9½	25
"	Elizabethtown		"	"	9, 11,	2, 3½, 4½, 6,	14½	31½
Elizabethtown	New York		"	"	7, 7½, 8½, 10½, 12,	3½, 5,	14½	31½
New York	Rahway		N. J. railroad and trans. co.,	"	9, 11,	3, 4½, 6,	19½	31½
Rahway	New York		"	"	6½, 7, 8½, 12,	4½, 9½,	19½	31½
New York	New Brunswick		"	"	9,	3, 4½,	31½	50
New Brunswick	New York		"	"	6, 7½, 11½,	8½,	31½	50
"	"		"	Sundays,	11½,	8½,	31½	50
New York	New Brunswick		"	"	9,	4½,	31½	50
Philadelphia	New York		Camden and Amboy,	Daily,	7,		91	3 00
New York	Philadelphia		"	"	5½,		91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	9,		30	75
Bristol	Philadelphia		"	"		4,	30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"	8,	4,	93	
Baltimore	Philadelphia		"	"	9,	8,	93	
"	Washington		Baltimore and Washington,	"	9,	5, 11½,	41	2 50
Washington	Baltimore		"	"	6,	5½,	41	2 50
Baltimore	Cumberland and inter. places		Baltimore and Ohio,	"	7½,			
Cumberland	Frederick		"	"		4,		
Hancock	Baltimore		"	"	8,			
Martinsburg	"		"	"	10½,			
Harper's Ferry	"		"	"	11½,			
Frederick	"		"	"		12½,		
"	"		"	Sundays,	8,			
Ellicott's Mills	"		"	Daily,	7½, 12,	4½,		
Richmond	Petersburg		Richmond and Petersburg,	"	10½,	1½,		
Petersburg	Richmond		"	"	5½,			
Albany	Schenectady		Mohawk and Hudson,	"	8,	5½,		
Schenectady	Albany		"	"	9,	3½,		
Albany	Saratoga		"	"	7½,	2,		
Saratoga	Albany		"	"	7,	12½, 5,		
Troy	Saratoga		Troy and Saratoga,	"		3½,		
Saratoga	Troy		"	"	7½,			
Auburn	Rochester		Auburn and Rochester,	"	8½,			
Rochester	Auburn		"	"	8,	3,		
"	Buffalo		Rochester and Buffalo,	"		3,		
Buffalo	Rochester		"	"				
"	Falls		Buffalo and Falls,	"	9,			
Falls	Buffalo		"	"		1½,		
Buffalo	Albany		Albany and Buffalo	"	8½,			

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.

ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 27.]

THURSDAY, JULY 3, 1845.

[WHOLE No. 470, VOL. XVIII



THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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 PHENIX FOUNDRY, N. Y.  
 R. HOE & Co. N. Y.  
 J. F. WINSLOW, Albany Iron and Nail Works,  
 Troy, N. Y. (See Adv.)  
 TROY IRON AND NAIL FACTORY, H. Burden  
 Agent. (See Adv.)  
 ANDREW MENEELY, West Troy. (See Adv.)  
 ROGERS, KETCHUM & GROSVENOR, Pat-  
 erson, N. J. (See Adv.)  
 S. VAIL, Speedwell Iron Works, near Morristown,  
 N. J. (See Adv.)  
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 KITE'S Patent Safety Beam. (See Adv.)  
 FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)  
 BALDWIN & WHITNEY, Philadelphia, Pa.  
 JOHN F. STARR, Philadelphia, Pa.  
 MERRICK & TOWNE, do.  
 NEWCASTLE MANUFACTURING COM-  
 pany, Newcastle, Del. [See Adv.]  
 ROSS WINANS, Baltimore, Md.  
 CYRUS ALGER & CO., South Boston Iron  
 Company.  
 SETH ADAMS, Engineer, South Boston, Mass.  
 HINCKLEY & DRURY, Boston.  
 C. C. ALGER, [Stockbridge Iron Works,] Stock-  
 bridge, Mass.

### IRON MERCHANTS and IMPORTERS.

DAVIS, BROOKS, & Co. N. Y. [See Adv.]  
 A. & G. RALSTON & Co. Philad. Pa. [See Adv.]  
 THOMAS & EDMUND GEORGE, Philadelphia.  
 [See Adv.]

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 23, 1840.

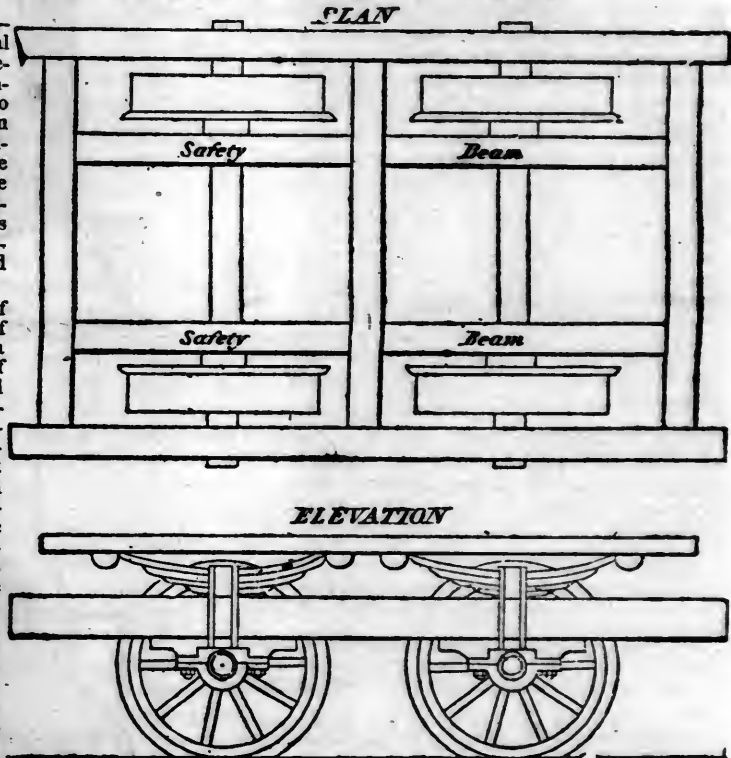
The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
 GEORGE CRAIG, Superintendant,

JAMES ELLIOTT, Sup. Motive Power,  
 W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**TO IRON MANUFACTURERS. THE SUB-**scribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO.,  
ja45 No. 4 Sout Fronth st., Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

From 4 inches to 4 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal* and *Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer,*

**VALUABLE PROPERTY ON THE MILL Dam** For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & CO., Philadelphia.

**RAILROAD IRON AND LOCOMOTIVE** Tyres imported to order and constantly on hand by  
A. & G. RALSTON  
Mar. 20th 4 South Front St., Philadelphia.

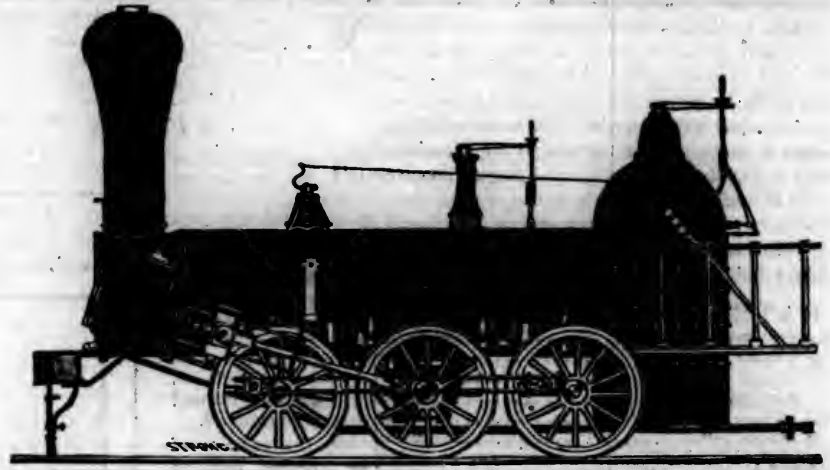
**THE NEWCASTLE MANUFACTURING** Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
ANDREW C. GRAY,  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS** etc. The Subscriber having made important improvements in the construction of rails, mode guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, *Civil Engineer,*  
Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NORRIS' LOCOMOTIVE WORKS**  
BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches Diameter of Cylinder,	× 20 inches Stroke.
"	2,	14	" " × 24 " "
"	3,	14 1/2	" " × 20 " "
"	4,	12 1/2	" " × 20 " "
"	5,	11 1/2	" " × 20 " "
"	6,	10 1/2	" " × 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

## OSWEGO AND SYRACUSE RAILROAD.

If the editors of the Syracuse papers took half the interest in the extension and success of railroads in this State, that they do in political matters, the *Railroad Journal* would not have been dependent upon a stray number of the "Standard," and that sent by an attentive friend of the cause, for the following notice of a work which, when completed, will contribute so largely to the success of the central city of the State.

We desire to make the Journal useful to the cause; but to do so we must rely upon the newspaper press of the country for the details of what is passing in their respective sections. Possibly the *Railroad Journal* may not be as useful to the political newspapers of the day as they are to it—hence it may not be worth an exchange. There is some satisfaction, however, in the reflection that it is esteemed by many of the ablest and best conducted papers of the country, worth at least as much as an equal number of square inches of politics and advertisements.

We shall not hereafter solicit an exchange with those who have declined—or omitted—to send their's in return, when ours has been sent regularly to them for months past.

"We hope," says a writer in the Onondaga Standard, of June 4th, "soon to see the company which was revived and extended by the last legislature to construct this road, organized, and in the prosecution of the important enterprize for which the charter was granted. In looking over the various proposed routes for railroads, we see none in this State which, in importance of business, and in certainty of income, equal this route. It is to connect by a railroad of 35 miles the great and increasing business of lake Ontario with the central line of railway at this place. It is no common-place remark to say that the route is most favorable for construction. Every one who has travelled to Oswego will readily perceive that the face of the country is very level and uniform, and that a railroad may be made with the most moderate inclinations.

"A railway is proposed in Canada from Hamilton to Windsor, opposite Detroit, and from the earnest tone of feeling in that region there is little doubt but it will be completed in a very brief period. When that shall be done, and a railway open from this to Oswego, it will form the most direct, expeditious and comfortable route from Boston to Chicago. We say from Boston, because our city of New York seems to overlook this line of communication, and to be turning its energies in another direction.

"The capital of the Oswego and Syracuse railroad company is \$350,000, which is believed to be ample to make the road. The commissioners are Alvin Bronson, Da-

vid P. Brewster, Luther Wright, Sylvester Doolittle and Henry Fitzhugh, of Oswego; George F. Falley, of Fulton; Philip Hart, Jr., of Granby; Otis Bigelow, of Baldwinsville, and Ashbel Kellogg, John Wilkinson, B. Davis Noxon, Thomas McCarthy and James R. Lawrence, of this town. We understand that they will meet here to-day, for the purpose of making preliminary arrangements to opening the books of subscription.

"The capital stock is divided into shares of \$50 each, and one dollar per share is required to be paid at the time of subscribing.

"We regard this as an important project for the central line of railway from this to Albany, and as particularly interesting to our town. It will bring in a large new trade. It will help to make us more central by the greater facility that it will afford for the northern counties to reach this point. Let it be taken up and constructed with the energy with which such works are prosecuted in Massachusetts, and like favorable results will ensue."

**RAILWAYS AND THE COAL TRADE.**—The following report of the evidence given before the committee will be of interest to many of our readers. We know nothing of Mr. Pease, and therefore leave our readers to draw their own conclusions upon his opinions. It is evident, however, that his opinions are considered worth having, or he would not have been brought before the committee.

**LONDON AND YORK RAILWAY AND COAL TRADE.**—Amongst the witnesses examined before the committee, in favour of the projected London and Yorkshire line, was Mr. Pease, deputy-chairman of the Stockton and Darlington Railway company, whose evidence was as follows:—"He could raise 2,000 tons of coal per diem, and make about 2,000 tons of coke in the week; but little of either was consumed in the neighbourhood, the greater portion being sent southwards, and thence to all parts of the world, the coke proceeding to a greater distance south, as it was more adapted to the use of locomotives. He had considered the London and York project with great attention, and it was his firm belief that, if it were carried into effect, it would work an entire revolution in the whole coal trade throughout England, both as to the manner of the conveyance and the cost of the article itself. He believed that the charge of 3d. a ton per mile would be amply remunerative, except in the case of very short distances, and of separate managements which could not be brought to unite. The witness then stated several instances in which he himself had experienced the evil results arising from rivalry and jealousy, as well as inherent obstacles to which through traffic was exposed by separate companies, as each thought that they were entitled to fix the local charge of conveyance on their own line. There were besides other great practical objections to carrying coal by different companies, which were so insurable that, although there was, he believed, every disposition to

accommodate him on the lines in question, his waggons were often detained in passing from Durham to Gloucester for ten or eleven days, when they should have gone in one day. He believed that the aggregate traffic in coal would give the company 5 per cent. upon a capital of 25,000*l.* per mile for the whole line. He should be glad to sell his coke at 6s. per ton at the pit's mouth, and transmitting it at the above mentioned rate at a mileage, taken as the crow flies, he could deliver it in London for 21s. per ton, whereas it now cost from 28s. to 32s. With respect to coal, he would sell it for the same sum at the pit's mouth, and could deliver it at King's Cross, paying the city dues, and defraying the expense of carriage within a circle of six miles, for 1*l.* 4s. 7½*d.* per ton. The formation of the railway would save an enormous amount of coal which was now destroyed at the pit's mouth, that quantity so wasted in the year 1833-34 being 1,500,000 tons. Small coal might, if this line passed, be carried to London, and sold for 8*d.* or 9*d.* per cwt. He had calculated the amount of coal consumed per head per annum by the populations of York, Durham, and Northumberland, and found that it was from 1½ to 2 tons and upwards, including men, women, and children; whilst in London, with all the demand of steamers, factories, mills, and manufactories, there was only about one ton per head per annum, one third of the whole amount being required for manufactories, &c. He had examined gradients on the London and York line, and had found them favourable to the passage of coal. He was so far favourable to the line, that, if the proprietors guaranteed to fix their maximum rate for the carriage of coal at 3*d.* per ton per mile, he would engage with other parties, to pay the 5 per cent. per annum on their capital; and he would agree to give them from 250,000 to 300,000*l.* a year, for the use of their line. The Stockton and Darlington Railway conveyed about 2,000,000 tons of coal annually, and there were no practical difficulties found in that traffic. He had considered the various lines before the committee, solely with a view to the want of a railway running north and south, which it was absolutely necessary to have in the hands of a single company, or, as a coal owner, he should be overthrown."

**EPSOM AND CROYDON ATMOSPHERIC RAILWAY.**—The works on this line are proceeding with great activity, and cause much attention among persons who take an interest in this principle of propulsion. A number of labourers are employed in the necessary earthworks, laying the tubes, rails, &c., and in some parts of the line the works have assumed an important and forward appearance. The telegraph is completed for several miles; and, at the spot at Annerley, where it will cross the South-Eastern line by an incline and viaduct, a large extent of piles have been driven for the foundations. Near the Dartmouth Arms Station a noble engine-house is being erected, intended to contain six enormous boilers, from the works of Messrs.

Maudslay and Field, each weighing fourteen tons, covered with an elegant iron roof, the chimney of which will be 120 feet high, and is of very unique design. The directors, in these operations, have shown a degree of activity not always witnessed in large undertakings and evince a very laudable desire to give effect to the opportunities placed within their reach, for testing, to its full extent, the capabilities of this enormous power, which Nature had placed at the command of man. The length of the line, its gradients, and its situation, so contiguous to the metropolis, render it most peculiarly adapted for a definitive trial of the pneumatic principle, as it progresses it excites much interest, and an early report is anxiously looked for by the scientific world, and the various parties interested.

#### INCREASE AND EXTENSION OF RAILWAYS.

We copy from the Mining Journal the following remarks on the extension of, and the changes which are likely to result from, railways. We entirely concur with the editor in his views in relation to the *safety* of such investments, when judiciously made; and also with those in relation to the equalizing the value of the agricultural products of the country—and the penalty for poverty! We desire, however, to be understood as holding fully to the belief, that the process of *levelling is upward*. Railroads tend to elevate, to extend and increase *knowledge* as well as business; and in our country especially, they will unite us more closely as a people, and bind us together as a common brotherhood, unless those demons, *indolence and ambition*, which produce a thirst for office—public station—power, and a desire to feed at the “public crib,” instead of enjoying a glorious independence, earned by honest industry—sap the foundations of the republic by fostering sectional prejudices, and thus plunge us into anarchy, bloodshed and ruin.

“The increase and speculation in railways is a question of considerable importance to the future welfare of the country. It is frequently asked what will be the end of all this? It is clear that the whole order of things is soon to be completely revolutionized, and the sooner we are prepared for the great change the better. We are now in a state of transition, and it is somewhat singular that, while we are in this position, we are not suffering more inconvenience than we now experience. All those not directly engaged in land or agricultural pursuits, must, of necessity, remove to the great termini of the empire; and, however much this may militate against our good old notions of English society, stern necessity commands it, and the village must be reduced to the lawyer, the doctor, the carpenter, and the smith. It is true that this may make very little difference to the real state of the country or the people, for we are migratory in our habits, and those most tied to home be-

come indifferent to it if they can do better elsewhere, and that place becomes home which treats us best, and best provides us with the comforts and luxuries of existence. It is also more natural that the land should only be provided with a sufficient number of inhabitants for its necessities, and the superabundant population are better employed in hordes, either for the sake of commerce or of manufacture. The hording together of one class of people also calls together other classes, which are dependant upon the business of those more numerous; and after the colossal schemes of railways, now proposed, are completed, there can be little doubt but that it will be attended with a greater portion of general prosperity; the land will not be encumbered with a useless population, and the towns will be so altered and re-constructed as to provide for them; and every kind of manufacture will be increased, and commerce extended; while from the improved facilities of transport of the raw material of the British Empire, it is to be expected that our manufactures will flourish, so as to exceed those of every other nation; that we shall grow into a healthy mart, and bid competition defiance; and that our fields will become more valuable, for it must be observed that an equivoise must take place in the value of vegetation produced in the immediate vicinity of the metropolis and the larger towns, and that of the western margin of Ireland. With respect to the safety and means of carrying these undertakings into effect, it is clear that the security is much better than that which has been usually the outlet of hoarded bullion, for it is the next thing to the green acres themselves, and if at first the per centage be small, it is only reasonable to suppose it will gradually increase, and that at last all lines selected with any degree of engineering skill and proper data must pay. We may here observe, *en passant*, that the engineers of the present day on most of the railways neither consult the interest of the companies they represent or the health of their passengers. It is a disgrace to England that the poorer classes are obliged to travel against cold boards, cooled outside to the temperature of an atmosphere rendered more frigid by the speed, and communicating rheumatism, and, perhaps, death, to the unfortunate being who has not money to pay for better accommodation. If the inside of these carriages were lined with the commonest flannel, it would be a mere act of humanity; but when we look at the manner the London vehicles are fitted for rich and poor, and the great, the immense, profits wrung from the sorrowing humbler classes, is it too much to ask these hard-hearted directors—who can only be assimilated to their own engines in feeling—whether they can look upon the sufferings of their poor fellow-creatures for the saving of a few shillings to each carriage, and after all, it is doubtful whether the increased traffic consequent upon such an alteration, would not more than pay the outlay; or whether the pleasure of doing a good action would not be more than the equivalent of loss in £. s. d.”

The Mining Journal says:—

“The most important and even astonishing feature in the share market is, the rise in price of the Great North of England shares; they having reached 255, occasioned, doubtless, by the conclusion of the contract for the purchase on Tuesday last of this line by Mr. Hudson, for the United Midlands, the York and North Midland, and the Newcastle and Darlington Companies. This important transaction has been effected by Mr. Hudson, as the representative of the above proprietaries, agreeing to pay the enormous sum of 250*l.* for every 100*l.* share—thus placing the shareholders in the enviable position of receiving a greater return for their investment than any other passenger railway yet constructed. How far the public will benefit by the arrangement, which gives Mr. Hudson, in his official position, almost unlimited power throughout the northern and a great portion of the western counties, remains to be seen; but, we cannot help thinking, that, however beneficial amalgamation may have been with lines whose positions rendered such arrangement absolutely necessary to insure anything like regularity in working, in this transaction, connected as it is with former former ones, and placing as it does the convenience of the public, as well as the interest of the shareholders, in the hands of a few individuals, there is much danger, and we can only hope, that those parties in whose hands this gigantic power is placed will exercise it to the public advantage. The railway share market has remained exceedingly steady during the week, the leading shares obtaining advanced prices. London and Birmingham have advanced 9*l.* per share since our last; Great Westerns 13*l.*; and York and North Midlands 10*l.*; while London and Yorks, and Caledonians, are peculiarly heavy, at rather declining prices. The decision of the committee in favour of the Newcastle and Berwick line, to the exclusion of the Northumberland atmospheric, has given shares in the former company a lift of about 1*l.* per share. In the North British, and Norwich and Brandon, considerable confidence appears to be reposed, the former having advanced from 17 to 23, and the latter from 15 to 18½. The generality of the new schemes have experienced but slight variations, and foreign railway shares are, perhaps, on the whole, a shade lower. Towards the end of the week, the market has been well supported, more especially in the heavy lines, while prices have been secured in several of the newest projects, evidencing that a disposition still continues, on the part of the public, to embark in enterprizes of this nature. The Staffordshire and Shropshire Junction shares left off with a disposition to advance, having been done at a premium. The Dublin and Kilkenny, and the Cork and Bandon railway companies have passed the ordeal of the committees, and these bills are ordered to be reported to the House, and the Waterford and Kilkenny bill is pronounced as proved, and the clauses are being considered—thus these three Irish lines may be pro-



nounced as safe, and it is hoped, that they will shortly open a wide field for the employment of the labouring population."

SELECTED RAILROAD, CANAL, AND MISCELLANEOUS ITEMS.

**CANADA RAILROAD.**—A meeting was held at Windsor, Canada, on the 15th inst., for the purpose of fixing upon the western terminus of the proposed road in Canada, from Toronto, or a point opposite Buffalo, to lake Huron. The meeting discussed the different routes proposed, and concluded upon Sandwich, (opposite Detroit,) as the western termination. The distance estimated is 210 miles.

At a meeting of the board of directors of the Little Miami railroad at Xenia, it was unanimously determined to continue the road to Springfield by the Yellow Springs. The distance will be 19 miles, being a mile and a half shorter than the Clifton route.

**MADISON AND INDIANAPOLIS RAILROAD.**—The president of the railroad has furnished the Madison Banner with the following abstract of business done on the road during the months of March, April and May last.

Passengers on the route inward—through 799, way 1041. Receipts from inward passengers, \$1976 96.

Inward freight—321 hhd., bacon, 25,377 lbs, bacon in bulk, 311 bbls. pork and lard, 340 kegs of lard, 4522 bbls. flour, 14,888 bushels of wheat, 7949 of corn, 513 fruit, 150 flaxseed, 29,907 lbs. furniture, etc., 22,407 lbs. tobacco, 52,163 lbs. hemp, 4285 lbs. feathers, 13,550 lbs. hides and leather, 100,922 lbs. unspecified freight, 308,820 feet sawn timber, 73 tons of hay, about 10 tons of other articles, and 140 cords of wood—for which the tolls charged amounted to \$3,542 25.

The through passengers outward, during the same period, numbered 956; but the full number of way passengers outward, as well as that of the way freight, can only be ascertained from the books at Columbus. The outward freight started from Madison, however consisting of dry goods, groceries, iron, and various articles, during the month of March, amounted to 281 tons 1300 lbs.—in April, 332 tons 200 lbs.—in May, 381 tons 900 lbs.—besides 200 tons railroad iron, and more than that amount of timber for the repair or construction of the road. The actual receipts from tolls amount to \$11,400, or \$3000 more than was received last year in the same months.

The average freight for customs has been 36 tons, passengers 50, and receipts \$146 per day.

The amount of bacon, pork, etc., is less than half that of last year; but most other articles have largely increased. The increased distance is 2 1-2 miles. The passenger car has for about a week gone five miles north of Columbus, and before the end of the month, the train will run to Edinburgh, on 11 miles of new road, making the whole distance 56 miles from Madison.

The grading and bridging of the thirty miles from Edinburgh to Indianapolis have been put under contract on favorable terms, and there can be scarcely a doubt but before two years the road will be completed the whole distance. This is good news for Central Indiana.

**MAD RIVER RAILROAD.**—A large number of laborers are at this time busily engaged in laying the timber from this place south upon the track of the above road. For a short distance it is now ready for the iron, and is rapidly progressing towards completion in other respects. It is expected a train of cars will run to Carey, 16 miles south from this place, at farthest by the 1st of August, and it is contemplated to complete

the road to Kenton, 40 miles south, by the 1st of November.—*Seneca Adv.*

**BALTIMORE AND OHIO RAILWAY COMPANY.**—The directors on Thursday declined to accept the resignation of the presidency, tendered by Hon. Louis McLane, but determined to appoint a president pro tempore. Samuel Jones, Esq., was elected to that office.

Bills have passed the New Hampshire legislature to incorporate the Great Falls and Conway railroad, the Portsmouth, New Market and Concord railroad, and the Portsmouth New Market and Exeter railroad.

A railroad from Worcester to Brattleboro' through Barre, is in contemplation.

**CONNECTICUT RIVER ROUTE OF THE VERMONT CENTRAL RAILROAD.**—Mr. Whitwell and his assistants have completed the survey, and partially laid out the route of the Central railroad, from the Cheshire bridge, opposite Charlestown, N. H. (where the Cheshire road may meet,) to the mouth of White river. The distance is 30 1-2 miles, and the grades are low and entirely favorable for the construction of a railroad.

**HARTFORD AND NEW YORK RAILROAD.**—At a convention of delegates from sundry towns on or near the line of the proposed railroad from Hartford to New York, via Plymouth and Danbury, a committee of seven was appointed to procure a survey of the route, and make arrangements for opening the books of subscription to stock, as follows: Jas. Goodwin, E. G. Howe, Wm. L. Cowles, R. H. Hotchkiss, G. W. Bartholomew, J. L. M. Scoville, Fred. S. Wildman.

Under the direction of the corporators of the Atlantic and St. Lawrence railroad company, Mr. Hall has recently made a farther exploration of routes for the road. This is the promised continuation of the reconnaissance made last fall. By that survey, one principal route was examined and found to be feasible. The recent undertaking has given a further view of the whole country between Portland and the Canadian frontier, and has indicated two or three other general lines; by which a railroad communication may be effected, under very favorable conditions.

The people of Cincinnati are rejoicing over the completion of the Miami canal, by which a regular and direct communication is established between Cincinnati and Toledo (at the head of Maumee bay) on lake Erie. The Miami canal extends from Cincinnati to Defiance, and is 178 miles in length. At Defiance it strikes the great work of Indiana, the Wabash and Erie canal, making the entire line of canal from Cincinnati to Toledo, on the lake, 265 miles.

The water in the Wabash and Erie canal is to be drawn off between Fort Wayne and Logansport, on the 10th of July, for the purpose of repairs. Navigation on that part of the canal will be suspended for a few weeks.

**A NEW ENGINE.**—One of the most strongly and beautifully constructed engines we ever saw, passed our office on Saturday. We were informed that it was built expressly for high speed for the Long Island railroad company, to make the trip between Brooklyn and Greenport, 97 miles, in 2 1-2 hours, with 300 passengers, including all stoppages. Weight of engine, in running order, 29,000 lbs. Cylinders 12 1-2 inches diameter, 20 inches stroke. Two driving wheels, 69 inches diameter; four guide wheels, 33 inches diameter; two relief wheels, 36 inches diameter. A handsome gallery extends around the engine, giving a foot path for the engineer to walk around with safety, and examine every part while the engine is in motion. Among

other new improvements, the Messrs. Norris have adopted on this engine, we notice a handsome brass reservoir which is secured to the side of the boiler, holding half a gallon of oil. From this reservoir, there are several copper pipes, leading to the different journals, and each supplied with a cock for letting down the oil upon the journals at pleasure. This arrangement gives the engineer an opportunity of oiling the engine while running at so rapid a rate.

Messrs. Norris are now constructing a second engine of the same description for the Long Island railroad company, which will be completed in a few days. They have now employed at their works, 320 workmen, completing orders which they now have on hand, for a number of locomotives for the governments of Austria, Hungary, and Baden, and with this compliment of men, they are now, and have been for the last two months, completing one locomotive each and every week.—*Phila. Post.*

**ANOTHER NEW AND IMPORTANT RAILROAD INVENTION.**—We are informed (says the editor of the United States Gazette,) by J. Hancock, Esq., patent agent in this city, that letters patent are now in progress for an original railroad safety guard that bids fair to be an important invention. Its object is to prevent locomotives, cars, &c., from running off the track, and in the event of an axle breaking, to save further damages. Desiderata to the whole community. The cost of applying it to railroads already in use will not exceed, we understand, the ordinary expenses of repairs, &c., but on the contrary, will serve to lessen them; besides having a tendency to keep animals off the track. The speed, it is said, can also be increased to 60 miles an hour, or more, with perfect safety to life and property.

**PASSENGERS.**—Those who are not acquainted with the facts, would be astonished to learn the great amount of travel up and down the Connecticut valley. Three lines of stages run regularly between Northampton and Springfield—two of them connecting with the railroad at Cabotville, and one at Springfield. There is also another line running through Amherst to Cabotville. On Friday last, the two lines from Cabotville to Northampton—which carry at low fare—brought up about fifty passengers. The next day they were similarly freighted, and it was estimated that the other two lines swelled the number of passengers to about 100. On Monday nearly the same number came up. On a line of such travel, can a doubt exist that a railroad will be good stock?—*Northampton Cour.*

**TO DISCOVER THE PROPORTION OF SILVER CONTAINED IN COPPER ORE.**—To a sample of one ounce add flux red tartar, 1 ladle; nitre, 1 do.; lime, 1-2 do.; borax, 1-2 do.; fluor spar, 1 do.; red lead, 1 do.; mix well with the ore and melt in a wrought iron crucible (if a stone one only can be obtained, add 1 ounce of iron,) about eight minutes, in a brisk heat, will be sufficient; for the last five minutes the assay should be incessantly stirred with an iron rod; pour the sample and cool it, break out the lump and test it in the usual way. *Note*—As soon as the assay begins to flow, the lead, by the power of affinity, will attract, or be attracted, by the silver, and it only requires the process of refining, or burning off the inferior metals, to ascertain the produce.—*Mining Journal.*

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND COAL COMPANY** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.  
WILLIAM YOUNG,  
President.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.		Total sums, in pounds, authorized to be raised by loan or mortgage.		Total sums, in pounds, expended at dates of latest balance sheets.		Cost of working in pounds for six months as stated in latest balance sheets.		Total earnings, in pounds, for six months as stated in latest balance sheets.		Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.				
		£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.					£	s.	d.	
Arboath and Forfar.....	15	102,000		35,000		138,870						0	12	6	2	10	0	25	27	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500		407,336		1,500,806		39,261		53,203		1	5	0	2	10	0	100	100	Barnsley Junction.....	200,000
Branding Junction.....	23	161,700		365,470		481,452									4	10	0	50	54	Belfast and Ballymena....	385,000
Bristol and Gloucester.....	37½	400,000		211,000		211,000									nihil.			30	36	Blackburn and Accrington..	400,000
Chester and Birkenhead.....	14½	750,000		143,170		518,989		5,856		13,148		0	8	6	1	14	0	50	32	Birk. and Ches. Junction..	1,000,000
Dublin and Drogheda.....	31	450,000		150,000		500,869									nihil.			55	72	Bolt., Wigan and Liverpool	800,000
Dublin and Kingstown.....	6	200,000		152,200		359,000						6	0	0	6	0	0	100	166	Caledonian.....	1,800,000
Dundee and Arbroath.....	16½	100,000		49,445		153,416		2,989		6,993		1	5	0	5	0	0	25	29	Cambridge and Lincoln....	1,250,000
Durham and Sunderland.....	18½	169,350		124,055		270,392		9,889		11,702					nihil.			34	29	Chatham and Portsmouth....	5,000,000
East County and North and East.....	86½	4,443,200		1,341,155		3,931,905		47,385		118,726		1	6	6				45	57	Chester and Wrexham....	120,000
Edinburg and Glasgow.....	46	1,125,000		375,000		1,649,523		29,429		55,866		1	2	6	4	10	0	50	57	Churnet valley.....	1,800,000
Glasgow, Paisley and Ayr.....	51	937,500		1,066,951		12,446		36,730		2,640		1	2	6	4	10	0	50	60	Direct Northern to York....	4,000,000
Glasgow, Paisley and Greenock.....	22½	650,000		216,666		787,881		11,572		23,177		0	5	0	2	0	0	25	12	Dublin and Belfast.....	950,000
Grand Junction.....	104	2,478,712		2,453,169		84,309		195,080		5		0	0	10	0	0	0	100	210	Dundee and Perth.....	250,000
Great North of England.....	45	969,000		581,017		1,262,518		12,201		36,189		1	12	6	3	5	0	100	119	Edinburg and Northern....	800,000
Great Western.....	121½	4,650,000		3,679,343		7,272,539		132,235		369,904		3	10	0	7	0	0	75	138	Ely and Bedford.....	270,000
Hartlepool.....	15½	438,000		155,540		719,205									8	0	0	100		Glossow, Dum. & Carlisle..	1,300,000
Leicester and Swannington.....	16½	140,000		140,000		140,000		2,207		6,317		1	5	0	5	0	0	50		Gt. South and West Ext....	1,200,000
Liverpool and Manchester.....	32	1,209,000		497,750		1,739,835		57,239		117,559		5	0	0	10	0	0	100	203	Gt. Grimsby and Sheffield..	600,000
Llanelly.....	27	200,000		44,000		221,624						1	0	0	2	0	0	87		Harwich and E. coun. Jun.	160,000
London and Birmingham.....	112½	6,874,976		1,928,845		6,393,468		92,823		405,768					10	0	0	100	218	Huddersfield & M. rl. & cl.	600,000
London and Blackwall.....	3½	804,000		266,000		1,315,640		15,978		23,870								16	6	Kendal and Windermere....	125,000
London and Brighton.....	56	1,793,800		998,350		2,630,451		29,372		84,880		0	12	0	2	8	0	50	47	Leeds and Dewsbury.....	400,000
London and Croyden.....	8½	550,000		229,000		761,885		7,583		10,545		0	5	0	2	10	0	14	17	Leeds and Thirsk.....	800,000
London and Greenwich.....	3½	759,383		233,300		1,040,930		15,193		28,933					nihil.			13	10	Liv. Ormskirk and Preston	600,000
London and South Western.....	92½	2,232,100		630,100		2,596,291		68,457		150,469		1	12	6	6	10	0	41	73	London and Portsmouth....	1,750,000
Manchester and Birmingham.....	31	2,100,000		690,586		1,923,699		15,397		58,162		1	0	6	5	0	0	40	48	London and York.....	5,000,000
Manchester and Bolton.....	10	778,100		197,730		773,743		8,585		21,140		2	2	0	4	10	0	93	110	Londonderry & Enniskillen	500,000
Manchester and Leeds and Hull.....	81	2,937,500		1,943,932		3,921,593		46,653		156,761			7	1	10	0	0	60	88	Lynn and Ely.....	200,000
Midland railway.....	178½	5,158,900		1,719,630		6,279,056		76,983		281,898								100	96	Manchester, Burv and Ross	300,000
Newcastle and Carlisle.....	61	878,240		188,563		1,135,069		26,499		73,947		4	0	0	4	0	0	100	105	Manchester and Buxton....	250,000
Newcastle and Darlington.....	23	500,000		405,728		405,728									nihil.			21	49	Mullingar and Athlone....	700,000
Newcastle and North Shields.....	7	150,000		153,876		309,629		8,943		18,466					2	0	0	50	37	Newcastle and Berwick....	700,000
North Union.....	39	739,201		308,306		1,015,447		9,071		37,794		2	10	0	6	16	8	100	104	Richmond & W. End Junc.	100,000
Paris and Orleans.....	82	1,600,000		400,000		1,978,415									0	16	0	20	39	Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000						31,247		91,171								8	0	20	38
Preston and Wyre.....	19	830,000		179,852		355,161		4,191		7,066					nihil.			50	18	Shrewsbury and Gd. Junc.	400,000
Sheffield and Manchester.....	19	1,150,000		311,759		951,455		11,895		14,876					nihil.			82	93	Shrew. Wolv. Dudly & B.	900,000
South Eastern.....	88	2,996,000		1,530,277		3,464,172		40,993		81,482		0	10	6	2	0	0	50	39	Trent Valley.....	900,000
Taff Vale.....	30	465,000		154,785		590,006		8,509		18,414		1	0	0	6	5	0	100	55	West London Extension....	64,000
Ulster.....	25	519,150		20,000		348,626		5,401		13,856		0	15	0	5	1	8	29	37	West Yorkshire.....	1,000,000
Yarmouth and Norwich.....	20½	187,500		62,500		230,250									nihil.			16	25	Whitehaven and Maryport	100,000
York and N. Mid. and Leeds and Selby	28	1,062,500		167,500		676,644		27,132		55,752		2	10	0	10	0	0	50	100	FRENCH RAILWAYS.	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NEW AND PROPOSED RAILWAYS.		Share Capital.					
														£	s.		d.	£	s.	d.	
Anglo Mexican Mint.....	10,000	10	10		15½	15½	Loughborough.....	70	142½	142½	70	1140									
Anti Dry Rot.....	10,000	10	18½		2	2	Monmouthshire.....	2,409	100	100	10	160				160					
Australian Trust Company	5,700	100	35		34½	34½	Melton Mowbray.....	500	100	100	10	117				117					
General Steam Navigation	20,000	15	14	10	27½	27	Mersey and Irwell.....	500	100	100	10										
Gt Western Steam Pa.....			100		25	25	Macclesfield.....	3,000	100	100	2½	15	15								
Metropolitan Wood Pav...	15,000	10	6	5	6½	6½	Neath.....	247	100	100	17	365	365								
Patent Elastic Pav.....	10,000	1	1	5	1½	1½	Oxford.....	1,786	100	100	30	505									
Peninsular and Oriental..	11,493	50	50	7	64½	65	Regents or Loncon.....	21,418	33½	33½	2½	25	25								
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120								
Polytechnic Institution...					6		Somerset coal.....	800	150	150	7½	123	123								
Reversionary Int. Soc.....	5,387	100	100	4½	104	104	Stafford and Worcester	700	140	140	25	480	480								
R. Mail Steam Packet.....	15,000	100	60		36½	37	Shrewsbury.....	500	125	125	12	230	230								
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360								
Ship Owners' Towing.....	3,000	10	7½	10	15	15	Stroudwater.....	200	150	150	19										
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240								
University College.....	1,500	100	100				SVERN & WHY & RAIL AV.	3,762	26½	26½	5½	30	30								
Canals.							Trent and Mersey.....							2,600		50	50	65	495		
Ashby de la Zouch.....	1,432	113	av.	4	70	70	Thames and Medway....	8,149	19½	19½		10	10								
Barnsley.....	720	100	100	14	180	180	Warwick and Birmingham.	1,000	100	100	10½	167									
Birmingham, 1-16 share..	3,000	118½	79	10	150	160	Warwick and Napton....	980	100	100	8½	122									
Do. and Liverpool Junction	4,000	160	100		13½	13½	Water Works.														
Coventry.....	500	100	100	20	365	365	Birmingham.....	4,800	25	25	3½	28	28								
Cromford.....	460	do.	do.	24	250	250	East London.....	4,433	100	100	8	223	225								
Derby.....	600	do.	do.	9	105																

AMERICAN STATE WORKS AND CANALS, ETC.

STATE WORKS.	Length in miles.	Cost.	1843.		1844.		The State Canals are all 4 feet deep, and the locks are 13 to 17 feet wide, and 80 to 90 feet in length.
			Income.	Expend.	Income.	Expen.	
N. Y. 1 Black river canal.....	35	1,524,967	.....	.....	.....	.....	The six millions paid to the canal fund from auction and salt duties are not included in the estimate of cost. The Genesee valley and the Black river canals require large sums for their completion, the interest of which <i>additional</i> sum is much greater than the estimated gross income of these canals when finished. The sums required to complete these two canals are \$2,000,000 and \$600,000, making their total cost when finished \$5,553,000 and \$2,409,000; an expenditure incurred on estimated incomes (admitted to be liberal,) of \$39,000 and \$14,000 respectively. The total receipts from the works of Pennsylvania for 1843 were \$1,019,401; for 1844 \$1,164,326, and the cost about 30 millions. The receipts for 1844 were as follows: Canal tolls, 578,404 Railroad tolls, 252,855 Motive power, 319,590 Trucks, 13,477 of which \$585,922 is from 118 miles of railroad, and \$578,404 from 550 miles of canal. The canals of Ohio are supported by a property tax of 5¢ mills on the dollar. There are 853 miles of canal in the State, which yielded in 1843 \$471,623, and in 1844 \$515,393, the cost, 1st Jan. '43 being \$15,577,233. The increase of '44 over '43 is only \$43,770, though the year '44 has exhibited a greater increase throughout the country than ever before known. These 21 millions on sundry works yield no income whatever. The central railroad yields above 6 per cent., and is the only State work—the Erie canal excepted—which is able to stand alone.
" 2 Cayuga and Seneca.....	21	237,000	16,557	10,953	24,618	14,443	
" 3 Champlain canal.....	64	1,251,664	102,308	.....	116,739	.....	
" 4 Chemung.....	23	684,600	8,140	14,486	14,385	12,740	
" 5 Chenango.....	97	2,420,000	16,195	15,967	22,179	15,960	
" 6 Crooked lake.....	8	156,777	461	3,674	1,498	3,951	
" 7 Erie—enlargement of.....	363	12,648,852	1,880,316	.....	.....	.....	
" 8 Genesee valley.....	120	3,739,000	.....	.....	.....	.....	
" 9 52 miles opened, cost \$1,500,000.....	.....	.....	12,292	13,819	19,641	15,557	
" 10 Oneida lake.....	6	50,000	225	2,239	621	1,636	
" 11 Oswego.....	38	565,437	29,147	22,742	56,165	28,599	
Pa. 12 Beaver division canal.....	25	.....	.....	.....	7,381	5,386	
" 13 Delaware canal.....	60	.....	.....	.....	109,278	22,870	
" 14 French creek.....	45	.....	.....	.....	.....	.....	
" 15 Seneca river towing path.....	.....	69,276	.....	.....	351	.....	
" 16 Columbia railroad.....	82	.....	.....	.....	443,336	205,067	
" 17 Eastern division.....	36	.....	.....	.....	179,781	138,915	
" 18 Juniata canal.....	93	.....	.....	.....	.....	.....	
" 19 Portage railroad.....	130	.....	.....	.....	351,102	248,943	
" 20 Western division canal.....	105	.....	.....	.....	.....	.....	
" 21 North branch Susquehanna canal.....	73	.....	.....	.....	101,949	57,633	
" 22 West.....	72	.....	.....	.....	.....	.....	
Ohio 23 Hocking canal.....	56	975,130	4,757	.....	5,286	4,139	
" 24 Miami canal.....	85	1,660,742	68,640	38,826	77,844	22,341	
" 25 Miami extension.....	105	2,856,636	8,291	.....	12,723	14,741	
" 26 Miami northern division.....	35	322,000	.....	.....	unfin'd.	.....	
" 27 Muskingum.....	91	1,627,318	23,167	.....	29,385	15,027	
" 28 Ohio.....	334	4,600,000	322,754	123,398	343,711	113,210	
" 29 Wabash.....	91	3,028,340	35,922	6,400	48,589	12,817	
" 30 Walhonding.....	25	607,269	838	39,005	1,977	1,238	
" 31 Western road.....	31	255,015	7,254	1,782	8,747	2,929	
Ind. 32 Sundry works.....	.....	11,000,000	.....	.....	.....	.....	
" 33 Maume canal.....	.....	.....	.....	.....	.....	.....	
Ill. 34 Sundry works.....	.....	10,000,000	.....	.....	.....	.....	
Mich 35 Central railroad.....	110	1,842,308	149,987	75,960	211,170	89,420	
" 36 Southern railroad.....	68	936,295	24,064	7,907	60,341	70,000	

CANALS.	Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
			Gross.	Nett.		Gross.	Nett.			
Blackstone.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	We may, perhaps, at some future time be enabled to give the particulars of all these canals. The Chesapeake and Ohio canal is not yet completed to the coal mines, hence its trifling income. The enlargement of the Schuylkill canal has been commenced. The Morris canal was lately sold for one million, about one-fourth of its cost. It is said in the papers that it is to be enlarged. We have seen no report, nor heard of the appointment of any engineer.
Bald Eagle Navigation.....	25	400,000	.....	.....	.....	.....	.....	.....	.....	
Beaver and Sandy, (part).....	.....	1,000,000	.....	.....	.....	.....	.....	.....	.....	
Charleston, (S. C.).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Chesapeake and Ohio.....	184	12,370,470	47,637	.....	.....	.....	.....	.....	.....	
Conestoga.....	12	300,000	.....	.....	.....	.....	.....	.....	.....	
Delaware and Chesapeake.....	13	.....	.....	.....	.....	.....	.....	.....	.....	
Schuylkill.....	108	3,500,000	279,795	102,221	.....	190,693	120,624	.....	26 31	
Farmington.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
James river and Kenhawa.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Middlesex.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Port Deposit.....	10	200,000	.....	.....	.....	.....	.....	.....	.....	
Delaware and Raritan.....	43	2,900,000	99,623	53,327	.....	131,491	84,455	.....	.....	
Southwark.....	.....	300,000	.....	.....	.....	.....	.....	.....	.....	
Tide Water.....	45	2,900,000	.....	.....	.....	.....	.....	.....	.....	
Union.....	80	2,000,000	.....	.....	.....	.....	.....	.....	.....	
Morris.....	101	1,000,000	.....	.....	.....	.....	.....	.....	.....	
Dismal Swamp.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

CANADIAN CANALS.	Length in miles.	No. of locks.	Lockage in feet.	Size of locks.			Width of canal.		Estimate.	Expended to Sept. 1843.	Income.	
				Length of chamber.	Width.	Depth on mire sill.	Bottom.	Surface.			1843.	1844.
The Welland canal.....	.....	.....	.....	feet.	feet.	feet.	feet.	feet.	3,948,572	2,485,572	64,658	.....
{ Main trunk from Port Colborne to Port Dalhousie.....	28	31	328	150	26 1-2	8 1-2	45	81	.....	.....	.....	.....
{ Junction branch to Dunville.....	21	1	6	150	26 1-2	8 1-2	35	71	.....	.....	.....	.....
{ Broad creek branch to Port Maitland.....	1 1-2	1	6	200	45	9	45	85	.....	.....	.....	.....
The St. Lawrence canal.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
{ Galops and Port Cardinal.....	2	2	7	200	45	9	50	90	.....	.....	.....	.....
{ Rapid Plat.....	4	2	11 1-2	200	45	9	50	90	672,498	973	.....	.....
{ Farren's point.....	3-4	1	3 1-2	200	45	9	50	90	.....	.....	.....	.....
Cornwall, passing the Long Sault rapids.....	11 1-2	7	48	200	55	9	100	150	865,372	1,665,663	.....	.....
Beauharnois, do. Coteau, Cedars and Cascades road.....	11 1-4	9	82 1-2	200	45	9	80	120	1,190,087	275,426	.....	.....
Lachine, do. Lachine rapids.....	8 1-2	5	44 1-2	200	45	9	80	120	400,000	.....	29,288	.....
Elargement of do.....	.....	.....	.....	.....	.....	.....	.....	.....	1,001,333	64,439	.....	.....
Total from lake Erie to the sea.....	12	57	525	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chambly.....	66	9	74	* 120	24	6	36	60	200,000	440,000	1,409	.....

COAL COMPANIES.	Length in miles.	R. rd. Canals.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
				Gross.	Nett.		Gross.	Nett.			
Delaware and Hudson.....	16	108	2,900,000	930,203	196,702	10	.....	.....	.....	130	.....
Lehigh.....	20	72	6,000,000	.....	.....	.....	.....	.....	.....	31	.....

AMERICAN RAILROADS.													SALES.		
Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843. Income.		Div. per cent.	1844. Income.		Div. per cent.	Previous prices.	Week ending June 26th.	
							Gross.	Nett.		Gross.	Nett.			Shares.	Price.
N. H.	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	103½	425	103½
	2 Concord.....	35	750,000									12	65		
Mass.	3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	117		
	4 Boston and Maine extension.....	17 1-4	455,703	unfin.											
	5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	123	5	120
	6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	114		
	7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	120½	3	120½
	8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
	9 Charlestown branch.....		280,260						13	34,654	13,971	5½	77½	15	80
	10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	113½		
	11 Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,835		121½	7	123½
	12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	124		
	13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
	14 Northampton and Springfield.....		172,883	unfin.											
	15 Norwich and Worcester.....	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	73½	4,956	71½
	16 Old Colony.....		87,820	unfin.									106½	3	106
	17 Stoughton branch.....	4	63,075	unfin.											
	18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	118		
	19 Vermont and Massachusetts.....														
	20 West Stockbridge.....	3	41,516	200		100						4			
	21 Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	104	589	104½
	22 Worcester branch to Milbury.....		8,431	506											
	23 Housatonic, (10 months.).....	74	1,244,123							150,000			31		
Con	24 Hartford and New Haven.....	39	1,100,000	100,000	10,000	100						6	95		
	25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
	26 Stonington, (year ending 1st Sept.).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		30	2,060	29½
N. Y.	27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0			
	28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	108	20	109½
	29 Auburn and Syracuse.....	26	766,657				86,291	27,334		96,738	52,544	6	116		
	30 Buffalo and Niagara.....	22	200,000		1,500								100		
	31 Erie, (446 miles.).....		5,000,000										29½	375	30½
	32 Erie, opened.....	53						48,000		126,020	59,075				
	33 Harlem.....	26	1,206,231							140,685	62,399		67½	710	69½
	34 Hudson and Berkshire.....	31	575,613			50				35,029	1,789	0	11½		
	35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	71½	5,342	72½
	36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	58	100	58½
	37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
	38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
	39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	115½		
	40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
	41 Troy and Greenbush.....	6	180,000												
	42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
	43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132		
N. J.	44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		115	10	112
	45 Elizabethtown and Somerville.....	26	500,000												
	46 New Jersey.....	34	2,000,000										94		
	47 Paterson.....	16	500,000									6	87		
Pa.	48 Beaver Meadow.....	26	1,000,000												
	49 Cumberland Valley.....	46	1,250,000												
	50 Harrisburg and Lancaster.....	36	860,000										30		
	51 Hazleton branch.....	10	120,000												
	52 Little Schuylkill.....	29	900,000												
	53 Blossburg and Corning.....	40	600,000												
	54 Mauch Chunk.....	9	100,000												
	55 Minehill and Schuylkill Haven.....	18	315,000						12				80		
	56 Norristown.....	20	800,000										6½		
	57 Philadelphia and Trenton.....	30	400,000										104		
	58 Pottsville and Danville.....	29 1-2	1,500,000												
	59 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		56	2,785	56
	60 Schuylkill valley.....	10	1,000,000												
	61 Williamsport and Elmira.....	25	400,000				20,000								
	62 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		18	8,126	17½
Del.	63 Frenchtown.....	16	600,000												
Md.	64 Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		588,620	346,946		49½	7	49½
	65 Baltimore and Susquehanna.....	58	3,000,000										2½		
	66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	67 Greensville and Roanoke.....	17 1-2	950,000												
	68 Petersburg and Roanoke.....	60	969,880							122,871	72,898	3			
	69 Portsmouth and Roanoke.....	78 1-2	1,454,171												
	70 Richmond, Fredericks'g and Potomac.....	76	800,000							185,243	85,688	6			
	71 Richmond and Petersburg.....	22 1-2	700,000												
	72 Winchester and Potomac.....	32	500,000												
N. C.	73 Raleigh and Gaston.....	84 1-2	1,360,000												
	74 Wilmington and Raleigh.....	161	1,800,000												
S. C.	75 South Carolina.....	136								532,871	140,196	5			
	76 Columbia.....	66	5,671,452		34,410	75	201,464	77,456		328,425	180,704				
Ga.	77 Central.....	190	2,581,723				227,532	93,190		248,026	158,207				
	78 Georgia.....	147 1-2	2,650,000							248,096	147,523				
	79 Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Ky.	80 Lexington and Ohio.....	40	450,000												
Ohio	81 Little Miami.....	40	400,000												
	82 Mad river.....	40	152,000												
Ind.	83 Madison and Indianapolis.....	56	212,000												
Can.	84 Champlain and St. Lawrence.....	15								12,000	58,000	24,000	110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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RAILROADS IN CANADA.

During the past winter and spring we have bestowed much attention on the proposed railroads from Montreal to Portland, and from Ontario to Huron. There has been quite enough said and written, and the time for action is at hand. We not only did our part as faithful chroniclers of passing events, likely to influence these great works, but we also went so far as to point out what we considered the course to success. A gentleman is to be sent out from Montreal to London to lay the merits of the "Atlantic and St. Lawrence railway" before British capitalists, and, singularly enough, it is proposed to associate with him one who has played a leading part in drawing the province into the construction of a system of gigantic canals, about as many times greater than the productive canals of England, as the trade they are to accommodate is less. We particularly cautioned the friends of the Great Western railway against this error. Above all things we recommended an avoidance of those visionary and bombastic statements which have led to such unfortunate expenditures in this and the western States, and a close adherence to the system which has led to such brilliant results in England and Massachusetts: that is—to examine well the cost and income of the project before offering the stock to the public. Of the Atlantic and St. Lawrence railway we have seen merely a report of a preliminary survey, and some general statistics, and therefore do not feel ourselves warranted in forming, far less expressing, an opinion as to the actual value of the investment.

But with the Great Western railway, the case is different. The country is easy and well known, the winter is less severe than at Albany, and, what is of more importance than all the rest, the trade is already there to an extent far greater than is required to make the work eminently successful. Again, the kind and amount of trade and travel may be easily ascertained at Detroit and Buffalo, so that one or two well informed men of business, who enjoy the confidence of their fellow citizens, aided by an engineer of skill and character, might, in a few months, prepare a statement which could be fearlessly submitted to the severest scrutiny. If the Atlantic and St. Lawrence railway have any chance with British capitalists, we must think that the Great Western railway is—with fair play—certain of success. And here we may observe, that local jealousies and rival schemes abound there as every where else. The road is to be carried down the lake to Toronto, and extensive branches are to be carried to the north, besides which the western terminus is claimed by every hamlet from opposite Detroit to far up on the eastern

shore of lake Huron. As the American travel will all go by Detroit, and as that is the eastern terminus of the only railroad likely to be carried across the peninsula of Michigan, it is obvious that the best communication with that city is a great desideratum. If a line to that point offers equal accommodation to the Canadian trade and travel, then must we consider the case pretty well made out. We await impatiently the announcement of some definite and systematic plan of operations which we shall hasten to lay before our readers, with such remarks and elucidations as our humble yet zealous efforts are capable of affording.

**EXTRAORDINARY LOCOMOTIVE.**—We intended to notice in our last an "extraordinary performance of a locomotive;" but it turned out, according to the printer's figures—they were certainly not ours—that the engine itself was much more extraordinary than its performance, as it is represented to weigh 1308 tons, instead of 13.8 as written. The "Manatawney," the engine referred to, weighs 13 $\frac{1}{2}$  tons, instead of 1308, as printed.

**AMERICAN RAILROAD IRON.**—We ask the attention of those who would purchase railroad iron to the advertisement, in this number, of the "Maryland and New-York Iron and Coal Company," or, as it is better known, the Mount Savage Iron Company. This establishment is, as it will be seen, ready to receive orders and make contracts for railroad iron of all kinds, and we hope to be able to announce similar information from at least half a dozen other manufacturing factories before the end of the year.

**CONCORD RAILROAD.**—The report of the directors of the Concord railroad to the stockholders at their late annual meeting, shows that the amount of capital stock of the road is \$750,000, and the cost of the road and its appendages \$756,444. The length of the road is 34 3.5 miles, and the maximum grades 15 8-10 feet per mile.

The income of the road the last year amounted to \$181,842, of which the passenger department afforded \$90,545, freight \$90,099, and rents and interest \$1,196. The expenses amounted to \$82,928; of which \$11,528 were for road repairs; \$9,708 for wood and oil; \$6,393 for taxes, and other expenses. Net income \$98,913. Two dividends were declared, one of 6 and the other of 7 per cent.

**RAILWAYS VS. CANALS IN GREAT BRITAIN.**—By a notice in an English paper, we perceive that railways are gaining the ascendancy over canals in that country. "The Ellsmere and Chester, and the Birmingham and Liverpool canal companies," (now united,) advertise that they hold, including branches in various directions (through the coal and iron field of North Wales, etc.,) 160 miles of canal.

They call the attention of their shareholders to the fact no longer to be disguised, that the public preference for railways is fast destroying the whole canal interest of the country. And the committee recommend, as the only means of saving their property, that application be made to parliament for the privilege of destroying the whole canal with all its ramifications, and of converting it into railroads.

Let any one visit the coal wharves at the head of the Schuylkill canal, and at its terminus in this city, and compare their utter desolation with the activity at the railway coal wharves on the Delaware, and he will be struck with the forcible

conviction, that like causes produce like effects everywhere.—Philadelphia Paper.

**REDUCTION OF FARE.**—The Philadelphia and Baltimore railroad company inform the public that the fare between the two cities, by the mail lines, has been reduced to two dollars.

RECEIPTS.

**THE MOHAWK RAILROAD.**—The receipts on the Mohawk railroad show a large increase over last year, for the second week in June:

Passengers.....	\$1751 19
Freight.....	120 97
Total.....	\$1872 16
Same week last year.....	1267 00

Excess in 1845..... 605 16

**WESTERN RAILROAD.**—Receipts for the week ending June 21:

	1845.	1844.
Passengers.....	\$8,829	\$7,775
Freight, etc.....	7,669	7,136
Total.....	\$16,498	\$14,911

**HARTFORD AND NEW HAVEN RAILROAD.**—The receipts on this road (exclusive of mails) for May:

	1845.	1844.
	\$16,870 34	\$8,456 51

Receipts for the first six months since the completion of the Extension road to Springfield, ending June 9th, 1845.... 100,291 80  
 Receipts for the corresponding months in 1844..... 48,060 66  
 showing an increase of more than 100 per cent.—[Hartford Courant.]

**READING RAILROAD.**—Transactions for the second week in June for three years:

	1843.	1844.	1845.
Business.....	\$7,910 08	\$11,378 72	\$23,180 71
Coal transported, tons.....	4,490	9,251	20,537

THE COAL TRADE.—SCHUYLKILL VALLEY.

The shipments this week are by railroad 23,963-05, and by canal 6,077-18, amounting to 39,141-03 tons, the largest quantity ever sent from this region in any one week.

The following is a comparison of the trade from the Schuylkill and Lehigh regions, to the same period last year.

	1844.	1845.
Schuylkill—railroad,	155,971-03	262,550-15
"    canal,	126,129-18	80,493-04
Lehigh,	96,930-00	138,522-00
	378,031-20	501,465-19
		379,031-01

Increase in 1845, - - - 122,434-10

BY RAILROAD.

From Pottsville and Port Carbon—total.....	120,306-17
From Schuylkill Haven—total.....	158,916-19
From Port Clinton—total.....	3,326-19

Total by railroad..... 282,550-15

BY CANAL.

From Pottsville and Port Carbon—total.....	50,245-11
From Schuylkill Haven—total tons.....	12,511-14
From Port Clinton.....	17,635-19

Total by canal..... 80,393-04

Total by railroad and canal..... 362,943-19

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.	
Summit mines, - - -	62522
Room run do., - - -	20353-62875
Beaver Meadow railroad and coal co.,	26679
From Penn Haven—Hazleton coal co.,	21906
From Rock Port—Buck Mountain coal co.,	7062

138522  
**WYOMING COAL TRADE**—total..... 45,911

**PINE GROVE COAL TRADE.**—total..... 23,466

**MINEHILL AND SCHUYLKILL HAVEN RAILROAD**—total tons..... 170,527-12

**MOUNT CARBON RAILROAD**—total tons.. 105,289

BALTIMORE AND WASHINGTON RAILROAD,  
HIGH FARES.

We have felt called upon, in support of our favorite theory—viz: "low fares and high speed for passengers"—to refer more than once, and recently in a somewhat pointed manner, to the rates charged on the Baltimore and Washington railroad. We feel assured that our motives, in the course pursued by the Journal, cannot be misunderstood. We have neither personal interest to promote, nor private griefs to assuage, by a change of policy in this or other cases of railroad management—or rather, as we have sometimes thought, *mis-management*. Our only aim and object has been and is "the greatest good to the greatest number"—but placing *always first* those enterprising and liberal citizens who have invested, and in the case of the Baltimore and Ohio railroad company especially, having been *pioneers* in the cause, *risked* their capital; therefore the only question to be solved in our mind is what *rates of fare* on this road will, at the same time produce the best returns to the shareholders, and the greatest accommodation to those who *desire* to travel. This, we admit, is an important question; one which requires due deliberation before a change is adopted. We therefore give place to the following well written communication on the subject, from a source commanding our highest respect, which, had it come to hand in time, would have appeared in our last number, and we ask for it an attentive perusal by all who feel an interest in the matter—and who that travels does not?

[For the American Railroad Journal]

*High Fares—Baltimore and Washington Railroad.*—The company who are the proprietors of this railway have been frequently and harshly censured for their alleged extortion in charging \$2 50 for carrying passengers from Baltimore to Washington. The complaint has come in part from the travelling public, and in part from the Virginia line of railroads south of Washington. The public forgets that before this railroad was opened they paid \$3 for making the same journey in seven hours over an inferior turnpike road, almost impassable in the winter, and that the railroad saves them at least five hours in time and fifty cents in money, and affords them a proportional increase of safety and comfort. The Virginia companies forget that but for this railroad they would probably have never come into existence, and that they were in fact constructed and put into operation some time after its completion, with a full knowledge that its charter fixed its charge at the rate above mentioned. They also forget that on their local, or way travel, one of them is charging even higher rates (8 cents per mile) than those of the Washington railroad, and that their clamor for a reduction of the latter has been dictated less by a regard for the public, than by a desire to break down a rival work, the Portsmouth and Roanoke railroad, which, in connection with the bay steamboats, has always competed with them for the southern travel.

I shall in a few words attempt to show that

their complaints against the Baltimore and Ohio railroad company are not so well founded as is generally believed.

In the first place that company has been in possession of the legal power to reduce the fare upon their Washington branch, only since the first of June. They have the matter under advisement, and have not yet decided what they will do, but desire, and should be allowed, full time to mature their measures upon the subject in question.

Again. The reduction is urged as much on the ground that it will advance the interests of the company, as that it will promote those of the public—and low fares are always pressed upon this principle. Railroad companies are not expected to do what will induce a permanent decrease in their revenue. On the ground of public good *alone*, such reductions are never advocated by reasonable men. Boards of direction must look first of all to the returns upon the capital intrusted to their management. Maximum dividends are their prime legitimate aim. Were it otherwise, they would be guilty of breach of trust. Happily the policy that will produce this maximum is also the one which will ultimately be most advantageous to the public. If the rates are too high, trade and travel is checked, and the revenue falls off, while the people are partially deprived of the use of the work. If too low, they have a fuller enjoyment of the improvement, but it is only for a time; as, the income becoming insufficient to keep it in proper repair, and pay a proper interest to the proprietors; it languishes, and perhaps finally comes to a stand. So that the public is at first badly accommodated, and at last not at all. These are self-evident truths, but they require to be recalled to the attention of those who clamor for low fares without consideration. The only right rule I conceive, is that of the *maximum revenue*. The principle may seem selfish, but it is not the less sound, and is indeed formally denied by no one.

Now the palpable inference from this is, that a rate of fare having been established and found to yield a fair interest on the capital invested, should not be changed without due consideration; for the effect of any change is always doubtful. This amounts to no more than saying that no prudent person takes a step in the dark if he can help it. The Baltimore and Ohio railroad company is now acting thus prudentially, and is looking narrowly into the probable issue of a reduction in its rates before it determines to reduce them.

That there is reason for caution will be seen from the following statements,

It is known that a line of post coaches, (established and supported by the Virginia railroads, to favor their rivalry of the bay route) has been running for a year or two past upon the turnpike in opposition to the Washington railroad. In the 10½ months preceding the 30th of April last, the Washington railroad carried

40,155 through passengers from Baltimore to Washington only, at \$2 50, - - - \$100,388  
7,767 do. do., going south, do. 19,418

9,068 round trip passengers from Baltimore to Washington and back, \$2 50, - - - 22,672

56,991 through passengers, yielding \$142,478  
24,499 way passengers between intermediate points, short of the whole distance, and averaging a distance of about 17 miles, at \$1 06 - - - 25,840

81,490 pas'g'rs, producing a revenue of \$168,318

The post coach line on the turnpike within the same period, carried

9,337 passengers through from Baltimore to Washington only.

3,889 do. do. going south.

769 do. way between intermediate points.

13,995 total carried by coaches, at \$1 50 to the through passenger, with \$1 added for those going south by the Virginia railroad companies.

Adding together the through and way passengers carried by both the railroad and the coaches, we have

70,217 passengers carried through in both ways.  
25,268 do. do. to less distances, say about one-half the whole distance.

Now if the railroad had carried *all* these passengers, at \$2 for through passengers, and five cents per mile for way, the loss to the company would have been, - - - \$6,399

And if carried for \$1 50 for through passengers and four cents per mile for way, the loss would have been - - - 41,508

So that if the stages had been driven off, and the whole travel secured to the railroad, to effect which the latter and greater reduction would have been doubtless necessary, the road would have lost upwards of \$40,000 of revenue, and have paid less than 6 per cent. on its cost.

But it will be said, would not the *number* of passengers have been so increased as to make up the same net revenue. Now, it is the *doubt* on the minds of the directors, on this very point, which leads them to hesitate as to the policy of the reduction; for it will be seen that under the half-price, round trip, fare of \$1 25, upwards of 9000 passengers made the excursion within the time above mentioned, and the probability is that *this number embraced nearly, if not quite, all of those whom the reduction of fare would have induced to make the journey.* In fact the 24 hours allowed for the trip, (one-sixth of which only is spent on the road,) will be, in the opinion of most of those who are acquainted with the federal metropolis, quite sufficient for the enjoyment of all the pleasure likely to be realized from the excursion. At least, it should be admitted to be a question not altogether free from doubt, and upon which the company interested may take time to deliberate, without deserving odium and reproach.

The truth of the matter then is—1st, that this company has in fact already exercised its power of reduction to its full extent in favor of excursion passengers, upon whom chiefly low fares would be likely to operate in augmenting travel; and that this class of passengers have been carried at the reasonable rate of \$2 50 for

80 miles, or 3½ cents per mile. 2d, that the direction has good reason to fear that a reduction, at this juncture, on the general travel would be attended by a considerable decrease of the revenue of the road, which their prime and paramount duty to their stockholders would not warrant them in risking.

If then the professed confidence in the sagacity and honesty of these gentlemen be really entertained, why are they not left to judge of the propriety of a measure the results of which they have the means of foreseeing so much more clearly than others? I address myself, of course, only to those who recognize the principles laid down in the outset of these remarks. To those who demand low fares at the sacrifice of the proprietors of the work, I have nothing to say which would influence their opinions or silence their clamor, the continuance of which must therefore be submitted to with becoming patience. Z.

**NEW HAVEN AND NORTHAMPTON RAILROAD.**  
—The New Haven and Northampton Canal Co. have had it in contemplation for some time, and are now concerting measures for an increase of capital, to enable them to lay down a railroad on their towing path from New Haven to Westfield and Northampton, eighty miles, connecting with the Northampton and Greenfield, and other contemplated roads, and thus bring the travel and transportation of the populous and thriving valley of the Connecticut to New York by way of New Haven, using both the canal and railroad, and tapping in its course the great Western road from Boston to Albany and Westfield, (sixty miles from here.) making it decidedly the nearest route to Albany—and should the Hartford and Danbury road ever be made, that too would be tapped at Plainville, (Bristol Basin,) twenty-seven miles from here.

The whole length being already graded, with the exception of some slight additions about the locks, having one entire level of twenty-six miles, with the advantage of a canal to transport all the materials for the superstructure, it has been ascertained that the whole can be done with the heaviest T rail, for about seven thousand dollars per mile—say \$560,000 for eighty miles! Many persons now express their surprise, that the canal company, or the New Haven people, did not avail themselves of the already graded banks of the canal to connect by railroad the upper valley of the river, and Albany and Westfield, with New Haven, as soon as the Boston people located their great road to Albany through Springfield, Westfield, &c.

It will be said, that there being one route already made at great expense, another, (although some twelve or fourteen miles shorter to Westfield, and considerably shorter to Northampton,) cannot be supported. This may be true to a certain extent at the present time—competition will produce low fares, which will benefit the people; and then it will be tested which road can best afford to carry for low fare, the one that costs only seven hundred and fifty thousand dollars, or the one that has cost, or will cost when completed, one or two millions of dollars! and even with this cost, thirty-six miles of it still in flat rail. The New Haven and Northampton road will be perfect in all its appointments, with the advantage of a first rate canal alongside of it for the transportation of heavy freight, and will connect about three hundred miles of railroad with New York, with the unusual advantage of water communication for heavy freight alongside of it for the whole distance!

The high price of iron, and other causes, prevented the proprietors of the canal company making application to the General Assembly at its last session, for the permission to lay down their intended road, nor did they intend to agitate the matter till they were ready to commence work—but we are happy to learn that all their arrangements will probably be completed before the meeting of the next Legislature, when it will be found that for about seven hundred and fifty thousand dollars, the company will have a first rate railroad of eighty miles in extent, and a canal of the same extent now in full and successful operation.—*New Haven Courier.*

We copy the above from the New Haven Courier, for the purpose of showing that those concerned are making use of suggestions contained in the Railroad Journal five years ago. In the number for June, 1840, will be found a communication from the pen of one of the engineers of that canal, giving in detail the estimates of the cost of converting the canal into a railroad. The above notice speaks of the "advantage of having a canal for the transportation of heavy freight, alongside the railroad." We would call the attention of the New Haven Courier to an article in the Railroad Journal for 19th June last, which gives a good idea of the relative advantage of railways and canals for heavy freight, as exemplified by the best lines for that purpose in this country, viz.: the Schuylkill canal and the Reading railroad.

We copy below the estimates referred to, as published in this journal in June, 1840.

"It now remains to show the practicability at a small expense, of making a railroad on the site of the canal. First, then, drain it effectually, by running ditches along the sides just at the foot of the inner slopes. Let the outer slopes of these ditches be continuations of the inner slopes of the canal—let the ditches be, say four feet wide at top, and one deep. The slopes of the canal are 1 foot perpendicular, to 1½ horizontal; preserving the same slopes for the ditches, their bottom width would be one foot. The bottom width of the canal is twenty feet—the ditches occupying four feet on each side, still leaves sufficient width for the railroad between them. The earth obtained from the ditches would be sufficient to raise this space six inches, which would leave a dry solid roadway, one foot six inches, above the bottom of the ditches, ready to receive the superstructure. In a few instances the canal is 'below bottom'; that is, in crossing ravines, a single bank was sometimes thrown off, forming the towing path—the water being allowed to spread itself the whole length of the ravine. In such cases a culvert would be necessary to drain off the water, and the towing path would require to be levelled down to form the roadway. When a number of locks occur together, it would probably be necessary to change the location for a short distance: there may be some five or six instances where this would require to be done; in all other cases the elevation could be overcome without leaving the line of the canal, and at a very trifling expense; where they occur singly, which is frequently the case, the elevation would be overcome by a plane = 1056 feet long, on an inclination of fifty feet to the mile. Wherever they are 1056 feet apart, the elevation would be overcome with the same ease. By adopting such grades as those on the summit division of the Western railroad—799 feet per mile, the line of the canal need be departed from in not more than one or two instances. At Granby, for instance, there are six locks; the elevation overcome is, I think, 36 feet, and the distance from the lower to the upper one, is half a mile, which brought to a plane, gives an inclination of 72 feet per mile. The planes at the locks where they occur singly, to bring them to a grade of 50 feet to the mile, would each require about 2000 cubic yards of earth to be

moved, in cutting and filling which, at 10 cents per yard, gives \$200. But I will suppose the obstacle presented by each lock to cost in its removal \$1000. The whole number of locks is about 60. We have then the sum of \$60,000 for this item. I will state in this place that there is one level on the canal 28 miles long. The ditches give for the 80 miles, 78,160 cubic yards of earth, at six cents per yard, gives \$4,689 60. Levelling down the towing path at certain places, I will estimate at \$500 per mile. The superstructure for a single track may be safely estimated at \$5000 per mile.

"RECAPITULATION.

Planes at 60 locks.....	\$60,000 00
78,160 cub. yds. of earth in ditches, at 6c.	4,689 60
Levelling down towing path at certain places, at \$500 per mile.....	40,000 00
Superstructure, at \$5000.....	400,000 00
Total.....	\$504,689 60

Average per mile..... 6,308 62

"Thus you have a railroad for the last mentioned sum per mile, equally as good as one which, were it graded for the express purpose, would cost \$15,000 per mile. It is true there are many short curves in the canal, but it need only be borne in mind, that these curves will occur on level grade, and the difficulty vanishes. I think there are few of less radius than 400 feet curves, which are frequently to be found on railroads combined with steep grades. On a railroad in Pennsylvania there are curves of 240 feet radius. Some of you may apprehend danger to such an enterprise, from the competition of other roads, either built or contemplated; but allow me to present you with this view of the case. The Hartford and New Haven railroad was estimated to cost about \$800,000. It has probably cost fully that sum. Suppose it extended to Springfield, or even to Northampton, at the rate of \$15,000 for a single track a low estimate, and we have the sum of \$1,460,000 as the cost of a railroad from New Haven to Northampton, by the way of Hartford, or an average sum per mile of \$18,250, besides having the disadvantage of not being a continuous line. It is true the Hartford and New Haven railroad is graded for a double track.

"I now ask, can you have anything to fear from a railroad which would cost nearly three times as much as yours? I may safely say nothing. Once having reached Northampton, the valley of the Connecticut is before you to invite your enterprise.

"The estimate of cost which I have made is necessarily quite a rough one, but I am satisfied it cannot vary much from the truth. Locomotive power, etc., have been excluded, as being in this communication unnecessary.

"I will here add, that the aqueducts, which might be used as viaducts, and culverts, on the canal, are of the most permanent and substantial kind.

"If this communication shall be so fortunate as to awaken inquiry on the subject, I shall feel that it has not been made in vain; for I am satisfied that the project needs but be fairly investigated to be carried into operation."

OGDENSBURGH AND LAKE CHAMPLAIN.

*The trade of the West—exhibiting the merits of the proposed route from Boston, across lake Champlain to Ogdensburgh.*

Opposite the termination of this railroad, at Ogdensburgh, west of the St. Lawrence, spreads out the rich province of Canada West. With a soil unsurpassed in richness by the same extent of territory in America, with a population rapidly increasing in numbers and improving in character, with a healthy climate and a stable government, this province bids fair in a few years to be one of the best agricultural districts of the whole British empire. Ten years ago it contained a population of 320,000. The total amount of property at that time was \$187,000,000, and the annual products were over \$60,000,000. The value of goods imported into both provinces in 1836, was over \$13,000,000. Since that time there has been a very great increase of population and business. As the population of the eastern province was larger than the west-

ern at that time, it is fair to suppose that she retained a proportionate amount of the imports, the balance being forwarded west by the St. Lawrence and the canals. There must have been at least \$5,000,000 worth of British and Irish produce and manufactures and foreign and colonial merchandize sent to Canada West thro' the St. Lawrence and the Canada canals in the year 1836, and the amount has probably doubled since that time.

No one communication from the basin of the St. Lawrence to the Atlantic can command the whole of this trade.

[For the American Railroad Journal.]

#### RAILROAD ROUTE FROM NEW YORK TO THE WEST.

Very much has been written and said as to the best railroad line from New York to the western lakes. From the varied explanations, it would scarcely be inferred that 325 miles of the distance is now occupied by a railway. The distance from New York to Buffalo, by the Central railway line from Albany west, is 475 miles. From New York to lake Erie, by the Erie railroad route, is at least 480 miles. How many persons in the city of New York are aware of the fact, that it is actually as far by the Erie railroad to Dunkirk, as it is by the way of Albany to Buffalo? It has been the experience of the writer to find very few who were correctly advised. They are still less aware of other equally stubborn facts that have an important bearing.

Grades and curves measure the value and the capacity of the railway. Of two routes between the same points, that which is the most level, and has the least curvature, has by so far the advantage in capacity and in economy of management. This is the common-sense practical way of looking at improvements of this character. So long as the laws of gravitation remain, the fact is fixed, that railroads with severe grades, and sharp curves, can never successfully compete with those of comparatively level face, and of straight lines.

There are well established rules to show the ratio in which the power of the engine is diminished, or increased, in ascending grades of greater or less inclination. We have found, to be sure, that we can ascend grades of 84 feet to the mile, by using an engine of enormous weight; but we have not yet found an economical iron structure, that will endure the pressure of this great weight. These grades can only be ascended by such a machine as is practically unfitted to a level road. To endure the weight of the engine will require so rigid and strong a structure, as to add greatly to the cost of construction. Already, upon the western railroad in Massachusetts, many of the bars are failing in consequence solely of the great

weight of the motive power required to overcome the grades.

The railway from New York to Albany may be so located as to be very direct, and with slight grades. From Albany to Buffalo it is known to be very straight, and with slight inclinations, and although now of a wood structure, yet preparations are making to relay it with an improved rail bar, when it will exceed any road in this country by reason of its level and direct line.

One very interesting objection is made to it by a committee composed of members of our legislature and commissioners of the Northern railroad from Ogdensburg to lake Champlain, who have lately visited Boston, and addressed a letter to the Hon. Abbott Lawrence, commending their project, and tendering it to the people of Boston, as the most favorable route between that city and the western country, because "the New York roads located along the line of our canal are compelled to pay tolls of the canal upon all freight passing over them, equal to 35 cents for each barrel of flour, and on the average \$5 per ton for merchandize."

In plain language, this means, as the fact is, that the route along the canal is the most favorable by nature, and the one upon which capitalists invest their money, but there are tolls upon this line, which clogs it, so as to make others hope to participate in a business which they otherwise would have difficulty in sharing. How long will these tolls be continued against the good sense of an intelligent people? They were imposed by rival interests—by those living upon unfavorable routes, with the view to be able to say, what this committee have now said, that *while they are continued*, they add to the cost of transportation almost as much as the grades and curves upon these prospective competing routes.

These tolls must be taken off; they are a burden upon the consumer; they go to enhance the price of property at the place of sale, and are as narrow, illiberal and unjust as if the legislature should attempt to equalize the fertility of the soil in Ontario, Livingston and Monroe, with that of Delaware and Sullivan, or Franklin and Clinton, by imposing such tax upon the surplus productions of the former as would bring them down to a level with the last named counties. They will be swept away when they come to be examined, as other like burdens have been before.

The address of this committee, in their zeal to enlist the aid of Boston in their plans, thus disposes of two other railroad routes:

"The New York and Erie road will be 580

(probably 480 was intended,) miles in length—and from its *high grades and curvatures*, can never compete with our northern route."

"When the Harlem railroad shall be extended to Albany, as it *will be within two years*, can it be expected that the Western railway over the *Berkshire mountains* will take much of the freight coming over the Central railway of our state? We think not: freight could pass on a railway from Ogdensburg, via Burlington and Boston, to Springfield, at less cost than from Buffalo to the same point, considering *the tolls paid by the Central line*."

Thus, it is the *tolls* imposed by the New-York legislature upon the transportation of property over a level and convenient railway, through a densely populous region, that are set forth as the leading reason to invite capitalists to invest money in the construction of a railway through a wilderness at the north, or winding among and over mountains at the south.

Let the Central railway be what such a work should be, that is, free to do all that can be done over it, without being clogged and tasked with tolls; let there be a good road from New-York to Albany, and a short connection established between Syracuse and Oswego; and New-York will then have an opportunity of testing the value of railways; and there will be an outlet from lake Ontario that will be found quite as available as any other.

It is a policy which we shall soon have outlived, to contribute largely to one line and to impose *burdens* on another. Yet this has been practically done in our state. Three millions of dollars are given to the Erie railroad company, to enable them to build a road some portion of the way within sixty miles of the Central route, and the broadest powers are granted as to carrying freight, &c., while, on the Central route, the transportation of freight is *prohibited* in summer and *tolls* are imposed in the winter.

The impropriety of this will be apparent on stating the fact. The favors granted, or the money expended, in aid of any route, is by no means objected to; but the short-sighted policy of curbing and restraining another line, is not worthy of an intelligent people. Let each one stand upon its own merits. Give the railways and the canal a fair opportunity, without attempting to monopolize business by legislative action for either. A proper competition, checked by physical laws, which are the only rational restraints, among intelligent men, would enure to the proper development of the western country, to the great advantage of the city, and to the benefit of our state.

W.

We concur fully with "W." in his views in relation to the superior advantages of a



level route and straight lines for railroads, as well as in relation to the impolicy—more than that, the *injustice*—of charging canal tolls upon freight carried on the railroads over the Central route. We consider it, and have often spoken of it as, a narrow, illiberal, and unjust policy, alike oppressive to the business community and to those who have invested their capital at their own risk, but for the public convenience, in the line of railroad from the Hudson river to lake Erie. We look upon it much in the same light that we do the levying a *direct tax*, by the state of New Jersey, upon travellers who pass by railroad between this city and Philadelphia; and by the state of Maryland upon those who pass between Baltimore and Washington; and as *all* now look upon the former course of this state, when, in 1817 and 1818, it levied a tax of one dollar upon each passenger who passed between Albany and N. York by *steamboat*, to aid in constructing the Erie canal as oppressive, unjust, and undignified; and which ought, therefore, to be abandoned, as it surely will soon be, that business and travellers may be at liberty to seek the natural and the most convenient channel, unrestricted by rival works, or by unwise state policy.

[For the American Railroad Journal.]

AUGUSTA, GA., June 24, 1845.

I presume the editor of the Railroad Journal has, ere this, heard of the great enterprize we have on hand, in an attempt to make our city a southern Lowell.

We have commenced and are rapidly executing a canal for manufacturing purposes. It will be nine miles in length, including rather more than two miles in the city. The bottom is 20 feet wide, and the depth 5 feet at the upper end,—slopes 2 to 1. The nature of the ground in the city gives us three falls of about 13 feet each.—The Savannah, from which the water is taken, is, at the lowest water 500 feet wide, and averages 2 feet deep, so that we may safely calculate on an unfailing supply.

Our river is navigable above the falls about 100 miles, and the extension of our railroad to the state road will give us the control of an immense trade with the interior. By these means we have the raw material, provisions, fuel, and building materials at the cheapest rate at our doors. The river, and the railroad to Charleston afford easy means of communication with the seaboard; and, altogether, our local advantages are such as to present the greatest attraction to men of skill and enterprize south of Lowell. I trust these will be duly appreciated by our northern friends, and that their capital and skill will contribute to develop our great resources.

GEORGIA.

We were not aware of the contemplated improvement above referred to, and are

therefore the more obliged to the writer for the information. We have long entertained a favorable opinion of the enterprize and public spirit of the citizens of Augusta, Ga., though our acquaintance with them is exceedingly limited. We usually form our opinion of the people, or of the *business men*, of a city or village where we have not a personal acquaintance, from their *newspapers*; and in this case, from the "Chronicle & Sentinel," which we perceive is published *daily, tri-weekly, and weekly*, though, by-the-by, we only see the *weekly* sheet, which is one of the largest and best filled sheets received by us from the south; and, therefore, with *such* a water power, in one of the most healthy localities, if we recollect correctly, in the south, and with *such* resources for obtaining cheaply building materials, provisions, and the raw material, we anticipate for AUGUSTA, at no distant day, an elevated position amongst the manufacturing towns in this country—but more especially in the region south of Mason & Dixon's line—and we predict that it will ultimately become largely interested in the manufacture of cotton and other articles. We have only to say to those engaged in this, for Georgia, important work, *develop your power with your own means and enterprize*, then invite capitalists, experienced in manufacturing, to *join* you in its use and advantages; but by all means, avail yourselves of the opportunity which it offers to participate in the benefits arising from *working up*, as well as in producing, and dealing in, the raw material. We heartily wish those interested early and ample success, towards which we shall be always happy, if in our power, to contribute.

[For the American Railroad Journal.]

A NOVELTY.—We observed a few days since, below Manayunk tunnel, on the Philadelphia and Reading railroad, an iron bridge constructed by the company, at their shop at Pottstown, on the Howe Truss principle, of superior workmanship and finish. The span of the bridge is 34 feet; the cords are made of wrought iron, having a centre truss. The weight of the main truss is three tons, and the whole weight of the bridge, including every thing, 9 tons 1 cwt. The cost of this bridge is about \$1600, and it is the first iron bridge that has ever been put up in this country.

The above is from the Anthracite (Pottsville, Pa.) Gazette. The writer is mistaken in supposing that the bridge referred to is the "first iron bridge that has ever been put up in this country." The Erie canal, at Utica and Rome, is now spanned by two or three iron bridges, built some four or five years since, by Mr. S. Whipple, civil engineer, of Utica. They are constructed like the Reading railroad bridge, of cast and wrought iron combined, and of a form to give, as the writer of this believes, much greater strength, according to the quantity of iron used,

than the Reading bridge. These bridges have a space of 80 feet in the clear, are designed for highway bridges, and cost from 1500 to 1600 dollars.

J.

We shall be much obliged to "J." or to Mr. Whipple, the builder, for a particular description, accompanied by drawings, of the bridges referred to at Utica and Rome. If we receive them, we will make them and the builder also better known, at least to the railroad community.

INTERNAL IMPROVEMENT.—*Portsmouth, Exeter and Manchester Railroad*.—A petition will be presented to the General Court of New Hampshire, at the June session, for an act to incorporate a company, with power to construct a "railroad from Portsmouth to either or both the above named places, and to form a junction with, or to cross the Boston and Maine railroad, at any point in the towns of Durham, Newmarket or Exeter, as shall seem to the petitioners most likely to promote the prosperity of Portsmouth, of the towns above mentioned, and of the State at large."

The petition is now receiving signatures in this town, and other towns on the route will also petition. Such a road would bring Concord and Manchester twenty-two miles nearer the seaboard at Portsmouth than at Boston. As the good effects of such a road on the business and prosperity of this section, have been ably and fully set forth in a pamphlet by "A Citizen," we will not go into any detail of the matter here. The road is of more consequence to this town than any that has been constructed in our neighborhood.—*Portsmouth Journal*.

The above is a very noticeable project. It is the first thing of importance that has appeared for a long time, in the shape of an actual development of New Hampshire *within herself*. The map shows at once, the topographical propriety of the undertaking.—Business relations may at present, and for a long time to come, direct the transportation of goods from the valley of the Merrimack to Boston, and so, in return. But the interior of New Hampshire will eventually seek the *shortest* outlet to the sea.

DIVIDENDS.

The directors of the Boston and Worcester railroad have declared a dividend of 4 per cent on the capital stock of the corporation from the profits of the six months ending on the 31st of May last, payable on the 1st of July. The receipts of income during the 6 months, with a reserve of \$13,162 from the previous dividend, amounted to \$236,203, and the expenses to \$107,982, leaving a net income of \$127,221.

The Boston and Providence railroad company have declared a dividend of three and a half dollars per share, payable 1st of July at the Phoenix bank, New York.

A semi-annual dividend of four per cent. was declared on Saturday, 14th inst., by the directors of the Tonawanda railroad company.

The directors of the South Carolina railroad have declared a dividend of \$2 25 per share for the last six months.

Among the railway projects talked of in England is one to connect Bristol with South Wales, by means of a tunnel under the Severn!

**PROPOSED TUNNEL THROUGH LONDON.**—It is said Mr. Stephenson has suggested the construction of a tunnel from Hyde-park-corner to Mile-end, for the purpose of easing the great leading thoroughfares of their present throng of passengers. From this trunk line communication would be had with the streets above by means of spiral staircases, under cover, at regular distances, and branch tunnels would lead off to the various suburbs north of the Thames, Regent's-park, Highgate, Hampstead, Tottenham, &c.; in these tunnels railway omnibuses would run, and a journey from one end of London to the other might be accomplished in half an hour or forty minutes, while the streets above would be considerably cleared, and much of the present confusion prevented. Such a proposal may at first to many persons appear absurd, but the plan is undoubtedly practicable, and though enormously expensive, the nature of the soil (London clay) is favourable, and the great traffic which would arise would probably pay a moderate interest.

**INSTITUTION OF CIVIL ENGINEERS, May 20th, 1845**—Sir John Rennie, (President,) in the chair.—Mr. P. Barlow presented, as an appendix to his paper on the atmospheric system, the results of a series of experiments upon the force employed in drawing carriages up an inclined plane of 1 in 43 by a stationary engine and rope traction upon the Canterbury and Whitstable Railway. From these experiments it appeared that the stationary engine of 25-horse power, with a rope, would produce an useful mechanical effect, equal to the engine of 100-horse power on the Dalkey Atmospheric Railway—thus proving by direct facts the deduction of Mr. Stephenson as to the amount of lost power by the latter system. These statements were ordered to be printed with Mr. Barlow's paper.

**APPLICATION OF ELECTRICITY IN THE MANUFACTURE OF METALS.**—At the Society of Arts, on 14th May, Mr. Whishaw (secretary) read a paper by Mr. Napier, "On Separating Metals from their Ores by Means of Electricity." After giving an account of the progress made in the application of

electricity for the purpose of manufacturing metals from their ores since the year 1839, the paper describes the author's method of operating, for which purpose he uses a black-lead crucible, lined inside, within an inch or two of the bottom, with a coating of fire-clay, which is allowed to dry, and a second and third coat superadded; the ore to be operated on (which, if a sulphate, should be previously roasted) is put into the crucible, together with a little lime or other flux for the purpose of giving it fluidity. The crucible, with its contents, is then placed in a common crucible furnace; a battery of zinc and copper is prepared with five pair of plates, excited by a very dilute sulphuric acid; to the zinc of this battery is attached an iron rod, the end of which is inserted in the furnace, and caused to touch the outside of the crucible; another rod, either of iron or copper, is used, having at one extremity a disc of iron or coke, which is made to rest on the surface of the fused mass in the crucible—thus, the electricity passes down through the whole fluid mass in the crucible, and in the course of an hour the metal is separated from the ore, and deposited at the bottom.—*Mining Journal.*

**ZINC THREAD.**—The *Moniteur Industriel* announces that an important discovery in the manufacture of zinc thread has been effected by M. Boucher, who, after many essays, has at length been able to produce zinc threads of any diameter, of great suppleness, and presenting all the qualities of an excellent metal thread. In all cases where a great tension is not required, this thread can be substituted with advantage for that of iron, brass, or copper. Its applications at present are very important, and increase daily. It is used for culinary purposes; there are metallic threads, threads for plants, clasps, points for soft wood, cords for bleaching yards, &c. The price of zinc has doubled during the last few years, but, notwithstanding, M. Boucher vends his thread at a lower price than the galvanic iron thread, and considerably less than brass thread. There can be no doubt that this is an important invention, and we are satisfied that a large demand will shortly test its merits.

**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, *Agent.*

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co., Boston.

**TO RAILROAD COMPANIES AND MANUFACTURERS OF railroad Machinery.** The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

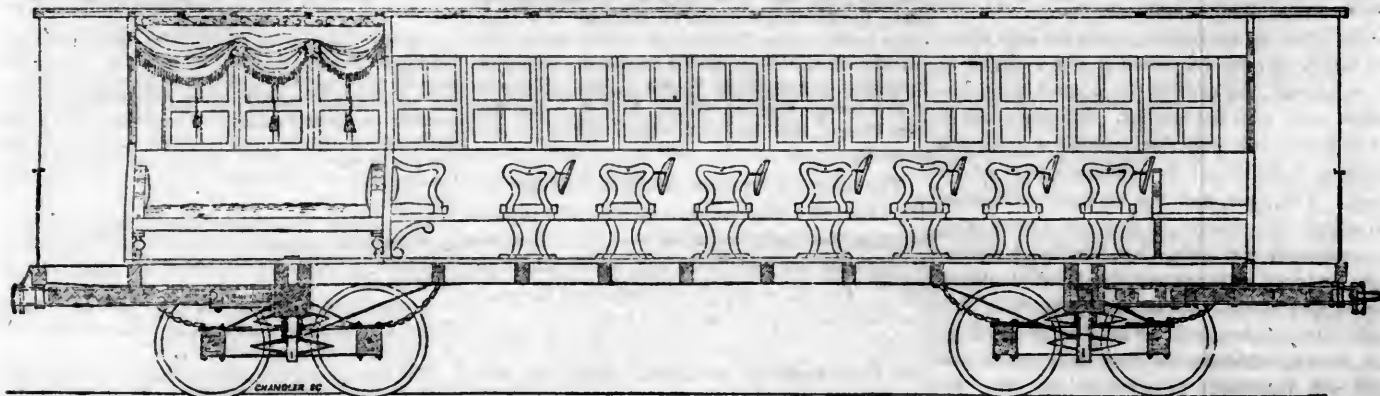
Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, *Agent.*

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\* \* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45



**DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS.** Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All orders punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.



TRAINS LEAVE	FOR	BY	RAILROAD	DAYS.	A. M.	P. M.	MILES.	FARE.
Boston	Portland		Eastern,	Daily,	7½	2½	106	\$3 00
"	Portsmouth		"	"	7½	2½, 4½	54	2 00
"	Newburyport		"	"	7½	2½, 4½	35	1 25
"	Salem		"	"	7½, 9, 11½	2½, 3½, 4½, 6	14	1 50
Portland	Portland		Boston and Maine,	"	7½	2½	109	3 00
Boston	Boston		"	"	7½	3	109	3 00
Boston	Lowell		Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston		"	"	7½, 11	2, 4½, 5½	26	75
Boston	Concord		Concord,	"		3½	76	2 00
Concord	Boston		"	"		3½	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11	5	41	
Nashua	Boston		"	"	6½	14, 5	41	
Boston	Worcester		Boston and Worcester,	"	7, 9	2½	44	1 25
Worcester	Boston		"	"	7, 10	6	44	1 25
"	"		"	Sundays,	7			
Boston	Worcester		"	"		2		
Boston	New York via Norwich		"	Mon., Wed. & Fri.,		4		
"	" " L. Island railroad		"	Tues., Thur. & Sat.,	7			
"	" " New Haven		"	Daily,	9	2½		
"	Albany		Western,	"	9	2½	200	6 00
Albany	Boston		"	"	8½	1½	200	6 00
Springfield	Boston and Albany		"	"	7	3		
Boston	New York via New Haven		"	"		2½		
Charlestown	West Acton		Fitchburg,	"	8	1, 4½		
West Acton	Charlestown		"	"	7½, 10½	5		
Boston	New York, via Steamboat trains		Boston and Stonington,	Tues., Thur. & Sat.,		4½		
"	" " " "		Boston and Newport,	Mon., Wed. & Fri.,		4½		
"	Providence		"	Daily,	7½	4	41	1 50
Providence	Boston		"	"		On arrival of the mail	41	1 50
Taunton	"		"	"	8	4		
New Bedford	Boston		"	"	7½	2½		
Boston	Dedham		"	"	8½	3, 6½		
Dedham	Boston		"	"	7, 10	5½		
New York	Greenport		Long Island,	"	7½		95	2 25
Brooklyn	Hicksville & intermediate places		"	"	9½		26	56½
"	Greenport		"	Tues., Thur. & Sat.,	9½		95	2 25
"	Hicksville, (Saturd'y to Suffolk)		"	Daily,		4	26	56½
Greenport	Brooklyn, (Boston train)		"	"		1	95	2 25
"	" (accommodation do.)		"	Mon., Wed. & Fri.,			95	2 25
Hicksville	" & intermediate places.		"	Daily,	7	11	26	56½
New York	Albany & Boston via N. Haven		Steamer,	"	6½			5 00
"	Middletown		New York and Erie,	"	8, 3		53	
Middletown	New York		"	"	6½	3½	53	
Philadelphia	Pottsville		Reading,	"	9		94	3 50
Pottsville	Philadelphia		"	"	9		94	3 50
New York	Newark		N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4½, 6, 7½	9½	25
Newark	New York		[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7½, 8½, 9, 11	1½, 4, 5½, 7, 9½	9½	25
"	"		"	Sundays,	9	4½	9½	25
New York	Newark		[9 A. M. and 4½ P. M., trains, connect with Somerville Railroad.]	"	11½	9½	9½	25
Elizabethtown	Elizabethtown		"	Daily,	9, 11	2, 3½, 4½, 6	14½	31½
New York	New York		"	"	7, 7½, 8½, 10½, 12	3½, 5	14½	31½
New York	Rahway		N. J. railroad and trans. co.,	"	9, 11	3, 4½, 6	19½	31½
Rahway	New York		"	"	6½, 7, 8½, 12	4½, 9½	19½	31½
New York	New Brunswick		"	"	9	3, 4½	31½	50
New Brunswick	New York		"	"	6, 7½, 11½	8½	31½	50
"	"		"	Sundays,	11½	8½	31½	50
New York	New Brunswick		"	"	9	4½	31½	50
Philadelphia	New York		Camden and Amboy,	Daily,	7		91	3 00
New York	Philadelphia		"	"	5½		91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	9		30	75
Bristol	Philadelphia		"	"		4	30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"	8		93	
Baltimore	Philadelphia		"	"	9	8	93	
"	Washington		Baltimore and Washington,	"	9	5, 11½	41	2 50
Washington	Baltimore		"	"	6	5½	41	2 50
Baltimore	Cumberland and inter. places		Baltimore and Ohio,	"	7½			
"	Frederick		"	"		4		
Cumberland	Baltimore		"	"	8			
Hancock	"		"	"	10½			
Martinsburg	"		"	"	11½			
Harper's Ferry	"		"	"		12½		
Frederick	"		"	"		2		
"	"		"	Sundays,	8			
Ellicott's Mills	"		"	Daily,	7½, 12	4½		
Richmond	Petersburg		Richmond and Petersburg,	"	10½	1½		
Petersburg	Richmond		"	"	5½			
Albany	Schenectady		Mohawk and Hudson,	"	8	5½		
Schenectady	Albany		"	"	9	3½		
Albany	Saratoga		"	"	7½			
Saratoga	Albany		"	"	7	12½, 5		
Troy	Saratoga		Troy and Saratoga,	"		3½		
Saratoga	Troy		"	"	7½			
Auburn	Rochester		Auburn and Rochester,	"	8½			
Rochester	Auburn		"	"	8			
"	Buffalo		Rochester and Buffalo,	"		3		
Buffalo	Rochester		"	"		3		
"	Falls		Buffalo and Falls,	"	9			
Falls	Buffalo		"	"		1½		
Buffalo	Albany		Albany and Buffalo	"	8½			

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

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THURSDAY, JULY 10, 1845.

[WHOLE No. 471, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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 pany, Newcastle, Del. [See Adv.]  
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 [See Adv.]

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—  
 As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 23, 1840.

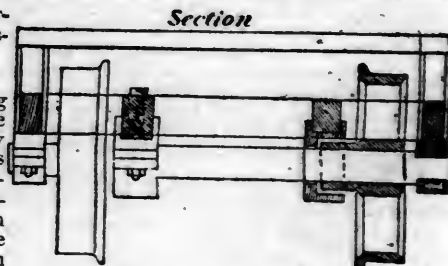
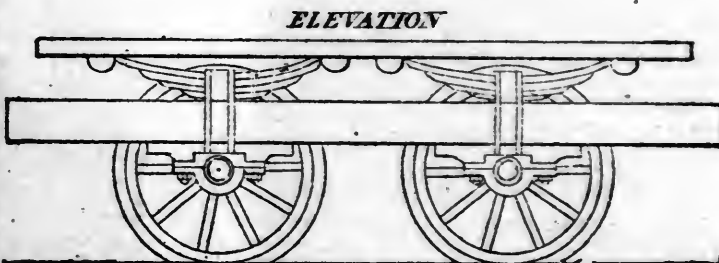
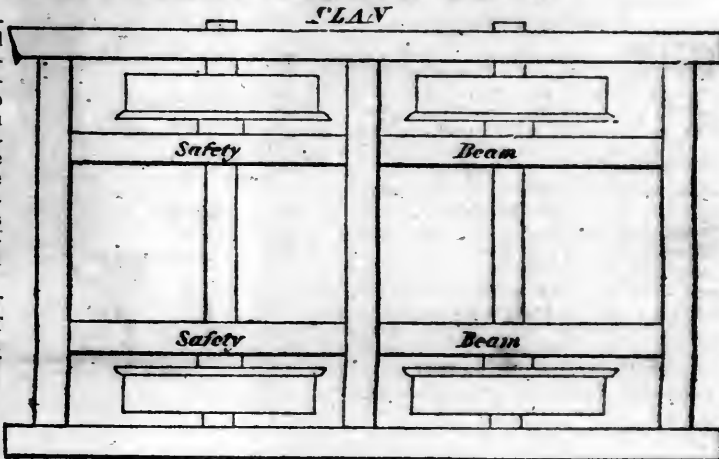
The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
 GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
 W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**TO IRON MANUFACTURERS.** THE SUBscribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO.,  
ja45 No. 4 Sout Fronth st., Philadelphia, Pa.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

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**WELDED WROUGHT IRON TUBES**

From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Corks, T. L., and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
PHILADELPHIA.

**TO IRON MASTERS.—FOR SALE.—MILLSITES** in the immediate neighborhood of *Bituminous Coal* and *Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers-street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer,*

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x13 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia. ja45

**RAILROAD IRON AND LOCOMOTIVE** Tyres imported to order and constantly on hand by  
A. & G. RALSTON  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING** Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
ANDREW C. GRAY,  
ja45 President of the Newcastle Manuf. Co.

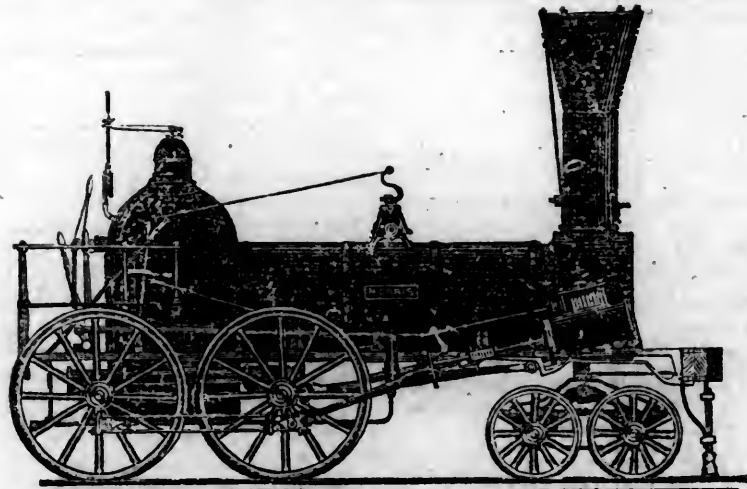
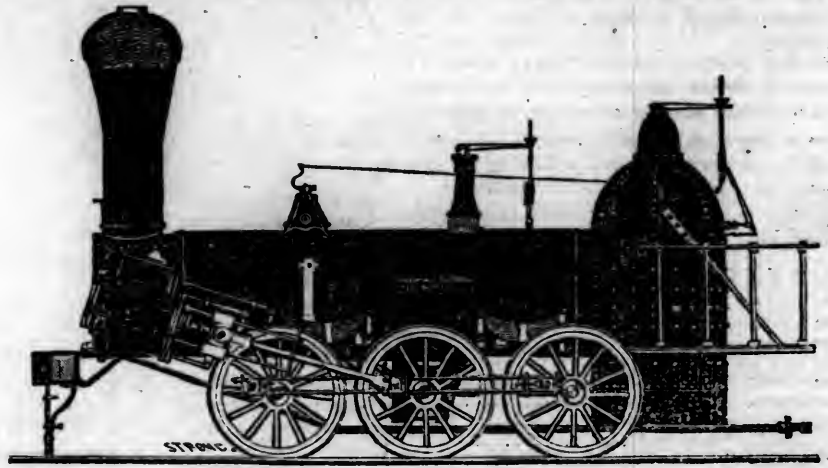
**CUSHMAN'S COMPOUND IRON RAILS** etc. The Subscriber having made important improvements in the construction of rails, mode n guarding against accidents from insecure joints, etc. —respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, *Civil Engineer,*  
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NORRIS' LOCOMOTIVE WORKS**

BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
"	2,	14	"	"	×	24	"
"	3,	14 1/2	"	"	×	20	"
"	4,	12 1/2	"	"	×	20	"
"	5,	11 1/2	"	"	×	20	"
"	6,	10 1/2	"	"	×	18	"

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

PENNSYLVANIA MAIN LINE.

We copy the following from the Philadelphia Enquirer—not receiving the Harrisburgh Argus—as giving an interesting view of this important line of communication through Pennsylvania. The accompanying table shows the receipts, expenditures, and net revenue for the past ten years. Total receipts, \$8,433,107 04; expenditures, \$5,935,909 20; net revenue, \$2,497,197 84. In 1840, the year which gave the largest receipts, \$1,007,885 07, the line fell in debt \$77,798 37! This must have been the year, we imagine, when the managers made the most money. There has been a regular and large increase of net revenue for the last three years; and we hope to be able to announce, at the close of the current year, a still greater increase. The tributaries and sources of business of this line are such that it must ultimately pay a large income to the state, *if it is properly managed*. Then let the state come fairly up to the mark, and pay the interest when due, and thus retrieve its honor, regain its lost reputation—not only in paying its debts, but also in appointing *honest men to manage its affairs*.

*The Main Line of our State Works.*—The Harrisburgh Argus, in giving a history of our state works, says that the Main Line extends from the city of Philadelphia, on the river Delaware, to the city of Pittsburg, on the Ohio. The whole line is 395.69 miles in length, of which 118.19 miles are railway, and 277½ miles are canal. It consists of a railway 81.6 miles long from the Delaware to the Susquehanna river: a canal up the east bank of the Susquehanna 43 miles, to the mouth of the Juniata river, and then crossing the Susquehanna and up the valley of the Juniata 130 miles, to the base of the Allegheny mountain: a railway 36.59 miles over the Allegheny mountain; and a canal 104.5 miles long from the west base of the Allegheny mountain to the city of Pittsburg, the head of steamboat navigation on the Ohio. Some portions of the canal were finished and in operation in 1830, but the railways were not completed, and freight and passengers were not carried over the whole line until 1835.

The first cost of the whole line.....\$14,361,320 32  
The expenditures over receipts, prior to 1835.... 222,496 08

Cost prior to completion.. \$14,583,816 38

Annual int. on cost, 5 pr. ct. \$729,191 00

The editor then gives a table, which shows that the net revenue since 1835 has been \$2,249,197, and he proceeds to state:

"The line in its course through the state, from east to west, passes through the centre of population of the commonwealth, traversing the richest agricultural districts in

the United States, and connecting at different points with other canals and railways branching to the iron and coal regions. It passes through the fertile and densely populated counties of Delaware, Chester, and Lancaster, to the river Susquehanna, connecting with the Westchester railway in Chester county, and the York and Wrightsville railway, and Susquehanna and Tide Water canal at Columbia, on the river Susquehanna. At this point, nearly all the heavy tonnage from the city of Baltimore, as well as Philadelphia, to the western states, is received upon the Main Line, from the Susquehanna and Tide Water canal and the York and Wrightsville railway, and is carried through Pennsylvania 311 miles to Pittsburg. From Columbia, the line passes up the valley of the Susquehanna through the county of Dauphin, connecting with the Union canal at Middletown, and the Cumberland valley railway and the Harrisburgh and Lancaster railway at Harrisburgh. At Middletown it receives the coal of the Swatara mining district, one of the richest in the state, from the Union canal; and at Harrisburgh, the rich products of the great Cumberland valley are shipped to market.

"Passing up the Susquehanna to the mouth of the Juniata river, twelve miles above Harrisburgh and forty-three north-west from Columbia, it connects with the Susquehanna canal from the north. By this tributary, in addition to the agricultural productions of northern Pennsylvania, it receives the tonnage of the great Wyoming, Shamokin, and Lykens valley anthracite, and West Branch bituminous coal fields; the trade of the great anthracite iron district in the vicinity of Danville and Bloomsburg; the masses of white pine lumber from the sources of North and West Branches of the Susquehanna; and the superior malleable charcoal iron from the valley of the Bald Eagle.—Here the canal leaves the Susquehanna and passes up the valley of the Juniata through the counties of Perry, Juniata, Mifflin, and Huntingdon, to the town of Hollidaysburg, at the eastern base of the Allegheny mountain. These counties produce large quantities of wheat for market, and are the seat of the manufacture of the celebrated Juniata iron. Huntingdon county alone has about twenty furnaces, thirty forges and bloomeries. A large portion of this iron is sent west on the state works, to be converted into bar and round iron at the Pittsburg rolling mills.

"From Hollidaysburg, large quantities of bituminous coal are shipped eastward, on the canal, to the cities on the seaboard, and to the iron works in the eastern and middle counties. From thence, the Main Line extends west, through the county of Cambria, and between the counties of Armstrong, Butler, and Westmoreland, and through the county of Allegheny to the city of Pittsburg, on the Ohio, at the confluence of the Monongahela and Allegheny rivers. For the last 125 miles it traverses one continued bituminous coal field, filled with iron ore, and most of the distance rich in agricultural

productions. In the valley of the Conemaugh and Kiskeminetas, brine springs are abundant, and vast quantities of salt are annually manufactured and sent upon the canal to market."

Certainly an immense, a mighty work—and one that is creditable in the highest degree to the enterprize of the commonwealth. Would that the debt incurred in its construction could be promptly liquidated, and thus the people relieved of taxation, and the state from embarrassment and obligation.—*[Philad. Enquirer.]*

MAIN LINE SINCE 1835.

Years.	Receipts.	Expenditures.	Net revenue.	Loss.
1835	\$597,670 40	\$353,294 20	\$244,376 20	
1836	752,891 28	501,533 51	251,357 77	
1837	850,479 37	733,969 03	116,510 34	
1838	843,538 69	543,500 28	300,038 41	
1839	929,459 57	504,044 97	425,414 60	
1840	1,007,885 07	1,085,683 44	298,206 13	\$77,798 37
1841	904,237 25	605,551 16	298,686 09	
1842	733,677 45	602,604 98	151,072 07	
1843	841,032 24	559,577 88	281,514 86	
1844	948,995 69	446,141 06	502,854 63	
Total,	\$8,433,107 04	\$5,935,909 20	\$2,497,197 84	\$77,798 37

Net Revenue, \$2,497,197 84

NORTH BRANCH CANAL.

The Bradford (Penn.) Reporter says:

The North Branch Canal Company's works will extend in Pennsylvania from the mouth of Solomon's creek—four miles below Wilkesbarre, to the state line near Athens—say, 105 miles. They comprise, according to the law of 1842, and the several supplements:

1. Fifteen miles of finished canal *now in use*, from Solomon's creek, four miles below Wilkesbarre to Pittston, (including the navigable feeder) on which in 1842, over \$10,000 in tolls were taken. This portion cost the state \$655,000.

2. What is termed the Tunkhannock Line, on which has been expended \$1,126,265 19. *Thirteen miles* on this portion have been finished. This line extends from Pittston to Wyalusing creek, fifty-four miles and nineteen chains.

3. The Tioga Line, from the Wyalusing creek to the village of Athens, thirty five miles. Cost so far, \$1,222,011 19. Thirty sections—*about twenty miles*—on this line are finished; one or two of the locks complete, with the necessary buildings; and all the remainder of the line in a great state of forwardness. So, also, on the Tunkhannock line, the heavy portion of the work has been at least half done. The estimate of the State Engineer makes \$215,656 08 necessary to complete the Tioga line; and \$1,015,599 95 to finish the Tunkhannock line. It is now supposed that \$1,000,000 economically expended, dispensing in some places with the costly cut stone work, will complete the whole work—105 miles in length.

This will be all the company will have to pay for it. No other canal or railway can be laid in the valley of the Susquehanna; and the state has no right to resume the work until 1855, when it must repay the company what it cost to complete it, and 7 per cent. interest—deducting dividends declared.

From Wilkesbarre to Elmira is about 114

miles; this distance, added to those of the Lehigh improvements and Morris canal, makes 335 miles from Elmira to New York city, with a short portage on the way, upon which, as we have seen, no transshipment will be requisite. This unfinished North Branch canal is the only link wanting to connect northern Pennsylvania and all the fertile region of western New York with the three great commercial cities of the Union—Philadelphia, New York, and Baltimore! From Elmira to New York city by this route, the distance, as before stated, is 335 miles. Between the same places, by way of the Erie canal, the route now pursued, it is 444 miles. Even the Montezuma salt villages, on the Erie canal, will be as near to Philadelphia by this route as they now are to New York through the existing improvements.

#### NEW YORK, DANBURY AND HARTFORD RAILROAD.

A convention of citizens, favorable to the above work was held at Hartford, on 25th June last, of which Philip Ripley, of Hartford, was chosen president, J. L. M. Scovill, of Waterbury, and Tracy Peck, of Bristol, vice presidents, John Hooker, of Farmington, and S. J. Loomis, of Woodbury, secretaries.

A committee was appointed by the delegates of each town, from their number, to state to the convention such information as they may have collected, as to the amount of business their towns may probably afford to a railroad if constructed.

The following gentlemen were appointed a business committee, viz:

Thomas C. Perkins, of Hartford; Egbert Cowles, of Farmington; Milo Hoadley, of Plymouth.

The meeting was adjourned to 2 P. M.

#### AFTERNOON.

Committee on credentials reported that the following towns appeared to be represented by delegates, viz: Hartford, Farmington, Berlin, Bristol, Plymouth, Waterbury, Watertown, Middlebury and Danbury.

The business committee reported, among other things, that they would recommend that the convention appoint an executive committee of seven, whose duty it shall be, in conjunction with a committee of the corporators named in the charter of the New York and Hartford railroad company, to raise the funds necessary to procure a survey and estimates for the route, to cause such a preliminary survey to be made: to procure books to be opened for subscription to the stock, and to cause the company to be organized, with power to make all the arrangements necessary to carry into effect the object of their appointment, which report was accepted.

Reports were then received from the delegates of the several towns, as to the amount of business of their respective towns, capabilities for increase of business, etc.

Mr. Anderson, of New York city, being present at the convention, was called on by

the president, and made some interesting statements with regard to the Harlem railroad company: its present condition and prospects, and the favorable view of the company towards the Danbury road: and assured the convention that efficient aid would be furnished toward the road by New York capitalists, who are interested in the Harlem road.

A communication was read from the New York and Albany railroad company, recommending the facilities offered by their charter, for a continuation of the Hartford road to New York.

The following gentlemen were appointed an executive committee, in compliance with the recommendation of the business committee, viz:

James Goodwin, } Hartford.  
E. G. Howe, }  
Wm. L. Cowles, Farmington.  
George W. Bartholomew, Bristol.  
R. H. Hotchkiss, Woodbury.  
J. L. M. Scovill, Waterbury.  
Edgar S. Tweedy, Danbury.

*Resolved*, That the executive committee be empowered to fill any vacancies that may occur in their number.

The following resolutions were then reported by the business committee, and after full and able discussion by Messrs. Hoadley, Atkins, Perkins, Cowles, Collins and Ripley, were unanimously adopted, viz:

Whereas, the delegates to this convention have communicated numerous facts in relation to the route of the contemplated railroad from Hartford to New York, via Danbury, therefore

*Resolved*, as the sense of this meeting, based upon the facts so communicated, that we are fully satisfied that the above-named route is feasible, and that the road can be constructed at a moderate expense, and with no more than ordinary grades.

*Resolved*, That the application for the charter of the "New York and Hartford railroad," emanating as it did from inhabitants of the towns on the proposed route, and meeting with general favor in that region, shows that the people take a deep interest in its construction, and are aware of the advantages to be derived from improved facilities of intercommunication.

*Resolved*, That inasmuch as there is no water communication, and no other railroad connecting the range of towns which this road will bring together, and inasmuch as it will pass through a rich and populous country, and through thriving manufacturing villages, there is every reason to believe that the *way-travel* will form a very essential part of its profits.

*Resolved*, That in addition to these sources of profit now existing, the building of the road will, by enabling the manufacturers to communicate with facility with the great commercial marts, lead to the establishment of new factories and the multiplication of business in the vicinity of the line through which the road shall pass.

*Resolved*, That this route, connecting with a railroad in the State of New York near

Danbury, will open to the city of New York a direct and desirable communication with other roads in the New England States and towards Canada, and complete a vast extent of railroad communication.

*Resolved*, That as this proposed road will unite to such an unusual extent the advantages both of way and long travel and freight, and is also essentially protected from competition by water transportation, it offers the strongest guaranty of a productive investment to stockholders.

On motion of Wm. D. Ely, Esq.,

*Resolved*, That the thanks of this convention be presented to Egbert Cowles, Esq., agent of the petitioners, for his active and untiring exertions in procuring the charter of the New York and Hartford railroad.

*Resolved*, That the president and secretaries cause the proceedings of this convention to be inserted in the public prints.

PHILIP RIPLEY, President.

JOHN HOOKER, } Secretaries.  
S. J. LOOMIS, }

We find the preceding account of a railroad convention held in Hartford on the 25th, in the Courant of Saturday, 28th June. From the last resolution, considering the *Railroad Journal*—the *only* periodical in the Union devoted to the cause—as one of the "public prints," we thought it probable that we should receive a communication from the gentlemen instructed to lay the proceedings of the convention before the people—those who are expected to furnish means to construct the work; but as they appear not to consider the *Journal* as a "public print"—or, if admitted to belong to that respectable brotherhood, of too little consequence to be treated with common courtesy—we republish the proceedings "upon our own hook," that our readers may see what those living along the line of the work think of it: reserving the expression of our views and opinions in relation to the rival lines, until another time, not distant.

#### SPRINGFIELD AND ALTON RAILROAD.—

The work of making a railroad from Springfield to Alton is seriously talked of again. It would connect Springfield, the capital of the state, with Alton, the principal town of the state on the Mississippi, and would pass through the richest and best improved part of Illinois. They seem to think the influence of St. Louis would operate against the road, on the supposition that by benefiting Alton it would injure St. Louis. There can be no greater mistake; for St. Louis already carries on a profitable trade with Alton that is mutually advantageous to both places, and the Alton trade would be still more beneficial to St. Louis if its population and business were greater than it now is. If a good railroad were made from Springfield to Alton, it would bring all the country along its line into immediate contact and constant communication with St. Louis, and would considerably increase the profits



of the St. Louis commerce. St. Louis has an interest in the growth and prosperity of all the towns and cities on the Upper Mississippi and Missouri; so far from looking with jealousy and regret on their increase, its citizens will always rejoice in the prosperity of the upper river towns, and expect to be benefitted thereby. A good packet steamer now passes every day both ways, between St. Louis and Alton; and if a good railroad should bring passengers or produce from the interior of Illinois to Alton, they could be readily transferred to St. Louis in two or three hours, and at very small expense. We would then say to the Illinois people, go on and finish your railroad from Springfield to Alton, and, if possible, even continue it from Springfield further to the northeast, so as to connect it with the lakes, and St. Louis will always wish it well; and whilst it will be beneficial to Alton, it will at the same time swell the commerce of this city. Every improvement on the waters above this, whether in town or country, is calculated to have a salutary effect on the trade of St. Louis; for great cities must be sustained in a great measure by the trade which they carry on with other cities and with smaller towns. New York is much benefitted by the existence of such places as Jersey City, Brooklyn, Hudson, Troy and Albany, because she carries on with them a trade advantageous to all the parties concerned. It is a very contracted view of business that leads people to believe that one town or city must languish because others in the same region of country are prosperous. St. Louis does not entertain such opinions.—*New Era.*

ANOTHER UNION OF THE WATERS OF LAKE ERIE WITH THE OHIO.

We learn from the Cincinnati Gazette of 26th ultimo, that the Miami extension canal has been completed to its connection with the Wabash and Erie canal, thus opening a third canal from the lake to the Ohio, viz: from Erie to Pittsburg, from Cleveland to Portsmouth, and from Toledo to Cincinnati. These important works have been constructed, and are now in use through a region of country which, fifty years ago, had not ten thousand white inhabitants! It has now over 1,800,000!! If 10,000 people have accomplished so much—and much more—in fifty years, what will 1,800,000 accomplish in the next fifty years!!! Will some one give us an answer?

“Collector’s Office, Miami Canal,  
June 25th, 1845.

“Arrived this morning from Toledo, which place she left on the 18th inst., the canal boat *Rose of Toledo*, Capt. Robert Denvir, with five passengers.

D. LAPHAM, Collector.”

What a line of canal navigation is opened! From Cincinnati to Toledo, and from Toledo to La Fayette, a distance of *four hundred and twenty-three miles!* Thus are the distances given:

Cincinnati to Toledo, . . .	217
Toledo to La Fayette, . . .	226

473

Or, deducting the line common to both, viz: from the Junction to Toledo, and it leaves *three hundred and forty-three miles* continuous canal navigation from Cincinnati to La Fayette, Indiana.

SCHUYLKILL HAVEN.

Perhaps no town in this county is growing into importance with greater rapidity than Schuylkill Haven. Many judicious persons were apprehensive that the construction of the Reading railroad would stop the progress of improvement in that borough; but these fears are most happily removed, and since the completion of that road, the business and population of Schuylkill Haven have augmented with a rapidity unequalled in the past history of the town. The railroad company’s depot presents an aspect of unusual industry and activity. The improvements of the company are all substantial and ornamental. The engine house particularly attracts attention, and in its plan and style of finish does credit to the company and to the gentlemen under whose supervision it was erected. It is a circular building, 126 feet in diameter; the stone work is 16 feet high, capped with a massive cornice, from which the spherical roof rises 64 feet to the base of the cupola in the roof; immediately above the cornice, are 16 windows with heavy pilasters and Grecian consols, supporting a pediment head. The cupola rises 25 feet and is ventilated by 32 Venetian latticed windows, or openings, above a projecting cornice. The roof, which is 12 feet high, forms the segment of a circle, and is crowned with a base and sub-base from which rises the spire. The interior arrangement of this building is said to be the best and most convenient for the purpose for which it was employed that has ever been designed. In the centre there is a 40 feet pivot, and the building is capable of holding 16 or 18 engines; the tracks upon this pivot radiate from the centre to the wall, and 32 feet from the wall is a range of 8 columns, extending to the cupola. This rotunda is fourth in size in the world; only smaller than the Pantheon at Rome, which is 145 feet, and St. Maria del Foise, at Florence, which is 139 feet also.

The railroad company have also erected at their depot, a range of shops, in the form of an L; being in depth on two sides, 116 feet, with a width of 50 feet on both ends of the L.

The Mine Hill and Schuylkill Haven railroad connects with the Reading road at Schuylkill Haven; all the coal from that rich and extensive portion of the region known as the West Branch, is carried over this road; its business has already reached 10,163 tons per week, and as the company are now extending their laterals and branches in all directions, the trade over this road must greatly increase. The extension of five miles to the Swatara region, will open a vast field; the product of which alone will greatly augment the business of this road. All the coal carried over the Mine Hill road is shipped for the Philadelphia and eastern markets by the canal or railroad, from Schuylkill Haven.

**SURVEY OF ROUTES.**—Under the direction of the corporators of the Atlantic and St. Lawrence railroad company, Mr. Hall has recently made a farther exploration of routes for the road. This is the promised continuation of the reconnaissance made last fall. By that survey, one principal route was examined, and found to be feasible. The recent undertaking has given a further view of the whole country between Port-

land and the Canadian frontier, and has indicated two or three other general lines, by which a railroad communication may be effected, under very favorable conditions.

The progress of these surveys tends to the perfection of the whole work. They will undoubtedly be farther continued, until the proper time arrives for final selection.—*Portland Adv.*

Extract from the Report of Mr. Hall.

My estimates of the cost of construction of the first 19 miles surveyed, commencing at Portland, is as follows:

471,650 yds. excavation and embankment at 13 cents . . . . .	\$61,314 50
12,869 yds. rock excavation at 85c. . . . .	10,931 00
3,505 perch stone masonry for road and river abutments, at \$2 . . . . .	7,010 00
6,336 do. for culverts, at \$1.50 . . . . .	9,504 00
6,060 do. for cattle guards and passes, at \$1.25 . . . . .	7,575 00
4,620 rods grubbing, at \$1 . . . . .	4,620 00
12,100 feet of pile bridging, at \$4 . . . . .	48,400 00
150 feet bridge at Royals River, at \$10 . . . . .	1,500 00
5 road bridges at \$42 . . . . .	210 00
12 road signs, and road and farm crossings . . . . .	1,500 00
10,880 rods of fence at 90 cts. . . . .	9,792 00
	<b>\$162,356 50</b>

The remaining 120 miles I shall class as below, which I believe will cover the whole expense of construction. For grading the road, bridges, masonry for abutments, culverts, and cattle yards, fencing, &c.

For 45 miles, at \$7,000 per mile, \$315,000 00	
“ 55 “ 8,000 “ “ 440,000 00	
“ 9 “ 10,000 “ “ 90,000 00	
“ 4 “ 12,000 “ “ 48,000 00	
“ 5 “ 14,000 “ “ 70,000 00	
“ 2 “ 20,000 “ “ 40,000 00	
“ land damages . . . . .	50,000 00
“ depots and way stations . . . . .	40,000 00
“ railing, including superstructure and laying down the same, 139 miles, at \$8,500 per mile . . . . .	1,181,500 00
Say for turnout tracks . . . . .	20,000 00
	<b>\$2,294,500 00</b>

For engines and cars, which will have to be increased as the business of the road demands.

For 12 engines, equal to \$5,000 each . . . . .	\$60,000 00
“ 15 passenger cars, at \$1,800 . . . . .	27,000 00
“ 100 freight cars, at 530 . . . . .	53,000 00
	<b>\$140,000 00</b>

**\$2,596,856 50**

Add for engineers, superintendents and contingencies, 5 per cent. . . . .

**\$2,726,690 32**

**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Ewing, Philadelphia; Wm. E. Coffin & Co., Boston.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
							Per share.	Per cent. per annum.				
							£	s. d.	£	s. d.		
Arboath and Forfar.....	15	102,000	35,000	138,870			0	12 6 2	10 0	25 27	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5 0 2	10 0	100 100	Barnsley Junction.....	200,000
Branding Junction.....	23	161,700	365,470	481,452					4 10 0	50 54	Belfast and Ballymena....	385,000
Bristol and Gloucester.....	37½	400,000	211,000						nihil.	30 36	Blackburn and Accrington....	400,000
Chester and Birkenhead.....	14½	750,000	143,170	518,989	5,856	13,148	0	8 6 1	14 0	50 32	Birk. and Ches. Junction...	1,000,000
Dublin and Drogheda.....	31	450,000	150,000	500,869					nihil.	55 72	Bolt, Wigan and Liverpool	800,000
Dublin and Kingstown.....	6	200,000	152,200	359,000					6 0 6	0 0	Caledonian.....	1,800,000
Dundee and Arbroath.....	16½	100,000	49,445	153,416	2,989	6,993	1	5 0 5	0 0	25 29	Cambridge and Lincoln....	1,250,000
Durham and Sunderland.....	18½	169,350	124,055	270,392	9,889	17,702			nihil.	34 29	Chatham and Portsmouth..	5,000,000
East County and North and East.....	86½	4,443,200	341,155	3,931,905	47,385	118,726	1	6 6		45 57	Chester and Wrexham....	120,000
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1	2 6 4	10 0	50 57	Churnet valley.....	1,800,000
Glasgow, Paisley and Ayr.....	51	937,500		1,066,951	12,446	36,736	1	2 6 4	10 0	50 60	Direct Northern to York...	4,000,000
Glasgow, Paisley and Greenock.....	22½	650,000	216,666	787,884	11,572	23,177	0	5 0	2 0 0	25 12	Dublin and Belfast.....	950,000
Grand Junction.....	104	2,478,712		2,453,169	84,309	195,080	5	0 10	0 0	100 210	Dundee and Perth.....	250,000
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1	12 6	3 5 0	100 119	Edinburg and Northern....	800,000
Great Western.....	121½	4,650,000	3,679,343	7,272,539	132,235	369,904	3	10 7	0 0	75 138	Ely and Bedford.....	270,000
Hartlepool.....	15½	438,000	155,510	719,205					8 0 0	100 100	Glosgow, Dum. & Carlisle.	1,300,000
Leicester and Swannington.....	16½	140,000		140,000	2,207	6,317	1	5 0	5 0 0	50 50	Gt. South and West Ext....	1,200,000
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5	0 10	0 0	100 203	Gt. Grimsby and Sheffield.	600,000
Llanelly.....	27	200,000	44,000	221,624					1 0 0	2 0 0	Harwich and E. coun. Jun.	160,000
London and Birmingham.....	112½	6,874,976	1,928,845	6,393,468	92,823	405,768			10 0 0	100 218	Huddersfield & M. rl. & cl.	650,000
London and Blackwall.....	3½	804,000	266,000	1,315,640	15,978	23,870				16 6	Kendal and Windermere..	125,000
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	81,880	0	12 0	2 8 0	50 47	Leeds and Dewsbury.....	400,000
London and Croyden.....	81	550,000	229,000	761,885	7,583	10,545	0	5 0	2 10 0	14 17	Leeds and Thirsk.....	800,000
London and Greenwich.....	31	759,383	233,300	1,040,930	15,193	28,933			nihil.	13 10	Liv. Ormskirik and Preston	600,000
London and South Western.....	92½	2,222,100	630,100	2,596,291	68,457	150,469	1	12 6	6 10 0	41 73	London and Portsmouth..	1,750,000
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1	0 6	5 0 0	40 48	London and York.....	5,000,000
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2	2 0	4 10 0	93 110	Londonderry & Enniskillen	500,000
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761			7 1/2 & 10 1/2	60 88	Lyonn and Ely.....	200,000
Midland railway.....	178½	5,158,900	1,719,630	6,279,056	76,983	281,898				100 96	Manchester, Bury and Ross	300,000
Newcastle and Carlisle.....	61	878,240	188,563	1,335,069	26,499	73,947	4	0 0	4 0 0	100 105	Manchester and Buxton....	250,000
Newcastle and Darlington.....	23	500,000		405,728						21 49	Mullingar and Athlone....	
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466			2 0 0	50 37	Newcastle and Berwick....	700,000
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2	10 0	6 16 8	100 104	Richmond & W. End Junc.	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415					0 16 0	8 0 0	Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000			31,247	91,171			8 0 0	20 38	Sheffield and Lincolnshire.	650,000
Preston and Wvre.....	19	830,000	179,852	355,161	4,191	7,066			nihil.	50 18	Shrewsbury and Gd. Junc.	400,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876				82 93	Shrew. Wolv. Dudley & B.	900,000
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0	10 6	2 2 0	50 39	Trent Valley.....	900,000
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1	0 0	6 5 0	100 55	West London Extension...	64,000
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0	15 0	5 1 8	29 37	West Yorkshire.....	1,000,000
Yarmouth and Norwich.....	20½	187,500	62,500	230,250					nihil.	16 25	Whitehaven and Maryport	100,000
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2	10 0	10 0 0	50 100	FRENCH RAILWAYS.	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10			10	15½	Loughborough.....	70	142½	142½	70	1140	
Anti Dry Rot.....	10,000		18½		2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35		34½		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27½	27	Mersey and Irwell.....	500	100	100	10		
Gt Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2½	15	15
Metropolitan Wood Pav..	15,000	10	6	5	6½		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1½		Oxford.....	1,786	100	100	30	505	505
Peninsular and Oriental..	11,493	50	50	7	64½	65	Regents or Loncon.....	21,416	33½	33½	2½	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution				6			Somerset coal.....	800	150	150	7½	123	123
Reversionary Int. Soc.....	5,387	100	100	4½	104	104	Stafford and Worcester...	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36½	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stonbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7½	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Sewern & Why & Rail Av.	3,762	26½	26½	5½	30	30
							Trent and Mersey.....	2,600	50	50	65	495	
							Thames and Medway.....	8,149	19½	19½		10	10
							Warwick and Birmingham.	1,000	100	100	10½	167	
							Warwick and Napton.....	980	100	100	8½	122	

Canals.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.
Ashby de la Zouch.....	1,432	113	av.	4	70	70
Barnsley.....	720	100	100	14	180	180
Birmingham, 1-16 share ..	3,000	118½	79	10	150	160
D. and Liverpool Junction	4,000	160	100		13½	13½
Coventry.....	500	100	100	20	365	365
Cromford.....	460	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forth and Clyde.....	1,297	400½	40½	4	440	440
Grand Junction.....	11,600	100	100	7	162	161½
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Rerkley....	5,000	do.	do.		8	8
Lancaster.....	749	150	150	8	185	185
Lancaster.....	11,699	47½	47½	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	640
Leicester.....	545	140	140	9	139	139

Water Works.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.
Birmingham.....	4,800	25	25	3½	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7½	88	90
New River L. B. Ann.....	1,500			2½		
Manchester and Salford....	6,486	av.	30	8½	57	57
Vauxhall, k. S. London....	1,000		100	5	55	55
West Middlesex.....	8,294	av.	63½	6½	126	127

Docks.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.
Commercial Dock.....	1,065	100	100	3	70	
East and West India.....		sto.		5½	137	
London.....	3,238,310	sto.		4½	114½	115
St. Katharine.....	1,352,752	sto.		5	116	171
Southampton.....	7,000	50	50			



RAILROADS.		Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on late.	1843.		1844.		Div. per cent.	Previous prices.	SALES.		
							Gross.	Nett.	Gross.	Nett.			Week ending June 25th.	Price	
Mc.	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,907	47,166	7	131,404	62,172	6	103½	45	103½
N. H.	2 Concord.....	35	750,000									12	65	60	65
Mass.	3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	117		
"	4 Boston and Maine extension.....	17 1-4	455,703	unfin.											
"	5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120	18	120
"	6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	114	5	114
"	7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	120½		
"	8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
"	9 Charlestown branch.....		280,260						13	34,654	13,971	5½	80	11	112½
"	10 Eastern.....	54	2,358,631				279,563	140,595	6	337,238	227,920	8	113½		
"	11 Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,835		123½	4	124
"	12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	124	13	123
"	13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
"	14 Northampton and Springfield.....		172,883	unfin.											
"	15 Norwich and Worcester.....	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	71½	2,925	71½
"	16 Old Colony.....		87,820	unfin.									106		
"	17 Stoughton branch.....	4	63,075	unfin.											
"	18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	118		
"	19 Vermont and Massachusetts.....														
"	20 West Stockbridge.....	3	41,516	200		100						4			
"	21 Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	104½	217	101
"	22 Worcester branch to Milbury.....		8,431	506											
"	23 Housatonic, (10 months.).....	74	1,244,123							150,000			31		
Con	24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	95		
"	25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
"	26 Stonington, (year ending 1st Sept.).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29½	350	29
N. Y.	27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0			
"	28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109½		
"	29 Auburn and Syracuse.....	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
"	30 Buffalo and Niagara.....	22	200,000		1,500								100		
"	31 Erie, (446 miles.).....		5,000,000										30½	175	29
"	32 Erie, opened.....	53						48,000		126,020	59,075				
"	33 Harlem.....	26	1,206,231							140,685	62,399		69½	50	69½
"	34 Hudson and Berkshire.....	31	575,612			50				35,029	1,789	0	11½		
"	35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	72½	2,999	71
"	36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	58½		
"	37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
"	38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
"	39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	115½	10	117
"	40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
"	41 Troy and Greenbush.....	6	180,000												
"	42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
"	43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132		
N. J.	44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		112		
"	45 Elizabethtown and Somerville.....	26	500,000												
"	46 New Jersey.....	34	2,000,000										94	25	95
"	47 Paterson.....	16	500,000									6	87	100	90
Pa.	48 Beaver Meadow.....	26	1,000,000												
"	49 Cumberland Valley.....	46	1,250,000												
"	50 Harrisburg and Lancaster.....	36	860,000										30		
"	51 Hazleton branch.....	10	120,000												
"	52 Little Schuylkill.....	29	900,000												
"	53 Blossburg and Corning.....	40	609,000												
"	54 Mauch Chunk.....	9	100,000												
"	55 Minehill and Schuylkill Haven.....	18	315,000						12				80		
"	56 Norristown.....	20	800,000										61		
"	57 Philadelphia and Trenton.....	30	400,000										104		
"	58 Pottsville and Danville.....	29 1-2	1,500,000												
"	59 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		56	2,265	58
"	60 Schuylkill valley.....	10	1,000,000												
"	61 Williamsport and Elmira.....	25	400,000				20,000								
"	62 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		17½	5,509	154
Del.	63 Frenchtown.....	16	600,000												
Md.	64 Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		58,620	346,946		49½		
"	65 Baltimore and Susquehanna.....	58	3,000,000										21		
"	66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	67 Greensville and Roanoke.....	17 1-2	950,000												
"	68 Petersburg and Roanoke.....	69	969,880							122,871	72,896	3			
"	69 Portsmouth and Roanoke.....	78 1-2	1,454,171												
"	70 Richmond, Fredericksb'g and Potomac.....	76	800,000							185,243	85,688	6			
"	71 Richmond and Petersburg.....	22 1-2	700,000												
"	72 Winchester and Potomac.....	32	500,000												
N. C.	73 Raleigh and Gaston.....	84 1-2	1,360,000												
"	74 Wilmington and Raleigh.....	161	1,800,000												
S. C.	75 South Carolina.....	136	5,671,452		34,410	75				532,871	140,196	5			
"	76 Columbia.....	66								328,425	180,704				
Ga.	77 Central.....	190	2,581,723				201,464	77,456							
"	78 Georgia.....	147 1-2	2,650,000				227,532	93,190		248,026	158,207				
"	79 Montgomery and West Point.....	89	500,000	170,000		100									
Ky.	80 Lexington and Ohio.....	40	450,000												
Ohio	81 Little Miami.....	40	400,000												
"	82 Mad river.....	40	152,000												
Ind.	83 Madison and Indianapolis.....	56	212,000												
Can.	84 Champlain and St. Lawrence.....	15						12,000		53,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Thursday, July 10, 1845.

NEW YORK AND ERIE RAILROAD.

This important work is occupying, and very justly, at this time, the general attention of our citizens. By the papers of Wednesday, we were apprised of the resignation of the president of the company, Eleazer Lord, Esq., and of the appointment in his stead, of James Harper, late Mayor, but much better known as one of the partners in the house of HARPER & BROTHERS, publishers, of this city. In common with other friends of the work, we have been satisfied that a change of management was necessary, as it has been evident to us that those having the control were not likely to obtain the necessary means for its early completion. Deeply impressed with these views, we had prepared the following article for this number; and, though its object is in part accomplished, still we give it a place, that we may not appear to have been idle spectators in so important a matter; and also to congratulate the company, and the citizens of New York generally, on the selection of a man upon whom all parties can unite, and who CAN, IF HE WILL, complete the work on or before the 4th day of July, 1850—or in LESS than five years.

NEW YORK AND ERIE RAILROAD.

Some months since (see No. 5, Jan. 30th, 1845,) we compared the direction of the Erie with that of the Baltimore and Ohio railway, and intimated that with similar management, similar results would follow. We contended that the Erie railroad must be conducted on different principles, but we little thought that—in addition to its other troubles—the direction itself was anything but harmonious.

The treasurer of the company—Silas Brown, Esq., a merchant of high standing—did not pay the interest due on the bonds of the company a few days since. The president of the company, Eleazer Lord, Esqr., comes out in the papers pretty strongly against the treasurer, who had, he asserts, assets in his hands on which he, Mr. L., could with ease have raised the means to pay the interest, had the treasurer seen fit to give him a single day's notice. Mr. Brown in reply states, that the president must have known his intention the day before the interest was due; that the "assets" consisted of a quantity of railroad iron, which had been shipped to the western part of the road, and had been sold by the sheriff and bid in by Mr. Brown, in his individual capacity, which was now on its way back to the city to be sold for the benefit of the company. Mr. Brown also states that he is already liable in his individual capacity for several thousand dollars, that he does not consider it proper for him to make further advances, and that their present unfortunate condition is owing to the

fact that he has only received about \$3000 from the earnings of the road for the last six months! In short, it would appear that the road is again in the predicament in which it was found by Messrs. Allen and Brown—that is, on the eve of stopping.

Unless gentlemen of wealth and enterprize come forward boldly and in concert, there is great reason to fear that the work will be abandoned for some years, though of its ultimate completion we have never entertained a doubt. If, therefore, an efficient organization be practicable, this is the time to effect it. That it is practicable who can doubt?

The first step must be to place at the head of the company a gentleman whose judgment, integrity and thorough acquaintance with the wants and interests of this city, and the business community, are such as to command the confidence of the mercantile and monied classes. This is the first step to success, and if taken promptly it will succeed. Having the means, the next step is to see them properly applied. To ensure these desirable results we must follow the example of Baltimore. We find at the head of her great work one of the ablest men in the country, and the engineer is as highly esteemed by, as he is universally known to, the profession. The difficulties to be overcome in the case of the Erie railroad would require all the ability and energy of such a man as Mr. McLane, and the best professional skill in the Union will find abundant room for the display of its resources on so long and varied a route as that of the New York and Erie railroad. Again, such men would be cautious of issuing statements to prove that work on the Erie railroad had been done for 50 per cent. less than on any other work. What has been done on the Erie railroad to show that they alone understand the construction and management of railways? No man of intelligence can believe that similar work has, under similar circumstances, been done for 30 or 40 per cent. less on the Erie railroad, than on the admirably managed works of Massachusetts. We would not speak disrespectfully of the gentlemen who have the management of this work, nor intentionally throw a straw in the way of its progress, far otherwise, as, for most of them, we entertain personally a high regard, and the work itself, we have so long looked upon it as the great railroad of the Union—because it will become the first and most important link in a chain of railway which will ultimately have one terminus on the Atlantic, and the other on the Pacific—that we feel in a measure wedded to it, and bound to give it our best efforts; hence it is that we call upon those who now have the management—but who unfortunately have not the confidence of those who are to furnish the means for completing the work—to show themselves what they claim to be, the true friends of the work, by uniting cordially with others in the selection of a man of character and practical knowledge as a business man, who has never been identified with the work; and then select the ablest professional services which the country affords, pay them well, and make them responsible for their doings. By adopting this course, confidence will be inspired, the necessary capital will be easily obtained, and the work will be completed within five years; and within ten years it will be considered the most profitable railway investment in this country; if not in the world; but if the present course is pursued, it will become a by-word among our neighbors, and a reproach to ourselves.

RAILWAY ESTIMATES.

We have repeatedly cautioned the advocates of new projects against overrating their advantages.

We feel it our duty to offer some remarks on a kindred fault—that of underrating the cost of construction. As far as the graduation is concerned, there is of course room for error to some extent; but, in other respects, a little care only is required to arrive at an approximation to the ultimate expenditure—quite near enough for practical purposes. Again, the expenditures, other than the graduation, generally form much the greater part of the total cost; and, as these can be ascertained with all desirable accuracy, it is clear that the amount of capital necessary for the efficient working of a railway is no longer a matter of doubt with our present varied and extensive experience. We should think these remarks entirely superfluous, as relating to matters of the utmost notoriety, had we not observed that it is, at this day, gravely proposed to construct railways for from \$7 to \$10,000 per mile. In Connecticut it is asserted (last Journal, p. 427,) that they can build with "the heaviest T rail for about seven thousand dollars per mile." Now the cost of the iron alone, allowing 100 tons per mile of single track with turnouts, will be about this sum. At the late preposterous prices, the cost in England would have reached this sum; but assuming the cost to settle there at \$35 to \$40 per ton, and adding \$25 duty, we have 60 to 65 dollars per ton; exclusive of freight, insurance, storage and carrying to the place where required. There is, therefore, little probability of the cost of the iron alone falling below 7000 dollars per mile of single track, yet, with this fact staring them in the face, and with the vast experience of Massachusetts, within a few hours' ride, we find such statements as the above gravely put forth. As far as the individual project above alluded to is concerned, this is of comparatively little moment; but all such exaggerations injure the cause of railways generally. Any director, engineer, or even respectable assistant in Massachusetts, could inform them that \$10,000 per mile for the mere track, exclusive of preparing the road-bed, is, at this time, a low estimate with a heavy rail.

We observe a similar statement in a Toronto paper, where a road, requiring considerable excavations, embankments and bridges, is to be put into operation for 8 or 9000 dollars per mile with the flat bar. A long road in Georgia, and a short one in Lower Canada—their ONLY road!—have been for some years in successful operation with an expenditure per mile of 12 or 13,000 dollars. But the price of iron was little more than half what it is now, and the country in both cases offered remarkable facilities. Lastly, they were both superintended by engineers of standing in the profession.

We would inform our Connecticut and Canadian friends, that they may consider \$20,000 per mile as a low estimate of a single track railway, with moderate equipment of cars, engines, buildings, shops, water stations, etc. This is in accordance with the experience of Massachusetts, the people of which State are unrivalled in this country, and unsurpassed in any other, for mechanical skill, for bold yet judicious enterprize, and for that energetic perseverance which never rests short of the attainment of its object.

Although railways may be constructed and equipped for from one-fourth to one-half the cost of the bare channel and locks of the canals of New York, or of Canada, they still require no trifling sums; and we must believe that their friends would act more judiciously were they to take the advice and opinion of some competent engineer before putting forth such flattering views; enticing, it is true, at the first glance, but, on examination, leading only to distrust in others, and to disappointment to themselves.

## THE FIRST TO THE LAST.

The *American Railroad Journal*, the first periodical devoted to the cause, extends cordially the right hand of fellowship, and bids God speed to the *London Railway Express*, the youngest of the present numerous family, number one of which has just come to hand. The present condition and prospects of the railroad system is very different from that of 1831, when this journal was projected and started, at the close of that year. Then it was comparatively an experiment, and few, indeed, were bold enough to risk the expense of a periodical for the dissemination of intelligence in relation to railroads; whereas, now, it has become an established fact, superior to all other modes of intercommunication, and there are many able journals laboring in the cause, not only in England, but also in France and Germany, which are well sustained, if we may judge by their appearance; and why should they not be, when they are devoted to what is rapidly becoming one of the *leading interests* of the age?

We again bid our new co-laborer a hearty welcome, and shall be happy to aid his extensive circulation in this country, and to furnish him with such information in relation to our railroads, canals, and public works, as may be useful or interesting to his readers in Europe.

The following remarks on the "progress of railway speed," show what has been thought, said, and accomplished in relation to railroads, within the last *quarter* of a century. Is the claim for Mr. Stephenson well founded for so early a period as 1812?—We would not deprive him of his just due, nor allow him to wear honors which should adorn the brow of less conspicuous men.

*Progress of Railway Speed.*—When Geo. Stephenson constructed the first locomotive engine, men who called themselves "practical" contended that the smooth wheels would run round, or slip, on the equally smooth iron rails, without moving the carriage. But the wheels actually did *bite*, and Mr. Stephenson then said to his friends that there was no limit to the speed of such an engine, provided the works could be made to stand. This was in 1812.

A few years later, a writer who declared himself friendly to the use of locomotive engines, strongly protested against "the extravagant expectations, or rather professions, of the enthusiastic speculatist," that "engines would be seen travelling at the rate of 12, 16, 18, and 20 miles an hour," and added, that "nothing could do more harm towards their general adoption and improvement than the promulgation of such nonsense." This was in 1825.

When the Liverpool and Manchester rail-

way bill was introduced, Mr. Stephenson was examined on its merits before a committee of the House of Commons, and the promoters of that project gravely warned him that if he talked of a locomotive going at a greater rate than 10 miles an hour, he would "put a cross on the concern." Even that rate of speed was considered so out of the way, that one person asked if Mr. Stephenson were a foreigner, and another hinted doubts of his sanity. This was in 1828.

The Liverpool and Manchester railway was opened, and a speed of 30 miles an hour was obtained, which rather settled the question of Mr. Stephenson's sanity. This was in 1830.

The other day, on the London and Birmingham, as well as on the Great Western railway, a rate of travelling at the speed of 65 miles an hour was accomplished. The express trains on these lines run at the rate of nearly 50 miles an hour, stoppages included. Mr. Brunel expects that, without any risk, the progress of travelling on the Great Western line will arrive at a speed of a mile per minute. We say nothing of the yet greater speed which is promised by the atmospheric mode of locomotion.

Thus, then, about thirty years ago, it was doubted whether locomotives could run at all upon iron railways; twenty years ago, the idea of their moving at a greater speed than ten miles in the hour was scoffed at as chimerical; fifteen years ago, the unexpected rate of thirty miles an hour was considered a wonder which no effort of practical science could surpass; and now a speed of nearly fifty miles an hour is in daily use, while the rate of a mile per minute is promised, and, in some special instances, has actually been exceeded.

It is singular that the three great feats accomplished by practical science in our own time, namely, lighting by gas, crossing the Atlantic by steam in ten days, and rapid travelling by the same motive power on railways, have, one and all, been denounced as utterly impracticable by "philosophers," who actually knew nothing of the subjects upon which they theorised.

## THE REPUTED PROJECTOR OF THE RAILWAY SYSTEM.

We copied into a recent number, from the *London Mining Journal*, an article on this subject, and by way of contributing our mite, and doing justice to the real author, we gave a document which showed claims far anterior to those set up for Mr. Gray.

We now find in the *Railway Magazine*, of 7th June, a letter from Mr. Gray himself to the railway department of the Board of Trade, in which he fixes his own claims only as far back as 1820—while we show conclusively that Col. Stevens made public his views, by a communication to Congress, as early as 1812, or *eight years* prior to Mr. Gray's; and we shall, we think, be able to show that he made it a subject of common

conversation at a much earlier period. In order, however, to give each party a fair opportunity, and the benefit of their own statement, we now give place to Mr. Gray's letter.

"*The Railway System.*—[We have received the following copy of a letter addressed by Mr. Gray to the Board of Trade.]  
*To the railway department—Board of Trade.*

"*MR. LORDS.*—All railways should be made perfectly straight and level, as being best adapted, in every respect, for propelling vehicles in each direction, by taking a survey of grand trunk railways from the metropolis to all parts of the kingdom, and making the intermediate distances to correspond with each terminus, the facility and economy of railways would soon become manifest to all.

"The want of uniformity in the construction of railways throughout the country will soon prove ruinous to shareholders, but it appears to me, up to this time, that they are merely intended as stock exchange speculations. And I am drawn to this conclusion from the attempt now making to inoculate the public with an atmospheric railway—a plan which, in my opinion, is only calculated for Threadneedle street!

"If your lordships would bear in mind that each and every steam engine required to exhaust the atmospheric tube would, on well constructed railways, impel every day 200 tons from one end of the country to another, what an incalculable waste of power and of money will always take place in this quixotic scheme!!

"As numerous bills for the extension of railways are to be brought forward in the ensuing session of parliament, perhaps I may, as the original projector of the national railway system, be permitted to state my reasons for great caution and strict examination before the passing of these bills.

"The railways already formed are extremely defective in their construction, and the loss of power in working them is extravagant beyond all calculation.

"The cog-rail should be used on every railway for carriages of heavy burden, and trade, traffic, or luggage trains, as it will be invariably found that five times the power would be obtained by the cog-rail over the plain rail; and whatever the revenue may be from the plain rails, five times the amount would be clearly gained, in addition to what is now received by any and all railways, which would enable all companies to reduce the charges of carriage and rates of fare to one-quarter of the present price.

"The fares and rates of carriage should be reduced to the minimum. Railways are for the public benefit, and government should not allow companies to monopolize them!

"(The people seem to me all asleep!!)

"The steam packet impels a burthen of from five hundred to one thousand tons at many miles an hour, why may not the same propelling power on railways, by using wheels of a similar diameter, have the same effect? as both cog and plain rails may be

worked separately or together at the same time!

"Permit me most respectfully to claim your consideration and support in my behalf, after my unwearied application to this scheme ever since 1820, and to solicit your kind patronage in obtaining for me some remuneration for moneys expended by me during this long period, as well as for my services in propagating this measure.

"Surely where so many have reaped a rich harvest in the field which I have tilled and sown, I may at last be permitted to become the humble gleaner.

"I have the honor, my lords, to remain,

"Your lordships' dutiful servant,

"THOMAS GRAY.

"Exeter, 23d Sept., 1844."

#### THE IRON TRADE.

So important do we consider the iron trade, and so interesting to many of our readers, the latest information from well informed sources in England, that we feel called upon to give copious extracts from the London Mining Journal, a work edited with great ability and fairness.

It would appear from the following extract of June 7th, that there are "Bulls," "Bears," and "Lame Ducks," in the London iron, as well as in the New York stock market; and there, as here, we imagine, little regret would be felt among fair dealers, if *lame ducks* only were made of the bulls and bears—but unfortunately, it often happens that those *animals* only come in for "snacks," when the operations are favorable, leaving others to enjoy the *pleasures* of the gentle embrace of the one, or the affectionate caresses of the other—when they find themselves in a *corner* of the fence, without the ability to escape—while meritorious enterprizes and fair dealers are made to suffer.

"The advance in the price of iron," says the editor, "consequent on the improved state of the trade, and the numerous lines of projected railways, has been attended with those natural results which might be expected—a re-action having taken place in more senses than one, while the union of the ironmasters has been dissolved, and as regards the operations for 'time,' there are fearful accounts. The rapid and unprecedented rise which took place, had the effect of putting several furnaces in blast, and was, moreover, attended with an advance of wages, while the operative, not considering for a moment aught than the advanced price, seeks for a further rise. In the meantime, the prices are receding; it is now discovered that many transactions, on which were founded the rapid rise, were, as would be said in the stock exchange, 'for the account,' and those who were 'bulls,' for pigs, are now to use the language of the alley, but 'lame ducks;' in fact, purchases have been made of pig and bar iron, for 'time,' which, when

such arrived, the buyers possessed not the ability of taking to their bargain, and hence a defalcation, which is not only attended by loss of money, in the difference existing as regards the price, but is of incalculable injury, in throwing on the market an influx of iron, which was not previously contemplated. It is generally admitted, that the present reduced price—for such it is, comparatively speaking, with reference to the high figure which bars attained at one period—is one which the ironmaster would be well pleased to see maintained, and we consider that it is only such as will repair the heavy losses sustained in the past few years—therefore, are we most anxious to see the iron trade assume a healthy state, which can only be effected by the ironmasters coming to the resolution of having no 'time bargains.' This would give to the miner, collier, and those employed in the works, fair wages, and at the same time, place the iron trade in a position, which will render it remunerative to the capitalist, and, at the same time, encouraging to the adventurer. We trust that the ironmasters will not, by any false notions of rivalry, injure in interest which so materially affects the operative, or will descend to transactions, such as 'time bargains,' which we think should be excluded from all other precincts than those of the stock exchange. We have ever understood that the iron trade was one of a legitimate nature, and less speculative than others, and, indeed, the real business doing, and the orders on hand, would fully justify this conclusion; it is then with regret we find that the prices are influenced, and the present depression to be attributed to the speculation which has been going forward, and the inability of the 'bulls' to take stock, or rather, we should say, the purchasers for time having the means of taking the iron for which they have contracted. We trust that the present lesson will serve as a beacon, and that henceforth, we may not have occasion to record a re-action like the present, as emanating from the same cause."

The Liverpool Mail has the following in relation to the "pig-iron trade" of Scotland.

"THE SCOTCH PIG IRON TRADE.—In consequence of the unprecedented fluctuation that has taken place in the price of Scotch pig iron this year, more than usual attention has been directed to it, and many statements and reasonings have been offered on the subject, all more or less colored by the interests of the writers. Those who wish to buy the commodity say all they can to lower its price, and those who have it to sell, bring forward everything in their power to raise its value. If this bias were honestly exercised, it might be excused; but where parties, to serve their own temporary interest, do not hesitate to state falsehoods, it ought to be opposed. Regarding the article in question, grossly erroneous statements have been put forth with an air of authority, while the parties who made them must have known them to be false. A table of the make of Scotch pig iron appeared lately in

a Glasgow paper, and is now going the round of the newspapers all over the country, in which the number of furnaces is represented to be ninety, whereas the truth is, that the number in operation in all Scotland is seventy-five. In this way the quantity of iron made is carried far beyond the truth. To swell out the list, the names of every place where iron has ever been made are paraded, even where there is not a vestige left of furnaces or apparatus for making iron, and names are given of every spot that has ever been thought of for making iron, although no step has been taken towards getting mineral or erecting furnaces. After having falsified the facts as to the present production of iron, the statement goes on to specify furnaces said to be in preparation, and that will be in blast three months hence. Not one additional furnace will be in operation even twelve months hence. The list of new works in preparation, and which it is asserted will be at work in a few months, is made up of places as yet only heard of by name, as localities where minerals may probably be found, but even this has not been ascertained. The subjoined is an accurate list of all the furnaces at present in blast, with an estimate of the consumption and export of Scotch pig iron, without anticipating the future, and so not drawing anything upon the increased demand to arise immediately for iron for the new railways, (be they many or few) that are about to be made, and for one alone of which 30,000 tons of Scotch pig iron has already been purchased. It is desirable that an article in such extensive use as iron now is should be at a moderate price, and it may be that speculation has recently forced the price up too suddenly; but on the other hand, many accidental circumstances have concurred to depress the market for Scotch pig iron much below the level which the state of the production and demand must establish. This particular description of iron, from the necessities of some holders, has been sold at prices much under its relative value in proportion to other iron, and below its cost to the manufacturer, with the high prices he has now to pay for coal, and the great advance that has taken place in wages. From feuds and litigation among the ironmasters in Scotland, for a considerable time prices were kept unnaturally low, and the very lowest rates have been referred to as a fair price for the article; it might, with more fairness, be assumed that the average price should be £7, which was the price in 1836, when there existed no such demand for iron as has now sprung up for warehouses, ships, railways, etc. The testimony of experienced founders is that, with the price steady at about £5, business is in the best state. The extra demand that has come on this year, from the general prosperity of the manufacturing interests, and the unprecedented extension of railways, will, probably, cause the price to rule above £5, but it cannot remain under it. The depressed prices just at present submitted to, will occasion orders to flow in from all quarters. In bar iron, also, the re-

cent retrograde movement in Staffordshire leaves the price such as will lead to business going on freely and steadily; indeed, this is already apparent, the trade in that quarter evincing renewed buoyancy.

"It is remarkable, that after years of extreme depression, on the trade becoming lively for only a few months, a cry is raised of re-action, stagnation, ruin; it might be supposed that all the extra demand that has arisen was to be supplied without the price advancing, so as to give good wages to the workmen and fair profits to the master. Let us rather hope that this important staple of our country, without going to extravagant price, will afford opportunity to all concerned to make up, to some extent, the losses sustained by the ruinously low prices that so long prevailed.

*Make of Scotch Pig Iron, May, 1845.*

	Furnaces.		Weekly production.	
	Total.	Out.	In.	
Gartsherrie,	16	1	15	1530 tons.
Monkland,	7	—	7	700 "
Dundyvan,	9	1	8	700 "
Clyde,	7	3	4	360 "
Calder,	8	2	6	650 "
Govan,	5	1	4	600 "
Langloan,	3	—	3	450 "
Carnbroe,	6	2	4	350 "
Coltness,	4	1	3	300 "
Sunmerlee,	4	1	3	300 "
Glengarnock,	3	—	3	300 "
Shotts,	3	—	3	300 "
Castlehill,	2	—	2	180 "
Carron,	4	1	3	200 "
Onion,	2	—	2	180 "
Blair,	2	—	2	180 "
Muirkirk,	3	1	2	150 "
Devon,	3	2	1	60 "
	91	16	75	7500 "

Bar iron made at Monkland.....	250	tons.
" Govan.....	260	"
" Dundyvan.....	260	"
" Gartness.....	80	"
" Mossend.....	80	"
" Muirkirk.....	70	"

At 30 cwt. pigs to the ton of bars, 1000 tons takes 1500 tons pig iron, leaving disposable of the make in Scotland 6000 tons per week, 6000 tons per. week is in the year 312,000 tons.

*Weekly consumption of Scotch Pig Iron in Scotland, England and Ireland, according to the best information.*

In Scotland, used for castings....	2400	tons.
Newcastle, etc.....	700	"
Middlesborough, for bars.....	300	"
Hull, Leeds, Bradford, Sheffield, etc.	300	"
Liverpool.....	300	"
Manufacturing district, including Manchester, Bolton, Stockport, Bury, etc.....	1200	"
London.....	300	"
All the west and south of England.....	300	"
All Ireland.....	150	"
Per week.....	5950	"
In the year.....	309,400	"

Exported from Glasgow:  
From Grangemouth and the Clyde, in 1843..... 98,028 tons.  
Do. do. 1844..... 39,190 "

Take for an average the half of 137,218 "  
The export for 1845..... 68,600 "  
The export from Liverpool this year is at the rate of 17,600 per annum; but say..... 14,000 "

392,000 "  
Deficiency in the year..... 80,000 "  
Without any extra demand whatever for iron for new railways, etc."

The Mining Journal, of June 14th, has the following article, in continuation, upon the iron trade. We will give the table spoken of when it comes to hand, by the next steamer.

"We have taken some pains to acquire accurate information, as respects the iron trade; but we find much difficulty in arriving at conclusions, such as would warrant us in placing before our readers any distinct features of a general nature: so varied are the positions in which the several districts are placed. It was only last week that we adverted to the 'time' speculations in pig iron, which particularly applied to Scotland; while, from the inability of the 'bulls,' or buyers of stock, to pay at the period fixed for delivery, a reduction naturally took place. Nevertheless, the prices of iron were maintained in the Staffordshire, Derbyshire and South and North Wales districts, except so far as the reduction which it had been considered prudent to make: the rise having been too rapid to be justified even by the increased demand, while it was calculated materially to injure the ironmaster in the end, from the advanced wages he would be compelled to give, and to reduce which, with a reduction in the price of the article, would be attended with much difficulty; hence the movement on the part of the ironmasters, which must have the hearty concurrence of all, whether they consider the interests of the operative, or working miner or collier, the smelter, the merchant, or consumer. It was our intention this week to have given a statistical table of the prices of Welsh bars at Newport, 'pigs' at Newport, and tin plates at Bristol, for the past twenty years, having been favored with a tabular statement, showing the changes in price which these several articles have undergone; but we must needs defer its insertion until our next; in the meantime, we may take one or two instances as evidence of the sudden transition and revulsions which the iron trade has undergone, trusting that some of our correspondents, associated with the trade, will take up the subject, and offer some remarks on the anomaly, if we may use the expression, which the table presents. In July, 1823, we find bars were selling at Newport at £7 per ton; in eighteen months afterwards—that is to say, in January, 1825—they are quoted at £14 per ton, and here we might stop, had we space for the adduction of argument, as re-

gards the immenso difference which these prices present, with reference to the production of bar iron in South Wales alone; or, rather, we may say, the prices obtained at Newport—eighteen months having effected a rise of 100 per cent. To progress, we next arrive at the year 1831, some six years forward, when the price of bars had fallen to £5 per ton, being a reduction of nearly two-thirds in the price of the article, which thus appears to have fallen from £14 per ton to £5. From that period to April, 1836, it again rallied, varying from £5 to £11 per ton; after which it was again depressed, the price quoted in August, 1837, being £6; again a re-action took place, and in March, 1838, we find it £10 per ton; but in 1843, it decreases below even any price we have cited, and we find £4 per ton the quotation of the day; from that time a gradual advance has taken place, and from the statement with which we have been favored, the price quoted for March, in the present year, is £10. We leave, until next number, the tabular statement to which we have referred, when we shall be induced to offer some observations on the iron trade, its position and prospects.

"We may, in closing our remarks, observe, that the decline in Scotch pigs has had an effect on Welsh and Staffordshire bars, and although the large houses are not disposed at present to make any reduction, yet the market cannot be said to maintain the firmness it has displayed during the past few weeks."

SELECTED RAILROAD, CANAL, AND MISCELLANEOUS ITEMS.

**KENNEBEC, BATH, AND PORTLAND RAILROAD.**—A meeting of the company for the establishment of this railroad was held at Gardiner last week. The committee appointed to form a union between the the Kennebec and Portland, and the Bath and Portland railroad companies, reported that a satisfactory union had been agreed upon, and their report was accepted. It was voted that the shares in the capital stock shall be \$200 each, and that 1 per cent. on the amount of each subscription shall be paid at the time of subscribing—no subscription to be binding unless the sum of \$500,000 in the whole shall be subscribed on or before the 13th of October next.

A committee was appointed to invite subscriptions to the stock in other states, and an executive committee to prepare subscription-books, to obtain and publish information, and to take a general superintendence of the affairs of the company.—*Daily Adv.*

**CHESHIRE RAILROAD.**—The first assessment of ten dollars per share is payable on Tuesday next.

**CONCORD TO PORTSMOUTH.**—No railroad project in New Hampshire has yet found greater favor than that from Concord to Portsmouth, which will bring the sea twenty-five miles nearer to the whole country north and west. It is said the road will be made the present year between Portsmouth and New Market. There is sufficient surplus capital on the route and, at the termini to build this road without extraordinary aid.—*Hill's Pat.*

**NASHUA AND WORCESTER RAILROAD.**—The stockholders of the Nashua and Worcester



railroad corporation held a meeting at Worcester, on Wednesday, and made choice of the following gentlemen as directors, viz: Jacob Fisher, of Lancaster; John G. Park, of Groton; Joel Pratt, of Sterling; J. W. Bancroft, S. Salisbury and Edwin Conant, of Worcester; Samuel R. Brooks, and Jacob Little, of New York; J. C. Holland, and John A. Rockwell, of Norwich; Isaac Hunt, jr., of Nashua; Alexander De Witt, of Oxford; and William Brigham, of Boston. We learn that the amount of stock now subscribed is \$530,000. The amount required to be subscribed before the work can be commenced is \$700,000.—*Bost. Daily Adv.*  
 This road is sure to be built:

The laying of the rails on the Old Colony road was commenced on Wednesday last, in Kingston, a little west of the river, and is now progressing northerly. The westerly abutment of the bridge over Jones river is completed, and the road graded up to it, with the exception of a short cut through the hill. The easterly abutment is expected to be finished next week, when a temporary bridge will be placed over it for the purpose of carrying over the earth remaining to be excavated on the west side. The ship Mary Frances sailed from Cardiff, (Wales,) on the 24th ult., and the bark Vernon on the 25th ult., loaded with iron, and their arrival may be expected in the course of ten days. The excavation for the foundation of the engine house in this town was commenced yesterday.—*Plymouth Memorial.*

**NORTHAMPTON RAILROAD.**—Intelligence was received by the last steamer, that the agent of the Northampton railroad corporation had purchased the rails for the remainder of the road, on quite favorable terms. The price paid was about \$50 per ton, which is something like \$18 per ton more than was paid for the rails purchased last year. This is much better than was anticipated a few months since.—*Northampton Courier.*

**SARATOGA AND WASHINGTON RAILROAD.**—We understand that this very important link in the chain of railroads between New York and Montreal will be immediately carried through. The arrangements are so made, that if New York capitalists will not finish the road, Bostonians are coming forward to take up the stock.—*Albany Argus.*

Of course—wherever there is a railroad route which will pay good dividends, there you will find Boston capitalists engaged. We shall yet have to apply to them to build the New York and Erie, and New York and Albany roads!

**MAD RIVER RAILROAD.**—The lettings for completing the Mad River and lake Erie railroad are announced in the last Bellefontaine Gazette. One hundred and seventy-four bids were put in. Two hundred bidders were on the ground. The contracts provide that the work must all be done by the 1st of June, 1846.

The Morris and Essex railroad company has declared a semi-annual dividend of 3 1/4 per cent.

The number of passengers carried on the Troy and Greenbush railroad during the twelve days ending 26th ult., was 2369, being an average of near 200 each day.

We shall have a word to say of this road soon. It is so much like Troy that we cannot pass it by in silence.

**DAY LINE TO NEWPORT.**—The Long Island railroad company started a line to Newport and Providence on Thursday of last week at the low fare of \$1.

**CENTRAL RAILROAD.**—Subscriptions go on finely in city and country. We can no longer give particulars. Suffice it to say, that an amount much more than sufficient to warrant an organization under the charter has been subscribed, and a meeting of the stockholders will be called as soon as may be, for the choice of directors, &c.—probably on the 23d inst. And then come the location, the spades and pick-axes!—*Montpelier Patriot.*

The West Cambridge and Lexington railroad company, we learn, have obtained subscriptions to their stock exceeding \$100,000, and will proceed to organize the corporation on Monday, 7th July.

**WESTERN RAILROAD.**—Receipts for the week ending June 28:

	1845	1844
Passengers, . . .	\$7,781	\$8,642
Freight, &c., . . .	7,681	7,874
<b>Total, . . .</b>	<b>\$15,462</b>	<b>\$16,516</b>

Here we see a falling off in both passengers and freight, and it will be still greater if they keep up their fares to present prices. Better be wise in time.

**NORWICH AND WORCESTER ROAD.**—The collections of this road, as compared with last year, show a large increase:

	Passengers.	Freight.
1845 . . .	\$95,889 69	\$99,239 02
1844 . . .	91,222 07	88,160 71
<b>Excess in 1845, . . .</b>	<b>\$4,667 62</b>	<b>\$11,078 31</b>
<b>Total, \$15,745 93.</b>		

**CENTRAL RAILROAD, MICH.**—Receipts for May, 1845:

Passengers, . . .	\$8,888 55
Freight, . . .	9,736 00
<b>Do. for May, 1844:</b>	<b>\$15,724 55</b>

Passengers, . . .	\$8,682 94
Freight, . . .	13,459 87
<b>Do. for May, 1843:</b>	<b>\$22,142 81</b>

Passengers, . . .	\$5,409 02
Freight, . . .	7,995 76
<b>Total, . . .</b>	<b>\$13,404 78</b>

**THE COAL TRADE.—SCHUYLKILL VALLEY.**

BY RAILROAD.

From Pottsville and Port Carbon—total . . .	120,306
From Schuylkill Haven—total . . .	158,916
From Port Clinton—total . . .	3,326
<b>Total by railroad . . .</b>	<b>282,550</b>

BY CANAL.

From Pottsville and Port Carbon—total . . .	53,731
From Schuylkill Haven—total tons . . .	13,810
From Port Clinton . . .	19,515
<b>Total by canal . . .</b>	<b>87,057</b>

**Total by railroad and canal . . . 362,943**

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co. . .	
Summit mines, . . .	62522
Room run do., . . .	20353—82875
Beaver Meadow railroad and coal co., . . .	26679
From Penn Haven—Hazleton coal co., . . .	21906
From Rock Port—Buck Mountain coal co., . . .	7062
<b>Total . . .</b>	<b>138522</b>

**WYOMING COAL TRADE—total . . . 52,737**

**PINE GROVE COAL TRADE—total . . . 23,466**

**MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons . . . 180,994**

**MOUNT CARBON RAILROAD—total tons . . 105,289**

**WHITEWATER VALLEY CANAL.**—We have to record yet further progress in our works of internal improvement. The packet and freight boat Mail, Capt. James Collins, arrived from Connersville, Indiana, yesterday morning!—The canal, therefore, is completed from this city to that place.

The distance from Cincinnati to Connersville, is—

From Cincinnati to North Bend, . . .	16 miles
“ North Bend to Harrison, . . .	9
“ Harrison to Brookville, Ind., . . .	18
“ Brookville to Laurel, . . .	15
“ Laurel to Connersville, . . .	12
<b>—70</b>	

We learn from Mr. Collins that six or eight miles more of the canal will be completed within three or four weeks. This will carry the navigation up to the feeder dam, beyond Connersville, and leave some seven miles to be done to finish the line to Cambridge! Very soon, therefore, we shall have daily communication with the heart of one of the richest valleys in Indiana, or the west.—*Cin. Gaz.*

**SANDY AND BEAVER CANAL.**—The New Lisbon (Pa.) Palladium announces that the entire stock necessary to complete this canal, which was suspended in 1837, was taken in that town, at a meeting held there recently. W. Milnor Roberts has been appointed engineer, and it is said that the lettings are to take place this month.

Thomas Wilson has been elected president, and Thomas M. Abbott treasurer, of the Susquehanna canal company.

The outlet locks of the Alexandria canal, into the Potomac river, are completed.

**MORE MANUFACTURES.**—We are informed that a company with a capital of \$200,000, contemplate the erection of works in this city for the manufacture of iron with anthracite coal.—The ore will be obtained from northern New York; the coal from Pennsylvania, by the Delaware and Hudson canal.—*Troy Whig.*

We are authorized to say, that the experiment of making iron from the ore with anthracite coal has been entirely successful, and, therefore, the works for making it on a large scale will be immediately erected and put in operation.

According to the Cincinnati Chronicle, the actual length of the Ohio river, from Pittsburg to its mouth, is 875 miles.

**Heavy Verdict.**—From a report in the Ontario Repository, of the causes tried at the recent term of the United States circuit court for the northern district, held at Canandaigua, we learn that the jury, in the case of *Babbitt, vs. the Buffalo steam engine manufacturing company*, returned a verdict of \$4,000 as damages for the infringement of the plaintiff's patent, relative to the lining of boxes in which gudgeons and axles are to run, and by which the bad effects heretofore experienced from friction and heating are obviated.

The Fall River railroad, connecting with the New Bedford and Taunton and Boston and Providence roads at Myrick's, six miles from Taunton, was opened for travel on Tuesday morning last. The cars and all the appliances on this are said to be unsurpassed for comfort by any in the country. It is the first railroad of any extent constructed with American iron, the rails having been made at the Mount Savage Works in this State.

**RAILROADS.**—It is pleasing to see a spirit of emulation,—we will not call it enterprise—now dawning in this province with regard to the construction of these important thoroughfares, and the interest with which it is viewed by our neighbors. It is to be hoped that in laying down routes some general geographical plan will be kept in view, and that no local interests will be suffered to thwart it. Local interests may at first appear to clash, but when closely considered may be made to harmonize and assist each other. Public opinion is happily working in the right direction.

The prominent geographical points in Canada are, Montreal, Kingston, Toronto, Bertie and Sandwich, having for governing points of communication in the States, Portland, Buffalo and Detroit.

And first, the "Great Western Railway"—the most important, because of the immense amount of foreign travel it will command, in connexion with railroads in the States. It is a link in the great chain from New York and Boston to the Western and South-western States. St. Louis, at the confluence of the Missouri and Mississippi, is the great centre of the South-west, and its commerce with the East will in a great measure pass this way. The western terminus of this railway should be at Sandwich or Windsor, and going easterly, fork off at a convenient place for Bertie and Toronto—the former connecting great lines of American railways at Detroit and Buffalo, with only the Detroit and Niagara rivers intervening—the latter opening the connexion with Lake Ontario.

We come next to the Montreal and Portland railway, connecting our capital with the Atlantic, and giving to the province a good, safe and convenient harbor, never closed by the winter frosts. Next, from Montreal to Kingston, a continuation of the last railway to Lake Ontario; and finally connecting Toronto with Kingston, thus giving the whole length of the province, west of Montreal, a rapid communication with the capital and the ocean, and especially advantageous in winter.

This scheme will eventually be completed,

though spreading over a long period of years: some part of it has already been determined on, and agents have been, or shortly will be, appointed to proceed to the mother country to procure subscriptions to the stock.—*St. Catharine's Jour.*

**RAILROAD IRON.**—A gentleman familiar with the affairs of the Mount Savage Railroad Iron Works in Alleghany County, Md., has furnished the editors of the N. Y. Tribune with the following facts:

1. The Company has supplied by contract 1,000 tons for the Fall River Railroad, at \$60 per ton, delivered in New England.

2. Since the recent extraordinary rise of iron, it has entered upon new contracts at \$85 per ton, instead of \$95, as the Morning News had it.

3. It is now turning out 100 tons of railroad bars per day, and is putting up two new blast furnaces and an immense blowing engine, which will be completed in August; from which time it will be prepared to turn out 300 tons per day, or at the rate of 90,000 tons per annum.

4. It is ready to make contracts to deliver any quantity of bars ten per cent. cheaper than they can be obtained from Europe under the present tariff.

5. The English price of railroad iron at the latest dates was £15 10s. or about \$75 at Liverpool, at which price it would cost \$87 50 to deliver it here under a 20 per cent. duty.

**CANAL AND RAILWAY UNION.**—(From a correspondent.)—We hear it is in contemplation by the Birmingham and Liverpool Junction, and Ellesmere and Chester Canal Company, to lay a line of rail along their canal, and, if carried out, it will make their property one of the best investments in the kingdom. They have proved the superiority of steam tugs for towing boats; it now only remains for them to complete their work, by laying down a line of rails on the whole of their towing paths, and, no doubt, the Shrewsbury and Montgomeryshire Canal Companies would also promote the scheme—a connection would be easily formed at Chester with Holyhead, and short branches

would connect them with the Manchester and Birmingham and Trent Valley line.—*Mining Journal.*

⚓ Sixty-five tons of railroad iron, for the Miami railroad, arrived on Saturday last at Pittsburgh, from the Great Western iron works, near that city, and was forwarded to its destination. This forms part of the quantity of 700 tons engaged to be furnished by the company for the construction of the road.

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND COAL COMPANY** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland, **WILLIAM YOUNG,** President.

**TO RAILROAD COMPANIES AND MANUFACTURERS** of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. **THOMAS & EDMUND GEORGE,** ja45 N. E. cor. 12th and Market sts., Philad., Pa.

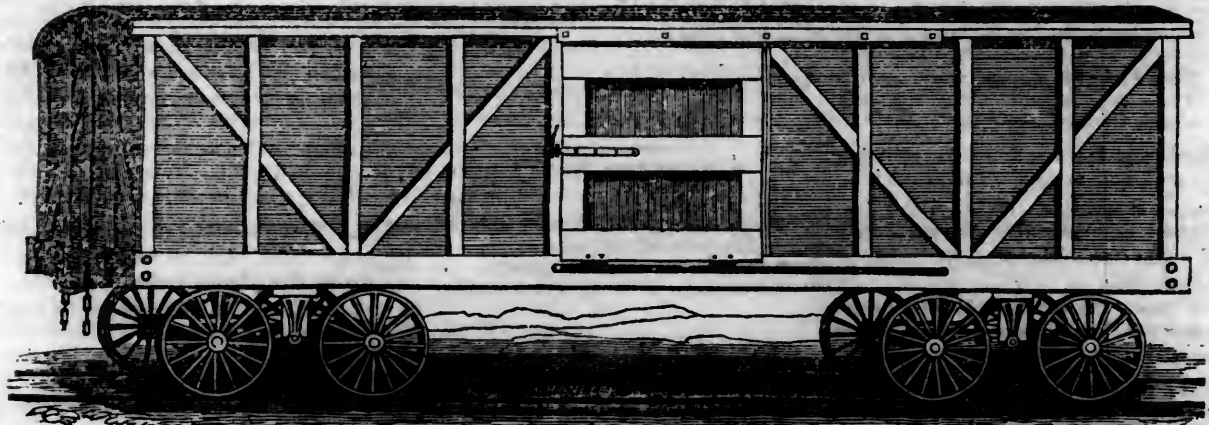
**PATENT RAILROAD, SHIP AND BOAT SPIKES.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

**HENRY BURDEN, Agent.** Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*.\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45



**DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS.** Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.**

Length of Road, 33 96-100 miles. Capital, \$2,000,000.  
 JOHN S. DARCY, Esq., President. ROBERT SCHUYLER, Esq., Vice President.  
 J. P. JACKSON, Esq., Secretary. J. WORTHINGTON, Esq., Treasurer.

	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
Leave New York, foot of Courtland street.					9.....	4 3-4
For Newark.....	9, 11, 12.....	2, 3, 4 3-4, 6, 7 1-2				
" Elizabethtown.....	9, 11.....	2, 3, 4 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4 3-4, 6.....				
" New Brunswick.....	9.....	3, 4 3-4.....				
Leave						
New Brunswick.....	6, 7 1-2, 11 1-2.....	8 3-4.....		11 1-2	8 1-2	
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12.....	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	1 1-2, 4, 5 1-2, 7, 9 3-4		11 3-4	9 3-4	
For New York.						
9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.						

**TABLE OF DISTANCES AND FARES.**

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliot, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\* \* \* The letters in the figures refer to the article given in the Journal of June, 1844. ja45



**SAMUEL NOTT, CIVIL ENGINEER, SURVEYOR and General Agent, Bangor, Me.** Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES.—  
 Boston, { Col. James F. Baldwin, Civil Engineer.  
 { Col. J. M. Fessenden, " "  
 Wm. Parker, Esq., Engineer and Superintendent  
 Boston and Worcester railroad. ja45

**SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars.** The Subscriber is engaged in manufacturing Spring Steel from 1 1/4 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,  
 55a3 Albany Iron and Nail Works, Troy, N. Y.

**FOR SALE, AT A SACRIFICE—A LOCOMOTIVE Engine, 4 wheels and Tender.** Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine.  
 2 8-horse " "  
 1 Upright Hydraulic Press.

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**MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, PATTERSON, N. J.** The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.  
 Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

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**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.  
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 ja45 Reading, Pa.

**GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.**—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/4 in. to 2 1/4 in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions.  
 ja451y

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS.	A. M.	P. M.	MILES.	FARE
Boston	Portland		Eastern,	Daily,	7 $\frac{1}{2}$	2 $\frac{1}{2}$	106	\$3 00
"	Portsmouth		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	54	2 00
"	Newburyport		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	35	1 25
"	Salem		"	"	7 $\frac{1}{2}$ , 9, 11 $\frac{1}{2}$	2 $\frac{1}{2}$ , 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14	50
"	Portland		Boston and Maine,	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	109	3 00
Portland	Boston		"	"	7 $\frac{1}{2}$	3	109	3 00
Boston	Lowell		Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston		"	"	7 $\frac{1}{2}$ , 11	2, 4 $\frac{1}{2}$ , 5 $\frac{1}{2}$	26	75
Boston	Concord		Concord,	"	"	3 $\frac{1}{2}$	76	2 00
Concord	Boston		"	"	"	3 $\frac{1}{2}$	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11	5	41	.....
Nashua	Boston		"	"	6 $\frac{1}{2}$	1 $\frac{1}{2}$ , 5	41	.....
Boston	Worcester		Boston and Worcester,	"	7, 9	2 $\frac{1}{2}$	44	1 25
Worcester	Boston		"	"	7, 10	6	44	1 25
"	"		"	Sundays,	7	"	"	"
Boston	Worcester		"	"	"	2	"	"
Boston	New York via Norwich		"	Mon., Wed. & Fri.,	"	4	"	"
"	" " L. Island railroad		"	Tues., Thur. & Sat.,	7	"	"	"
"	" " New Haven		"	Daily,	9	2 $\frac{1}{2}$	"	"
"	Albany		Western,	"	9	2 $\frac{1}{2}$	200	6 00
Albany	Boston		"	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	200	6 00
Springfield	Boston and Albany		"	"	7	3	"	"
Boston	New York via New-Haven		"	"	"	2 $\frac{1}{2}$	"	"
Charlestown	West Acton		Fitchburg,	"	8	1, 4 $\frac{1}{2}$	"	"
West Acton	Charlestown		"	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	5	"	"
Boston	New York, via Steamboat trains		Boston and Stonington,	Tues., Thur. & Sat.,	"	4 $\frac{1}{2}$	"	"
"	" " " "		Boston and Newport,	Mon., Wed. & Fri.,	"	4 $\frac{1}{2}$	"	"
"	Providence		"	Daily,	7 $\frac{1}{2}$	4	41	1 50
Providence	Boston		"	"	"	On arrival of the mail.	41	1 50
Taunton	"		"	"	8	4	"	"
New Bedford	Boston		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	"	"
Boston	Dedham		"	"	8 $\frac{1}{2}$	3, 6 $\frac{1}{2}$	"	"
Dedham	Boston		"	"	7, 10	5 $\frac{1}{2}$	"	"
New York	Greenport		Long Island,	"	7 $\frac{1}{2}$	"	95	2 25
Brooklyn	Hicksville & intermediate places		"	"	9 $\frac{1}{2}$	"	26	56 $\frac{1}{2}$
"	Greenport		"	Tues., Thur. & Sat.,	9 $\frac{1}{2}$	"	95	2 25
"	Hicksville, (Satur'd'y to Suffolk)		"	Daily,	"	4	26	56 $\frac{1}{2}$
Greenport	Brooklyn, (Boston train)		"	"	"	1	95	2 25
"	" (accommodation do.)		"	Mon., Wed. & Fri.,	"	"	95	2 25
"	" & intermediate places.		"	Daily,	7	1 $\frac{1}{2}$	26	56 $\frac{1}{2}$
Hicksville	"		"	"	6 $\frac{1}{2}$	"	"	5 00
New York	Albany & Boston via N. Haven		Steamer,	"	"	"	"	"
"	Middletown		New York and Erie,	"	8, 3	"	53	"
Middletown	New York		"	"	6 $\frac{1}{2}$	3 $\frac{1}{2}$	53	"
Philadelphia	Pottsville		Reading,	"	9	"	94	3 50
Pottsville	Philadelphia		"	"	9	"	94	3 50
New York	Newark		N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4 $\frac{1}{2}$ , 6, 7 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Newark	New York		[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 9, 11	1 $\frac{1}{2}$ , 4, 5 $\frac{1}{2}$ , 7, 9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	"		[9 A. M. and 4 $\frac{1}{2}$ P. M., trains connect with Somerville Railroad.]	Sundays,	9	4 $\frac{1}{2}$	9 $\frac{1}{2}$	25
New York	Newark		"	Daily,	11 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	Elizabethtown		"	"	9, 11	2, 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14 $\frac{1}{2}$	31 $\frac{1}{2}$
Elizabethtown	New York		"	"	7, 7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 10 $\frac{1}{2}$ , 12	3 $\frac{1}{2}$ , 5	14 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	Rahway		N. J. railroad and trans. co.,	"	9, 11	3, 4 $\frac{1}{2}$ , 6	19 $\frac{1}{2}$	31 $\frac{1}{2}$
Rahway	New York		"	"	6 $\frac{1}{2}$ , 7, 8 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$ , 9 $\frac{1}{2}$	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New Brunswick		"	"	9	3, 4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New Brunswick	New York		"	"	6, 7 $\frac{1}{2}$ , 11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
"	"		"	Sundays,	11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New York	New Brunswick		"	"	9	4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
Philadelphia	New York		Camden and Amboy,	Daily,	7	"	91	3 00
New York	Philadelphia		"	"	5 $\frac{1}{2}$	"	91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	9	"	30	75
Bristol	Philadelphia		"	"	"	4	30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"	8	"	93	"
Baltimore	Philadelphia		"	"	9	"	93	"
"	Washington		Baltimore and Washington,	"	9	5, 11 $\frac{1}{2}$	41	2 50
Washington	Baltimore		"	"	6	5 $\frac{1}{2}$	41	2 50
Baltimore	Cumberland and inter. places		Baltimore and Ohio,	"	7 $\frac{1}{2}$	"	"	"
"	Frederick		"	"	"	4	"	"
Cumberland	Baltimore		"	"	8	"	"	"
Hancock	"		"	"	10 $\frac{1}{2}$	"	"	"
Martinsburg	"		"	"	11 $\frac{1}{2}$	"	"	"
Harper's Ferry	"		"	"	"	12 $\frac{1}{2}$	"	"
Frederick	"		"	"	"	2	"	"
"	"		"	Sundays,	8	"	"	"
Ellicott's Mills	"		"	Daily,	7 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$	"	"
Richmond	Petersburg		Richmond and Petersburg,	"	10 $\frac{1}{2}$	1 $\frac{1}{2}$	"	"
Petersburg	Richmond		"	"	5 $\frac{1}{2}$	"	"	"
Albany	Schenectady		Mohawk and Hudson,	"	8	5 $\frac{1}{2}$	"	"
Schenectady	Albany		"	"	9	3 $\frac{1}{2}$	"	"
Albany	Saratoga		"	"	7 $\frac{1}{2}$	2	"	"
Saratoga	Albany		"	"	7	12 $\frac{1}{2}$ , 5	"	"
Saratoga	Troy		Troy and Saratoga,	"	"	3 $\frac{1}{2}$	"	"
Saratoga	Troy		"	"	7 $\frac{1}{2}$	"	"	"
Auburn	Rochester		Auburn and Rochester,	"	8 $\frac{1}{2}$	"	"	"
Rochester	Auburn		"	"	8	3	"	"
"	Buffalo		Rochester and Buffalo,	"	"	3	"	"
Buffalo	Rochester		"	"	"	"	"	"
"	Falls		Buffalo and Falls,	"	9	"	"	"
Falls	Buffalo		"	"	"	1 $\frac{1}{2}$	"	"
Buffalo	Albany		Albany and Buffalo	"	8 $\frac{1}{2}$	"	"	"

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



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THURSDAY, JULY 17, 1845.

[WHOLE No. 472, VOL. XVIII

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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A. & G. RALSTON & Co. Philad. Pa. [See Adv.]  
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W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

## KITE'S PATENT SAFETY BEAM. PLAN

MESSENGERS. As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed, from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

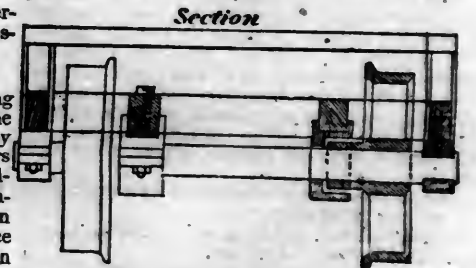
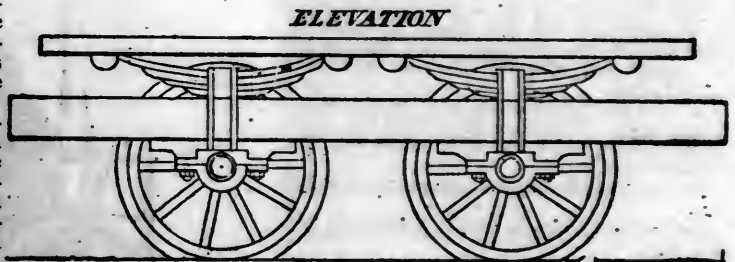
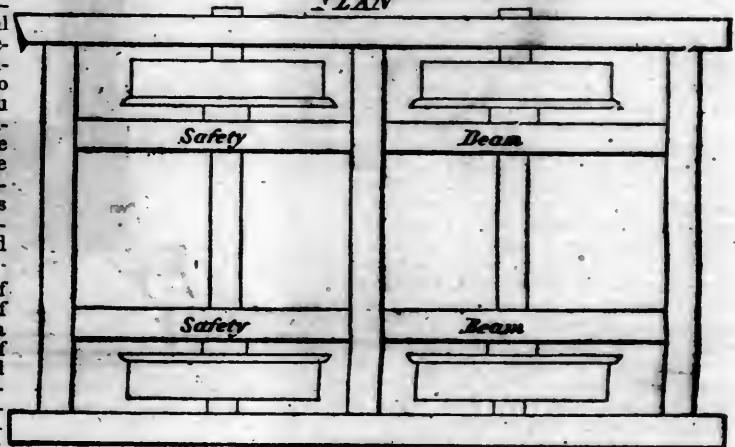
Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**TO IRON MANUFACTURERS.** THE SUBscribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

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**WELDED WROUGHT IRON TUBES**

From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
PHILADELPHIA.

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal* and *Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer,*

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia.  
ja45

**RAILROAD IRON AND LOCOMOTIVE** Tyres imported to order and constantly on hand by  
A. & G. RALSTON  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING** Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.

ANDREW C. GRAY,  
ja45 President of the Newcastle Manuf. Co.

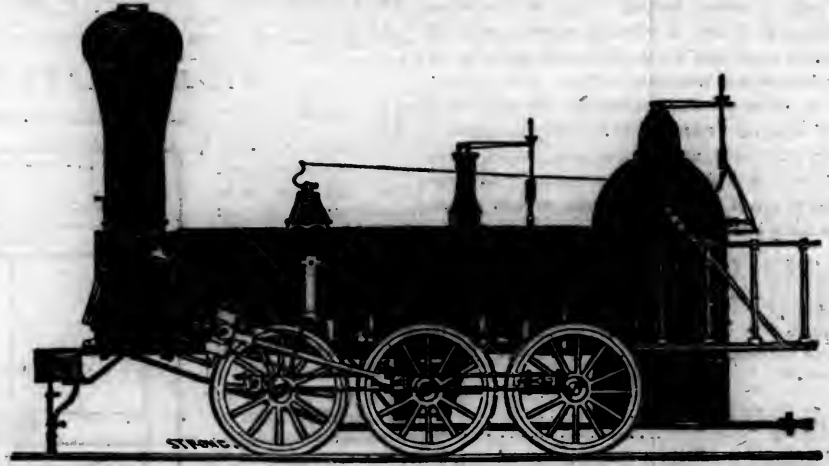
**CUSHMAN'S COMPOUND IRON RAILS** etc. The Subscriber having made important improvements in the construction of rails, mode n guarding against accidents from insecure joints, etc. respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, *Civil Engineer,*  
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NORRIS' LOCOMOTIVE WORKS**

BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
" 2,	14	"	"	×	24	" "
" 3,	14 1/2	"	"	×	20	" "
" 4,	12 1/2	"	"	×	20	" "
" 5,	11 1/2	"	"	×	20	" "
" 6,	10 1/2	"	"	×	18	" "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels, for the Trucks of Locomotives, Tenders and Cars.

NORRIS, BROTHERS.

## SUBSTITUTE FOR IRON RAILS.

We copy the following article from the Rochester Democrat. It treats upon a subject of vast importance, and if the statements are well founded, deserves the attention of those—the millions—interested in railroads. An experiment may be made at small expense. Who will test and explode or confirm the theory? Why not the Reading road, as they have the means at Phoenixville, where they Kyvanized the timber for Herring's plan of superstructure, for prepadding the rails.

"Our's is an age of improvement. Inventions crowd upon us from every direction. When we fancy we have seen the development of the climax of man's genius, the world is startled by some newer and bolder and grander invention. Magnificent though many of the discoveries of the age have been, those very discoveries themselves have taught us to believe that genius is yet in its alphabet, and that other generations will find themselves as far in advance of the present, as the present is of the past.

"Although we have endeavored to keep our readers advised of the progress of important improvements, we have neglected to mention a discovery which many believe will render iron rails unnecessary on railroads, viz: a substitute of a prepared wooden rail, and car wheels without flanches.

"The difficulty of propelling carriages at a rapid speed, with safety, on wooden rails 6 to 8 inches wide, is now overcome by an invention of Mr. W. Prosser, and the mode by which he has effected this object may thus be described:

"The rails are made of beech, or other hard forest timber, 6 to 8 inches square, let into wooden sleepers, and secured by wooden wedges, forming one great frame or wooden grating of longitudinal and cross sleepers. The four principal wheels which support the carriage are without flanches, and present a perfectly flat surface to the wooden rail. It is evident that upon encountering the slightest curve in the rails, these wheels would be quite inadequate to keep the carriage upon its destined route; the remedy provided is in four extra or anti-friction wheels; these are placed two in front and two behind the driving wheels, upon axles, at an angle of 45 degrees. A deep groove formed by two flanches is made in their circumference, exactly corresponding to the inner and upper angle of the wooden rail, and thus they serve as the guiding wheels to the whole machine.

"When the railway is in the direction of a right line, only one of each pair of bevel wheels can be in action at the same time according to the tendency which the carriage may have to move on either side from the centre of the rail. On a curve, the difference is simply that the outside bevel wheel of the front pair, and the inside one of the back pair come into play and counteract the disposition there is in the carriage to fly off at a tangent with the curve.

"Another very important function performed by the bevel wheels is, that in case of accident occurring to the running wheels, they would act as supporters to the carriage and carry it on in safety.

"Experiments have been made which fully establish this. There has, for some time, been an experimental wooden railway, at Vauxhall, England, and it has been discovered that when the forewheels of the carriage were removed, it ran without them at full speed, throwing the whole weight of the front part of the carriage and its passengers on the bevel or guide wheel.

"On this road, which has grades of 1 in 95, 1 in 22 and 1 in 9, and a curve of 750 feet radius, a speed of 24 miles per hour was attained, the bite of the wheel on the wood being so great as to give immense power to the engine.

"The power secured thus, depends of course, very much upon the weight of the engine. One of 16 or 18 tons would be able to draw 100 tons at a speed of 30 miles per hour. It is stated positively that an engine weighing 10 tons, running on wood, will have more tractive power than one weighing 18 tons running on iron.

"But what of the durability of the materials? On the experimental road at Vauxhall, an engine weighing 6 tons, ran over the road 28,000 times during the two months it run, which is nearly equal to seven years use running 12 engines per day. The rails were composed of Scotch fir, about 9 feet long and 6 inches square; and although fir has but about one-eighth the strength of American beech, they exhibited no appearance of wear from friction, and the edges were as well defined as at first.

"The rails used were prepared by Payne's patent process for preventing dry rot and decay in timber. Says a writer upon this subject: 'Experiments having confirmed the capability of Scotch fir to withstand the traffic of twelve engines per day for seven years, without any visible wear, it would be difficult to say how long rails cut from beech, sustaining 82 tons pressure, would last.'

"The average cost of iron railroads in England is 25,000 $\frac{1}{2}$  per mile. If built with wooden rails, it is estimated that they would cost but about 5,000 $\frac{1}{2}$  per mile. In this country the cost would of course be less.

"Another advantage claimed for wooden rails, thus prepared is, that more abrupt curves could be allowed, and greater inclinations, from the fact that the great elasticity of wood gives greater tenacity to the wheels, or in technical parlance, the 'bite' of a wheel on wood is double that on iron, as has been proven by the following experiments:

"On the surface of an iron wheel 4 feet diameter, a lever 8 feet long was placed, with a weight of 7 lbs. attached to the lever 3 feet from the centre of the axis of the wheel; the surface of the lever being iron at the tangent of the wheel, it required a weight of 28 lbs. attached to the crank to make it revolve. On substituting a wood surface for the iron one, it required a weight of 2 lbs.

"Another experiment confirmed the result with the iron surface; a weight of 28 lbs. attached to the spoke of the wheel, at a distance of 6 $\frac{1}{2}$  inches from the centre, made it revolve; while with a wood surface, it required the same weight to be attached to the

spoke at a distance of 11 $\frac{1}{2}$  inches from its centre, thus clearly demonstrating that the power obtained by the bite of the wood is nearly double the bite of iron.

"We refer to these experiments, not that we have any very strong faith that they will lead to the abandonment of the iron rail, but to show what is hoped for by those who take a very great interest from having very strong confidence in this new discovery."

LIABILITY OF SHAREHOLDERS.—The following from the Railway Times, in relation to the liability of parties who are and who have been, holders of railroad shares, may have its interest for some on this as well as on the other side of the water, therefore we give it a place and will thank some legal friend to give us a reply to the same questions, and their application in this country.

"We are constantly receiving applications for information as to the liabilities of shareholders. The rage for obtaining shares having somewhat subsided now that the temptation of a ready premium has become more rare, the great body of holders are becoming alarmed, and seek on all sides to ascertain the nature and extent of the liability they have incurred in the search after profit. The mass of inquiries may be resolved into the following propositions:—

"1. To what extent, and for how long, does a person to whom railway shares are allotted render himself liable by signing the parliamentary contract and subscribers' agreement?

"2. Suppose the allottee to have signed as above, and to have sold his shares—and further, that those shares having passed through a dozen different hands, the last purchaser, say the 12th, is unable to pay up the calls; query, on whom does the payment devolve—on the first or on the eleventh holder?

"The answers to these questions are very simple, though of great importance now that railway shares take so prominent a part in the commercial operations of the country.

"The first category carries with it a liability until after the registration of all the shares, subsequent to the act of parliament being obtained, has been completed.

"In the second case; when, after having signed as above mentioned, the first holder has disposed of his shares, and the last is unable to pay. If the actual holder of shares for the time being do not register, and default of payment accrue, it is competent for the company, without any regard to the number of hands through which the shares may have passed, to fall back upon the subscription deed—register—and sue the original subscriber. But when once a holder, never mind whether first, fourth or eleventh, has registered, the company thereby select to accept him in lieu of the original subscriber, who is then released. A proprietor once registered has to pay all calls made while he is on the registry whether he may have transferred his shares or not. The only mode of release to a once registered proprietor is by a transfer duly entered at the company's office, and by the transferee or buyer being registered in his place."

## ASTONISHING SUCCESS OF RAILROADS.

A letter from Leipsic, says the Mining Journal, states that the "total primitive capital of the shares of railroads in Germany, constructed by private companies, and now at work, is 68,602,000 thalers (222,877,400*l.*) These shares, at the price at which they are now sold at Leipsic, Frankfort, Hamburg, are worth 74,236,870 thalers, or 45 per cent. above the original price. Of the whole there are only three lines below par—the Rhine line, that from Budvers, to Gemund by Lintz, and Saxo-Bavaria—their shares being quoted at from 98 to 99½ per cent. All the rest are above par."

If this be true of the Continental railroads, how much more so must it be with regard to those railways which must eventually radiate from this city? Yet how difficult to convince those who have the power to demonstrate the—to many—self-evident truths.

There seems to have been, and still is, a contest between the friends of the broad and those of the narrow gauge for rail tracks, and according to the following remarks of the Mining Journal, the broad have it—at least for a time—yet the narrows give it not up, as will be seen. How easy it is for a few men to raise a controversy by which the money of thousands may be squandered.

## THE BROAD AND NARROW GAUGE QUESTION.

The decision of the committee in favor of the Oxford, Worcester and Wolverhampton project, which is to be on the broad gauge, and was arrived at after a very lengthened examination, has completely astounded the advocates of the narrow gauge, and the success of the other party has, we believe, been almost equally unexpected. Much of the evidence from practical men, and which was entitled to consideration, went far to prove that the broad gauge was decidedly the best for heavy goods, and, consequently, to a line from South Staffordshire, where the merchandise traffic would consist of coal and other ponderous articles. It would place King's Winford, from which district 4,100,000 tons of ironstone are annually raised, within 85 miles of Oxford, by which communication coal and iron could be transported at a cost of only ¼*d.* per ton per mile. The popular feeling appeared to be nearly equal, each party carrying on the contest with that dogged perseverance, and cunning and ingenious canvassing, which would do honor to a contested election for a member of parliament. The various facts elicited, though not conclusive, are yet far from unimportant. It appears that, in extent and connection with population, the narrow gauge has a great advantage over its rival, having lines of 1530 miles already formed and of 1264 miles proposed, passing through districts containing 12,000,000 persons; while the broad gauge has only 333 miles of lines already formed and 600 miles proposed, and a population of only 3,000,000. How long this may be the case it is not easy to determine. It was stated by Mr. Stephenson, that no excess of speed was attainable on the broad over the narrow gauge—which was not denied, so that we may assume it to be correct.

The evidence of Mr. Brunel went to establish the fact, that the transhipment of one gauge to the other was not only an easy and

safe process, but far less expensive than the alteration in unfavorable gradients. Notwithstanding this, and the other points in favor of the principle, there does not appear to be any ground for assenting to its greater superiority in general; extra speed is not, as we learn from the statement of Mr. Stephenson, to be attained from it, nor is there any evidence to prove its general adaptability. In the early stages of the inquiry, there is no doubt but that the impression on the minds of the committee was decidedly adverse to the broad gauge; but the evidence in favor of its capabilities for the transit of heavy goods, evidently turned the scale in its favor; the fact, too, that the adoption of this line would give the northern manufacturing districts the benefit of a competing line, influenced, in no slight degree, the decision. We must not yet consider the battle ended. The London and Birmingham company, as the so far defeated party, are concentrating all their energies and powers to renew the contest in the lords, and it is said, intend to move for a recomittal of the bill, pleading that the decision of the committee is not in accordance with the evidence, and by every means in their power, arrest the progress of the Great Western company's lines through parliament this session. The broad gauge party are equally on the alert, and elated with their present success, they will boldly meet their opponents, confident as to the result. A fierce and very expensive contest may, therefore, be expected. With respect to any of the advantages possessed by either gauge, in none of the voluminous evidence adduced, does it appear that its supporters uphold the broad one for any superiority, but the assumed one of being better calculated for heavy goods, this we presume to arise from the necessary greater strength of the vehicles in their general build, than those on the narrow gauge; but as this increased strength and weight involves a corresponding expense in the outlay—as the narrow gauge has in all its details proved ample for the transit of every description of traffic, agricultural, mineral, and commercial, as it is more economical in construction—was the original width adopted, and is spread over so large an extent of surface throughout the kingdom, we think the decision of the question is shown not to depend on the superiority of either in a scientific point of view; but, under a common sense consideration of the subject, we cannot help thinking the broad gauge an uncalled for innovation, and that it should have been prevented from extending beyond its present limits.

**ATMOSPHERIC RAILWAYS.**—We find the following statement, by Mr. Gibbons, an experienced engineer, and railway manager, in *Herepath's Railway Magazine* for June 14th.

**Portsmouth Atmospheric Line.**—The Committee resumed this morning, when Mr. Alexander, on behalf of the promoters, called Mr. Gibbons, engineer of the Dublin and Kingstown Railway, and also of the Dublin and Dalkey Atmospheric Railway, which line he had laid out. On this railway, which was a mile and 5-8ths long, the worst gradient was 1 in 57, but over this the

engines were able to carry trains of 40 tons, at a rate of 45 miles an hour, without any extra power. The sharpest curve was one of a radius of 527 feet. The railway had completely answered all the expectations of its projectors, and as he was connected with the locomotive line between Kingston and Dublin, he had fully tested the representative merits of both plans, and he decidedly preferred the atmospheric. On that principle there was not only no necessity for sending the monster trains, but there were no petty annoyances either from noise or smoke. The trains could be sent with as much frequency as was desired, without any chance of collision. The line opened ever since the autumn of 1843. The tube was a fifteen inch one, and supplied all the convenience that was requisite. He had seen the Direct Portsmouth line, and believed it to be a highly satisfactory one, and one which would answer all the expectations of the promoters. A great saving was effected in preservation of the permanent way; indeed, in the Dalkey line during the last year, there was no expense whatever, except the laying down several new rails. The piston carriage altogether passed over 3,050 yards each journey, during 15 hours in the day, the trains running every quarter of an hour, two sets of men being employed so as to enable them to relieve each other. The trains were carried from one end to the other by the stationary engines, and returned by the force of gravity alone. The average number of the carriages on the atmospheric railway was 374, carrying a weight of 18 tons; on the locomotive line there were 7½ carriages, with a weight of 36 tons. The difference between the 18-inch tube and the 15-inch tube was as the squares of their diameters, the area of the former being 245 cubic inches, and that of the latter 176—so that the respective powers of the two tubes was as 176 is to 254. He had laid down the tube on the Croydon line, and he was satisfied that the wear and tear on that line would be much less than that on the Dalkey line. With respect to the power to work a single tube line both ways, he was perfectly satisfied that it might be done. On the Dalkey line they could hear the first blow of the pumping-engine at the other end. As soon as this was heard the vacuum was evidently beginning to be formed. On that line there was a barometer connected with the tube, and as simultaneously as the eye could observe, the sound of the blow of the pump and the fall in the mercury was perceived. He thought that the safety of the atmospheric principle was much greater than that of the locomotive, for most of the accidents on the latter occurred at the stations, at which places the atmospheric trains were quite out of the way of each other, and he believed that a train might start with perfect safety every hour from each end on the Portsmouth line. Indeed, in his opinion, there was no need for a double line, unless the traffic were as numerous as that of the omnibuses between the Bank and Piccadilly. Mr. Brunel had looked at the sections, and thought them good. He had seen the estimates for the line, and thought the prices quite sufficient. A single line would carry a very large traffic, and he thought that it would certainly serve all the purposes of the traffic on the line. Fifteen trains a day each way, might pass with perfect safety. An 18-inch tube would convey very heavy trains, of from 40 to 60 tons, 40 or 50 miles an hour with perfect ease, and he saw no difficulty whatever in the gradients, for much steeper gradients might be very easily worked. With a moderate traffic, the expenses would be in favor of the atmospheric line, and the difference would be increased as the traffic increased.



SELECTED RAILROAD, CANAL, AND MISCELLANEOUS ITEMS.

**Canadagua and Corning railroad.**—The engineers and parties that are engaged in surveying the route for the Canadagua and Corning railroad, have nearly completed their survey, and will soon make a report. We are glad to learn that the obstacles to be overcome are of far less magnitude than was anticipated, and that the people living along the route are disposed to extend every facility in their power, to aid in completing the undertaking.—[Ontario Repub.]

**Providence and Worcester railroad.**—We are gratified at being able to state that the friends of this road are again exerting themselves to forward their important enterprise. The deficiency in the amount required to build this road is now about \$300,000. A gentleman of this city, who has already subscribed liberally, has offered to add \$50,000 to his subscription if the deficit will be made up. The estimated amount now paid for freight and travel over this route is stated at over \$750,000 per annum.—Providence Trans.

The subscription to the Northern railroad, from Concord to Lebanon, N. H., 63 miles, is progressing rapidly. This road is to intersect with the Vermont Central railroad at the mouth of White river. The highest estimate of its cost is \$1,500,000, and no subscription is binding unless the whole capital is bona fide subscribed. In this city nearly half a million has already been taken, and upon the line of the road, between eight and nine hundred thousand dollars of the stock has been subscribed, leaving only about \$200,000 now wanting to make the entire capital.—[Boston Courier.]

**Ogdensburg road.**—A large and enthusiastic meeting has been held at Ogdensburg, of northern New York, at which the most spirited remarks were made, and resolutions adopted, preparatory to the great work of opening a road to Plattsburg. Among others is the following:—

“Resolved:—That a continuous railroad to Boston, will offer to the whole of New England, the cheapest, safest, and most speedy mode of travel to and from the west.”

**American Railroad Iron.**—We rejoice at the evidence furnished in the following news item from the Baltimore American, of the onward progress of iron manufacture in this country. Although the Fall River railroad is the first in this country, of any extent, constructed exclusively with American iron, it will not long enjoy this distinction, if the tariff is suffered to stand, and the true policy of the government is maintained. The Pennsylvania iron manufacturers will soon furnish an article as good and cheap as we can get from England, and cheaper than heretofore furnished:—

**Atmospheric Railways.**—At the meeting of the Paris Academy of Sciences, on the 26th ult., a paper was received from M. Sagey, engineer, containing a calculation of the amount of force expended on the atmospheric railroad in Ireland. He concludes that the atmospheric system can never be adopted as an

economical one, and can be useful only under exceptional circumstances. We should like to have the data upon which M. Sagey has formed this conclusion.

**LAKE CHAMPLAIN AND CONNECTICUT RIVER RAILROAD.**—The meeting of the stockholders of this road, at Rutland, on the 3d inst., was (says the Boston Courier) very fully attended. For purposes of convenience, a board of directors was chosen, consisting of Timothy Follet, S. Barker, Ira Stewart, Charles Linsley, Joseph A. Conant, C. Granger, George T. Hodges, William Henry, and H. N. Fullerton. Judge Follett was chosen president, and all the new directors placed their written resignations in the hands of the clerk, to take effect on the 1st of September, when new directors will be chosen. The capital stock was ordered to be increased to \$2,500,000. One million, it was stated, had been subscribed on the line of the road, and the books will be opened in Boston in about a week.

**HARTFORD AND DANBURY RAILROAD.**—We are happy to learn that our citizens are meeting the subscription to the survey of this railroad with a spirit and liberality worthy of so important an object.—Hartford Times.

**A NEW RAILROAD.**—We have heard, within the last week, that a company of gentlemen is being formed in this city, for the purpose of constructing another railroad between Washington and Baltimore, over the turnpike. This is contemplated in consequence of the extortion practised by the one already in existence.—U. S. Jour., Wednesday.

**HARTFORD AND NEW HAVEN RAILROAD.**—Receipts on this road (exclusive of mails) in June, 1845, . . . . . \$14,456 98  
Do. do. do. 1844. . . . . 6,743 43  
Increase, \$7,713 55, or 107 percent.  
During the past year, the road has been extended from Hartford to Springfield, a distance of 26 miles.

DISTANCES FROM BURLINGTON TO BOSTON, by the Rutland and Central routes, compared:

<i>Rutland Route.</i>	
1. Burlington to Boston, via Charleston and Nashua, N. H.	
Burlington to Charlestown, . . . . .	113
Charlestown, via Marlow, East Wilton, and Nashua and Lowell railroads, to Boston, . . . . .	112
	225 miles.
2. Burlington to Boston, via Cheshire and Fitchburg.	
Burlington to Bellows Falls, . . . . .	116
Bellows Falls, via Fitchburg, to Boston, . . . . .	115½
	231½ miles.
<i>Central Route.</i>	
1. Burlington to Boston, via Concord, Nashua, and Lowell.	
Burlington to mouth of White River, 102	
White River to Concord, . . . . .	63
Concord to Boston, . . . . .	74
	239 miles.
2. Burlington to Boston, via White River, Bellows Falls, Keene, and Fitchburg.	
Burlington to mouth of White River, 102	
White River to Charlestown, . . . . .	30½
Charlestown to Bellows Falls, . . . . .	9
Bellows Falls to state line, . . . . .	45
State line to Fitchburg, . . . . .	21
Fitchburg to Boston, . . . . .	50
	257½ miles.

**IRON FURNACES.**—The Pittsburg Age says that there are now in progress of erection, in and near that city, twenty-six furnaces, which will turn off between seventy-five and one hundred tons of iron per day.

The Northampton and Springfield, and Greenfield and Northampton Railroad Companies, have, by unanimous votes, agreed to a union of interests. A meeting is to be held at Springfield on the 18th inst. to organize the new company.

**DIVIDENDS.**—The Brooklyn and Jamaica Railroad Company have declared a dividend of four per cent., payable on the 25th inst.

The Auburn and Rochester company a semi-annual dividend of four per cent., payable on the 1st of August.

The Buffalo and Niagara Falls Railroad Company three per cent, payable on demand.

The Delaware and Raritan Canal and Camden and Amboy Railroad and Transportation Company a semi-annual dividend of 4 per cent.

**TIDE-WATER CANAL TRADE.**—There have been towed to and from Philadelphia from the commencement of the season up to July 1, fourteen hundred and sixty-four canal boats. To and from Baltimore during the same time, one thousand and fifteen boats. Of the number towed to Baltimore about one fourth were laden with anthracite coal.

THE COAL TRADE.—SCHUYLKILL VALLEY.

The 4th of July, and the funeral procession on Thursday last, has affected the shipments of coal considerably this week, there being a falling off of about 8000 tons.

The quantity sent down by the railroad, last week, was 22,879 07 tons. This week the quantity by railroad is 16,956 06 tons; by canal, 4,386 17 tons—total 21,343 03.

Shipments of coal in comparison with shipments to same period last year:—

	1844.	1845.
Schuykill—railroad, . . . . .	174,719 19	322,386 08
“ canal, . . . . .	138,540 04	91,444 11
Lehigh region, . . . . .	124,788 00	167,870 02
Pine Grove, . . . . .	16,596 08	27,981 18
Wyoming, . . . . .	40,020 00	52,737 00
Lackawana, . . . . .	120,000 00	140,000 00
	627,704 11	802,419 17
		624,704 11

Increase, so far, in 1845, . . . . . tons, 177,715 06:

BY RAILROAD.	
From Pottsville and Port Carbon—total, . . . . .	143,386
From Schuykill Haven—total, . . . . .	174,323
From Port Clinton—total, . . . . .	4,671
Total by railroad, . . . . .	322,386

BY CANAL.	
From Pottsville and Port Carbon—total, . . . . .	56,459
From Schuykill Haven—total tons, . . . . .	14,759
From Port Clinton, . . . . .	20,225
Total by canal, . . . . .	91,444

Total by railroad and canal, . . . . . 413,830

LEHIGH COAL TRADE.	
Total shipments from Mauch Chunk. Lehigh coal and navigation co.	
Summit mines, . . . . .	75,910
Room run do., . . . . .	24,950—100,860
Beaver Meadow railroad and coal co., . . . . .	31,759
From Penn Haven—Hazleton coal co., . . . . .	26,805
From Rock Port—Buck Mountain coal co., . . . . .	8,627
	167,870

WYOMING COAL TRADE—total to June 28. 52,737	
PINE GROVE COAL TRADE.—total, . . . . . 27,981	

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons, . . . . . 188,717	
MOUNT CARBON RAILROAD—total tons, . . . . . 117,574	

[Miners' Journal.]

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at date of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
							Per share.	Per cent. per annum.				
Arboath and Forfar.....	15	102,000	35,000	138,870			0 12 6	2 10 0	25 27	Aberdeen.....	1,600,000	
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1 5 0	2 10 0	100 100	Barnsley Junction.....	200,000	
Branding Junction.....	23	161,700	365,470	481,452				4 10 0	50 54	Belfast and Ballymena.....	385,000	
Bristol and Gloucester.....	37	400,000	211,000					nihil.	30 36	Blackburn and Accrington.....	400,000	
Chester and Birkenhead.....	14	750,000	143,170	518,989	5,856	13,148	0 8 6	1 14 0	50 32	Birk. and Ches. Junction..	1,000,000	
Dublin and Drogheda.....	31	450,000	150,000	500,869				nihil.	55 72	Bolt, Wigan and Liverpool	800,000	
Dublin and Kingston.....	6	200,000	152,200	359,000			6 0 0	6 0 0	100 166	Caledonian.....	1,800,000	
Dundee and Arbroath.....	16	100,000	49,445	153,416	2,989	6,993	1 5 0	5 0 0	25 29	Cambridge and Lincoln...	1,250,000	
Durham and Sunderland.....	18	169,350	124,055	270,392	9,889	17,702		nihil.	34 29	Chatham and Portsmouth...	5,000,000	
East County and North and East.....	86	4,443,200	1,341,155	3,931,905	47,385	118,726	1 6 6		45 57	Chester and Wrexham.....	120,000	
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1 2 6	4 10 0	50 57	Churnet valley.....	1,800,000	
Glasgow, Paisley and Ayr.....	51	937,500	1,066,951	12,446	36,736	1 2 6	4 10 0		50 60	Direct Northern to York..	4,000,000	
Glasgow, Paisley and Greenock.....	22	650,000	216,666	787,884	11,572	23,177	0 5 0	2 0 0	25 12	Dublin and Belfast.....	950,000	
Grand Junction.....	104	2,478,712	2,453,169	84,309	195,080	5 0 0	10 0 0		100 210	Dundee and Perth.....	250,000	
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1 12 6	3 5 0	100 119	Edinburg and Northern...	800,000	
Great Western.....	121	4,650,000	3,679,343	7,272,539	132,235	369,904	3 10 0	7 0 0	75 138	Ely and Bedford.....	270,000	
Hartlepool.....	15	438,000	155,540	719,205				8 0 0	100 100	Glasgow, Dum. & Carlisle.	1,300,000	
Leicester and Swannington.....	16	140,000	140,000		2,207	6,317	1 5 0	5 0 0	50 50	Gt. South and West Ext...	1,200,000	
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5 0 0	10 0 0	100 203	Gt. Grimby and Sheffield.	600,000	
Llanelli.....	27	200,000	44,000	221,624			1 0 0	2 0 0	87 87	Harwich and E. coun. Jun.	160,000	
London and Birmingham.....	112	6,874,976	928,845	6,393,468	92,623	405,768		10 0 0	100 218	Huddersfield & M. rl. & cl.	600,000	
London and Blackwall.....	3	804,000	266,000	1,315,640	15,978	23,870			16 6	Kendal and Windermere...	125,000	
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0 12 0	2 8 0	50 47	Leeds and Dewsbury.....	400,000	
London and Croyden.....	8	550,000	229,000	761,885	7,583	10,515	0 5 0	2 10 0	14 17	Leeds and Thirsk.....	800,000	
London and Greenwich.....	31	759,383	233,300	1,040,930	15,193	28,933		nihil.	13 10	Liv. Ormskirk and Preston	600,000	
London and South Western.....	92	2,222,100	630,100	2,596,291	68,457	150,469	1 12 6	6 10 0	41 73	London and Portsmouth...	1,750,000	
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1 0 6	5 0 0	40 48	London and York.....	5,000,000	
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2 2 0	4 10 0	93 110	Londonderry & Enniskillen	500,000	
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761		71. & 101.	60 88	Lynn and Ely.....	200,000	
Midland railway.....	178	5,158,900	1,719,630	6,279,056	76,983	281,898			100 96	Manchester, Bury and Ross	300,000	
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947	4 0 0	4 0 0	100 105	Manchester and Buxton...	250,000	
Newcastle and Darlington.....	23	500,000	405,728					nihil.	21 49	Mullingar and Athlone...	.....	
Newcastle and North Shields.....	7	150,000	153,876	309,620	8,943	18,466		2 0 0	50 37	Newcastle and Berwick...	700,000	
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2 10 0	6 16 8	100 104	Richmond & W. End Junc.	.....	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415			0 16 0	8 0 0	20 39	Scottish Central.....	700,000	
Paris and Rouen.....	84	1,440,000			31,247	91,171		8 0 0	20 38	Sheffield and Lincolnshire.	650,000	
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066		nihil.	50 18	Shrewsbury and Gd. Junc.	400,000	
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876		nihil.	82 93	Shrew. Wolv. Dudley & B.	900,000	
South Eastern.....	88	2,996,000	1,530,277	3,464,172	40,993	81,482	0 10 6	2 2 0	50 39	Shrew. Valley.....	900,000	
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1 0 0	6 5 0	100 55	West London Extension...	64,000	
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0 15 0	5 1 8	29 37	West Yorkshire.....	1,000,000	
Yarmouth and Norwich.....	20	187,500	62,500	230,250				nihil.	16 25	Whitehaven and Maryport	100,000	
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2 10 0	10 0 0	50 100	FRANCE RAILWAYS.		

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p. c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15	15	Loughborough.....	70	142	142	70	1140	1140
Anti Dry Rot.....	10,000	10	18		2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35		34		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27	27	Mersey and Irwell.....	500	100	100	10		
Gt Western Steam Pa.....			100		25		Macliesfield.....	3,000	100	100	2	15	15
Metropolitan Wood Pav..	15,000	10	6	5	6		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1		Oxford.....	1,786	100	100	30	505	505
Peninsular and Oriental..	11,493	50	50	7	6	65	Regents or Loncon.....	21,418	33	33	2	25	25
Ditto.....	3,200	50	40	7	4		Shropshire.....	500	125	125	6	120	120
Polytechnic Institution				6			Somerset coal.....	800	150	150	7	123	123
Reversionary Int. Soc.....	5,387	100	100	4	10	10	Stafford and Worcester...	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				SVERN & WHY & RAIL AV.	3,762	26	26	5	30	30

Canals.

Ashby de la Zouch.....	1,432	113	av.	4	70	70
Barnsley.....	720	100	100	14	180	180
Birmingham, 1-16 share ..	3,000	118	79	10	150	160
Do. and Liverpool Junction	4,000	160	100		13	13
Coventry.....	500	100	100	20	365	365
Cromford.....	460	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forth and Clyde.....	1,297	400	40	4	440	440
Grand Junction.....	11,600	100	100	7	162	161
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Rerkley...	5,000	do.	do.		8	8
Grantham.....	749	150	150	8	185	185
Lancaster.....	11,699	47	47	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	640
Leicester.....	545	140	140	9	139	139

NAME OF COMPANY.

Warwick and Birmingham.	1,000	100	100	10	167	167
Warwick and Napton.....	900	100	100	8	122	122

Water Works.

Birmingham.....	4,800	25	25	3	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7	88	90
New River L. B. Ann.....	1,500	do.	do.	2		
Manchester and Salford...	6,486	av.	30	8	57	57
Vauxhall, lt. S. London...	1,000	100	100	5	55	55
West Middlesex.....	8,294	av.	63	6	126	127

Docks.

Commercial Dock.....	1,065	100	100	3	10	10
East and West India.....		sto.	sto.	5	137	137
London.....	3,238,310	sto.	sto.	4	114	115
St. Katharine.....	1,352,752	sto.	sto.	5	116	171
Southampton.....	7,000	50	50			



RAILROADS.		Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	SALES.	
							Income.			Income.				July 16.	
							Gross.	Nett.		Gross.	Nett.			Shares.	Price.
Me.	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	103½	5	103½
N. H.	2 Concord.....	35	750,000									12	65		
Mass.	3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	117	8	114½
"	4 Boston and Maine extension.....	17 1-4	455,703	unfin.											
"	5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120	4	119½
"	6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	114		
"	7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	120½	54	118½
"	8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
"	9 Charlestown branch.....		280,260						13	34,654	13,971	5½	112½	50	80
"	10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	113½	275	108½
"	11 Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,835		124		
"	12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	123		
"	13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
"	14 Northampton and Springfield.....		173,883	unfin.											
"	15 Norwich and Worcester.....	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	71½	3,355	71½
"	16 Old Colony.....		87,820	unfin.									106		
"	17 Stoughton branch.....	4	63,075	unfin.											
"	18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	118		
"	19 Vermont and Massachusetts.....														
"	20 West Stockbridge.....	3	41,516	200		100						4			
"	21 Western, (117 miles in Mass.,).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	101	120	102½
"	22 Worcester branch to Milbury.....		8,431	506											
"	23 Housatonic, (10 months,).....	74	1,244,123							150,000			31		
Con	24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	95	25	93
"	25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
"	26 Stonington, (year ending 1st Sept.,).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29	625	28½
N. Y.	27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0			
"	28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109½	10	109
"	29 Auburn and Syracuse.....	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
"	30 Buffalo and Niagara.....	22	200,000		1,500								100		
"	31 Erie, (446 miles,).....		5,000,000										29	1,325	30
"	32 Erie, opened.....	53						48,000		126,020	59,075				
"	33 Harlem.....	26	1,206,231							140,685	62,399		69½	170	69½
"	34 Hudson and Berkshire.....	31	575,613			50				35,029	1,789	0	11½		
"	35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	71	7,380	68½
"	36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	58½		
"	37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
"	38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
"	39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117		
"	40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
"	41 Troy and Greenbush.....	6	180,000												
"	42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
"	43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132	20	132
N. J.	44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		112		
"	45 Elizabethtown and Somerville.....	26	500,000												
"	46 New Jersey.....	34	2,000,000										95	100	95½
"	47 Paterson.....	16	500,000										6	90	1,225
Pa.	48 Beaver Meadow.....	26	1,000,000												
"	49 Cumberland Valley.....	46	1,250,000												
"	50 Harrisburg and Lancaster.....	36	860,000										30		
"	51 Hazleton branch.....	10	120,000												
"	52 Little Schuylkill.....	29	900,000												
"	53 Blossburg and Corning.....	40	600,000												
"	54 Mauch Chunk.....	9	100,000												
"	55 Minehill and Schuylkill Haven.....	18	315,000						12				80		
"	56 Norristown.....	20	800,000										6½		
"	57 Philadelphia and Trenton.....	30	400,000				20,000						104		
"	58 Pottsville and Danville.....	29 1-2	1,500,000												
"	59 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		58	2,330	57
"	60 Schuylkill valley.....	10	1,000,000												
"	61 Williamsport and Elmira.....	25	400,000				20,000								
"	62 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		15½	11,831	15½
Del.	63 Frenchtown.....	16	600,000												
Md.	64 Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,236	279,402		358,620	346,946		49½	37	48½
"	65 Baltimore and Susquehanna.....	58	3,000,000										2½		
"	66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	67 Greensville and Roanoke.....	17 1-2	950,000							122,871	72,898	3			
"	68 Petersburg and Roanoke.....	60	969,880												
"	69 Portsmouth and Roanoke.....	78 1-2	1,454,171												
"	70 Richmond, Fredericks'bg and Potomac.....	76	800,000							185,243	85,688	6			
"	71 Richmond and Petersburg.....	22 1-2	700,000												
"	72 Winchester and Potomac.....	32	500,000												
N. C.	73 Raleigh and Gaston.....	84 1-2	1,360,000												
"	74 Wilmington and Raleigh.....	161	1,800,000												
S. C.	75 South Carolina.....	136	5,671,452		34,410	75	201,464	77,456		532,871	140,196	5			
"	76 Columbia.....	66								328,425	180,704				
Ga.	77 Central.....	190	2,581,723				227,582	93,190							
"	78 Georgia.....	147 1-2	2,650,000				248,026	158,207		248,096	147,523				
"	79 Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Ky.	80 Lexington and Ohio.....	40	450,000												
Ohio	81 Little Miami.....	40	400,000												
"	82 Mad river.....	40	152,000												
Ind.	83 Madison and Indianapolis.....	56	212,000												
Can.	84 Champlain and St. Lawrence.....	15						12,000		58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Thursday, July 17, 1845.

We are again favored with an interesting letter from MAJOR POUSSIN of Paris, in relation to French railways, and to improvements of the locomotive engine. We have received the work referred to in his letter, of which we shall endeavor to give a good account in our next, and subsequent numbers—especially of that part relating to the Belgium Railway system, and other matters of interest to our readers. We shall also look with much interest for his next letter in relation to Railways in France.

Will our friends, connected with the different railroads, furnish us with copies of their reports, or with written statements, which will enable us to furnish the information desired in the closing part of the following letter? They will be sure to be amply compensated for their trouble, by the information furnished by Major Poussin in return. An opportunity now presents, of an interchange of facts, the result of experience, useful to all parties; and we desire to make this journal the medium of communication.

FRENCH RAILWAY JOURNAL.

We have at last the pleasure of announcing the receipt of a number of the "Journal des Chemins de fer." It is a large and very handsomely got up quarto. We find several pages occupied with government notices and debates in the Chambers, where the advocates of rail lines urge the claims of their favorite routes not less energetically than here or in England. Indeed, the public men of Europe generally are far in advance of our own in foreseeing the important part which the railway is to play in the next half century. Witness the fact, that the governor of our own state—the very head of the dominant party—has devoted paragraphs to the mechanical minutiae of the political engine, as the color of a ballot, etc.; yet had not a line for that engine which is working a revolution as great and permanent as the objects he dwells on at such length are trivial and ephemeral.

We find, also, notices of English, American, and Spanish railways; among the American ones, the railroad "de la Albany a Schenectady," and an interesting notice of the railways about to be undertaken in India, to which country it appears that they are sending M. Vignoles to take a general view of the resources and capabilities of the country, with reference to a grand system of railways.

The "Journal des Chemins de fer" contains a large quantity of interesting matter, and suggests some comparisons not very flattering to our own city. The railway cause in France is not likely to falter from want of an efficient organ, and we hope frequently to find in it matters of interest to our readers.

(Foreign Correspondence of the American Railroad Journal.)

PARIS, 10th of June, 1845.

No. 25, Boulevard Bonne Nouvelle.

D. K. MINOR, Esq. New York.

MY DEAR SIR—I have to acknowledge the receipt of your valuable journal up to the 15th May.

Since my last of the 10th May, the French Legislative Chambers have passed two bills in favor of railroads, to be worked or constructed by companies: the Northern or Lille railroad, already constructed, and the Lyons railroad, part only constructed. The letting out of these works will not take place before two months—bills are still to be reported on the road to Strasbourg, on that from Lyons to Avignon, on Tours to Nantz, on Paris to Reims, and is most likely, on Bordeaux to Cete.

Numerous companies are already formed, have their shares subscribed, and cash paid for the proportion required by law as security. At no times has the public opinion ever been so favorable to railroad undertakings as the present: it is almost up to a mania, and it suffices that a subscription be opened with the aid of some known name for the stock to be subscribed immediately. How all these subscribers will keep their engagement is another thing for which I am not disposed to pledge myself. Time will prove all this.

I have not learned anything yet on the practical operation of some new application of locomotion projected this winter. In a few months, however, we shall probably know more on that all-engrossing subject, and I shall endeavor to let you know the result.

Meanwhile, some practical experiments having been made lately on the improvements which locomotive engines are susceptible of receiving, I will state to you on what particular subject they bear.

The experiments referred to have been conducted with much talent and courageous liberality, by two engineers, Messrs. Gouin and Lechatelier, on the Paris and Versailles railway.

These gentlemen have succeeded in measuring with great accuracy, by means of an indicator, the actual pressure of steam in the boiler and in the cylinder during the time of its introduction, when it is acting, and immediately at its egress.

They have likewise measured the quantity of water carried along with the steam, and the influence the water may exercise on the pressure in the cylinders.

The results of the relative pressure in the boiler, and in the cylinder, have been shown by a series of curves traced through the agency of the indicator; and they have demonstrated, 1st, that the pressure which is exercised in the cylinder during the period of the admission, and during the greater part of that of the letting out of steam, is hardly sensibly different; 2nd, that the pressure during the reaction follows as nearly as possible the law of Mariotte; 3rd, that the proportion of the pressure in the cylinder and boiler depends on the opening of the regulator, and the rate of speed; but that during the ordi-

nary speed the difference of pressure in the cylinder may not differ much from 8 to 10 per cent., of that in the boiler; 4th, that the quantity of water carried along with the steam increases considerably this difference of pressure.

Experience has shown also that, according to the particular disposition of the dome, and the level to which the water is kept by the engineer, the quantity of water carried along with the steam can vary from 18 to 20 per cent. of the quantity carried out of the boiler.

In fine, one of the most important facts ascertained by these late experiments is, that in the retrograde motion of the piston, the steam not escaping out instantaneously, it continues to exercise on the piston a certain resisting force, which is evolved at 50 per cent. of its direct agency to produce motion. It is obvious thereby, how deficient is the means (although considered as a favorable scheme,) of letting through the chimney a jet of steam to increase the combustion, as it actually contributes largely to increase the cause of resistance.

These results, supported by practical experience, will suffice to prove how deficient is yet the mighty power of the locomotive engine, since we do not actually turn to profit half of its useful or available force.

This is, you will readily admit, a very fair field for further improvement: the engine is invented, but it remains to simplify it, and to discover the means of applying the created force to its full power or extent.

I send you by a friend, Mr. Ledoun, of New Orleans, and passenger in the steamer of the 1st, my late publication on Belgium. You will find in it a whole chapter on railroads, containing the latest information on that subject. I think it may be reproduced in part in your journal to advantage.

I am very anxious that my friends in the United States should know that I never lose an opportunity of upholding the institutions of America, my adopted country, whenever I can. You will perceive in the perusal of this new work, that I have made allusion to America on several occasions.

I am proud to say that this new work has been very favorably received in France and Belgium. I should wish therefore that a few copies could find their way to the United States. I understand that they may be had at the importers of French books in New York or Philadelphia.

I hope to write you per next steamer a more interesting letter on the subject of railroads.

Can you gather some more correct data on railway traffic; and on all the elements of the cost of locomotion, low rate, &c.? Such as price of fuel—quantity consumed per mile or per ton, transported—number of wagons—of locomotives—in fine, as well—cost of repairs—number of persons in the employ of railroads—exact length of said railroads—quantity of traffic—travellers—goods, &c.—rate of fare per traveller—per ton of goods—speed per hour in miles, &c.

Most faithfully yours,

GULLAUME TELL POUSSIN,  
 Major du Genie.

The following article from the Albany Argus should be read by every voter in the state. It coincides entirely with our views, and we shall cheerfully and earnestly give our efforts to effect the repeal of a law calculated to delay, if not entirely prevent, the construction of many important railroads in this state.

#### THE CONSTRUCTION OF RAILROADS.

In an excellent article in the Argus of Friday last, entitled "Railroads, our investment of the surplus capital of the country, &c.," there is an error as to the length of the Great Western railway, in England, which you state as 220 miles. The accurate length is 118½ miles. You state the cost with more accuracy; but there is a very interesting fact in relation to this and other great railways in that country, which is omitted. I refer to the *amount of capital*, and the manner in which funds are raised there, for the construction of these works.—The capital of the Great Western railway is about ten millions of dollars. The residue of the cost, being over twenty millions of dollars, is made up of loans at a low interest. It does not pay dividends on its cost, but upon its capital.

The London and Birmingham railway is the great road in England in respect to business, value, and profit. It is 112½ miles long. It has cost over \$30,000,000. The capital is about \$20,000,000, leaving its debt for cost over \$10,000,000, which also is borrowed at low interest. This road pays 10 per cent. dividend on its capital. The Gt. Western pays 7 per cent. It is the policy in England to advertise for tenders for loans for such sums of money as the companies may require to prosecute the construction of their roads, in the same manner that our state officers offer the credit of our state.—In this way all the great railways there are made and sustained—a single corporation there, owing for its railway an amount about equal to the debt of our state. Where a large part of the cost is at a low rate of interest, (the loans often do not exceed 3 or 4 per cent.,) the profit of the stockholder upon that part of the cost which is represented by the capital, is, of course, much larger. We have a similar instance upon a small scale in our state. The Auburn and Syracuse railroad has cost over \$700,000, of which \$200,000 was raised on the credit of the state at 5 per cent. interest. The capital is \$400,000, upon which the companies divide 8 per cent. If the cost was represented by the capital, then the rate of profit to the stockholders would, of course, be much less; as the business is all the same, no matter who pays for the construction.

It is to call the attention of your readers to another point that I have noticed your article. The policy of constructing railroads, by the aid of loans, to a considerable portion of the amount of the cost, is a very general one. The present value of the Western railway, in Massachusetts, arises from the consideration that so large a part

of the cost has been raised on loans at low interest. Is there any objection to this?—The creditor is content with a lower interest than the stockholder, because he has the first lien; the stockholder consents to take a position where he can only derive a profit after the creditor has received his. This is a matter of mutual arrangement, and of mutual advantage. The capitalist will furnish the money to loan, where he may not be willing to take stock. His capital is set against the skill of the managing stockholder. It is not, then, wholly the low cost of management and repairs, &c., that gives the profit on well constructed railways; but the fact that a large part of the cost is furnished at low interest, gives to the stockholders, who are rather the working partners, a higher rate for their share of profit.

Can railways be profitably constructed in our state? Under our present laws there is very great doubt whether any more can be made at all. A law was passed at the last session of our legislature which forbids the making of a debt by a railroad company beyond the amount of subscriptions for capital, and the personal property of the company. While the construction is going on, the company has little personal property.—The great value of the railway is in its right of way, road-bed and tracks.

If this law had been in force, many railways now in successful operation, could not have been made. For instance, the Syracuse and Utica, upon a capital contributed by the stockholders of \$800,000, cost over \$1,000,000. It was commenced under the opinion that the capital was adequate to pay the cost. And yet, its directors and managers, in the construction of a work, upon which capitalists were then and are now ready to loan money, at a moderate interest, would have been convicted as felons, for making this valuable improvement by the aid of loans, which they easily obtained.

Under the hazard of such a conviction, honest and faithful men will not go on with a railroad; they will rather regard this law as an effectual bar. It is not possible that it can remain; for the railroad system ought not to be checked. It is too important an improvement; too safe an investment, and too pervading in its operations to be suspended by ill-advised legislation. Instead of throwing difficulties in the way of these works, we should rather encourage a generous and manly sentiment in respect to them.

#### LEXINGTON AND OHIO RAILROAD.

Some weeks since we called the attention of our city readers to the importance of completing the Lexington and Ohio railroad, and promised, with the assistance of an able and experienced engineer and a practical business man, to present an estimate of the cost of finishing it, and the probable amount of business it would transact. This promise we now have the pleasure of fulfilling.

There has been expended on the Lexington and Ohio railroad between Frankfort and Louisville, about \$250,000, of which, after making liberal deductions, for high prices in

1837, deterioration, waste, etc., \$100,000 may be considered as available. The route of the road as located, is not only favorable, but highly so. The general plateau of the country is reached from Frankfort by the valley of Benson creek, with easy practicable grades the highest being 70 feet for a very short distance; and the remainder of the route to Louisville, as favorable as could be desired. The old road from Lexington to Frankfort was laid under the system of 1830—and as a matter of course is encumbered with numerous sharp curves and an inclined plane. Nevertheless, an inspection of the table of curves, shows a very decided superiority over the curvatures of the Baltimore and Ohio, Baltimore and Susquehanna, Philadelphia and Columbia, Reading, Worcester and Western roads, on which an average passenger speed of 23 miles is attained daily. The curvature from Frankfort to Louisville is favorable, as it will seldom fall below a radius of 3000, and nowhere below 2000 feet.—This, with a graded width of 26 feet will always give a clear vision of 500 feet to the engine driver in advance of his engine—a space sufficient to check up his train under the most unfavorable circumstances, at least sufficiently so to prevent any violent collision.

Before proceeding to an approximate estimate of the cost of a superior road from Lexington to Louisville, it may be remarked, that in 1837, an intelligent and enterprising stage proprietor observed, that the route from Lexington to Louisville was the best then unoccupied by a railroad; that by the charter of the company there could be no rival road, and that the business was ample and sufficient to maintain one profitably. This man had been driven from eastern turnpikes by the competition of eastern railways, and his observation is worthy of notice.

Also, that, with the exception of the iron rail, materials for a strong and durable road abound in Kentucky. The excavations would nowhere encounter quicksands; the embankments, formed of a rich, tenacious earth, would never rest on peat mosses or other yielding foundation; and the blackberry briar soon coats them over, and protects them from wash. Black locust and red cedar for cross-ties, and white oak for mud-sills, exist in abundance, and conveniently to the line. The furnaces and rolling mills of Kentucky make the best pig metal spike and axle iron we have ever seen, and the foundries and machine shops of Louisville turn out as good castings and machinery as any in the world. It would probably be necessary to import the rails—though this iron is now rolled both in Pennsylvania and Maryland in small quantities.

We will place the cost of rails delivered in Louisville, at \$65 per gross ton, in the following estimates:

*Estimate of cost of Railroad from Frankfort to Louisville, and of re-laying road with heavy rail from Lexington to Frankfort after expiration of the lease of McKee and Swigert.*

1st—Furnishing bridge over Kentucky river..... \$25,000  
2d—One mile of graduation, including

bridging, culverts, masonry, right of way, fencing, cow-guards, &c.....	\$10,000	
93 tons iron rails, at \$65, in Louisville.....	6,045	
5 tons wrought iron fastenings at \$100.....	500	
1 ton castings at \$60.....	60	
2500 black locust, or red cedar ties, hewed on two faces, 8 feet long, and 8 inch. thick, at 30 cts.....	750	
42,000 feet B. M. of white oak mud sills at \$10 per M.....	420	
Balasting with broken stone or gravel.....	200	
Hauling and distributing materials.....	200	
Workmanship, 320 hands at \$2.....	640	
Engineering and contingencies.....	150	
Cost of 1 mile of track.....	\$18,965	
68 miles x 3 of sideling = 68 miles at \$18,965, =.....	\$1,289,620	
3d—Cost of ground and depot buildings in Louisville.....	30,000	
Three road depots with necessary land, at \$5000.....	15,000	
Seven water stations complete at \$1000.....	7,000	
		\$59,000
4th—Road equipage, as follows:		
4 passenger engines of 10 tons each, at \$7,000.....	\$28,000	
4 freight and passenger engines of 12 tons each, at \$7,500....	30,000	
4 freight and passenger engines of 20 tons each, at \$8,500....	34,000	
10 eight-wheeled passenger cars, at \$1,500.....	15,000	
4 eight-wheeled baggage & mail cars, at \$800.....	3,200	
50 eight-wheeled burthen cars, at \$500.....	25,000	
Other machinery.....	2,500	\$137,700
5th—Mr McKee's estimate of cost of laying present road from Lexington to Frankfort, with edge rail.....		200,000
6th—Amount paid by state of Kentucky for the road.....	\$180,000	
Expenses in repairs (in bonds).....	100,000	
	\$280,000	
Less amt rec'd of Lessees.....	34,000	246,000
		\$1,950,320
Deduct from this as follows:		
Value of machinery now on hand.....	\$30,000	
Value of work between Frankfort and Louisville.....	100,000	130,000
Total cost from Lexington to Louisville, \$1,820,320		
Or, on an average, \$19,573 33 per mile—taking the line at 93 miles, which is the located distance, with all necessary fixtures and equipages. It can certainly be made for a sum not exceeding these figures. Such a road as would be creditable to the southern and western country; not one of the numerous rattle-traps which abound south of the Potomac and Ohio, but a road which could vie in speed, safety, elegance, durability and profit, with the roads of Massachusetts.		
In the above estimate, it must be observed that the \$560,000 expended by the old corporation is thrown out of the calculation of total and final cost, while the work done by that money is reckoned as available;—we mean the old road from Lexington to Frankfort. Including this, the cost per mile will be \$25,800—or a total cost of \$2,380,320.		
The business of the road was estimated by Mr. Purell, late engineer of the company, at 10,000 tons of freight, and 50,000		

passengers. More recent experience will enable us to give a closer approximate estimate. The tonnage on the present road—28 miles long—is 11,000 yearly, and the passengers 18,500 yearly. Now we wish this fact to be remembered: the road does not now transact the business of one-half of the country north of Kentucky river, which would look to it for accommodation exclusively, in case a first rate railroad was erected from Lexington to Louisville. The incontestable evidence of this, is the fact, that more than one-half of the tonnage, and quite one-half of the passengers, passing up and down the river, and by wagons and stages, are not delivered at, or discharged from Frankfort, by the railroad.

The population which transacts business by the road, as it now is in use, is, according to estimate, 41,125, which would be increased nearly three-fold by its completion to Louisville.

The effect of the road to Louisville would be an immense enlargement of the diameter of patronage around Lexington, as a centre. Also an extension of collateral patronage throughout the line. Cheapness, certainty, and expedition, cannot fail in a trading community, to win new friends every day.

One large item of production, "stock," and coals, are not handled on the present road. On the proposed one, they could be moved on terms highly advantageous to the public, and furnish a business at a period of the year when freights are scarce. \* \* \*

Also, a large accession of passengers from the Ohio river, travelling east and south might be expected. For, by the railroad, and an extensive and efficient coach establishment between Lexington and Maysville, a passenger could be passed from Louisville to Maysville in 12 hours—being a gain of 12 hours on the river route—and practically a gain of 24 hours—as all boats either detain or end their voyage at Cincinnati.

The corresponding business of the road would, when completed, as compared with the present road in use, be 31,120 tons, and 52,350 passengers yearly. It will be noted, however, that from the counties of Franklin, Henry, Shelby and Oldham, there would be a heavy way business, which would, of course, be charged only in proportion to distances travelled. Yet, after all proper abatements on this score, the figures may be safely set at 29,500 tons, and 50,000 passengers through the line.

The above estimates are hypothecated on the business of the present road—on which stock and coals are not handled at all, or at most, in such minute quantities as not to deserve notice.

Then, in addition to the above, it will be quite safe to add the following as accessions to the business:

30,000 head hogs and sheep for slaughter in Louisville, at 40 cts.,	\$12,000
5,000 head horses, mules and bullocks, at \$250,	12,500
5,000 tons coals, (30 bushels per ton = 150,000 bushels) at 1.50,	7,500
1,000 passengers, additional, through from Louisville to Maysville, at 3.00,	3,000

Total estimated accessions of business, \$35,000

We will then have for the business of the road, putting the rates rather below eastern prices (average) as follows:

29,500 tons freight at \$4.00 per 2000 lbs.,	\$118,000
50,000 passengers through at \$3.00,	150,000
Transportation U. S. mails,	10,000
Parcels and Express packages,	3,000
Stock, coals, and accession of passengers as above,	35,000
Total estimated business,	\$316,000

The road could certainly maintain a five train business in the following manner—one passenger train carrying through mails—down at 30 miles per hour, or four hours through, including stoppages, &c.; one passenger do. up; one freight and passenger carrying way mails down at 15 miles per hour; one freight and passenger do. up; one freight train down and up on alternate days. In addition to this extra trains would soon be required between Louisville and Frankfort, and if we allow that wood trains and other extras will equal a sixth daily train (very liberal) we will have 6 trains running 93 miles each in a day—558 miles per day—203,670 miles run by engines per annum; which at 65 cents per mile will give for all expenses, \$142,614.50

Bal. of profit on one year's work, \$173,385.50

This gives a clear dividend of 9 per cent. on a capital of \$1,820,320, or a dividend of 8 per cent. on a capital of \$2,380,320, if we include the \$560,000 of lost and forfeited stock.

We find the preceding statement in a number of the Louisville Democrat of 24th May, which came recently to hand; but whether from the editor or from some one more directly interested in the completion of the road, we know not, though we suppose the latter, as we have not in several years been favored with a Louisville paper—owing, probably, either to the fact that this Journal, while published in octavo form, was charged with pamphlet postage, as well to exchanges as to subscribers; or that the courteous and able editors of Louisville have better sources of information in relation to the progress of the railroad system than the Railroad Journal offers them. The same remarks apply to Lexington; but that is not surprising, as they have had a railroad in use for many years, and are, of course, supposed to know all about them. By referring to our own publication, in relation to their road, in 1834, we say, "The construction of this road is said to be equal to any in the country. \* \* \* should it be completed in the same permanent manner with that now in use, it will do credit to the state, and to those who have the superintendence of it." We give this short extract by way of contrasting the opinions of what constituted a good road in 1834, with those of 1845—a period of eleven years!

This is the only railroad, we believe, ever attempted in Kentucky; and it will be, when completed, of immense importance to the people, and especially to Louisville and Lexington—even should it never be extended farther into the country, a supposition not to be entertained for one moment, as the people of Kentucky are too sagacious not to perceive, and too public spirited not to avail themselves of, the advantages of railroads.

The Boston Post says that the Boston and Providence railroad, at its late annual meeting, was found to be in a flourishing condition, of finance, with excellent prospects for the future. The net earnings for the past year were ascertained to be \$177,590; and after paying the dividend of 3 1/2 per cent. in July, there

will be a balance to credit of income of \$72,402. From this fund a charge of \$40,000 has been deducted to meet depreciation of road and furniture, and to keep the stock good.

#### WORCESTER AND NASHUA RAILROAD.

**Choice of Officers.**—The directors of the Worcester and Nashua railroad company met at Worcester, (says the Norwich Courier of the 5th inst.) pursuant to adjournment, on Wednesday last, and completed the organization of the company by electing the following executive officers:—

JOHN C. HOLLAND, of Norwich, president.  
C. B. LONG, of Worcester, treasurer and clerk, *pro tem.*

JOHN C. HOLLAND, Norwich, } Building  
ALEXANDER DE WITT, Oxford, } comm.  
T. W. BANCROFT, Worcester, }  
W. M. D. DEARBORN, of Massachusetts, chief engineer.

An assessment of 5 per cent. on the stock subscribed was made, payable on the 11th of August next.

The election of the president of the Norwich and Worcester railroad company, as president of the Worcester and Nashua company, was *entirely unanimous* we understand; and we may be permitted to congratulate the new company on having at its head a gentleman so admirably qualified for the duties thus devolved upon him. It will be observed, also, that *President Holland* has been made chairman of the committee for building the road. The inference which we draw from this circumstance is, that in the judgment of the Worcester and Nashua company, the true interest of the company will be best promoted by such a connection with the Norwich and Worcester road as shall place both roads under the supervision and control of a general head, and of the two companies jointly.

By such an arrangement, the road from Norwich to Worcester, and from Worcester to Nashua, will, for all practical purposes, constitute but one road. The Norwich and Worcester company would be able, at small additional expense, to operate the road the entire distance from this city to Nashua. Under such an organization as is here indicated, an immense outlay of money for locomotives, cars, and machine shop, a superintendent, conductor, and other officers, would be avoided, and the money thus saved would, of course, go to swell the dividends to the stockholders. Besides all this, the new company would at once come into possession of all the advantages derivable from having their road operated by men whose experience has enabled them to reduce the business of *this* road to the most perfect system and order; for we believe it to be nothing more than simple justice to say of the Norwich and Worcester road, that the country does not furnish an instance of a railroad operated with such a systematic exactness, or in which the uniform rates of speed will compare with those attained on this road.

The Long Island railroad, notwithstanding its more favorable location—it having no grades and no curves of any consequence—has not yet reached the speed of the Norwich and Worcester road. So, at least, we are informed by a gentleman perfectly conversant with both roads. Such are some of the reasons which forcibly point to a union, so far, at least, as conducting the business of the two roads is concerned, of the two companies.

On Monday next, as we learn from a reliable source, the building committee and chief engineer commence the survey and final location of the road, and under their energetic management, we anticipate that, before many weeks, it will

be under contract, and in progress of construction.

The arrangement above referred to will probably be advantageous to both companies. It is well understood that long lines can be worked more economically than short ones, in proportion to their length. The directors of the new road will also have the benefit of the experience of those who have learned their lesson thoroughly, by practice, which will be exceedingly valuable to them. We hope to hear soon that ground has been broken.

**NORWICH AND WORCESTER RAILROAD.**—The receipts of the Norwich and Worcester railroad company for the month of June, just ended, have been,

The receipts for June, 1844, were	16,492 06
Increase of last June over corresponding month of last year,	\$3,236 53

Such an increase as this furnishes no equivocal evidence of the rapidly increasing business and rising prosperity of the road. We are happy to add, that these increased receipts are mainly from a corresponding increase in the *local* business of the road—a kind of business which indicates a *permanent* prosperity which could not so safely be inferred from a like increase from the long travel, and through freight.

It will be seen by this comparative statement that the regular increase of business along the line of a well constructed and well managed railroad, is much greater than is generally supposed. This road has numerous rivals, yet its business is increasing in a manner very satisfactory to its friends.

**VERMONT AND MASSACHUSETTS, or Fitchburg and Brattleborough Railroad.**—A meeting of this corporation was held yesterday, (says the Boston Courier of the —inst.), to see if the stockholders would rescind a vote passed some months ago, prohibiting the making of contracts for the grading of the road, until a certain number of shares should have been subscribed. "The prohibitory vote was rescinded by a unanimous vote of the meeting, and the directors were instructed to proceed immediately to construct the road from Fitchburg to Athol. It is presumed that the work will be put under contract without further delay. The next step will be to determine on the point where the road shall strike Connecticut river, and we trust it will be at no great distance from Greenfield."

#### RAILROAD TO PITTSBURG.

Public opinion (says the Harrisburg Intelligencer) seems to be setting very strong in favor of a company to construct a railroad from Harrisburg to Pittsburg. In the interior of the state it has been a favorite project for some time, and a gentleman from Philadelphia says it is beginning to attract the attention of capitalists there. One thing is certain, that a railroad must be constructed, or the western travel, which has already in a great measure deserted our state, will leave it entirely. The time has gone by when it can injure our main line of public works. The New York railroads by the side of her canals on the north, and a series of railroads from Philadelphia to Cumberland on the south, already take most of the travel, so that last year, the profits on our Columbia railroad were less than \$30,000, while the profits on freight were more than \$208,000. This will be seen by a refer-

ence to Mr. Gay's last report. The profits on the other portions of our main line, from passengers, are nothing at all—or too small to make an item in the canal commissioners' report. Heavy freight will always take the route of our main line to the west, but the passenger travel will not, and does not. It can be brought back again to the Philadelphia railroad only by a continuous railroad from Harrisburg to Pittsburg, either by the southern, middle, or northern route.—Pittsburg will be connected with the seaboard by a railroad by some route. It is impossible to prevent it—it is folly to oppose it—and it is wrong to deny to that great manufacturing city of the west all the advantages which her position demands. Let it, then, be connected by a continuous route, through Pennsylvania, with Philadelphia, and New York may make her Erie railroad, and the Baltimore and Ohio company may extend their work over mountains to Parkersburg or elsewhere, and the travel of the west will still be ours.

Let a company be incorporated at the next session of the legislature. Let the project be agitated, and we have no doubt that capitalists who are now seeking railroad investments for their money, will speedily take the stock and make the road, which will forever secure to us the travel between the Atlantic and the valley of the Ohio. We intend to resume this subject, and in the mean time call upon all the editors in Pennsylvania friendly to this great project to lend a helping hand.

We fully concur with the editor, that only by a continuous railroad can they secure even a fair portion of the western travel; and the sooner it is built the better for Philadelphia, as her merchants will find, to their cost, if the work is long delayed.

**RAILROADS IN NEW HAMPSHIRE.**—The Concord Patriot says of the railroad from Concord to Haverhill, "The survey of this road is to be completed this week from Concord, by way of Meredith, Plymouth, &c., to Haverhill. The towns in New Hampshire upon or tributary to this road, with the inventory of each as returned to the office of the secretary of state for the year 1844, with the population of each from the census of 1840, number 68—their inventory is \$17,348,912, and their population 74,483."

And Hill's New Hampshire Patriot says, that "The officers of the Northern railroad, in New Hampshire, announce that the enterprise in which they have been so long engaged, is about to be accomplished. No doubt now remains of the construction of this important work; and the public may look forward to the opening of the road from Concord, through Lebanon, to the mouth of White river, and thence in connection with the Vermont Central road to Burlington, Montreal, and the northern lakes, just as soon as the necessary arrangements can be made and the work done. The larger part of the stock has been already subscribed for the whole route from Concord to Lebanon. The subscriptions are from the ablest and most responsible men between Boston and White river, and may be relied on with the utmost confidence. The stockholders are to meet at Concord, on the 8th inst., to adopt measures for an immediate commencement of operations; and the road will be undoubtedly put under contract and progress made the present season. The books of the company are to be immediately opened in Boston."

**OSWEGO AND SYRACUSE RAILROAD.**—The books for subscription to the stock of this road will be opened on the 24th of the present month, at Oswego, Syracuse, Salina, Baldwinville and



Fulton. The capital is \$350,000—shares \$50, on which \$1 is required to be paid at subscribing.

THE OGDENSBURG ROUTE TO BOSTON.

The Rochester papers are discussing the much talked of road from Ogdensburg to Boston. The democrat submits the following estimate, which it says approximates the truth sufficiently near for all practical purposes:

Cost of transportation from Cleveland to Boston of a barrel of flour via Buffalo.

	Cents.
Lake freight Cleveland to Buffalo,	12½
Canal tolls,	35½
Transportation on the canal,	31½
Railroad Albany to Boston,	30
	99½

Same by Oswego.

Lake freight and Welland canal,	22
Canal tolls,	20½
Transportation on canal,	12½
Railroad Albany to Boston,	30
	84½

Same by Ogdensburg and Northern Railroad.

Lake freight and Welland canal,	24
Railroad, at same rates as charged by Western railroad,	48
	72

The difference here presented in favor of the Ogdensburg over the Erie canal route of 27 cents, and 15 cents over the Oswego route the Democrat thinks is certainly worthy of reflection, and should lead to some action on the part of our State authorities, in time to prevent the diversion of trade which must ensue, if the Ogdensburg road is built, and is found capable of conveying freight at the rate here mentioned.

There are several ways, says the Democrat, by which this may be done. First, by enlarging the Erie canal, so as to cheapen transportation, or, secondly, by ceasing to make the income from it support all the lateral works in the State. The former would throw off 10 or 12 cents of the difference between the routes, and the latter would render feasible a large reduction of tolls.

The first remedy here proposed, the enlargement of the Erie canal would increase the canal debt many millions and to an extent that would necessarily keep up the present rate of tolls, which according to the above estimate, constitute more than one-half the charges for transportation, and which in fact form two thirds of the charges at the present rates. Of course all the reduction that could be made on an enlarged canal, must come from the one-third now charged for transportation, the whole of which would scarcely cover the difference which the Democrat makes in favor of the Ogdensburg route. The 2d remedy means nothing more or less, we suppose, than discriminating tolls, a rather impracticable proposition.

The Democrat's premises give to the Oswego route an advantage of 12 cents on a barrel of flour, over the Buffalo and Erie canal route, showing conclusively, what the true policy of the State is, if there is anything in the pretended danger of diversion of the western trade by the Ogdensburg route.

The State could only hope to avoid the loss, and save the trade by cheapening and improving its cheapest route, an advantage conceded to the Oswego route. This result is inevitable, and beyond the control of the absurd project of discriminating tolls. The completion of the Canadian works on the St. Lawrence will throw New York upon her last resort to save the western trade, and put an end to all attempts at discriminating against her cheapest route.

How much there is in the pretended danger of Boston's taking the western trade by way of Ogdensburg, the public can judge from the facts in the case. Ogdensburg is 160 miles below Oswego, and further from Boston than Oswego is from New York. The Hudson is navigable later in the fall, and earlier in the spring, than the St. Lawrence at Ogdensburg. Flour is now shipped from Albany to Boston for 15 cents, and from Albany to New York for 8 cents.—Taking the prices of the above table, which are higher than is actually charged on the Oswego route, and it costs 63 cents to transport a barrel of flour from Cleveland to New York by way of Oswego, while it costs from the same place to Boston, 72 cents by way of Ogdensburg, allowing only 2 cents for 160 miles of lake navigation.

We cut the comparative statement in the preceding article, from the Rochester Democrat for insertion in the Journal, but on receiving the Oswego Whig, we find that it has not lost by the journey between those flourishing rival-cities almost—and therefore we have given it with the Oswego additions in full. Perhaps we ought to have waited another week that we might give it with still further comments from those sensitive and ever ready but courteous directors of "public opinion" at Ogdensburg, from whom we have not heard in an age, though we are bound to soon, or they will from us.

**The Connecting Railroad between Sunbury and Pottsville.**—The prospect of completing the connection between the Sunbury and Shamokin railroad, otherwise misnamed (Danville and Pottsville), and the great railroad extending from Philadelphia to Reading and Pottsville, is recently becoming brighter, and the day of its commencement cannot be distant. This must be highly gratifying to all who rejoice in the prosperity of our State. An able engineer has just completed a diligent exploration of the ground over which the connecting railway is to pass, and the result of two weeks' careful examination is known to be quite satisfactory. We have much reason to believe that the road will be shorter, the expense of construction less, and the tonnage transported upon it, much greater than has been heretofore anticipated. Besides other materials of transportation, we are well satisfied that the immense iron works, at Danville and its vicinity, will require 100,000 tons of Coal from Locust Ridge, etc., passing over the new and the present road, twenty miles or more. The amount of iron sent back, from these works, in every form and variety,—and sent the whole extent of the road to Philadelphia, at all seasons of the year,—will be an important acquisition. As regards the coal, there is no mistake; for the

Locust Ridge coal has been proved, at the Danville iron works, to be superior to any other for making iron. But we may offer a more enlarged view of this subject, in relation to the State of New York and the lakes, hereafter.—[Sunbury paper.]

RAILWAY ACCIDENTS.

We like the manner in which they regulate their railway affairs in England. Light is thrown upon the dark spots that all may see what is the operation of the whole system; the utmost vigilance is required by the companies from those who have the management of the details. The following statement in relation to accidents on the English railways during the quarter ending April 1st, is from the first number of the *Railway Express*.

**Cheap Rail Way Travelling.**—No less than 60,000 children were conveyed last week by the Manchester and Leeds company, a distance of 100 miles, at 6d. each, as a holiday trip. This is cheap indeed, but we dare say it paid the company well, obtaining by it a gross return of £1,500. We cannot vouch for the accuracy of the above figures, but we believe, from the source from which we derive our information, that they are nearly correct. There are, we know, upwards of that number of children in the public schools in Manchester, and we have no doubt that the clever managers of that line would readily adopt a means to decoy the little rogues into a holiday trip through one of the most delightful parts of the country at a next to nothing fare, such as the whole world of schoolboys could well afford, at the same time securing to themselves a good profit.

**Railway Accidents.**—The railway department of the board of trade have issued their report of railway accidents for the quarter ending April 1, 1845. The public are generally aware, we presume, that, whenever an accident occurs on any line of railway, the details and result must be reported to the board of trade. It appears from this return that thirty-nine occurred on railways in Great Britain in the months of January, February, and March; that twenty-two lives were lost, and seventeen persons injured by such accidents. The *Sun* says:—"It is a remarkable fact that all the fatal accidents (which amount to twenty-two,) except four, happened to persons connected with the railway lines. Only two passengers, one trespasser, and a girl of eleven years of age, were killed. The other accidents, not fatal, bear about the same proportion. Indeed, the accidents by railways are not one-quarter of what formerly took place by coaches." The trespasser was a man who laid across the rails in front of an approaching train and was run over; and the girl was run over on a riding, trespassing. This, then, leaves a total of two passengers, out of the thousands who travelled on railroads throughout England, Wales, and Scotland, who have been killed during 3 months.—One of these jumped out of a train in motion, and the other fell from the front of a second-class carriage in motion. Thus each catastrophe was the result of the sufferers' own carelessness or folly. Railway travelling is the safest, as well as the swiftest, mode of transit.

**The Copper Trade—England and America.**—In 1842, in company with some friends I visited the rich mineral district of Bayatavo. Then there were a few old excavations, some 15 or 20 feet deep, found in various parts of that metallic region, supposed to have been made some centuries ago, by persons in search of silver, of which the copper ores in my mines produce, in some instances, a small quantity. These excavations were generally made on indications of small veins of copper ore traversing the surface rocks, and may be found from one extreme of Cuba to the other. After being satisfied with the rich external appearance of things, I procured a mining captain from Cornwall, reviewed again the grounds, and finally located myself in the spot designated on the large maps of Cuba as "Las Minas," a little more than 20 miles from the port of Nuevitas, and within 300 yards of the line of railroad from that place to Principe. I commenced working on a most perfect vein of gossan as was ever seen, encountered green carbonates, red oxides, and lighter surface ores, and at the depth of about 25 feet came to a rich lode of black ore, changing a little its character, till at 90 feet it became a strong lode of yellow sulphuret. I sunk five different shafts, and explored the ground for about 900 feet, in a nearly east and west direction, and found it universally productive. I then put up a steam engine, the first one ever introduced into that province, and in a short time took out, with a few hands, nearly 1000 tons of ore, producing from 14 $\frac{1}{2}$  to 19 $\frac{1}{2}$  per cent., nearly all of which has been sold in Liverpool. Owing, however, to want of capital, to enlarge and extend the workings as required, I am about to dispose of a part of this property, when I can find capitalists willing to work it on a large scale. Since I commenced working, more than fifty other mines have been granted in the same district, by government to different individuals; and I am happy to see the Swansea people are not backward in this enterprise. Captain Richards, representative of a company there, has for some time been in the region of Bayatavo, and has been so much satisfied with its mineral riches, that he has taken up several mines, though, as yet,

circumstances have rendered them unproductive. The ground on which the principal mines are is hilly, though not mountainous like St. Jago. The dip of the lode is generally north, about 8 inches to the fathom. They are accompanied with layers of floo-kan and blue colors, and are said to be better than those of the south side of the island, though our method of cleaning not being so perfect, the ores do not always turn out as well. The expense of sending our ores to England has induced me to make strong efforts to establish smelting works in the United States, which if it can be accomplished, will leave our mines a vast deal more profitable than at present; for on all my ores shipped to Europe thus far, the expenses, from the time they left New York, have exceeded 22 per cent. of their value. This is an evil I shall do all I can to remedy while I am interested in mines, but hope that in this our interests may not clash. **CEO. DITSON,**  
Nuevitas, Cuba. U. S. vice consul.  
[*Lond. Mining Journal, June 7th, 1845.*]

It has been noticed in the *Times*, that the Pacha of Egypt has engaged the services of a mineralogist from England, to search for coal and water in the desert. Inquiries, which we have made, confirm this, and we find the gentleman, who was received by Mehemet Ali with distinguished honor, is Mr. Petherick, jun., lately manager of the extensive mines in Nassau and Bavaria, and son of Mr. Petherick, of the Llynvi iron works, well known in the iron trade of South Wales for many years. He has, ere this, left Cairo under a strong escort, for the purpose of searching for coal, by way of Suez and Mecca to Abyssinia Nubia; and, we doubt not, but that with his talents and knowledge, the mineralogical riches of these countries will be fully developed. — [*Mining Journal.*]

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.**  
**WILLIAM YOUNG,**  
President.  
jy451m

**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 19 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. **JOHN F. WINSLOW, Agent.**

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

**TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY.** The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. **THOMAS & EDMUND GEORGE,**  
ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

**HENRY BURDEN, Agent.** Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\* \* \* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45.



**DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS.** Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**NEW JERSEY RAILROAD AND TRANSPORTATION COMPANY.**

Length of Road, 33 96-100 miles. Capital, \$2,000,000.  
 JOHN S. DARCY, Esq., President. ROBERT SCHUYLER, Esq., Vice President.  
 J. P. JACKSON, Esq., Secretary. J. WORTHINGTON, Esq., Treasurer.

Leave New York, foot of Courtland street.	DAILY.				SUNDAY.	
	A. M.		P. M.		A. M.	P. M.
For Newark.....	9, 11, 12.....	2, 3, 4 3-4, 6, 7 1-2	9.....	4 3-4		
" Elizabethtown.....	9, 11.....	2, 3, 4 3-4, 6.....				
" Rahway.....	9, 11.....	3, 4 3-4, 6.....				
" New Brunswick.....	9.....	3, 4 3-4.....				
Leave New Brunswick...	6, 7 1-2, 11 1-2.....	8 3-4.....	11 1-2	8 1-2		
Rahway.....	6 3-4, 7, 8 1-4, 12.....	4 3-4, 9 1-4.....				
Elizabethtown.....	7, 7 1-2, 8 1-2, 10 1-2, 12	3 1-2, 5.....				
Newark.....	7 1-2, 8 1-4, 9, 11.....	1 1-2, 4, 5 1-2, 7, 9 3-4	11 3-4	9 3-4		

For New York.  
 9 A. M. and 3 P. M. to meet the Morris and Essex trains, and 9 A. M. and 4 3-4 P. M. to meet the Somerville train, and for Philadelphia.

**TABLE OF DISTANCES AND FARES.**

	New York.		Newark.		Elizabethtown.		Rahway.		N. Brunswick	
	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.	Miles.	Cents.
New York.....			9 1-4	25	14 1-2	31 1-4	19 3-4	31 1-4	31 1-2	50
Newark.....	9 1-4	25			5 1-2	12 1-2	10 1-2	25	22 1-2	50
Elizabethtown.....	14 1-2	31 1-4	5 1-2	12 1-2			5	12 1-2	16 3-4	50
Rahway.....	19 3-4	31 1-4	10 1-2	25	5	12 1-2			11 3-4	37 1-2
New Brunswick.....	31 1-2	50	22 1-2	50	16 3-4	50	11 3-4	37 1-2		

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

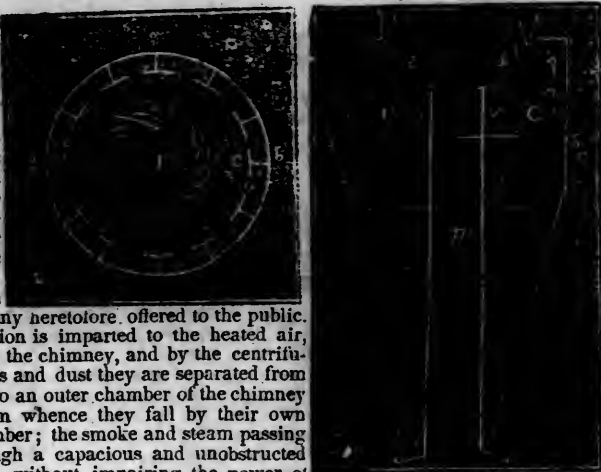
These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\* \* \* The letters in the figures refer to the article given in the Journal of June, 1844. ja45



FRENCH & BAIRD.

**SAMUEL NOTT, CIVIL ENGINEER, SURVEYOR and General Agent, Bangor, Me.** Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES —  
 Boston, { Col. James F. Baldwin, Civil Engineer.  
 { Col. J. M. Fessenden, "  
 Wm. Parker, Esq., Engineer and Superintendent  
 Boston and Worcester railroad. ja45

**SPRING STEEL FOR LOCOMOTIVES,** Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/4 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,  
 ja5a3 Albany Iron and Nail Works, Troy, N. Y.

**FOR SALE, AT A SACRIFICE—A LOCOMOTIVE Engine, 4 wheels and Tender.** Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine.  
 2 8-horse "  
 1 Upright Hydraulic Press.

All of which will be sold low, on application to  
 T. W. & R. C. SMITH.

Founders and Machinists,  
 May 12th Alexandria, D. C.

**RAILROAD IRON AND FIXTURES.** THE Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO.,  
 ja45 21 Broad st., N. York.

**MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Paterson, N. J.** The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.  
 Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,  
 a45 Paterson, N. J., or 60 Wall street, N. York.

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,  
 ja45 Reading, Pa.

**GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.**—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/4 in. to 2 1/2 in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wrought Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wrought Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions.  
 ja451y

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS	A. M.	P. M.	MILES.	FARE
Boston	Portland		Eastern,	Daily,	7 $\frac{1}{2}$	2 $\frac{1}{2}$	106	\$3 00
"	Portsmouth		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	54	2 00
"	Newburyport		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	35	1 25
"	Salem		"	"	7 $\frac{1}{2}$ , 9, 11 $\frac{1}{2}$	2 $\frac{1}{2}$ , 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14	50
Portland	Portland		Boston and Maine,	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	109	3 00
Boston	Boston		"	"	7 $\frac{1}{2}$	3	109	3 00
Boston	Lowell		Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston		"	"	7 $\frac{1}{2}$ , 11	2, 4 $\frac{1}{2}$ , 5 $\frac{1}{2}$	26	75
Boston	Concord		Concord,	"	7	3 $\frac{1}{2}$	76	2 00
Concord	Boston		"	"	7	3 $\frac{1}{2}$	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11	5	41	
Nashua	Boston		"	"	6 $\frac{1}{2}$	1 $\frac{1}{2}$ , 5	41	
Boston	Worcester		Boston and Worcester,	"	7, 9	2 $\frac{1}{2}$	44	1 25
Worcester	Boston		"	"	7, 10	6	44	1 25
"	"		"	Sundays,	7			
Boston	Worcester		"	"		2		
Boston	New York via Norwich		"	Mon., Wed. & Fri.,		4		
"	" " L. Island railroad		"	Tues., Thur. & Sat.,	7			
"	" " New Haven		"	Daily,	9	2 $\frac{1}{2}$		
"	Albany		Western,	"	9	2 $\frac{1}{2}$	200	6 00
Albany	Boston		"	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	200	6 00
Springfield	Boston and Albany		"	"	7	3		
Boston	New York via New Haven		"	"	7	2 $\frac{1}{2}$		
Charlestown	West Acton		Fitchburg,	"	8	1, 4 $\frac{1}{2}$		
West Acton	Charlestown		"	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	5		
Boston	New York, via Steamboat trains		Boston and Stonington,	Tues., Thur. & Sat.,		4 $\frac{1}{2}$		
"	" " " "		Boston and Newport,	Mon., Wed. & Fri.,		4 $\frac{1}{2}$		
"	Providence		"	Daily,	7 $\frac{1}{2}$	4	41	1 50
Providence	Boston		"	"		On arrival of the mail.	41	1 50
Taunton	"		"	"	2	4		
New Bedford	Boston		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$		
Boston	Dedham		"	"	8 $\frac{1}{2}$	3, 6 $\frac{1}{2}$		
Dedham	Boston		"	"	7, 10	5 $\frac{1}{2}$		
New York	Greenport		Long Island,	"	7 $\frac{1}{2}$		95	2 25
Brooklyn	Hicksville & intermediate places		"	"	9 $\frac{1}{2}$		26	56 $\frac{1}{2}$
"	Greenport		"	Tues., Thur. & Sat.,	9 $\frac{1}{2}$		95	2 25
"	Hicksville, (Saturd'y to Suffolk)		"	Daily,	4		26	56 $\frac{1}{2}$
Greenport	Brooklyn, (Boston train)		"	"	1		95	2 25
"	(accommodation do.)		"	Mon., Wed. & Fri.,			95	2 25
Hicksville	" " & intermediate places.		"	Daily,	7	1 $\frac{1}{2}$	26	56 $\frac{1}{2}$
New York	Albany & Boston via N. Haven		Steamer,	"	6 $\frac{1}{2}$			5 00
Middletown	Middletown		New York and Erie,	"	8, 3		53	
Philadelphia	New York		"	"	6 $\frac{1}{2}$	3 $\frac{1}{2}$	53	
Pottsville	Pottsville		Reading,	"	9		94	3 50
Pottsville	Philadelphia		"	"	9		94	3 50
New York	Newark		N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4 $\frac{1}{2}$ , 6, 7 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Newark	New York		[9 A. M. and 3 P. M., connect with Morris Railroad.]	"	7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 9, 11	1 $\frac{1}{2}$ , 4, 5 $\frac{1}{2}$ , 7, 9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	"		[9 A. M. and 4 $\frac{1}{2}$ P. M., trains connect with Somerville Railroad.]	Sundays,	9	4 $\frac{1}{2}$	9 $\frac{1}{2}$	25
New York	Newark		"	Daily,	11 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	Elizabethtown		"	"	9, 11	2, 3, 4 $\frac{1}{2}$ , 6	14 $\frac{1}{2}$	31 $\frac{1}{2}$
Elizabethtown	New York		"	"	7, 7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 10 $\frac{1}{2}$ , 12	3 $\frac{1}{2}$ , 5	14 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	Rahway		N. J. railroad and trans. co.,	"	9, 11	3, 4 $\frac{1}{2}$ , 6	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New York		"	"	6 $\frac{1}{2}$ , 7, 8 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$ , 9 $\frac{1}{2}$	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New Brunswick		"	"	9	3, 4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New Brunswick	New York		"	"	6, 7 $\frac{1}{2}$ , 11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
"	"		"	Sundays,	11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New York	New Brunswick		"	"	9	4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
Philadelphia	New York		Camden and Amboy,	Daily,	7		91	3 00
New York	Philadelphia		"	"	5 $\frac{1}{2}$		91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	9		30	75
Bristol	Philadelphia		"	"	4		30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"	8	4	93	
Baltimore	Philadelphia		"	"	9	8	93	
"	Washington		Baltimore and Washington,	"	9	5, 11 $\frac{1}{2}$	41	2 50
Washington	Baltimore		"	"	6	5 $\frac{1}{2}$	41	2 50
Baltimore	Cumberland and inter. places		Baltimore and Ohio,	"	7 $\frac{1}{2}$			
"	Frederick		"	"		4		
Cumberland	Baltimore		"	"	8			
Hancock	"		"	"	10 $\frac{1}{2}$			
Martinsburg	"		"	"	11 $\frac{1}{2}$			
Harper's Ferry	"		"	"		12 $\frac{1}{2}$		
Frederick	"		"	"		2		
"	"		"	Sundays,	8			
Ellicott's Mills	"		"	Daily,	7 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$		
Richmond	Petersburg		Richmond and Petersburg,	"	10 $\frac{1}{2}$	1 $\frac{1}{2}$		
Petersburg	Richmond		"	"	5 $\frac{1}{2}$			
Albany	Schenectady		Mohawk and Hudson,	"	8	5 $\frac{1}{2}$		
Schenectady	Albany		"	"	9	3 $\frac{1}{2}$		
Albany	Saratoga		"	"	7 $\frac{1}{2}$	2		
Saratoga	Albany		"	"	7	12 $\frac{1}{2}$ , 5		
Troy	Saratoga		Troy and Saratoga,	"	7 $\frac{1}{2}$	3 $\frac{1}{2}$		
Saratoga	Troy		"	"	8			
Auburn	Rochester		Auburn and Rochester,	"	8 $\frac{1}{2}$			
Rochester	Auburn		"	"	8	3		
"	Buffalo		Rochester and Buffalo,	"		3		
Buffalo	Rochester		"	"				
"	Falls		Buffalo and Falls,	"	9			
Falls	Buffalo		"	"		11		
Buffalo	Albany		Albany and Buffalo	"	8 $\frac{1}{2}$			

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

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SECOND QUARTO SERIES, VOL. I., No. 30.]

THURSDAY, JULY 24, 1845.

[WHOLE No. 473, VOL. XVIII

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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 PHENIX FOUNDRY, N. Y.  
 R. HOE & Co., N. Y.  
 J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)  
 TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)  
 ANDREW MENEELY, West Troy. (See Adv.)  
 ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
 S. VAIL, Speedwell-Iron Works, near Morristown, N. J. (See Adv.)  
 NORRIS, BROTHERS, Philadelphia, Pa.  
 KITE'S Patent Safety Beam. (See Adv.)  
 FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)  
 BALDWIN & WHITNEY, Philadelphia, Pa.  
 JOHN F. STARR, Philadelphia, Pa.  
 MERRICK & TOWNE, do.  
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 SETH ADAMS, Engineer, South Boston, Mass.  
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 C. C. ALGER, Stockbridge Iron Works, Stockbridge, Mass.

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 A. & G. RALSTON & Co., Philadelphia, Penn. (See Adv.)  
 THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM.

MESSERS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

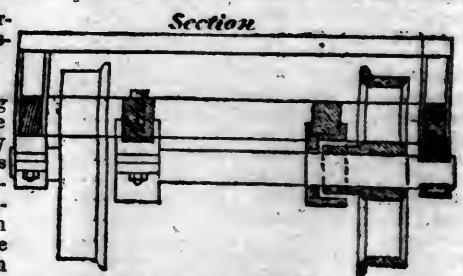
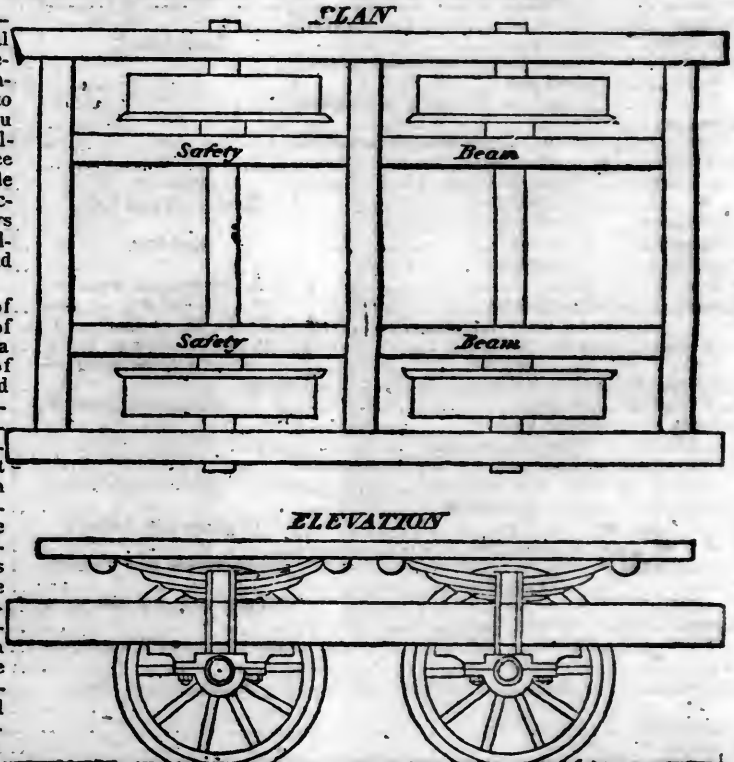
On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
 GEORGE CRAIG, Superintendent,  
 JAMES ELLIOTT, Sup. Motive Power,  
 W. L. ASHMEAD, Agent.  
 A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



TRAINS LEAVE	FOR	BY	RAILROAD	DAYS.	A. M.	P. M.	MILES.	FARE
Boston	Portland		Eastern,	Daily,	7 $\frac{1}{2}$	2 $\frac{1}{2}$	106	\$3 00
"	Portsmouth		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	54	2 00
"	Newburyport		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$ , 4 $\frac{1}{2}$	35	1 25
"	Salem		"	"	7 $\frac{1}{2}$ , 9, 11 $\frac{1}{2}$	2 $\frac{1}{2}$ , 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6 $\frac{1}{2}$	14	50
Portland	Portland		Boston and Maine,	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$	109	3 00
Boston	Boston		"	"	7 $\frac{1}{2}$	3	109	3 00
Boston	Lowell		Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston		"	"	7 $\frac{1}{2}$ , 11	2, 4 $\frac{1}{2}$ , 5 $\frac{1}{2}$	26	75
Boston	Concord		Concord,	"		3 $\frac{1}{2}$	76	2 00
Concord	Boston		"	"		3 $\frac{1}{2}$	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11	5	41	
Nashua	Boston		"	"	6 $\frac{1}{2}$	1 $\frac{1}{2}$ , 5	41	
Boston	Worcester		Boston and Worcester,	"	7, 9	2 $\frac{1}{2}$	44	1 25
Worcester	Boston		"	"	7, 10	6	44	1 25
"	"		"	Sundays,	7			
Boston	Worcester		"	"		2		
Boston	New York via New Haven		"	Mon., Wed. & Fri.,		4		
"	"		"	Tues., Thur. & Sat.,	7			
"	"		"	Daily,	9	2 $\frac{1}{2}$		
Albany	Albany		Western,	"	9	2 $\frac{1}{2}$	200	6 00
Boston	Boston		"	"	8 $\frac{1}{2}$	1 $\frac{1}{2}$	200	6 00
Springfield	Boston and Albany		"	"	7	3		
Boston	New York via New Haven		"	"		2 $\frac{1}{2}$		
Charlestown	West Acton		Fitchburg,	"	8	1, 4 $\frac{1}{2}$		
West Acton	Charlestown		"	"	7 $\frac{1}{2}$ , 10 $\frac{1}{2}$	5		
Boston	New York, via Steamboat trains		Boston and Stonington,	Tues., Thur. & Sat.,		4 $\frac{1}{2}$		
"	"		Boston and Newport,	Mon., Wed. & Fri.,		4 $\frac{1}{2}$		
"	Providence		"	Daily,	7 $\frac{1}{2}$	4	41	1 50
Providence	Boston		"	"		4	41	1 50
Taunton	Boston		"	"		4		
New Bedford	Boston		"	"	7 $\frac{1}{2}$	2 $\frac{1}{2}$		
Boston	Dedham		"	"	8 $\frac{1}{2}$	3, 6 $\frac{1}{2}$		
Dedham	Boston		"	"	7, 10	5 $\frac{1}{2}$		
New York	Greenport		Long Island,	"	7 $\frac{1}{2}$		95	2 25
Brooklyn	Hicksville & intermediate places		"	"	9 $\frac{1}{2}$		26	56 $\frac{1}{2}$
"	Greenport		"	Tues., Thur. & Sat.,	9 $\frac{1}{2}$		95	2 25
"	Hicksville, (Saturd'y to Suffolk)		"	Daily,		4	26	56 $\frac{1}{2}$
Greenport	Brooklyn, (Boston train)		"	"		1	95	2 25
"	"		"	Mon., Wed. & Fri.,			95	2 25
Hicksville	"		"	Daily,	7	1 $\frac{1}{2}$	26	56 $\frac{1}{2}$
New York	Albany & Boston via N. Haven		Steamer,	"	6 $\frac{1}{2}$			5 00
Middletown	Middletown		New York and Erie,	"	8, 3		53	
New York	New York		"	"	6 $\frac{1}{2}$	3 $\frac{1}{2}$	53	
Philadelphia	Pottsville		Reading,	"	9		94	3 50
Pottsville	Philadelphia		"	"	9		94	3 50
New York	Newark		N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4 $\frac{1}{2}$ , 6, 7 $\frac{1}{2}$	9 $\frac{1}{2}$	25
Newark	New York		[9 A. M. and 3 P. M., connect with Morris Railroad.]	Sundays,	7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 9, 11	1 $\frac{1}{2}$ , 4, 5 $\frac{1}{2}$ , 7, 9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
"	"		[9 A. M. and 4 $\frac{1}{2}$ P. M., trains, connect with Somerville Railroad.]	Daily,	11 $\frac{1}{2}$	9 $\frac{1}{2}$	9 $\frac{1}{2}$	25
New York	Newark		"	"	9, 11	2, 3 $\frac{1}{2}$ , 4 $\frac{1}{2}$ , 6	14 $\frac{1}{2}$	31 $\frac{1}{2}$
Elizabethtown	New York		"	"	7, 7 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , 10 $\frac{1}{2}$ , 12	3 $\frac{1}{2}$ , 5	14 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	Rahway		N. J. railroad and trans. co.,	"	9, 11	3, 4 $\frac{1}{2}$ , 6	19 $\frac{1}{2}$	31 $\frac{1}{2}$
Rahway	New York		"	"	6 $\frac{1}{2}$ , 7, 8 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$ , 9 $\frac{1}{2}$	19 $\frac{1}{2}$	31 $\frac{1}{2}$
New York	New Brunswick		"	"	9	3, 4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New Brunswick	New York		"	"	6, 7 $\frac{1}{2}$ , 11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
"	"		"	Sundays,	11 $\frac{1}{2}$	8 $\frac{1}{2}$	31 $\frac{1}{2}$	50
New York	New Brunswick		"	"	9	4 $\frac{1}{2}$	31 $\frac{1}{2}$	50
Philadelphia	New York		Camden and Amboy,	Daily,	7		91	3 00
Philadelphia	Philadelphia		"	"	5 $\frac{1}{2}$		91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	9		30	75
Bristol	Philadelphia		"	"	4		30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"	8		93	
Baltimore	Philadelphia		"	"	9	8	93	
"	Washington		Baltimore and Washington,	"	9	5, 11 $\frac{1}{2}$	41	2 50
Washington	Baltimore		"	"	6	5 $\frac{1}{2}$	41	2 50
Baltimore	Cumberland and inter. places.		Baltimore and Ohio,	"	7 $\frac{1}{2}$			
"	Frederick		"	"		4		
Cumberland	Baltimore		"	"	8			
Hancock	"		"	"	10 $\frac{1}{2}$			
Martinsburg	"		"	"	11 $\frac{1}{2}$			
Harper's Ferry	"		"	"		12 $\frac{1}{2}$		
Frederick	"		"	"		2		
"	"		"	Sundays,	8			
Ellicott's Mills	"		"	Daily,	7 $\frac{1}{2}$ , 12	4 $\frac{1}{2}$		
Richmond	Petersburg		Richmond and Petersburg,	"	10 $\frac{1}{2}$	1 $\frac{1}{2}$		
Petersburg	Richmond		"	"	5 $\frac{1}{2}$			
Albany	Schenectady		Mohawk and Hudson,	"	8	5 $\frac{1}{2}$		
Schenectady	Albany		"	"	9	3 $\frac{1}{2}$		
Albany	Saratoga		"	"	7 $\frac{1}{2}$	2		
Saratoga	Albany		"	"	7	12 $\frac{1}{2}$ , 5		
Troy	Saratoga		Troy and Saratoga,	"		3 $\frac{1}{2}$		
Saratoga	Troy		"	"	7 $\frac{1}{2}$			
Auburn	Rochester		Auburn and Rochester,	"	8 $\frac{1}{2}$			
Rochester	Auburn		"	"	8	3		
"	Buffalo		Rochester and Buffalo,	"		3		
Buffalo	Rochester		"	"				
"	Falls		Buffalo and Falls,	"	9			
Falls	Buffalo		"	"		11		
Buffalo	Albany		Albany and Buffalo	"	8 $\frac{1}{2}$			

DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.

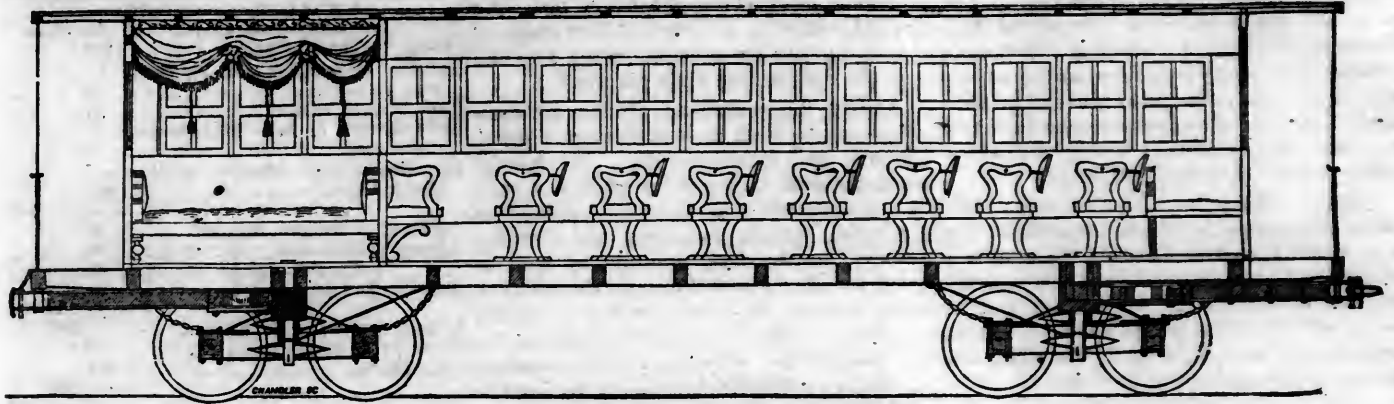


Fig. 1.

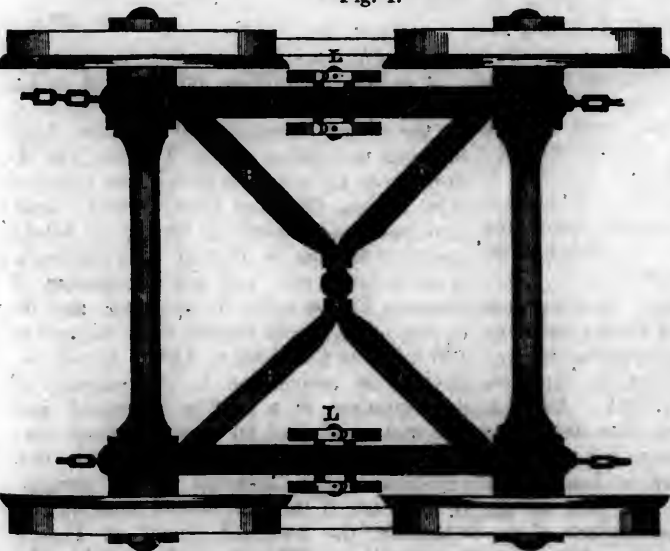
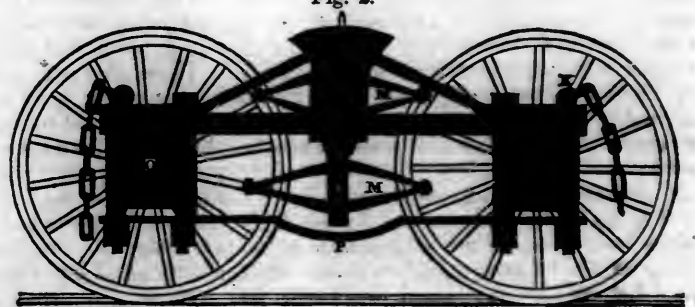


Fig. 2.



DAVENPORT & BRIDGES' IMPROVED PATENT IRON TRUCK FOR RAILROAD CARS, is presented above, and the attention of Railroad Companies is respectfully invited to the following description of their justly-celebrated invention:

Fig. 1 of the drawing above represents a top view or plan of our Improved Railroad Truck. Fig. 2 is a central, longitudinal, and vertical section. C, Fig. 1 and 2, represents the arched bars of the side trusses: they consist of two long bars of plate iron (about three inches wide by seven-eighths of an inch thick,) bent into the shape as seen in drawing 2. Each of them is placed directly over a flat and straight tie bar, A, which extends from one end to the other, as seen in Fig. 2. These parts, so arranged, receive between their ends the ends of diagonal cross bars or braces, B, which are united at their centres

upon four pedestals, F, F, which receive the bearings or boxes for the axles to run on. Another flat tie bar, P, extends from the under side of one of the pedestals to that of the other, on the same side of the frame, and the whole is secured together by eight bolts, J, J, passing down through the ends of the several bars, A, B, C, and the pedestals, and on each side of the journals of the axles, O, O, in the positions represented in the drawings. From the above it will be seen that there are two bolts to each pedestal, and that this number is all that is requisite for the full security of the bars and pedestals together. The body rests and moves upon two sectional supports, D D, arranged on the sides of the truss frames, as seen in Fig. 2; they extend somewhat, or a sufficient distance above the truss frames, and are jointed at their lower ends by means of a bolt, L, which rests upon the top of the lower spring, M, which spring rests upon a bolt passing through the lower part of the inverted strap, E, which strap passes over and rests upon the top part of the upper spring, M, which is placed within the truss frame, and rests upon the top of the bar, A.

Two bands, N, N, are passed entirely around the central part of each truss frame, the object of the same being to transfer the strain, or a portion thereof, of the spring, from the tie bar, A, to the arched bar, C.

These Trucks are adapted as well for eight-wheeled passenger cars as for baggage and freight cars, giving to each a more agreeable and easy motion than any other Truck heretofore constructed or in use. They are simple in their construction, combining strength and great durability, although weighing at least twelve hundred pounds less than the common Trucks. Besides these excellences, by reason of the elasticity of the braces, B, B, B, as seen in the drawing, and the other peculiarities of construction, the weight is equalized upon all the wheels, and yet any one may be raised so as to pass any inequality on the rails without lifting either of the other wheels from the track, thus rendering it almost impossible to run a car off. Being bound, and having as it were but four joinings, they are protected from injury by lateral strains, and in case of damage are easily repaired.

These excellences have been fully tested by use, for a long time, on the Eastern, the Fitchburg and Long Island railroads; and for proof of the above stated superiority of these Trucks over all others, we refer to the experience of those who have used and run them.

CAMBRIDGEPORT, April 1, 1845.

DAVENPORT & BRIDGES.

**A Modest Proposal.**—A petition has been presented to the house from Waterford, containing a pretty strong specimen of what is commonly called "Irish reciprocity." The petitioner prays the house "to introduce a clause into all bills for forming railways in Ireland making it imperative on the companies of all such railways to convey, gratis a limited number of pedestrians who from poverty are prevented from hiring a mode of conveyance"—[*Railway Express.*]

**Austrian Lead Ore.**—The following is the assay of a parcel of South Australian lead ore, recently sold in London, the results of which are highly gratifying and encouraging, 45 tons yielded 15 cwt. 2 qrs. lead, and 21 oz. of silver, to the ton of 20 cwt.; and 10 tons yielded 14 cwt. 1 qr. 11 lbs. lead, and 10 oz. 13 dwts. silver, to the ton.

**A NEW ROUTE TO MACKINAC.**

We find in the *Oswego Daily Advertiser* of the 15th inst., which came to hand to-day—but whether from the Editor, or some attentive friend, we know not, as it is the first copy of the paper we have received, though we hope not the last—the following circular from the commissioners of the Oswego and Syracuse railroad: and we give it entire, as embodying information which may be useful to our readers, and especially as having an important bearing upon the work now brought before the public.

Those who are familiar with the route, and its advantages, do not require argument to convince them of the importance of this short link in a vast chain of communication. There are, in truth, but few people, comparatively speaking, who appreciate correctly the vast amount of business which will in a few years pass between lake Ontario and the Hudson river; and that business will mainly pass up the Oswego river to Syracuse, either by this railroad or the canal now in use there. Of course an investment in the stock of this railroad must become eventually exceedingly valuable.

**OSWEGO AND SYRACUSE RAILROAD.**

The undersigned, appointed by the legislature to open books for subscription to the stock of the "Oswego and Syracuse Railroad Company," beg leave to present for public consideration the following facts and statistics; and,

First—in relation to the feasibility of the route—A survey has been made by a competent engineer, and a portion of the line has been reviewed by another, yielding the following results:

First, That the valley of the Oswego river affords more than one favorable line on each bank of said river. The length of the lines are from 34 to 36 miles. The ascent gradual, from Oswego to Syracuse, in all about 150 feet. No grade, on the most favorable route, exceeding 20 feet to the mile; no expensive structures, deep cuts or high embankments. The route abounding with timber and saw-mills.

Second, That the cost of construction and equipment, with a fair allowance for right of way, will not exceed \$10,000 per mile, provided the flat rail is used.

Traffic or trade.—With grades so favorable, and materials for commerce so abundant, the road should be located with refer-

ence to an extensive traffic at a future day, though it may not be deemed expedient to equip it at present with the necessary carriages and locomotives, or a heavy rail. To this end, and with a view to future traffic, it should intersect the villages on the line and near the termination when practical.

Among the prominent articles for commerce are, the flour made at Oswego, Fulton, Phoenix, and Baldwinsville. At Oswego about 300,000 barrels were made last year. Salt, manufactured at the several villages of Liverpool, Salina, Syracuse, and Geddes, destined for the lake markets, as well as wood for its manufacture, would afford a large amount of tonnage, which is rapidly increasing. More than one-third part of the salt made at the salines now seeks a market at Oswego; 200,000 barrels (of five bushels each) being the maximum quantity in a single year. About 100,000 cords of wood are now consumed in the manufacture, most of which is taken from the shores of the Oswego, and could be profitably transported on the railroad, even now, as it pays no toll to the canal. Salt, paying but one cent per barrel to the canal, might also be advantageously transported on the road.

The aggregate amount of commodities passed up the Oswego canal last year was, from lake Ontario, including the flour of the Oswego mill, . . . . . 98,354 tons.  
From lake Erie, . . . . . 25,866 "

Together, . . . . . 124,219 "  
and the amount of tonnage descending the canal must be nearly as great, including the salt, gypsum, and coal.

These facts are interesting, and will enable the public to estimate the future magnitude of railroad traffic, when better counsels shall prevail, and a more enlightened and a more just policy shall induce the state to abandon her canal monopoly, and yield to commerce all the facilities which the natural advantages of our channels for trade and the enterprize of our citizens proffer.

**Passengers.**—The number of passengers through in 1844, between Oswego and Syracuse, by packet and stage, including the way fare, and dividing it so as to represent through passengers, were 15,981. Added to which, there were three or four daily lines of freight boats, and numerous salt and wood boats, all transporting more or less passengers. It is believed the first year of the railroad would double the number of passengers, and that a few years would quadruple them.

This road would divide with the present route the travel to Niagara and Buffalo during the pleasant part of the season; indeed, the packets, tedious as they are, take large numbers of these travellers; and when the projected routes through Canada, looking to the travel of the far west, shall be completed, this route will have strong attractions for that travel also, throughout the summer months, and still stronger during the spring and fall months, when the lakes are boisterous.

The following comparison of the several

routes for travel will afford data for estimating their respective merits:

<b>Route No. 1.</b> —From Syracuse to Mackinac, by the way of Oswego and Buffalo.	
Syracuse to Oswego, railroad . . . . .	35 miles.
Oswego to Toronto, lake . . . . .	140
Toronto to lake Simcoe, McAdam road . . . . .	28
Lake Simcoe, steamer . . . . .	30
Lake Simcoe to lake Moanitoulin, plank road . . . . .	19
Lake Moanitoulin 120 miles and lake Huron 130 miles . . . . .	250
	503
Syracuse to Auburn, railroad . . . . .	26
Auburn to Rochester, do. . . . .	78
Tonawanda, do. . . . .	43
Attica to Buffalo, do. . . . .	31
	178
Lake Erie and Detroit river . . . . .	300
St Clair lake and river . . . . .	60
Lake Huron . . . . .	265
	325
	803
In favor of the Oswego route . . . . .	301
<b>Route No. 2.</b> —From Syracuse to Detroit.	
Syracuse to Oswego . . . . .	35 miles.
Oswego to Hamilton . . . . .	165
Hamilton to Detroit, by the "Great Western road" . . . . .	200
	400
Syracuse to Buffalo . . . . .	178
Buffalo to Detroit . . . . .	300
	478
In favor of Oswego . . . . .	78
<b>Route No. 3.</b> —From Syracuse to Niagara Falls.	
Syracuse to Oswego . . . . .	35 miles.
Oswego to Lewiston . . . . .	135
Lewiston to the Falls . . . . .	9
	179
Syracuse to Buffalo . . . . .	178
Buffalo to the Falls . . . . .	22
	200
In favor of Oswego . . . . .	21
It is not improbable that what is called the "Great Western Road," in Canada, may, for the present, terminate at Chatham, head of steam navigation on the Thames, and 50 miles from Detroit, or at Sarnia, the outlet of lake Huron, 60 miles from Detroit; from each point good steamboat navigation would complete the line to Detroit. As this work is an arduous one, and this substitution of steamers for 50 miles by one route and 60 by the other, would shorten their railroad to 150 miles to Chatham or 140 to Sarnia, relieving the corporation to the amount of three-quarters of a million of capital, and still make their line for summer travel complete and perfect, it is not improbable this expedient may be adopted for the present. In this case, if the road should terminate at Chatham, the traveller bound to Detroit would still gain 78 miles in distance by way of Oswego over the Buffalo traveller. But if it terminates at Sarnia he would also gain the 78 miles to Detroit; and if bound to Mackinac he would add to his gains over his Buffalo competitor the distance between Detroit and Sarnia, on lake Huron, 60 miles, making in all a gain by this route to Mackinac of 133 miles.	
If the Canada road should be extended from Hamilton to Buffalo it would add 60 miles to its length, making the distance from Syracuse to Detroit, via Buffalo, by railroad, 438 miles against 400 by way of Oswego.	
All these comparisons give to Oswego an	



advantage in point of distance, and a still greater advantage in point of time and in the comfort of the traveller.

The alternations from steamer to railroad, by the Oswego route, enables the traveller to escape fatigue, and at the same time prosecute his journey during night time. Thus, one night brings him from New York to Albany, 150 miles; the next day by railroad to Oswego, 182 miles; the second night he passes over lake Ontario to Toronto or Hamilton, if the latter 165 miles; and the second day to Detroit, by railroad, 200 miles. Thus, two days and nights convey the traveller from New York to Detroit, 697 miles, or to lake Huron, without fatigue or interruption to his accustomed repose. It is believed no section of our wide country affords such facilities and combines such advantages for rapid and comfortable travel as this line will do when perfected.

After reaching Detroit by the respective routes through Canada, or lake Erie, a portion of the travel, and perhaps a large portion of that destined for Illinois, Missouri, and the lower Mississippi, will cross the state of Michigan and the head of lake Michigan to Chicago; but this travel from Detroit east will be shared by the rival routes according to their respective merits.

From Mackinac to the Mississippi there will be two great thoroughfares for travel, open and common to both these eastern rival routes above described, through lake Ontario and across the peninsula of Canada on the one hand, and lake Erie, &c., on the other.

The two routes to the Mississippi are from Mackinac to Chicago, 345 miles, thence across the state of Illinois, about 160 miles, together 505 miles; or from Mackinac to the head of Green Bay, 180 miles, thence up the Fox and lake Winnebago and down the Wisconsin, say about 210 miles, together 390 miles. This latter route passes through the entire breadth of Wisconsin and strikes the Mississippi on the same parallel of latitude with Syracuse, at the centre of Iowa from north to south, and the heart of the mineral region of Wisconsin and Iowa, both of which are destined to be populous and commercial states. The travel of these two future states having reached Mackinac bound east, can hardly be diverted from the short, cheap, and pleasant route of 502 miles through Canada to Syracuse, for the more circuitous one through the large lakes of 803 miles to the same destination.

This northern travel, therefore, of Iowa and Wisconsin, and the shores of lake Superior may be counted on with confidence as tributary to the Oswego and Syracuse railroad. Facilities are in progress to meet the wants of the traveller on this new and short route.

Steamers are now plying on lakes Simcoe and Manitoulin, as also on the Fox and Wisconsin rivers. A McAdam road has been constructed between Toronto and lake Simcoe, and a plank road from lake Simcoe to Manitoulin, 19 miles. A good road is now in progress of construction around the

rapids of the Fox by the local authorities, which will be eight miles in length. The portage of one mile between the Fox and Wisconsin has long been in use, and may at small expense be converted to a railroad or canal.

While Buffalo will, from its magnitude and extensive commercial dealings, attract travel strongly, yet the superior advantages of the Oswego route, it is believed, will at least divide with Buffalo the travel of the far west. Aside from this western travel, the region contiguous to lake Ontario must furnish for this line a very large amount of travel and trade during eight months of the year. This lake and the St. Lawrence have a coast of 600 miles, surrounded by a fine country, already and fast becoming populous and highly commercial.

The peninsula of Upper Canada, surrounded by lakes Ontario, Erie, Huron, and Manitoulin, has a genial climate, a generous soil, and already has a population of over half a million, three-fourths of whom will hold their intercourse with the New England and Atlantic states through this channel, notwithstanding the Ogdensburgh and lake Champlain road may be constructed, and the "Great Western" Canada road be extended to Buffalo.

For manufacturing purposes, it is confidently believed that no section of our state affords such facilities as these 35 miles of the Oswego river, on whose banks the projected railroad is to run. This river drains a country as large as that drained by the Hudson, and a more equable discharge, its waters being first collected by numerous lakes, and discharged by an equable volume throughout the seasons of flood and drought, and over a fall, in these 35 miles, of 120 feet, divided in the best manner for hydraulic purposes throughout the line.

A canal along the banks of this river connects it, for commercial and manufacturing purposes, with the Hudson, the St. Lawrence, and the great lakes; the salt works are established at one end of this canal and railroad, with flouring mills throughout the entire line, fed from the great wheat region of the west, through the Welland canal, one of the most perfect works of the kind on the continent.

With such advantages, present and prospective, this cheap, short road, of 35 miles, with an easy grade, which fits it admirably for the immense commerce which awaits it at no distant period, cannot disappoint its projectors and patrons, but must, with ordinary skill and prudence in its management, yield a large return for capital invested.

DAVID P. BREWSTER,  
JOHN WILKINSON,  
ALVIN BRONSON,  
LUTHER WRIGHT,  
SYLVESTER DOOLITTLE,  
HENRY FITZHUGH,  
GEO. F. FALLEY,  
PHILLIP HART, Jr.,  
OTIS BIGELOW,  
ASHBEL KELLOGG,  
B. DAVIS NOXEN,  
THOS. MCARTY,  
JAMES R. LAWRENCE,

Commissioners.

#### NEW LINE OF COMMUNICATION BETWEEN THE MISSISSIPPI AND THE LAKES.

We find the following article in the National Intelligencer, copied from the Cincinnati Atlas, descriptive of a new route to the Mississippi. There was an effort made in '37 or '38 to open a communication by canal between these waters. A charter was obtained and the work, we believe, commenced, but the disasters of that period prevented its completion, at that time. It will, however, be again resumed and completed, when it will become a thoroughfare for Wisconsin, Iowa and the far west.

We mentioned a few days since, on the authority of the Buffalo Commercial, that Captain Hotaling had succeeded in establishing a line of steamboats between Green Bay, on lake Michigan, and the Mississippi. This route is said to be one of the most picturesque in the United States; and will, in the course of a few years, become a favorite with the pleasure-hunting portion of the community, if for no other purpose than for the beauty of its scenery.

From a notice in the Galena Gazette of an experimental trip of the *Maid of Iowa*, we learn that she ascended the Wisconsin as high as Point Boss. That point is at the lower end of the rapids of the Wisconsin, and is the southern extremity of the great Northern Wisconsin Pinery. It is 130 miles above fort Winnebago, and 100 miles above where any steamboat has ever before been. She passed the dreadful Dells, which are mentioned so often by Indian traders, and which map-makers note so particularly. No one can form any idea of the grandeur of these rocks, which the river passes through. They are 8 miles in length, from the head to the foot, and present the most wild and picturesque view imaginable. For the distance of one mile the Wisconsin is crowded into a space of less than 50 feet in width, and the rocks on either side project in awful grandeur and sublimity. The gulf of Niagra is nothing to it. The *Maid* crowded herself through it by steam, going up, and returning dropped through with an oar on each end to keep her straight, such as are used by raftmen in running lumber.

The *Maid of Iowa* will be run as a regular packet between Galena and fort Winnebago, where she will connect with the *Manchester*, running on lake Winnebago. On this end of the route, the *Enterprise*, thus making a regular steamboat line from Galena to Green Bay. The *Maid of Iowa* and *Manchester* come within sight of each other at fort Winnebago, and have their trips so arranged as to meet there each time, where a portage of one mile only divides them. The *Manchester* and *Enterprise* are also separated by a portage of 6½ miles at the outlet of the lake. Thence to Green Bay there is no obstruction—making the whole distance from the Wisconsin to the great lakes with but 7½ miles of land carriage.

It is the intention to keep up the line throughout the season of navigation, and by it, the Gazette says, goods can be delivered from the lakes, at any point on the Mississippi above Galena, for \$1.25 a hundred pounds.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on shares.	Value of share.	NEW AND PROPOSED RAILWAYS.		Share Capital.
							Per share.	Per cent. per annum.			Name of Railway.	Share Capital.	
Arboath and Forfar.....	15	102,000	35,000	138,870			0 12 6 2	10 0	25	27	Aberdeen.....	1,600,000	
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1 5 0 2	10 0	100	100	Barnsley Junction.....	200,000	
Brandling Junction.....	23	161,700	365,470	481,452				4 10 0	50	54	Belfast and Ballymena....	385,000	
Bristol and Gloucester.....	37½	400,000	211,000					nihil.	30	36	Blackburn and Accrington.	400,000	
Chester and Birkenhead.....	14½	750,000	143,170	518,989	5,856	13,148	0 8 6 1	14 0	50	32	Birk. and Ches. Junction..	1,000,000	
Dublin and Drogheda.....	31	450,000	150,000	500,869				nihil.	55	72	Bolt, Wigan and Liverpool	800,000	
Dublin and Kingston.....	6	200,000	152,300	359,000			6 0 0 6	0 0	100	166	Caledonian.....	1,800,000	
Dundee and Arbroath.....	16½	100,000	49,445	153,416	2,989	6,993	1 5 0 5	0 0	25	29	Cambridge and Lincoln....	1,250,000	
Durham and Sunderland.....	18½	169,350	124,055	270,392	9,889	17,702		nihil.	34	29	Chatham and Portsmouth..	5,000,000	
East County and North and East.	86½	4,443,200	1,341,155	3,931,905	47,385	118,726	1 6 6		45	57	Chester and Wrexham....	120,000	
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1 2 6 4	10 0	50	57	Churnet valley.....	1,800,000	
Glasgow, Paisley and Ayr.....	51	937,500		1,066,951	12,446	36,736	1 2 6 4	10 0	50	60	Direct Northern to York..	4,000,000	
Glasgow, Paisley and Greenock..	22½	650,000	216,666	787,884	11,572	23,177	0 5 0 2	0 0	25	12	Dublin and Belfast.....	950,000	
Grand Junction.....	104	2,478,712		2,453,169	84,309	195,080	5 0 10 0	0 0	100	210	Dundee and Perth.....	250,000	
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1 12 6 3	5 0	100	119	Edinburg and Northern....	800,000	
Great Western.....	121½	4,650,000	3,679,343	7,272,539	132,235	369,904	3 10 0 7	0 0	75	138	Ely and Bedford.....	270,000	
Hartlepool.....	15½	438,000	155,540	719,205				8 0 0	100		Glosow, Dum. & Carlisle.	1,300,000	
Leicester and Swannington.....	16½	140,000		140,000	2,207	6,317	1 5 0 5	0 0	50		Gt. South and West Ext....	1,200,000	
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5 0 10 0	0 0	100	203	Gt. Grimsby and Sheffield.	600,000	
Llanelli.....	27	200,000	44,000	221,624			1 0 0 0		87		Harwich and E. coun. Jun.	160,000	
London and Birmingham.....	112½	6,874,976	1,928,845	6,393,468	92,823	405,768		10 0 0	100	218	Huddersfield & M. rl. & cl.	60,000	
London and Blackwall.....	3½	804,000	266,000	1,315,640	15,978	23,870			16	6	Kendal and Windermere...	125,000	
London and Brighton.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0 12 0 2	8 0	50	47	Leeds and Dewsbury.....	400,000	
London and Croyden.....	8½	550,000	229,000	761,885	7,583	10,545	0 5 0 2	10 0	14	17	Leeds and Thirsk.....	800,000	
London and Greenwich.....	3½	759,383	233,300	1,040,930	15,193	28,933		nihil.	13	10	Liv. Ormskirk and Preston	600,000	
London and South Western.....	92½	2,222,100	630,100	2,596,291	68,457	150,469	1 12 6 6	10 0	41	73	London and Portsmouth..	1,750,000	
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1 0 6 5	0 0	40	48	London and York.....	5,000,000	
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2 2 0 2		93	10	Londonderry & Enniskillen	500,000	
Manchester and Leeds and Hull..	81	2,937,500	1,943,932	3,921,593	46,653	156,761		7 1/2 & 10 1/2	60	88	Lynn and Ely.....	200,000	
Midland railway.....	178½	5,158,900	1,719,630	6,279,056	76,983	281,898			100	96	Manchester, Bury and Ross	300,000	
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	73,947	4 0 0 4	0 0	100	105	Manchester and Buxton....	250,000	
Newcastle and Darlington.....	23	500,000		405,728				nihil.	21	49	Mullingar and Athlone....		
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466		2 0 0	50	37	Newcastle and Berwick...	700,000	
North Union.....	39	739,201	308,306	1,015,447	9,071	37,794	2 10 0 6	16 8	100	104	Richmond & W. End Jun.		
Paris and Orleans.....	82	1,600,000	400,000	1,978,415			0 16 0 8	0 0	20	39	Scottish Central.....	700,000	
Paris and Rouen.....	84	1,440,000			31,247	91,171		8 0 0	20	38	Sheffield and Lincolnshire.	650,000	
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066		nihil.	50	18	Shrewsbury and Gd. Jun.	400,000	
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,872		nihil.	82	93	Shrew. Wolv. Dudly & B.	900,000	
South Eastern.....	88	2,996,000	1,530,277	3,464,172	81,482	0 10 6 2		2 2 0 50	39	50	Trent Valley.....	900,000	
Taff Vale.....	30	465,000	154,785	590,006	8,509	18,414	1 0 0 6	5 0	100	55	West London Extension...	64,000	
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0 15 0 5	1 8	29	37	West Yorkshire.....	1,000,000	
Yarmouth and Norwich.....	20½	187,500	62,500	230,250				nihil.	16	25	Whitehaven and Maryport	100,000	
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2 10 0 10	0 0	50	100	FRENCH RAILWAYS.		

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15½	15½	Loughborough.....	70	142½	142½	70	1140	
Anti Dry Rot.....	10,000		18½		2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35		34½		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27½	27	Mersey and Irwell.....	500	100	100	10		
Gt Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2½	15	15
Metropolitan Wood Pav..	15,000	10	6	5	6½		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1½		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental..	11,493	50	50	7	64½	65	Regents or Loncon.....	21,418	33½	33½	2½	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution			6				Somerset coal.....	800	150	150	7½	123	123
Reversionary Int. Soc.....	5,387	100	100	4½	104	104	Stafford and Worcester...	700	140	140	25	480	480
R. Mail Steam Packet....	15,000	100	60		36½	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7½	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Severn & Why & Rail Av.	3,762	26½	26½	5½	30	30

Canals.

Ashby de la Zouch.....	1,432	113	av.	4	70	70	Warwick and Birmingham.	1,000	100	100	10½	167	167
Barnsley.....	720	100		14	180	180	Warwick and Napton.....	980	100	100	8½	122	122
Birmingham, 1-16 share..	3,000	118½	79	10	150	160	Water Works.						
Do. and Liverpool Junction	4,000	160	100		13½	13½	Birmingham.....	4,800	25	25	3½	28	28
Coventry.....	500	100	100	20	365	365	East London.....	4,433	100	100	8	223	225
Cromford.....	460	do.	do.	24	250	250	Grand Junction.....	5,500	av.	41 2-3	7½	88	90
Derby.....	600	do.	do.	9	105	105	New River L. B. Ann.....	1,500			2½		
Erewash.....	231	do.	do.	32	440	440	Manchester and Salford...	6,486	av.	30	8½	57	57
Forth and Clyde.....	1,297	400½	40½	4	440	440	Vauxhall, lt. S. London....	1,000		100	5	55	55
Grand Junction.....	11,600	100	100	7	162	161½	West Middlesex.....	8,294	av.	63½	6½	126	127
Grand Surrey.....	1,500	do.	do.		20		Docks.						
Gloucester and Rerkley...	5,000	do.	do.		8	8	Commercial Dock.....	1,065	100	100	3	10	
Grantham.....	749	150	150	8	185	185	East and West India.....		sto.		5½	137	
Lancaster.....	11,699	47½	47½	3	40	40	London.....	3,238,310	sto.		4½	114½	115
Leeds and Liverpool.....	2,897	100	100	34	640	640	St. Katharine.....	1,352,752	sto.		5	116	171
Leicester.....	545	140	140	9	139	139	Southampton.....	7,000	50	50			



AMERICAN RAILROADS.

Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices	SALES.	
							Gross Income.	Nett.		Gross.	Nett.			Shares.	Price
N. H.	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	103½	5	103½
	2 Concord.....	35	750,000									12	65		
Mass.	3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	117	8	114½
	4 Boston and Maine extension.....	17 1-4	455,703	unfin.											
	5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120	4	11½
	6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	114		
	7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	120½	54	1
	8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
	9 Charlestown branch.....		280,260						13	34,654	13,971	5½	112½	50	80
	10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	113½	275	108½
	11 Fitchburg.....	50	1,150,000	just opn'd						42,759	26,835		124		
	12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	123		
	13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
	14 Northampton and Springfield.....		172,883	unfin.											
	15 Norwich and Worcester.....	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	71½	3,355	71½
	16 Old Colony.....		87,820	unfin.									106		
	17 Stoughton branch.....	4	63,075	unfin.											
	18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	118		
	19 Vermont and Massachusetts.....														
	20 West-Stockbridge.....	3	41,516	200		100						4			
	21 Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	101	20	102½
	22 Worcester branch to Milbury.....		8,431	506						150,000					
	23 Housatonic, (10 months,).....	74	1,244,123										31		
Con	24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	95	25	93
	25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
	26 Stonington, (year ending 1st Sept.,).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29	625	284
N. Y.	27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0			
	28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109½	10	109
	29 Auburn and Syracuse.....	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
	30 Buffalo and Niagara.....	22	200,000		1,500								100		
	31 Erie, (446 miles,).....		5,000,000										29	1,325	30
	32 Erie, opened.....	53						48,000		126,020	59,075				
	33 Harlem.....	26	1,206,231							140,685	62,399		69½	170	69½
	34 Hudson and Berkshire.....	31	575,613			50				35,029	1,789	0	11½		
	35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	71	7,380	68½
	36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	58½		
	37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
	38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
	39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117		
	40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
	41 Troy and Greenbush.....	6	180,000												
	42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
	43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132	20	132
N. J.	44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		112		
	45 Elizabethtown and Somerville.....	26	500,000												
	46 New Jersey.....	34	2,000,000										95	100	95½
	47 Paterson.....	16	500,000									6	90	1,225	88½
Pa.	48 Beaver Meadow.....	26	1,000,000												
	49 Cumberland Valley.....	46	1,250,000												
	50 Harrisburg and Lancaster.....	36	860,000										30		
	51 Hazleton branch.....	10	120,000												
	52 Little Schuylkill.....	29	900,000												
	53 Blossburg and Corning.....	40	600,000												
	54 Mauch Chunk.....	9	100,000												
	55 Minehill and Schuylkill Haven.....	18	315,000						12				80		
	56 Norristown.....	20	800,000										6½		
	57 Philadelphia and Trenton.....	30	400,000										104		
	58 Pottsville and Danville.....	29 1-2	1,500,000												
	59 Reading.....	94	2,457,570	7,447,570	40,200	50				597,613	343,511		58	2,330	57
	60 Schuylkill valley.....	10	1,000,000												
	61 Williamsport and Elmira.....	25	400,000				20,000								
	62 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		15½	11,831	15½
Del.	63 Frenchtown.....	16	600,000												
Md.	64 Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		558,620	346,946		49½	37	48½
	65 Baltimore and Susquehanna.....	58	3,000,000										2½		
	66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	67 Greensville and Roanoke.....	17 1-2	950,000												
	68 Petersburg and Roanoke.....	60	969,880							122,871	72,898	3			
	69 Portsmouth and Roanoke.....	78 1-2	1,454,171												
	70 Richmond, Fredericksb'g and Potomac.....	76	800,000							185,243	85,688	6			
	71 Richmond and Petersburg.....	22 1-2	700,000												
	72 Winchester and Potomac.....	32	500,000												
N. C.	73 Raleigh and Gaston.....	84 1-2	1,360,000												
	74 Wilmington and Raleigh.....	161	1,800,000												
S. C.	75 South Carolina.....	136								532,871	140,196	5			
	76 Columbia.....	66	5,671,452		34,410	75	201,464	77,456		328,425	180,704				
Ga.	77 Central.....	190	2,581,723				227,532	93,190		248,096	147,523				
	78 Georgia.....	147 1-2	2,650,000				248,026	158,207							
	79 Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Ky.	80 Lexington and Ohio.....	40	450,000												
Ohio	81 Little Miami.....	40	400,000												
	82 Mad river.....	40	152,000												
Ind.	83 Madison and Indianapolis.....	56	212,000												
Can.	84 Champlain and St. Lawrence.....	15						12,000		58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.  
Thursday, July 24, 1845.

For several editorial articles see page 477.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 23,770 tons, and by canal 5,490 02, making 29,260 02 tons for the week.

The demand for coal continues brisk for all kinds of red and white ash coal, and the prices remain firm.

BY RAILROAD.

From Pottsville and Port Carbon—total.....	157,101
From Schuylkill Haven—total.....	183,695
From Port Clinton—total.....	5,364

Total by railroad..... 346,156

BY CANAL.

From Pottsville and Port Carbon—total.....	59,298
From Schuylkill Haven—total tons.....	16,045
From Port Clinton.....	21,590

Total by canal..... 96,934

Total by railroad and canal..... 443,090

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines, -	82,186
Room run do, -	27,404—109,590
Beaver Meadow railroad and coal co.,	34,614
From Penn Haven—Hazleton coal co.,	29,256
From Rock Port—Buck Mountain coal co.,	9,284

182,744

WYOMING COAL TRADE—total to June 28. 66,267

PINE GROVE COAL TRADE.—total..... 31,349

MINERHILL AND SCHUYLKILL HAVEN RAILROAD—total tons..... 199,401

MOUNT CARBON RAILROAD—total tons. 124,605

[Miners' Journal.]

We are obliged to the friend who sent us the following notice of an article published in the Journal of the 3d July, in relation to iron bridges, as we do not receive the Anthracite Gazette in which it was published. We can well imagine a difference between a bridge for a common country, or village road, and one for such a business as that of the Reading railroad. Will "M" please give us a more definite description of the bridge referred to?

MR. EDITOR:—A correspondent of the American Railroad Journal, who signs himself "J" makes some supposed corrections on the article which appeared in your paper a few weeks ago relative to the iron bridge on the Reading railroad. "J" informs us that the railroad bridge was not the first iron bridge put up in this country, as there are

now on the Erie canal two or three iron bridges of greater dimensions and of a superior kind of structure. I would inform "J" that a *railroad bridge* was alluded to, and not a *highway bridge*, such as are over the Erie canal—and as to the superior strength of the Erie canal bridges I cannot speak, as "J" has not informed us of the kind of structure, but if he asserts that the Erie canal bridges are capable of passing engines weighing 19 tons, and drawing a load of 110 cars, weighing in the aggregate 800 tons, it will be time to talk of the relative strength of the bridges. Yours, M

WASHINGTON RAILROAD.

The question of a reduction of the fare on this road was again brought before the board of directors of the Baltimore and Ohio railroad company, at the meeting of yesterday. At three several meetings heretofore, the board was equally divided on the question, but yesterday there was a majority in favor of reducing the fare to *two dollars*, and it was accordingly determined that the fare should be at that price on and after the 14th instant. This is a good step, but it does not, we think, go far enough.

The Baltimore American of 10th inst. has the above paragraph in relation to the reduction of fare on the Washington road. We have heretofore spoken freely on the subject, as our readers are fully aware, and shall have more to say hereafter in relation to it, when the present movement shall have had a fair trial. We do not, however, anticipate from so modest a movement, the full benefit which would result from a bold, liberal reduction; such as is manifestly called for by the spirit of the age, to 1.50 through, or \$2 for the round trip, the same day; yet we will give it a *fair trial*, as we certainly have confidence to believe that the managers of the road act from what they deem the best interests of those who have invested their capital in the work; altho' we must still entertain and inculcate the doctrine, that "low fares and high speed for passengers" will, on most railroads in this country, tend to increase the profits of the shareholders. And we think the roads between *New York and Washington*, would especially be benefitted by such a policy, *low fares and high speed*, as thousands of our citizens would like to, and *would visit Washington* if the rates of travel were lower and less time were consumed.

Why should a person on going to Washington be compelled to sleep on the way? He may do so *twice* if he chooses, yet there should be *one* train a day, leaving New York at 5 P.M., by which passengers may be in Washington, certainly by 8 o'clock next morning and at a cost not exceeding \$5. Then people might go to Washington, transact business and be at home again in 36 to 38 hours, and at a cost of 12 or \$13. A through ticket for \$5, to be divided, \$2 to Philadelphia, \$2 to Baltimore and \$1 to Washington; with an average speed of 20 miles an hour, would add vastly to the travel over these roads, and we have no doubt that it would within a year, materially increase the income. Such a line to carry the great south mail, merely leaving and receiving mails at Philadelphia and Baltimore, would give important facilities to the business community. And such a line will *yet* be established, because the railway proprietors will find it for their *interest* to do it. Of this we have not a doubt.

We might cite the Western road from Worcester

to Albany as an evidence of high fares—that is *comparatively high*—driving passengers by the way of New York, simply because they can travel 350 miles by the way of New York, cheaper than 200 miles over the railroad; but upon this subject we are not quite ready to speak.

The *Britannia*, from Liverpool, arrived at Boston on Saturday morning last, by which we received the Railway Express of the 20th, and the Railway Record of the 14th and 28th of June—but our regular files of *Herapath's Journal*, the *Railway Times*, and the *Mining Journal* have neither of them come to hand. We are fortunately, however, supplied with a file of Herapath's Journal to the latest date—by the *Great Western*, which arrived at this port on Monday morning—from a liberal friend, an eminent merchant of London, to whom we have been often before indebted for similar favors, as well as for occasional ably written communications, in relation to important subjects, in which our readers are deeply interested. For the one which we lay before them in this number from the same source, we ask the attentive perusal of all in this country who take an interest in railroads. We know well that few Americans have been more deeply interested in the success of railroads than the writer of the letter referred to—and none would derive more pleasure from their extension, and ample success, than he, and the house in a neighboring city, of which he is a member. We are fully aware of the inconvenience, and labor we have given him by our former request and desire to tender our thanks for the past; yet we cannot well avoid soliciting from him a continuance, as opportunity may allow, of his favors for the Journal, as we are sure that good will result to the cause from them.

We find, on referring to our papers, that the subject of railways continues to occupy, as heretofore, the attention, not only of speculators, but also of capitalists, both in and out of parliament—not only in England, but also in all Europe. So great, indeed, is the confidence in their value in aid of business that they are to be introduced into India on a large scale. An engineer has been recently appointed to proceed to India, with a salary of £4,000 per ann., for *five* years, and £500 for expenses out and the same in, to lay out a general system of railroads to facilitate the business of that country.

From reading the railway papers only, one is led to the conclusion that scarcely any other business than railway legislation occupies the attention of parliament. Rival lines and rival gauges give rise to a vast deal of manœuvring and eloquence, and an abundant harvest for *solicitors*. "The war of the *gauges*," as it is termed, is calling out great efforts from the friends of the original—or *narrow gauge*—to prevent the adoption of Mr. Brunel's broad—or 7 feet—gauge, as on the Great Western, while the friends of the latter are equally active—and have even been successful in the commons—to establish the broad gauge on certain important lines and their branches. It has been held by the friends of the broad gauge that there was less liability to accident upon them at high speed, than upon the narrow track; but the recent accidents upon the Great Western railroad were altogether inopportune to give force to that argument. It was exceedingly fortunate, and indeed almost a miracle, that more damage, both to life and property, was not done by the tumbling of the cars down an embankment of 10 or 12 feet, when going at the rate of 45 miles an hour; no lives, however, were lost, and

but few bones broken, or injured. We shall endeavor to give an account of the accident when we have it correctly.

(Foreign Correspondence of the American Railroad Journal.)  
21 TOKEN HOUSE YARD,  
London, July 4th, 1845. }

DEAR SIR:—Excessive occupation has prevented me from replying to your esteemed favor of the 21st March, before. I have from time to time, sent you out the Railway Journal, and yesterday by the Great Western I put up six numbers by a friend, which I hope will reach you safely. I have had conversation with the editors of the railway papers here, who feel no interest whatever in American railways, neither has the public at large. There are some English interested in the Reading railroad, and in the Lehigh Navigation co, but such is their distrust of these and everything else American, owing to the delinquency of Pennsylvania and Maryland and the other defaulting states, that they will sell out as soon as they can, and have nothing more to do with our unfortunate country, whose reputation has been so wonderfully lowered in the last five years, that, although this is the anniversary of her political birth, not an American is willing to acknowledge it, by celebrating a day that ought always to be held sacred by our countrymen. This was not the case a few years ago, before our country became the bye-word of contempt and dishonor; for Americans were then proud of the land of their nativity and always celebrated the 4th of July with the utmost zeal and enthusiasm. I do not think the English will for the next twenty years feel any interest in our railways, for Holland, Belgium, France, Germany and even Italy, Spain and Portugal are much nearer and appear to engross all the spare capital that cannot find employment in the magnificent railway enterprizes of this country. We had previously to 1840 a command of the purse of England, but we have lost the confidence of this people and I fear that in neither your life time nor in mine will it be regained. Money is cheap here, 2½ per cent. for discounts, but none will go into American enterprizes. I am very sorry I cannot give you any information respecting the nature of the agreement made by the post office and the railways here. All I can say is, the system pursued by this government is liberal in the extreme, and highly remunerative compared with the niggardly system pursued by our government to the railways of the United States; whereas it ought to be precisely the reverse, for in Great Britain the railways could well do without the assistance of government, while in our country, railways are generally supported very poorly by the public, and are not remunerative to the proprietors, and therefore a paternal government ought to make great exertions to aid in all legitimate ways this incalculably valuable system for the promotion of civilization, prosperity and happiness of an immensely extended empire like ours. I am assured that our government has adopted a lower rate of postage, but it is a pity they did not resort to an uniform low rate, say 5 cents per half ounce. In Great Britain the letters in 1844 had got up to the Great number of 242,000,000 from 75,000,000 before the penny postage was adopted.

I am glad to say that iron is declining here. I think if I had cash in hand I could execute orders for rails, such as are sent out to the United States, at £9 per ton, free on board at Cardiff; but as long as the unwise duty of \$25 per ton exists in our country it is not to be expected that many railways will be made unless wood be resorted to; for our Pennsylvania iron masters have not the ability to make railway

iron at anything like a price to induce purchasers to contract with them. In Pennsylvania the iron furnaces are blown out in the month of November or December, and are not relighted until February or March, whilst in this country a blast furnace is constantly at work, the fire never ceasing day or night for 12, 15, and 20 years, and I can mention furnaces in South Wales that have been in blast for twenty-five years. With the want of science, skill, capital, and experience, how is it to be expected that the iron masters of Pennsylvania and Maryland can make railway iron as fast as our railways want it. I am told the Mt. Savage iron works in Maryland is making one hundred tons per week of railroad iron, and that at the Great Western, near Pittsburg, in Pennsylvania, some railway iron is being made; but when thousands and tens of thousands of tons are required weekly, how ridiculous it is to depend on our own resources; particularly when so many thousand tons of pig and bar iron are wanted, which cannot be made in this country, but are obliged to be made and imported from Russia, Sweden, Norway, and Great Britain. The manufacture of pigs and merchant bars require less capital, skill, and experience, and are much more remunerative than railway iron. Let the American iron master confine himself to these articles, and also boiler iron, axles, and cast iron of all kinds, and he will have full employment; and if they will allow railways to get their supplies of rails at \$25 per ton cheaper, from Europe, than they now do, they will promote the construction of railways, which, in turn, will consume, for locomotives, tenders, axles, wagons, turntables, chairs, &c., &c., a ton of iron for every ton of rails laid down upon the road. All the iron required for railway purposes, except the rails, must be made in our country, and if you encourage the making of roads by the reduction in the price of rails, by the amount of the duty, (\$25 per ton,) by so much do you encourage the consumption of American iron for railway purposes as pointed out above. But keep the railway bar at \$25 per ton higher than it ought to be and you diminish the consumption of American iron by every ton that would be required to make the accessories necessary for transportation on the railway. If this is doubted, ask the Reading railway company if a pound of English iron has been used for the locomotives, tenders, wagons, turntables, axles, &c., &c. All have been made of American iron, which never would have been used, or required, if the English rails laid down on the road had not called for the use of those articles, which are exclusively made of American iron. If this be a correct view, and I have some right to think I am correct, for I speak from thirteen years experience, is not the Pennsylvania or the Maryland iron master the very one who should make the greatest exertion to have the repeal of the duty on railway iron effected with as little delay as may be. Just in proportion as you reduce the price of iron do you increase its consumption, for it is an article of the first necessity of civilized life after food and raiment. In this country the consumption is for a most astonishing amount, and it is applied to purposes unknown in our country—indeed it is becoming the substitute for wood for almost all purposes. The increased demand for ship building and house building, independently of the increased demand for a most active and prosperous state of general trade, to say nothing of the requirements for railway purposes, is most extraordinary. You have already published in your Railway Journal the fact that one house in

Walker, near New Castle, is building fifteen iron ships (for sails) for colliers, and I have to inform you that one ship building house here employs nothing but iron, and that they have on their stocks constantly seven iron steamers, and as fast as one is launched another is commenced on the ways she has just left. This house had on their books orders for 83 steamers a few months ago, how many they have now I know not, but probably many more, as the popularity of iron as a material for building vessels is constantly increasing. The number of iron vessels building by other houses in London, besides Hull, New Castle-on-Tyne, Leith, Dundee, Aberdeen, Glasgow, Liverpool, Bristol, &c., &c., would really surprise you if I had the time to collect the facts on this subject. The consumption of iron for house building, particularly for roofs, floors, joists, columns, window sills and shutters, and other parts of houses, is very rapidly increasing. The consumption for other purposes is also rapidly increasing, and I will mention only one more fact to illustrate this. I took some American friends, a short time ago, to the engineering establishment of Sir John Rennie to see nine pairs of high gates intended for the locks of the dock of the great government naval station of Sebastopole, in South Russia. These gates of course consisted of cast iron ribs and ties, and the filling up was of wrought (boiler) iron, and were 64 feet broad by 32 feet high, and each gate weighing nearly 100 tons, making 1800 tons of iron for these 18 gates. I should weary you if I were to continue to relate facts to show the greatly increased consumption of iron because it is cheap. It will be so in our country also if we reduce the price, and the iron masters in the United States will be more profited by selling 1000 tons at \$50 per ton than by selling 500 tons at \$75 per ton. Nothing stimulates consumption so much as low prices, and nothing checks it so much as high prices. I am rejoiced that there is a prospect of a railway from New England to Montreal—whether it be to connect New York, or Boston, or Portland, with the Canadian capital is not of much moment to the public, but that it should be formed with one of the American cities is of vast importance, and will, I hope, be carried out. I was sorry to see the counteracting efforts of the Canadian government to render our drawback law inland inoperative. But our congress did not act liberally, for the retention of 2½ per cent. of the duty on goods exported inland ought not to be. When I was in France, a few months ago, I saw bags of American cotton going from Havre across the whole breadth of France, destined for Switzerland and Germany, with nothing but a piece of lead, stamped with the custom house mark, to show they were destined for foreign countries. The duty was *nil*, and the whole expense of going through the Havre custom house was 5 centimes, or 1 American cent! whilst our custom house requires oaths, certificates, bonds, and formalities of every kind. When will governments learn wisdom and leave commerce free and unshackled from all restrictions? Oaths and quarantines are the *opprobria* of a civilized and commercial nation, and custom houses are not much better. The most prosperous nation of the world, considering circumstances, the Swiss, have no custom house whatever. I shall always be happy to serve you and be useful to you, and I will continue to send Herapath's Journal, which I exchange with him for yours, which I assure you I always read with infinite pleasure and gratification. I am, dear sir,

Yours, most truly,  
GERARD RALSON.

TORONTO AND LAKE HURON RAILROAD.

A single number of the British Colonist, a paper published at Toronto, Canada West, has come to hand, in which we find several articles in relation to the above named railroad. The editor of the Colonist has some very sensible remarks in relation to the routes and termini proposed by interested parties, which ought to be generally read. There is nothing more true than his remark that the "termini of the railroad cannot be everywhere," nor can the road pass every man's door, nor indeed every village, therefore we adhere to our favorite theory, of deciding the question of route and termini, all else being equal, by the instruments, rather than by the personal interest of any individual. The interest and convenience of those who pay for the use of the work, as well as of those who receive the profits, are to be consulted *always*.

Our columns to-day contain a variety of information respecting this great undertaking. We refer particularly to the proceedings of the meeting at Guelph, and the report made by the committee appointed by the meeting held lately at Detroit, in Michigan. We are desirous of keeping constantly before our readers, the best information of what is going on, in reference to this grand undertaking, with the hope that the right path will be discovered at last, and that the disputants about termini, will adopt that which must ultimately be acknowledged the best; that they will agree to travel the road when the rails are laid without quarrelling! We even think that, we would ourselves be hospitably received at Goderich; notwithstanding past differences about termini, were we to go with the first pleasure party from Penetanguishene round cape Hurd; and that, even a call at Owen's sound and Saugeen, would be alike acceptable. The termini of the railroad cannot be everywhere, and the choice of the most suitable places, are fair subjects of discussion, in the public journals. We may discuss; we may differ; but there is no necessity for quarrelling. Differences are seldom reconciled by open ruptures.

We observe in the last Patriot, a letter signed "Locomotive," in reference to a new line of railway, which will no doubt attract considerable attention, as every line heretofore proposed has done. The plan suggested by "Locomotive," is a feasible one. It combines a variety of interests, may we not venture to say all the interests, in one common object; and, it is conceived that, if embraced at once by all concerned, there would be no difficulty in securing the necessary capital, upon a solid and fair basis, in every way favorable to the present and future credit of the province. We have said that the plan of "Locomotive" is feasible. It will be considered, probably by most of our readers, if not by the whole of them, when they trace the proposed track on the map, as an exceedingly fair and plausible one. If not adopted in all its details, we hope, at least, that it will be the means of leading to the adoption of some other plan equally fair and plausible, and combining as many great interests in its support. Union and cordial co-operation is the grand object to be attained, to further the work.

The plan of "Locomotive" is to run the line from Toronto to Guelph, Stratford, London, Chatham and Windsor.

Total distance.....	Miles. 225
Branches from Stratford to Goderich.....	45
Hamilton to Guelph.....	274 — 724
Total length of "Locomotive" line of road.....	2974
We would further improve this project by embracing in it a line of railway from Hamilton to fort Erie, 53 miles, or say to Queenston, distance.....	
	41
Total length of now proposed route.....	3384
The distance from fort Erie to Windsor direct, by Burford, is 222 miles.	
The proposed line from Guelph to Windsor.....	
	181
Hamilton to Guelph.....	274
Hamilton to Queenston.....	41 — 684
Difference 274 miles.....	2491

It is obvious from those statistics, that this line of road would secure all the American travelling from east to west, and from west to east. The difference in distance, only 274 miles, between the proposed line and one from fort Erie to Windsor direct, is nothing in comparison with the numerous advantages which are admitted to be embodied under the proposal of "Locomotive."

That the proposed line would pay, if any in Canada will, we do not presume to doubt; if undertaken and speedily completed, it would prevent any adverse railway being attempted; it would open up a country proverbial for its fertility; and it would, moreover, command the favorable interest of the government; the acknowledged weighty influence of the Canada company; and the active exertions in its favor of the capitalist and patriot here and in the United Kingdom.

We submit these thoughts to the consideration of the directors to be chosen on Monday, and all others concerned.

NEW HAMPSHIRE LEGISLATURE.

It is amusing to see the 'wise men' of the old granite state struggling between their radical notions in relation to 'corporations,' and their interest, which would be so much promoted by their operation. The legislature, in its superior wisdom, passed a law requiring railroad companies to obtain the consent of each person through whose land the road would pass, before they could commence operations; a circumstance, we presume unparalleled, either in this country or elsewhere, upon a line of 50 miles in length; but they found that capitalists were unwilling to invest upon such terms, therefore they passed a law to "whip the d—l around the stump" by taking the land for the state and then leasing it to a company for 200 years, or so! And now they have attempted to pass a law prohibiting a man from voting upon his stock by proxy, or by his agent, but finding that it would not do to go quite so far, they have allowed a man to vote upon the proxies of one man to a fiftieth part of the capital, or to the amount, perhaps, of \$50,000, yet he cannot vote on the proxies of two men representing two shares, or \$200! consistency thou art a jewel!

**Proxy Law in New Hampshire.**—Notwithstanding the unfavorable indications at the commencement, we are pleased to learn that a proxy law, sufficiently liberal in its provisions for all practical purposes, was enacted at the late session of the New Hampshire legislature. To those of our citizens who

are interested in railroad and manufacturing corporations in that state, the removal of this vexatious and unnecessary incumbrance upon their property must be a source of gratulation; but not more so to them than to the people of New Hampshire, that a policy, more congenial to the true interests of the state, and with more regard to the just rights of corporations, has been adopted. The leader of the radical force in the legislature, having acquired glory enough for one session, was induced to forego open opposition to this bill, which was so drawn up as to receive the official sanction of Gov. Stegle, and it may be that this modified compromise may be so guarded as to be conducive to the interests of both the state and the corporators. Hill's Patriot has the following synopsis of the bill:—

It authorizes corporations to make by-laws, providing for the representation of stock, no one person being allowed to represent more than a fiftieth part of the capital. Stockholders in corporations are authorized to appoint proxies for the representation of their property, but no such proxy is allowed to vote on the shares of more than one individual. A, for instance, can represent B's stock, whether it amounts to only one, or any number of shares not exceeding a fiftieth part of the whole number—whether B's stock amounts in value only to \$100, or, as in some cases, \$50,000, or perhaps \$75,000. But A cannot act as proxy for B and C, at one and the same time, whether the amount of stock they own be large or small.—[Boston Courier]

**Rutland railroad.**—The stockholders in the Champlain and Connecticut river railroad, met at Rutland on the 3d, and organized by choosing six of the nine directors necessary (no stock yet taken in Boston.)—Judge Follet's name, of Burlington; is at the head of the directors as president. It was resolved to complete the subscription, if possible, to a million, before opening the books in Boston.

Passengers from Rutland, yesterday, understood that the million was actually secured. No curve less than 2000 feet—half a mile saved in distance—less than one mile of clay ground the whole distance—75 ascent from Rutland to Burlington. It is now with great confidence believed that 2½ millions will be amply sufficient to build the road. The meeting to take the route directly to Bellows Falls, via Williams river.—Keene (N.H) Sentinel.

The commissioners of the Central railroad have advertised a meeting of the stockholders at Montpelier, on the 23d of July, for organization, by choosing 7 Directors.

The committee and persons interested in the Northern railroad (from Concord to Lebanon and the mouth of White river) have announced 'that the enterprize in which they have so long been engaged, is about to be accomplished;' and the stockholders are notified to meet at Concord, on the 8th to adopt measures for an immediate commencement of operations.—Ib.

THE RAILROADS OF BELGIUM,

With a notice of the other modes of internal communication—translated and abridged from "La Belgique et les Belges," by Maj. G. T. Poussin, formerly of the U. S. E.

BY G. C. SCHAEFFER, C. E.

The Belgians, famous for their agriculture, remarkably industrious, and almost as enterprising and commercial as the Americans, have always justly estimated the importance of an easy transport of the products of the soil or of their manufactures. At a very early period, great attention was paid to the improvement of the means of transport, but within a few years the extension of their system of communication has been immense—the whole country is intersected with railroads, canals, and rivers, besides numerous and excellent common roads—and Belgium in this respect is superior to France, or even England, although inferior to the United States.

**COMMON ROADS.**—These are divided into four classes—state roads, provincial roads, chartered roads, (routes concedes,) and country roads.

There are at present,  
 2,156 miles of state roads,  
 1,053 " provincial roads,  
 301 " chartered roads,

3,510 miles of paved roads.

The country roads are very numerous. The Belgian roads are generally very well constructed, are almost all of them planted. The charge of all work pertaining to them is given to the corps of bridges and roads.

The expense of maintaining the roads absorbs the whole income of the tolls, which is entirely devoted to this purpose. The capital invested by the state has never, in the most favorable times, paid more than three-fourths of one per cent, and since the establishment of railroads, has barely paid, or even sometimes fallen short of, the expenses. The influence of the railroads in diminishing the travel on the ordinary roads has, therefore, not amounted to much, for while it has lessened the travel of the parallel, it has increased that of the transverse, lines.

Suitable provision is made for the opening of new roads, and every pains taken to maintain even the county roads in good order at all seasons.

**NATURAL AND ARTIFICIAL NAVIGATION.**—The situation of Belgium is remarkably favorable to communication by water, both by rivers and canals. Three great basins are comprehended within its territories—portions of the basin of the Scheldt and of the Meuse, and nearly the whole of the valley of the Yser. The tide flows throughout nearly the whole extent of them.

The basin of the Scheldt covers the greater part of the kingdom, while, of the numerous tributaries, the highest levels are not more than 100 feet above mean tide at Antwerp—a remarkably favorable condition of country for the construction of canals. The other basins, though less extensive, present the same advantages.

These remarkable natural advantages caused the Belgians, as early as the 12th and 13th centuries, to devote their attention to commerce, and the first fruits of the spirit of improvement were the ship canals of Bruges and Ghent.

Towards the end of the 15th century, the improvements of the upper Scheldt were commenced; and in the 16th century, when Antwerp became the great commercial metropolis, numerous tributaries were made navigable for the vessels from the Scheldt. It was then that Brussels, by an extraor-

dinary effort, made itself a sea port by its famous ship canal.

The canal of Brussels runs nearly north and south, commencing in a large basin within the city and terminating in the Rupel, a branch of the Scheldt. Its length is 13 2/3 miles—its width at the surface varies from 100 to 166 feet. There are five levels. The tow path is generally from 27 to 33 feet in width, but is never less than 20 feet. The "heel path" is generally as wide.

The mean depth, with the water at the ordinary level, is 10 feet 2 inches, but vessels drawing 10 feet 9 inches go to Brussels, occasionally lightening their draught. The interior slope varies from 45 to 65 degrees. The whole descent is 48 feet, overcome by 5 locks.

This canal was commenced on the 16th of June, 1550, and was finished in 1561, long previous to any other work of the kind in Europe.

The locks of the canal of Brussels are at present 24 feet 7 inches in width, and intended to pass several vessels at the same time. It is fed by the Sonne and the waste water of the canal of Charleroy.

During the wars of Louis XIV the canals executed by Vauban were rather for military than commercial purposes.

The opening of the quarries and mines in Belgium gave a new impetus to improvement, and in the early part of the present century the Grand Northern Canal, which was to unite the Rhine, the Meuse, and the Scheldt, was commenced. The works of this period were immediately useful to Belgium, and which were completed—were the canal of Mons and the improvements at Antwerp and Ostend.

After the re-union of Belgium and Holland, the commerce of Antwerp revived, and Bruges and Ghent were reached by vessels from the ocean. Fifty millions of francs were expended upon the canals of the kingdom.

At the time of the formation of the independent kingdom of Belgium, in 1830, the Belgians felt the need of a more complete system of communication, not connected with that of Holland, upon which they had before depended, but with which they must now compete. This was the origin of the railroad system—but canals were not neglected. Many new and important works were commenced, and a fund created for this purpose, as well as for the purchase by the state of works already in existence.

The Belgians have adopted the principle that the means of communication should not be considered as sources of revenue, but that the whole income should be devoted to the maintenance and further extension of the system. Hence we find the cost of transportation on the canals reduced to 2, to 4, or, at most 5 centimes per ton per kilometre, or nearly 3/4ds of a cent to 1 cent and 1/4, or, at most, 1 cent and 1/2ths per ton per mile.

At present the whole length of the canals of Belgium is 439 miles. The capital invested by the state in canals and river improvements pays nearly one per cent.

All the large cities of the kingdom are united by magnificent and well kept canals. Ships reach Brussels, Antwerp, Ghent, Lakeren, Malines, (Mechlin,) and Lierre, are connected by a great canal 98 miles in total

length, of great depth, and traversable by vessels from the ocean, and without locks.

Other works of great magnitude are now projected, or in progress, the estimated cost of which will be 50 millions of francs.

EASTERN RAILROAD.

The Salem Register of the 17th inst., contains the following statement in relation to the Eastern railroad for the past year. The comparative statement of the receipts and expenditures during the past five years shows an exceedingly favorable result, both in relation to receipts and expenditures. It will be seen that, with a very greatly increased business, the expenses have been reduced from \$179,958 93, in 1841, to \$134,318 86, in 1844! and that the receipts for the year ending June 30th last were \$351,328 61, and the expenses were only \$113,014 48. The cost per mile run in 1840 was .856, while in 1844 it was only .533!! Thus demonstrating, in the clearest manner, the true principle of progression of profits on well located and well managed railways, by a regular increase of receipts and decrease of expenses. The net receipts being 9.34 per cent! and that, too, at reduced fares!

The annual meeting of the Eastern Railroad Company was held at the Station House, in Boston, on Monday. The following gentlemen were unanimously elected as directors for the ensuing year:—Messrs. David A. Neal, John Hooper, Amos Binney, Daniel Adams, Jr., John Bryant, Jr., Isaiah Breed, John E. Thayer. Benj. T. Reed, Esq., resigned the office of treasurer, which he has held from the commencement of the enterprise; whereupon resolutions, offered by Mr. Degrand, were unanimously adopted, thanking him for his ability, zeal, industry, firmness, &c., and requesting the directors to present to him a piece of plate, with a suitable inscription.

Among the facts laid before the meeting, the Gazette says, were the following comparative statements:

Receipts.		Expenses.	
In 1840,	\$193,367 57	In 1840,	\$115,433 10
" 1841,	299,574 13	" 1841,	179,958 93
" 1842,	269,168 72	" 1842,	144,039 71
" 1843,	274,641 64	" 1843,	129,640 63
" 1844,	343,899 60	" 1844,	134,318 86
Miles run.		Expense per mile.	
In 1840,	112,047	In 1840,	.85-616
" 1841,	168,527	" 1841,	.86-085
" 1842,	184,127	" 1842,	.65-542
" 1843,	184,156	" 1843,	.56-821
" 1844,	204,963	" 1844,	.53-335

The receipts from the business of the road, during the year ending June 30th, were..... \$351,328 61  
 Expenditures..... 113,014 48

Net profits from the road ..... \$238,314 13  
 The net receipts being \$9 34 56-100 per share.

In their report the directors say—  
 The result of the operations on this road during the past year will, it is hoped be satisfactory. The business has increased, and is increasing—the public are better accommodated at lessened fares—the expenses have been kept within reasonable limits; while every thing that safety required or comfort asked for has been procured—the net earnings of the road have amounted to upwards of nine per cent., independent of any income or profits from the other property of the company—a portion of that proper-



ty has nearly doubled in value—upwards of six hundred thousand passengers, without loss of life, and in all, but one instance, without personal injury, have been transported over the road—strict discipline has been observed, and good order every where maintained; and the accounts show that there is on hand, of the earnings of the road, to the credit of

Sinking fund.....	\$57,390 98
Reserved fund.....	8,297 06
Balance on account.....	13,644 89

Making an actual surplus of..... \$79,232 92

It appears by the following that the Baltimore and Ohio railroad company have decided not to accept the Virginia law of last session, requiring them to terminate their road at Wheeling. We like this determination, not because we have anything against Wheeling, but because we are fully of the opinion that the engineer, with his *instruments*, is a much better judge where to lay a railroad than the members of any legislature; and that legislation should never fix the line of a railroad until the instruments have first designated its route. There can be no greater injustice done to those who furnish the capital to construct such works, than to compel them to spend it for the benefit of people who may have located themselves away from the natural channel, or line which the God of nature has designated for the work. Why tax the business community for all time to come, to oblige a few people in a few places? Why not select the *natural*, the *best* route, all things considered, for the business and let other things conform to it? This is our view right or wrong.

A meeting of the Stockholders of the Baltimore and Ohio railroad was held on Saturday morning last, agreeably to a call from the president and directors, to take into consideration the question of accepting the law of the legislature of Virginia, authorizing the construction of the railroad through the state to the city of Wheeling, on the Ohio river. There was a very large number of stockholders present, and a decided majority of the stock was represented.

The meeting was organized by calling John Nelson, Esq., to the chair, and appointing J. J. Atkinson, secretary.

Mr T. S. Alexander appeared as the representative of the stock subscribed by the city of Wheeling but on examination it was ascertained that the subscription of that city was made conditional, and that the conditions not having been fulfilled, the subscription was vacated some time since, as provided by law. Wheeling, it was therefore decided, is not a stockholder in the company.

A communication was received from Mr. McLane, the president, which was read. It reviewed at length the law of the legislature of Virginia, and earnestly recommended that it should *not* be accepted.

A motion was made to postpone action on the subject at this time, but the motion was lost by a large majority.

Mr. J. P. Kennedy then offered a preamble, setting forth at length *why* the law should *not* be accepted, and concluding by a resolution "respectfully declining to accept the law of Virginia," which was unanimously adopted. The meeting then adjourned.

*New route to the West.*—The route from lake Ontario to lake Huron, to which we referred a few days since, was opened last week on Monday. The opening of the route is announced and advertised in the Toronto papers. Passengers can now leave Toronto at six o'clock in the morning, *reach lake Huron the same evening*, and embark in the steamer Goderich, (late Gore) from Sturgeon Bay to Detroit. Passengers can now go from Toronto to lake Huron in about 12 hours without the aid of a railroad. This is certainly a powerful fact in favor of the project of turning the great stream of western travel across the Canadian peninsula via Toronto. Passengers leaving Oswego by the morning boats up the lake may reach the steamer on lake Huron by way of Toronto and lake Simco, in two days without the loss of an hours ordinary rest. Passengers can now go quicker to Detroit and Chicago by this route than any other, and the completion of the Oswego and Syracuse railroad, would turn a great portion of the western travel this way. The whole distance from Oswego to Detroit is performed by steamboats, except 28 miles from Toronto to lake Simco, and 19 miles from the head of that lake to Sturgeon Bay, by post coaches upon plank roads.

The construction of the Canadian railroad from Toronto to lake Huron or the Detroit river, now rendered certain, by the fact that the stock of the road has been taken in London, must inevitably bring the whole travel of Michigan, Illinois and Wisconsin, upon lake Ontario. A look at the map of the lakes and the adjacent and intermediate country will satisfy any one of the truth of this statement. Under this aspect of the case, we predict the stock of the Oswego and Syracuse road, will not go a begging long, after the books are opened.—[*Oswego Whig*.]

TROY AND SCHENECTADY RAILROAD.

We consider this one of the best constructed railroads in the country. It has deep cuttings in places, and heavy grades to surmount in ascending from the level of the Hudson, at Troy, to the flats of the Mohawk above the Cohoes falls; yet, such is the solidity and evenness of the road, the distance, 20½ miles, is run regularly in less than an hour, and oftentimes in 45 minutes. This road, together with the Troy and Greenbush, connects the line from Boston to the Hudson river with the Utica and Schenectady road, and thus forms an unbroken chain, with uniform width of track, from Portland in Maine, to Buffalo New York, a distance of 640 miles. This road is laid with the heavy H rail, and cost a little over \$31,000 per mile. They carried last year 66,086 passengers. Their receipts were \$32,862 59, and their expenses for *running and repairs* for the same period were \$26,280 81—yet we find it put down in the tabular statement of the secretary of state at \$33,560 81—an error of \$7,290—the cost

of a new engine and cars, which were properly included in the cost of construction and out-fit, and should not have been *also*, as they have been by the secretary, included in current expenses of running and repairs.

The engines are of the best kind for passenger traffic, and the cars, made by Gilbert & Eaton, of Troy, such as a weary man delights to find.

ACKNOWLEDGEMENTS

We acknowledge the receipt of, and desire to return our thanks for, the following favors, viz:

*Oswego and Syracuse Railroad.*—The Circular of the commissioners of the Oswego and Syracuse railroad, setting forth the feasibility of the route; the kind and amount of business which it will command; its comparative advantages, with other routes, for the great *northwestern* travel, etc., etc. We were, however, in advance of the friend who sent it, as we cut it from a newspaper and had it in type, with our comments upon it, before the circular came to hand, and had given directions that a copy of the Journal containing it be sent to each of the commissioners, who, we are sure, will better understand the value of railroads after having perused it carefully for one year—or, *even* for one week—and we are equally well convinced that each will, or *should*, direct it to be sent to his address, and the *amount of subscription to ours*, by return mail.

*Wear of Railroad Iron.*—The communication of J. on the *wear of railroad iron*, is also received, but at too late a period for this number. It will appear in our next.

EASTERN RAILROAD REPORT.

We have received duplicate copies of the annual report of the directors to the stockholders of the Eastern Railroad Company, and we desire to return thanks in duplicate for the favor. We were upon the lookout for a report of the doings of this exceedingly well managed company, and found a synopsis of their proceedings in the Salem Register of the 17th inst., which we had in type when the report came to hand. We shall, however, refer again to the subject in a subsequent number.

UNION OF RAILROADS.

We understand that a union has been formed between the Springfield and Northampton and the Northampton and Greenfield railroads. This looks like a determination to keep down expenses—and it will, if carried out, be a convenience to travellers, and at the same time promote the interest of the shareholders.

## PORT CARBON.

The town of port Carbon is situated on the Schuylkill river, about two miles from Pottsville, and is the seat of a considerable coal trade. The completion of the Port Carbon and Mount Carbon railroad, has opened a more rapid communication between Port Carbon and the Atlantic cities, than was furnished by the Schuylkill Navigation, and is proving of immense importance to the former town. This road was constructed under the energetic direction of *F. Hewson, Esq.*, in a style of superior solidity and permanency; it is about  $2\frac{1}{2}$  miles in length, and taps the Scuykill Valley and the Mill Creek roads at Port Carbon and connects with the Reading railroad at Mount Carbon. The first train of loaded cars, passed over it on the 30th of last November. Its tonnage is already heavy, and is rapidly increasing, and will continue to increase, as the different collieries around and beyond Port Carbon, and on the line of the Schuylkill Valley and the Mill Creek roads, are brought into connection with it.

The new track on the Mill Creek road from its termination, to its junction with the Port Carbon road, at Port Carbon, has been completed about one month; the transportation of coal over it from the collieries along the Mill creek, has been from its opening heavy, and the large weekly increase, is proving the great capacity of that portion of the coal district.

The bridge of the Mill Creek road across the Schuylkill, is a beautiful and substantial structure. It is a *Burr* bridge, with a single span of 120 feet.

The Schuylkill Valley road was completed to its termination, under the direction of *A. W. Craven, Esq.*, engineer, on the 10th inst. The length of this road, from its junction with the Port Carbon road, at Port Carbon, to Tuscarora, is about 9 miles; it sweeps through one of the richest portions of the coal region, and perhaps adds a third at least to the area of accessible coal fields in this

district. The length of the old road which was entirely worn out, was  $10\frac{1}{2}$  miles, but the numerous and troublesome curves of the old road are avoided in the new. The grade is more perfect, and the effective capacity of the road greater. The whole of the immense tonnage of coal which passes over this road, as well as that which passes over the Mill Creek road, is sent from Port Carbon to Philadelphia and the eastern markets, either by the Reading railroad or the Schuylkill navigation. The numerous landings on the line of the Navigation at Port Carbon, are ample for a heavy trade, while the Reading railroad offers facilities for rapid transportation to those operators who prefer this more expeditious channel; so that the coal operators who ship from Port Carbon, can suit their own convenience or preference in the use of either of these two avenues. By the construction of the Port Carbon and Mount Carbon railroad, and the Schuylkill Valley and Mill Creek railroads, which are tapped by it at Port Carbon, the immense coal fields lying in that portion of the coal region are brought practically nearer to market, and it will readily be seen that this must have a salutary effect upon the prosperity and growth of Port Carbon; it will give additional impetus to the coal trade, and while that thrives a favorable impulse is felt by every other employment, and especially by the industrial and mechanical interests; and when the enlargement of the Scuykill Navigation shall be completed, it will necessarily give a still more decided and rapid motion to improvement.—*Miners' Journal.*

*New Method of Blasting Rocks with Gunpowder.*—The expense attending the common mode of blasting in mines and quarries, induced *M. Courbebaiss* to commence experiments on the quantity of rock removed by a certain portion of powder, in proportion to the size of the cavity, and he finds that by the formation of chambers, or cavities, instead of the round cylindrical hole commonly made, a much more safe and economical result is ef-

fect. The experiments were made on a hard calcareous rock, in which having made a circular hole after the usual method, hydrochloric acid and water was poured in, through a copper funnel three yards long, three several times at proper intervals, as the decomposition of the rock proceeded; it was generally allowed to remain two hours, when a sufficient sized cavity was formed at the bottom of the hole to receive a large charge of powder; the remaining liquid was removed by introducing small pistons into the hole five inches long, with valves opening upwards, and acting similarly to pump valves; tow was afterwards introduced and turned about to dry the rock, and then drawn out; powder is poured in until the chamber is two-thirds full; upon this one of *Bickford's* fuses is placed; it is then filled up with powder, and the hole tamped with sand, when it is ready for firing. The explosion takes place without either flash or detonation, a dead rumbling only is heard from the cracking rock, the whole mass is seen to tremble, then rise a little, and again to fall, cracked in every direction. The rock being detached in larger masses by these means, are not thrown to a distance, but merely removed, and the gasses expanding to their full extent before they escape into the atmosphere do not detonate. By these means the operation only costs 5d. per yard cube, while, by the old method, the expense is from 2s. 3d. to 3s. 6d.—

**T**O RAILROAD COMPANIES AND MANUFACTURERS of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,  
ja45 N. E. cor. 12th and Market sts., Philad., Pa.



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**GEORGE VAIL & CO., SPEEDWELL IRON**  
Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1½ in. to 2½ in thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions.  
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**NICOLL'S PATENT SAFETY SWITCH**  
for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design. It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn of used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.  
**G. A. NICOLLS,**  
Reading, Pa.

**MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR,** Paterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

**Railroad Work.**  
Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

**Cotton, Wool and Flax Machinery** of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

**ROGERS, KETCHUM & GROSVENOR,**  
a45 Paterson, N. J., or 60 Wall street, N. York.

**FOR SALE, AT A SACRIFICE—A LOCOMOTIVE ENGINE,** 4 wheels and Tender, Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine.  
2 8-horse " " " " " "

1 Upright Hydraulic Press.  
All of which will be sold low, on application to  
**T. W. & R. C. SMITH,**  
Founders and Machinists,  
Alexandria, D. C.

**RAILROAD IRON AND FIXTURES. THE**  
Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

**DAVIS, BROOKS & CO.,**  
21 Broad st., N. York.

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN**  
Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.



Our improved Spark Arrester have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

- E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.  
**FRENCH & BAIRD.**  
Philadelphia, Pa., April 6, 1844.

\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

**PATENT RAILROAD, SHIP AND BOAT**  
Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

**HENRY BURDEN, Agent.**  
Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand.  
ja45

**SAMUEL NOTT, CIVIL ENGINEER, SURVEYOR** and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES. —  
Boston, } Col. James F. Baldwin, Civil Engineer.  
          } Col. J. M. Fessenden, " " "  
Wm. Parker, Esq., Engineer and Superintendent  
Boston and Worcester railroad. ja45

**SPRING STEEL FOR LOCOMOTIVES,**  
Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1½ to 6 inches in width, and of any thickness required; large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

**JOAN F. WINSLOW, Agent,**  
j5a3 Albany Iron and Nail Works, Troy, N. Y.

**PATENT HAMMERED RAILROAD, SHIP**  
and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed.  
**JOHN F. WINSLOW, Agent.**  
Albany Iron and Nail Works, Troy, N. Y.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co., Boston.  
ja45

**TO IRON MANUFACTURERS. THE SUBSCRIBERS,** as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

**A. & G. RALSTON & CO.,**  
No. 4 Sout Fronth st., Philadelphia, Pa.

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to 4 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by MORRIS, TASKER & MORRIS. Warehouse S. E. Corner of Third & Walnut Streets, PHILADELPHIA.

RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.

WILLIAM YOUNG, President.

fy451m

NO IRON MASTERS.—FOR SALE.—MILL SITES in the immediate neighborhood of Bituminous Coal and Iron Ore, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, Civil Engineer,

VALUABLE PROPERTY ON THE MILL Dam For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia. ja46

CYRUS ALGER & CO., South Boston Iron Company.

RAILROAD IRON AND LOCOMOTIVE Tyres imported to order and constantly on hand by A. & G. RALSTON 4 South Front St., Philadelphia. Mar. 20th

THE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention. ANDREW C. GRAY, President of the Newcastle Manuf. Co.

CUSHMAN'S COMPOUND IRON RAILS. etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc. respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent, to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, Civil Engineer, Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

NORRIS' LOCOMOTIVE WORKS

BUSH HILL, PHILADELPHIA, Pennsylvania.



MANUFACTURE their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

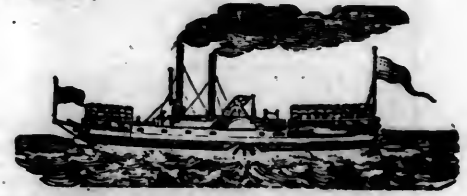
Class 1,	15 inches Diameter of Cylinder,	× 20 inches Stroke.
" 2,	14 " " "	× 24 " "
" 3,	14 1/2 " " "	× 20 " "
" 4,	12 1/2 " " "	× 20 " "
" 5,	11 1/2 " " "	× 20 " "
" 6,	10 1/2 " " "	× 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

NORRIS, BROTHERS.

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 31.]

THURSDAY, JULY 31, 1845.

[WHOLE No. 474, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

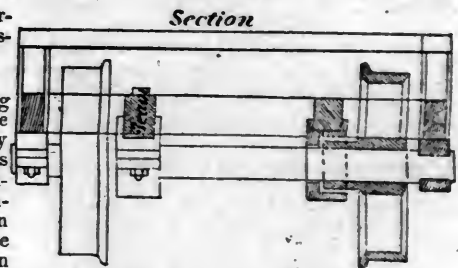
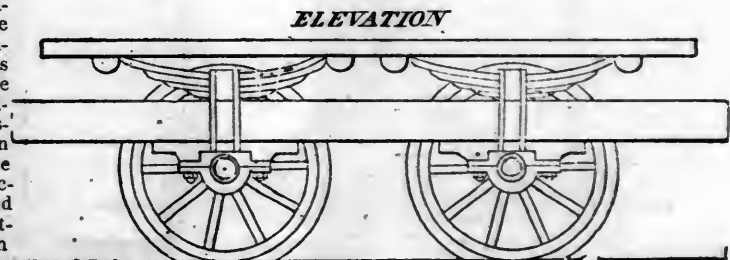
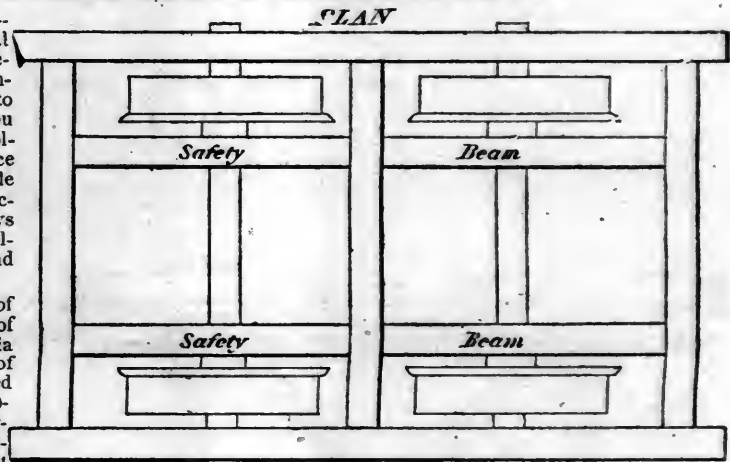
Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
 GEORGE CRAIG, Superintendent,  
 JAMES ELLIOTT, Sup. Motive Power,  
 W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.

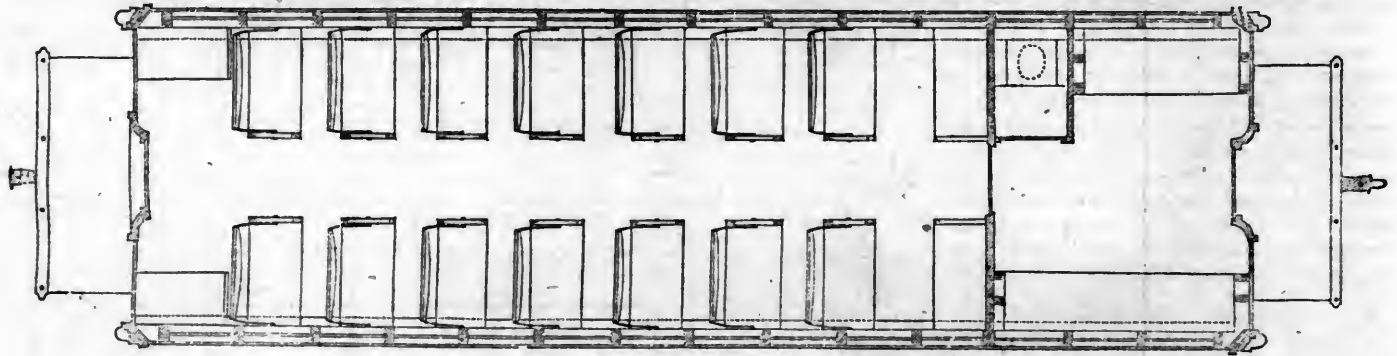
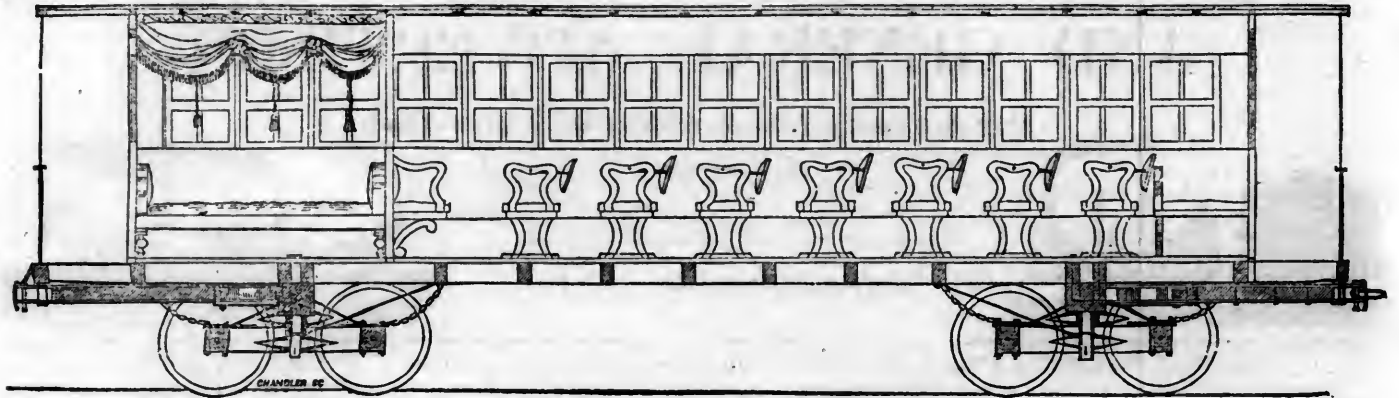
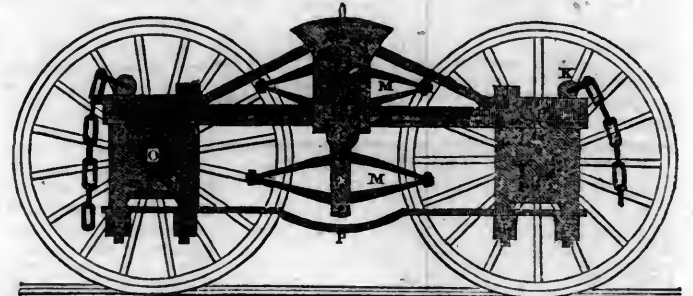
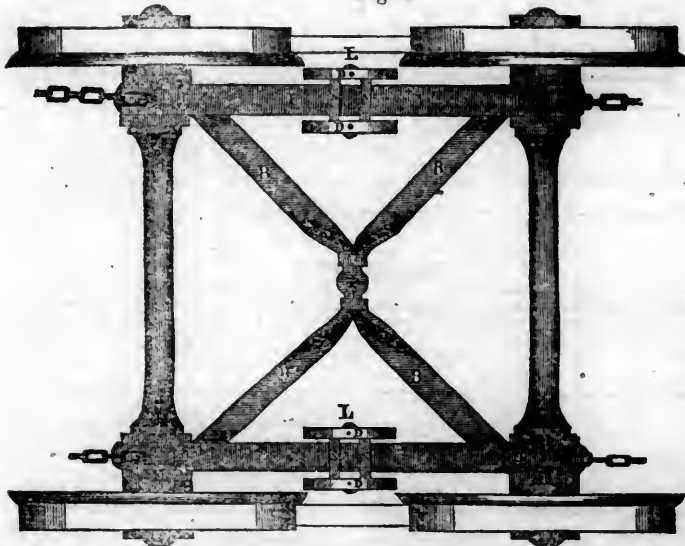


Fig. 1.

Fig. 2.



DAVENPORT & BRIDGES' IMPROVED PATENT IRON TRUCK FOR RAILROAD CARS, is presented above, and the attention of Railroad Companies is respectfully invited to the following description of their justly-celebrated invention:

Fig. 1 of the drawing above represents a top view or plan of our Improved Railroad Truck. Fig. 2 is a central, longitudinal, and vertical section. C, Fig. 1 and 2, represents the arched bars of the side trusses; they consist of two long bars of plate iron (about three inches wide by seven-eighths of an inch thick,) bent into the shape as seen in drawing 2. Each of them is placed directly over a flat and straight tie bar, A, which extends from one end to the other, as seen in Fig. 2. These parts, so arranged, receive between their ends the ends of diagonal cross bars or braces, B, which are united at their centres upon four pedestals, F, F, which receive the bearings or boxes for the axles to run on. Another flat tie bar, P, extends from the under side of one of the pedestals, A, B, C, and the pedestals, and on each side of the journals of the axles, O, O, in the positions represented in the drawings. From the above it will be seen that there are two bolts to each pedestal, and that this number is all that is requisite for the full security of the bars and pedestals together. The body rests and moves upon two sectional supports, D D, arranged on the sides of the truss frames, as seen in Fig. 2; they extend somewhat, or a sufficient distance above the truss frames, and are jointed at their lower ends by means of a bolt, L, which rests upon the top of the lower spring, M, which spring rests upon a bolt passing through the lower part of the inverted strap, E, which strap passes over and rests upon the top part of the upper spring, M, which is placed within the truss frame, and rests upon the top of the bar, A.

Two bands, N, N, are passed entirely around the central part of each truss frame, the object of the same being to transfer the strain, or a portion thereof, of the spring, from the tie bar, A, to the arched bar, C.

These Trucks are adapted as well for eight-wheeled passenger cars as for baggage and freight cars, giving to each a more agreeable and easy motion than any other Truck heretofore constructed or in use. They are simple in their construction, combining strength and great durability, although weighing at least twelve hundred pounds less than the common Trucks. Besides these excellences, by reason of the elasticity of the braces, B, B, B, B, as seen in the drawing, and the other peculiarities of construction, the weight is equalized upon all the wheels, and yet any one may be raised so as to pass any inequality on the rails without lifting either of the other wheels from the track, thus rendering it almost impossible to run a car off. Being bound, and having as it were but four joinings, they are protected from injury by lateral strains, and in case of damage are easily repaired.

These excellences have been fully tested by use, for a long time, on the Eastern, the Fitchburg and Long Island railroads; and for proof of the above stated superiority of these Trucks over all others, we refer to the experience of those who have used and run them.

CAMBRIDGEPORT, April 1, 1845.

DAVENPORT & BRIDGES.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention. **ANDREW C. GRAY,**  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
Albany, N. Y.

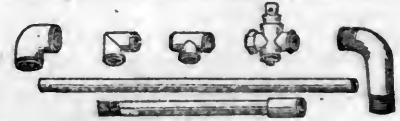
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

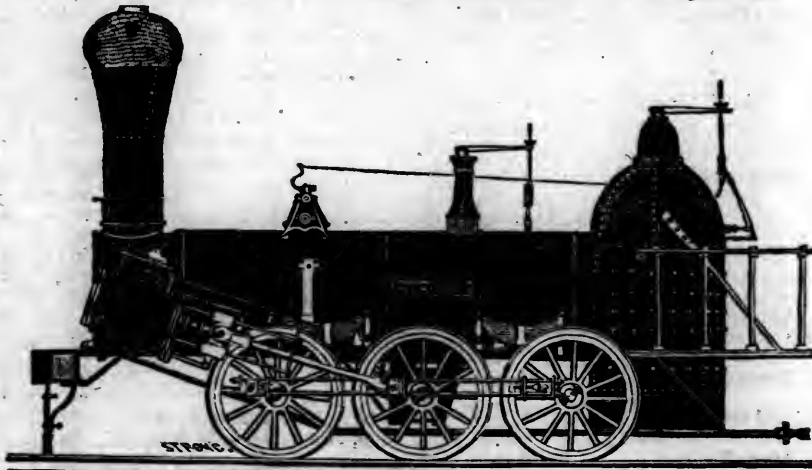
From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T. L., and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS**

*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
" 2,	14	"	"	"	× 24	" "
" 3,	14 1/2	"	"	"	× 20	" "
" 4,	12 1/2	"	"	"	× 20	" "
" 5,	11 1/2	"	"	"	× 20	" "
" 6,	10 1/2	"	"	"	× 18	" "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND**  
Coal Company are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.  
**WILLIAM YOUNG,**  
\*jy451m President.

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48 State st.,** or to **CURTIS, LEAVENS & CO., 106 State st., Boston,** or to **A. & G. RALSTON & Co., Philadelphia.** ja45

**CYRUS ALGER & CO., South Boston Iron Company.**

TRAINS LEAVE	FOR	BY	RAILROAD	DAYS.	A. M.	P. M.	MILES.	FARE
Boston	Portland		Eastern,	Daily,	7½	2½	106	\$3 00
"	Portsmouth		"	"	7½	2½, 4½	54	2 00
"	Newburyport		"	"	7½	2½, 4½	35	1 25
"	Salem		"	"	7½, 9, 11½	2½, 3½, 4½, 6	14	50
"	Portland		Boston and Maine,	"	7½	2½	109	3 00
Portland	Boston		"	"	7½	3	109	3 00
Boston	Lowell		Boston and Lowell,	"	7, 11	2, 5	26	75
Lowell	Boston		"	"	7½, 11	2, 4½, 5½	26	75
Boston	Concord		Concord,	"		3½	76	2 00
Concord	Boston		"	"		3½	76	2 00
Boston	Nashua		Nashua and Lowell,	"	7, 11	5	41	...
Nashua	Boston		"	"	6½	1½, 5	41	...
Boston	Worcester		Boston and Worcester,	"	7, 9	2½	44	1 25
Worcester	Boston		"	"	7, 10	6	44	1 25
"	"		"	Sundays,	7			
Boston	Worcester		"	"		2		
Boston	New York via Norwich		"	Mon., Wed. & Fri.,		4		
"	" L. Island railroad		"	Tues., Thur. & Sat.,				
"	" New Haven		"	Daily,				
"	Albany		Western,	"	9	2½	200	6 00
Albany	Boston		"	"	8½	1½	200	6 00
Springfield	Boston and Albany		"	"	7	3		
Boston	New York via New Haven		"	"		2½		
Charlestown	West Acton		Fitchburg,	"	8	1, 4½		
West Acton	Charlestown		"	"	7½, 10½	5		
Boston	New York, via Steamboat trains		Boston and Stonington,	Tues., Thur. & Sat.,		4½		
"	"		Boston and Newport,	Mon., Wed. & Fri.,		4½		
"	"		"	Daily,	7½	4	41	1 50
Providence	Providence		"	"		On arrival of the	41	1 50
Taunton	Boston		"	"	8	4		
New Bedford	Boston		"	"	7½	2½		
Boston	Dedham		"	"	8½	3, 6½		
Dedham	Boston		"	"	7, 10	5½		
New York	Greenport		Long Island,	"	7½		95	2 25
Brooklyn	Hicksville & intermediate places		"	"	9½		26	56½
"	Greenport		"	Tues., Thur. & Sat.,	9½		95	2 25
"	Hicksville, (Satur'd'y to Suffolk)		"	Daily,		4	26	56½
Greenport	Brooklyn, (Boston train)		"	"		1	95	2 25
"	" (accommodation do.)		"	Mon., Wed. & Fri.,			95	2 25
Hicksville	" & intermediate places.		"	Daily,	7	1½	26	56½
New York	Albany & Boston via N. Haven		Steamer,	"	6½			5 00
Middletown	Middletown		New York and Erie,	"	8, 3		53	
Philadelphia	New York		"	"	6½	3½	53	
Pottsville	Pottsville		Reading,	"	9		94	3 50
Philadelphia	Philadelphia		"	"	9		94	3 50
New York	Newark		N. J. railroad and trans. co.,	"	9, 11, 12	2, 3, 4½, 6, 7½	9½	25
Newark	New York		[9 A. M. and 3 P. M., connect with Morris Railroad.]	Sundays,	7½, 8½, 9, 11	1½, 4, 5½, 7, 9½	9½	25
"	"		"	"	9	4½	9½	25
New York	Newark		[9 A. M. and 4½ P. M., trains, connect with Somerville Railroad.]	Daily,	11½	9½	9½	25
Elizabethtown	Elizabethtown		"	"	9, 11	2, 3½, 4½, 6	14½	31½
New York	New York		"	"	7, 7½, 8½, 10½, 12	3½, 5	14½	31½
New York	Rahway		N. J. railroad and trans. co.,	"	9, 11	3, 4½, 6	19½	31½
Rahway	New York		"	"	6½, 7, 8½, 12	4½, 9½	19½	31½
New York	New Brunswick		"	"	9	3, 4½	31½	50
New Brunswick	New York		"	"	6, 7½, 11½	8½	31½	50
"	"		"	Sundays,	11½		31½	50
New York	New Brunswick		"	"	9	4½	31½	50
Philadelphia	New York		Camden and Amboy,	Daily,	7		91	3 00
New York	Philadelphia		"	"	5½		91	3 00
Philadelphia	Bristol		Philadelphia and Trenton,	"	9		30	75
Philadelphia	Bristol		"	"		4	30	75
Philadelphia	Baltimore		Philad. Wil. and Baltimore,	"	8	4	93	
Baltimore	Philadelphia		"	"	9	8	93	
"	Washington		Baltimore and Washington,	"	9	5, 11½	41	2 50
Washington	Baltimore		"	"	6	5½	41	2 50
Baltimore	Cumberland and inter. places.		Baltimore and Ohio,	"	7½			
"	Frederick		"	"	8			
Cumberland	Baltimore		"	"	10½			
Hancock	"		"	"	11½			
Martinsburg	"		"	"		12½		
Harper's Ferry	"		"	"		2		
Frederick	"		"	Sundays,	8			
"	"		"	Daily,	7½, 12	4½		
Ellicott's Mills	Petersburg		Richmond and Petersburg,	"	10½	1½		
Richmond	Richmond		"	"	5½			
Petersburg	Schenectady		Mohawk and Hudson,	"	8	5½		
Albany	Albany		"	"	9	3½		
Schenectady	Saratoga		"	"	7½	2		
Albany	Albany		"	"	7	12½, 5		
Saratoga	Saratoga		Troy and Saratoga,	"		3½		
Troy	Troy		"	"	7½			
Saratoga	Rochester		Auburn and Rochester,	"	8½			
Auburn	Auburn		"	"	8	3		
Rochester	Buffalo		Rochester and Buffalo,	"		3		
"	Rochester		"	"				
Buffalo	Falls		Buffalo and Falls,	"	9			
"	Buffalo		"	"		1½		
Falls	Buffalo		"	"				
Buffalo	Albany		Albany and Buffalo	"	8½			



**Uniformity of Gauge.**

This subject is now causing much excitement in England. It is one of great importance, and one which early received attention in this journal, as may be seen in the number of 21st January 1832! in an article from an esteemed correspondent of that period and from whom we should be much pleased to hear again. Uniformity in the width of track was frequently referred to and urged upon engineers—yet, as in many other matters, *experience* only enabled them to decide on what is, upon the whole, the proper width; and in arriving at a decision, a diversity of widths has come into use; and even now, it would seem that the question of *what is the best gauge* is far from being settled.

We copy from the latest number of Herapath's Journal, the editor's remarks upon this subject.

No man can doubt the desirableness of one uniform gauge, if at any reasonable cost it could be attained. Mr. Cobden has therefore done wisely in bringing it forward, even now late as it is.

Great difference of opinion existed at first among engineers as to what should be the proper gauge. Most of them were of opinion that the present is too narrow, and perhaps if the whole was to be done over again we should have it something wider.

The reasons for a wider gauge were chiefly two—one, that the present gauge would be dangerous at high speeds, and the other, that it did not afford scope for that powerful machinery in locomotives necessary for attaining very high velocities. Greater research and experience have exploded the first and along with it, one of the arguments of Mr. Brunel for his broad gauge. He asserted, that by increasing the gauge he should be able to use higher wheels on the carriages and engines, and that these higher wheels on the carriages would work with less friction, and therefore, more economy. The less friction with high wheels, we at first opposed as being contrary to the results of experiment, which showed that slipping friction is independent of velocity, and the rolling friction on railways is insignificant; and experience has taught Mr. Brunel that we were right, for he has abandoned his high wheels for carriages.

In respect of the engines, this fact is enough. There are or were about his company's premises engines with 10 feet wheels, which cost some £30,000 or £40,000, and have never been used, for one very good—and to all other men's minds, except Mr. Brunel's until he tried them—very obvious reason, namely, that they did not possess the power to work. They are of course laid aside and the company have gradually come down to more reasonable dimensions, we believe to 6 or 6½ to 7 feet wheels.

The second reason, that is, that the narrow gauge does not afford room for machinery competent to compass high velocities, was no doubt good at the time, but by a better arrangement and larger boilers, Stephenson has got over the difficulty.

To understand this point, the reader should be informed, that the power of an engine to draw great loads at moderate velocities, and small loads at high velocities, depends on two very different qualities. One is the

weight of the engine combined with cylinders large enough to use it, and a boiler to supply steam moderately fast. Hence, heavy engines with coupled wheels, are generally required to exhaust all the weight of the engine. The other depends not so much on the weight of the engine, which is seldom or never taxed to the full or a fourth, as on the power of the boiler to generate steam rapidly. This, Mr. Stephenson's new engine, combined with an expansive apparatus, does effectually, and appears, by an improvement lately introduced of double valves one above the other, with an advance of eccentric to close the parts earlier, to be capable of still greater improvement. In these engines, it is not great statical power, but an abundant supply, and a proper husbanding, of steam that are wanting. In short, for heavy loads, weight of engine is the principal element, but for high speeds a rapid supply of steam. This, at first, Brunel maintained could only be accomplished by more room for the boiler, that is, by a wider gauge. Mr. Robert Stephenson, however, has cut this reason away by increasing the length of the boiler, and generating more steam with the same fuel. The simplification which he at the same time gave to the working gear, and the improvements which have lately been made in the valves, have at length furnished us with the means of economising this steam so much as in fact to give us much more than we want. Both Brunel's reasons, therefore, for the broad gauge, whatever plausibility they had in the first instance, now no longer exist.

If then there be any change of gauge, reason tells us that it should be from the broad to the narrow gauge. Not only is it the gauge containing some four or five times the number of miles in operation, but the change could be made at incomparably less cost, and without any danger to the public or delay in the traffic. Another rail within each of the outer rails would do it as far as the road is concerned; for which the road is prepared and only wants the rails to be laid down.—The cost would be under £80,000. In a month or less after the materials are procured, the whole may be done with a proper force. All the tunnels, all the cuttings, bridges and embankments, which do for the broad gauge will equally do for the narrow. But as it was well observed in the house, and is stated by one of our correspondents, if the converse is to be done—the narrow turned into the broad—the whole work must be changed. More land must be bought; the bridges, tunnels, embankments and cuttings, must all be widened. At a moderate estimate, the cost of the change would be from a fourth to a third of the entire cost of the line. Twenty millions would not do it; and as to the time required, no one could calculate it. Of the danger, too, attending widening tunnels, we have had a specimen by the falling in of the tunnel while it was widening on the Newcastle and Carlisle railway. To talk of changing the narrow to the broad gauge, would be very little short of insanity.

That a change would be desirable to one uniform gauge is too evident for discussion.

We can only say that we shall be glad to see it for the convenience of the public principally, but also to prevent these unseemly strifes which we have lately witnessed between the gauges; and we wish, therefore, every success to Mr. Cobden's motion on Wednesday evening, which we are glad to see was well received by the house.

A commission is to be appointed for the purpose. We only hope it will be a judicious one.

*East Indian railways.*—The court of directors have appointed an experienced person as surveyor of railways in India, at a salary of £4,000 a-year for five years, and £500 for his passage, etc, out, and the same sum home. This looks as if the important subject had engaged the serious thoughts of the Indian authorities, who must be fully sensible of rendering remote distances easily accessible. It may be long before, as a means of passenger transit, these railways may be much used by the native population (always averse to innovation,) but for the conveyance of produce they must be of immense advantage, and tend to lessen the inequalities which exist between Indian articles of export and those of more favored lands. The merchant and the government are, therefore, in this sense, equally interested in the success of the scheme, while for the conveyance of troops it is impossible to conjecture the full extent of benefit which may result from railway facilities. The journey by way of the Ganges from Calcutta to Cawnpore, for example, occupies a greater period of time than the passage from England to India. How desirable, then, it must be to lessen the tediousness of this and similar routes.—[Times.]

*Atmospheric Railway.*—At the sitting of the Academy of Sciences on Saturday last, says the Paris correspondent of the National Intelligencer of 1st July, M. Arago reported a new apparatus for the Atmospheric railway, which he described as an important improvement in respect to speed and safety. In England, at the late meeting of the directors of the London and Croyden Atmospheric railway:

“Mr Joseph Samuda, one of the patentees of the atmospheric railway, said he would undertake to work fifteen trains per day each way, at an average travelling speed of forty miles an hour, from one end of the line to the other, the average weight of each train being from 30 to 40 tons.

“Mr. Gibbon, the acting engineer of the Dalkey railway, said that the atmospheric system worked with a precision and regularity which did not belong to the locomotive. During the greater part of Sunday last ten trains were running per hour, each train weighing about 40 tons. The cost of working is in the proportion of ten to twelve in favor of the atmospheric system over the locomotive.”

*New Engine.*—A new locomotive of great power, made by Hinckley and Drury, and called the *Alvah Crocker*, has just been placed upon the Fitchburg road, for the freight train.—[Bunker Hill Aurora.]

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at date of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.		Share Capital.
							Per share.	Per cent. per annum.			Name of Railway.	Share Capital.	
Arboath and Forfar.....	15	102,000	35,000	138,870			0	12 6 2	10 0	25	27	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5 0 2	10 0	100	100	Barnsley Junction.....	200,000
Brandling Junction.....	23	161,700	365,470	481,152				4	10 0	50	54	Belfast and Ballymena.....	385,000
Bristol and Gloucester.....	37	400,000	211,000					nihil.		30	36	Blackburn and Accrington.....	400,000
Chester and Birkenhead.....	14	750,000	143,170	518,980	5,856	13,148	0	8 6 1	14 0	50	32	Birk. and Ches. Junction.....	1,000,000
Dublin and Drogheda.....	31	450,000	150,000	500,869				nihil.		55	72	Bolt., Wigan and Liverpool.....	800,000
Dublin and Kingston.....	6	200,000	152,200	359,000			6	0 0 6	0 0	100	166	Caledonian.....	1,800,000
Dundee and Arbroath.....	16	100,000	49,445	153,416	2,989	6,993	1	5 0 5	0 0	25	29	Cambridge and Lincoln.....	1,250,000
Durham and Sunderland.....	18	169,350	124,055	270,392	9,889	17,702		nihil.		34	29	Chatham and Portsmouth.....	5,000,000
East County and North and East.....	86	4,443,200	1,311,155	3,931,905	47,385	118,726	1	6 6		45	57	Chester and Wrexham.....	120,000
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1	2 6 4	10 0	50	57	Churnet valley.....	1,900,000
Glasgow, Paisley and Ayr.....	51	937,500		1,066,951	12,446	36,736	1	2 6 4	10 0	50	60	Direct Northern to York.....	4,000,000
Glasgow, Paisley and Greenock.....	22	650,000	216,666	787,881	11,572	23,177	0	5 0 2	0 0	25	12	Dublin and Belfast.....	950,000
Grand Junction.....	104	2,478,712		2,453,169	81,309	195,080	5	0 0 10	0 0	100	210	Dundee and Perth.....	250,000
Great North of England.....	45	969,000	581,017	1,262,518	12,201	36,189	1	12 6 3	5 0	100	119	Edinburg and Northern.....	800,000
Great Western.....	121	4,650,000	3,679,343	7,272,539	132,235	369,904	3	10 0	7 0	75	138	Ely and Bedford.....	270,000
Hartlepool.....	15	438,000	155,540	719,205				8	0 0	100		Glogow, Dum. & Carlisle.....	1,300,000
Leicester and Swannington.....	16	140,000		140,000	2,207	6,317	1	5 0 5	0 0	50		Gt. South and West Ext.....	1,200,000
Liverpool and Manchester.....	32	1,209,000	497,750	1,739,835	57,239	117,559	5	0 0 10	0 0	100	203	Gt. Grimsby and Sheffield.....	600,000
Llanelli.....	27	200,000	44,000	221,624			1	0 0 2	0 0	87		Harwich and E. coun. Jun.....	160,000
London and Birmingham.....	112	6,874,976	1,928,845	6,393,468	92,823	405,768		10	0 0	100	218	Huddersfield & M. r. & cl.....	610,000
London and Blackwall.....	3	801,000	266,000	1,315,640	15,978	23,870		2	0 0	100		Kendal and Windermere.....	125,000
London and Broyden.....	56	1,793,800	998,350	2,630,451	29,372	84,880	0	12 0	2 8 0	50	47	Leeds and Dewsbury.....	400,000
London and Croyden.....	8	550,000	229,000	761,885	7,583	10,545	0	5 0	2 10 0	14	17	Leeds and Thirsk.....	800,000
London and Greenwich.....	3	759,383	233,300	1,040,930	15,193	28,933		nihil.		13	10	Liv. Ormskirk and Preston.....	600,000
London and South Western.....	92	2,222,100	630,100	2,596,291	68,457	150,469	1	12 6	6 10 0	41	73	London and Portsmouth.....	1,750,000
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1	0 6	5 0 0	40	48	London and York.....	5,000,000
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2	2 0	4 10 0	93	110	Londonderry & Enniskillen.....	500,000
Manchester and Leeds and Hull.....	81	2,937,500	1,943,932	3,921,593	46,653	156,761		7 1	10 10 0	60	88	Lynn and Ely.....	200,000
Midland railway.....	178	5,158,900	1,719,630	6,279,056	76,983	251,898		4 0 0	4 0 0	100	105	Manchester, Bury and Ross.....	300,000
Newcastle and Carlisle.....	61	878,210	188,563	1,135,059	26,499	73,947	4	0 0	4 0 0	100	105	Manchester and Buxton.....	250,000
Newcastle and Darlington.....	23	500,000		405,728				nihil.		21	49	Mullingar and Athlone.....	
Newcastle and North Shields.....	7	150,000	103,876	309,629	8,943	18,466		2 0 0	5 0 0	50	37	Newcastle and Berwick.....	700,000
North Union.....	39	739,201	358,306	1,015,417	9,071	37,794	2	10 0	6 16 8	100	104	Richmond & W. End Junc.....	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415				0 16 0	8 0 0	20	39	Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000			31,247	91,171		8 0 0	2 0 0	20	38	Sheffield and Lincolnshire.....	650,000
Preston and Wyre.....	19	839,000	179,852	355,161	4,191	7,066		nihil.		50	18	Shrewsbury and Gd. Junc.....	400,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876		nihil.		82	93	Shrew. Wolv. Dudley & B.....	900,000
South Eastern.....	88	2,996,000	1,530,977	3,464,172	40,993	81,482	0	10 6	2 2 0	50	39	Trent Valley.....	900,000
Taff Vale.....	30	465,000	154,785	590,006	8,569	18,414	1	0 0	6 5 0	100	55	West London Extension.....	64,000
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0	15 0	5 1 8	29	37	West Yorkshire.....	1,000,000
Yarnmouth and Norwich.....	20	187,500	62,500	230,250				nihil.		16	25	Whitehaven and Maryport.....	100,000
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	676,644	27,132	55,752	2	10 0	10 0 0	50	100		

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15 1/2	15 1/2	Loughborough.....	70	142 1/2	142 1/2	70	1140	
Anti Dry Rot.....	10,000		18 1/2		2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35		34 1/2		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27 1/2	27	Mersey and Irwell.....	500	100	100	10		
Gt Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2 1/2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6 1/2		Neath.....	217	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	11		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental.....	11,493	50	50	7	64 1/2	65	Regents or Loncon.....	21,418	33 1/2	33 1/2	2 1/2	25	25
Ditto.....	3,200	50	40	7	64 1/2		Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....				6			Somerset coal.....	800	150	150	7 1/2	123	123
Reversionary Int. Soc.....	5,357	100	100	4 1/2	104	104	Stafford and Worcester.....	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36 1/2	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7 1/2	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				SVERN & WHY & RAIL AV.....	3,762	26 1/2	26 1/2	5 1/2	30	30

Cornis.

Ashby de la Zouch.....	1,432	113	av.	4	70	70
Barnsley.....	720	100	100	14	180	180
Birmingham, 1-16 share ..	3,000	118 1/2	79	10	150	160
Do. and Liverpool Junction	4,039	160	100		13 1/2	13 1/2
Coventry.....	500	100	100	20	365	365
Cromford.....	460	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forth and Clyde.....	1,297	400 1/2	40 1/2	4	440	440
Grand Junction.....	11,600	100	100	7	162	161 1/2
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Berkley.....	5,000	do.	do.		8	8
Grantham.....	719	150	150	8	185	185
Lancaster.....	11,699	47 1/2	47 1/2	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	640
Leicester.....	545	140	140	9	139	139

Trent and Mersey.....	2,600	50	50	65	495	
Thames and Medway.....	8,149	19 1/2	19 1/2		10	10
Warwick and Birmingham.....	2,000	100	100	10 1/2	167	
Warwick and Napton.....	986	100	100	8 1/2	122	

Water Works.

Birmingham.....	4,800	25	25	3 1/2	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7 1/2	88	90
New River L. B. Ann.....	1,500			2 1/2		
Manchester and Salford.....	6,486	av.	30	8 1/2	57	57
Vauxhall, lt. S. London.....	1,000	100	5	5	55	55
West Middlesex.....	8,294	av.	63 1/2	6 1/2	126	127

Docks.

Commercial Dock.....	1,065	100	100	3	10	
East and West India.....		sto.		5 1/2	137	
London.....	3,238,310	sto.		4 1/2	114 1/2	115
St. Katharine.....	1,352,752	sto.		5	116	171
Southampton.....	7,000	50	50			



AMERICAN RAILROADS.													SALES.	
RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on hare	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices	Week ending July 16. Shares. Price	
						Gross. Income.	Nett.		Gross. Income.	Nett.				
Me. 1	Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	103½	5 103½
N. H. 2	Concord.....	35	750,000									12	65	
Mass. 3	Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	117	8 114½
" 4	Boston and Maine extension.....	17 1-4	455,703	unfin.										
" 5	Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120	4 11½
" 6	Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	114	
" 7	Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	120½	54 1
" 8	Berkshire.....	21	250,000	not stated				17,500	7	17,737				
" 9	Charlestown branch.....		280,260						13	34,654	13,971	5½	112½	50 80
" 10	Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	113½	275 108½
" 11	Fitchburg.....	50	1,150,000	just op'd						42,759	26,835		124	
" 12	Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	123	
" 13	New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6		
" 14	Northampton and Springfield.....		172,883	unfin.										
" 15	Norwich and Worcester.....	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	71½	3,355 71½
" 16	Old Colony.....		87,820	unfin.									106	
" 17	Stoughton branch.....	4	63,075	unfin.										
" 18	Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	118	
" 19	Vermont and Massachusetts.....													
" 20	West Stockbridge.....	3	41,516	200		100						4		
" 21	Western, (117 miles in Mass.,).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	101	20 102½
" 22	Worcester branch to Milbury.....		8,431	506										
" 23	Housatonic, (10 months,).....	74	1,244,123							150,000			31	
Con 24	Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	95	25 93
" 25	Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100								
" 26	Stonington, (year ending 1st Sept.,).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29	625 28½
N. Y. 27	Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0	6	109½
" 28	Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109½	10 109
" 29	Auburn and Syracuse.....	26	766,657			133½	86,291	27,334		96,738	52,544	6	116	
" 30	Buffalo and Niagara.....	22	200,000		1,500								100	
" 31	Erie, (446 miles,).....		5,000,000										29	1,325 30
" 32	Erie, opened.....	53						48,000		126,020	59,075			
" 33	Harlem.....	26	1,206,231							140,685	62,399		69½	170 69½
" 34	Hudson and Berkshire.....	31	575,613		50					35,029	1,789	0	11½	
" 35	Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	71	7,380 68½
" 3	Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	58½	
" 3	Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0		
" 3	Schenectady and Troy.....	20 1-2	640,800				25,043			32,646	6,365	0		
" 39	Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117	
" 49	Tonawanda.....	43	727,332				76,227			114,177	75,865	5		
" 11	Troy and Greenbush.....	6	180,000											
" 12	Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½		
" 13	Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132	20 132
N. J. 14	Camden and Amboy.....	61	3,200,000				682,532	383,880		784,191	404,956		112	
" 15	Elizabethtown and Somerville.....	26	500,000											
" 16	New Jersey.....	34	2,000,000										95	100 95½
" 17	Paterson.....	16	500,000									6	90	1,225 88½
Pa. 18	Beaver Meadow.....	26	1,000,000											
" 19	Cumberland Valley.....	46	1,250,000											
" 50	Harrisburg and Lancaster.....	36	860,000										30	
" 51	Hazleton branch.....	10	120,000											
" 52	Little Schuylkill.....	29	900,000											
" 53	Blossburg and Corning.....	40	600,000											
" 51	Mauch Chunk.....	9	100,000											
" 55	Minehill and Schuylkill Haven.....	18	315,000						12				80	
" 56	Norristown.....	20	800,000										6½	
" 57	Philadelphia and Trenton.....	30	400,000										104	
" 53	Pottsville and Danville.....	29 1-2	1,500,000											
" 59	Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		58	2,330 57
" 60	Schuylkill valley.....	10	1,000,000											
" 61	Williamsport and Elmira.....	25	400,000				20,000							
" 62	Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		15½	11,831 15½
De 63	Frenchtown.....	16	600,000											
Md. 64	Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		638,620	346,946		49½	37 48½
" 65	Baltimore and Susquehanna.....	58	3,000,000										24	
" 66	Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84	
Va. 67	Greensville and Roanoke.....	18	281,433	37,544	2,000	100				25,365	6,074		28	
" 68	Petersburg.....	63	969,880	63,000	7,690	100				122,871	72,898	3	77	
" 69	Portsmouth and Roanoke.....	78 1-2	1,454,171											
" 70	Richmond, Fredericksb'g and Potomac.....	76	800,000							185,243	85,688	6		
" 71	Richmond and Petersburg.....	22 1-2	700,000											
" 72	Winchester and Potomac.....	32	500,000											
N. C. 73	Raleigh and Gaston.....	84 1-2	1,360,000											
" 74	Wilmington and Raleigh.....	161	1,800,000											
S. C. 75	South Carolina.....	136								532,871	140,196		5	
" 76	Columbia.....	66	5,671,452		34,410	75	201,464	77,456		328,425	180,704			
Ga. 77	Central.....	190	2,581,723				227,532	93,190						
" 78	Georgia.....	147 1-2	2,650,000				248,026	158,207		248,096	147,523			
" 79	Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000			
Ky. 80	Lexington and Ohio.....	40	450,000											
Ohio 81	Little Miami.....	40	400,000											
" 82	Mad river.....	40	152,000											
Ind. 83	Madison and Indianapolis.....	56	212,000											
Can. 84	Champlain and St. Lawrence.....	15						12,000		58,000	24,000		110	

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Thursday, July 31, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 25,522 tons, and by canal 6,063 02, making 32,495 02 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total...171,729  
 From Schuylkill Haven—total.....193,511  
 From Port Clinton—total..... 6,436

Total by railroad.....371,678

BY CANAL.

From Pottsville and Port Carbon—total..... 63,447  
 From Schuylkill Haven—total tons..... 17,446  
 From Port Clinton..... 23,014

Total by canal.....103,907

Total by railroad and canal.....475,595

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.  
 Summit mines, - - - - - 88,365  
 Room run do., - - - - - 30,230—118,595  
 Beaver Meadow railroad and coal co., 37,582  
 From Penn Haven—Hazleton coal co., 30,727  
 From Rock Port—Buck Mountain coal co., 9,456

196,359

WYOMING COAL TRADE—total.....70,577

PINE GROVE COAL TRADE—total.....33,649

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....210,446

MOUNT CARBON RAILROAD—total tons.. 131,523

[Miners' Journal.]

New York and Erie and New York and Albany Railroads.

Next to the Croton water—if second even to that in importance to the people of this city—is the early completion of these two great railroads. We have not a doubt but that, if completed and put into successful operation, within five years their cost would be twice reimbursed to the people of New York—even if they merely paid the current expenses of management—in the expense of living, in improved health, arising from a greater supply of the necessities of life—such as pure milk, fresh vegetables, poultry, etc.; and last, though not least, in the increased value of real estate, which would not be less certainly, and probably more than ten per cent.—on its present assessed value of \$171,000,000—over and above what it would be if the roads are not built. It would therefore be true economy for the city to build these roads by a tax upon the property, divided into ten annual assessments, and then put the fare and freight at the lowest possible rates—merely paying current expenses, and accumulating a fund for re-building the road when required—as, by such a course, the artificial channels for business would be superior to the natural, and New York might then retain her relative position without

fear of competition. We say this might be done and true economy would be consulted thereby; yet we have no expectation that it will be done, as those who have the means to carry out such a course of measures do not, and will not, at present, see the correctness of this position; therefore we must rely upon individuals, upon the men of means, to construct them; and it is to the men of means—not of large, but also of small means—to those who feel at home in New York—not to those who feel, if they do not say, "What is Broadway or New York to me? I live in Paris;" but to those who live and have a pride in, and a regard for the people of, New York, that we desire to say—and especially in relation to the NEW YORK AND ERIE RAILROAD—let not the present liberal offer of the legislature pass unimproved. Such another may not again occur in an age, if this is neglected! To the owners of real estate, to the merchants, to the manufacturers, to the mechanics, carmen and business men of New York we say then, now do your duty, and aid in proportion to your means, in the completion of a work which, when done, will enable you to live better and cheaper, to enjoy better health and make more money, even if it never pays a penny of dividend. Yet that it will be a good investment when completed there cannot be a doubt; and as a proof that it will be so, compare its estimated cost and its resources for business with the following roads, both in this country and Europe, which are now in use and paying large and increasing dividends. We give their length, cost, cost per mile, and last year's dividend:

	Length (Miles)	Cost	Cost per mile	Dividend, 1844 (Per ct.)
Portland and Saco.....	50	\$1,200,000	\$24,000	6
Concord and Nashua....	35	750,000	21,428	12
Boston and Maine.....	56	1,485,461	26,526	6½
Boston and Lowell.....	26	1,863,746	71,682	8
Boston and Providence..	41	1,886,135	46,000	6
Boston and Worcester..	44	1,914,078	43,500	7½
Eastern.....	54	2,388,631	44,333	8
Nashua and Lowell.....	14½	380,000	27,143	10
Auburn and Rochester..	78	1,796,342	23,030	6
Auburn and Syracuse..	26	766,765	29,489	6
Syracuse and Utica.....	53	1,115,897	21,054	8
Utica and Schenectady..	78	2,168,165	27,797	8

So much for American railroads. Now look at a few of the English roads, which have generally cost more pounds sterling than ours have dollars per mile; yet they pay larger dividends, simply because they have business at both ends, and along their line, as the New York and Erie will soon have—especially at its extremes; and as for its way business it will exceed any other in the country, in proportion to its greater length and the number and extent of its branches, which will certainly exceed that of the main line! It is the construction of branches and the connection with other roads which adds immensely to the business of railroads, and ensures their prosperity. Such is found to be the case in England—where railroads are most profitable—as will be seen in the annexed list:

	Length (Miles)	Cost	Cost per mile	Divid. (Per ct.)
Dublin and Kingston..	6	£349,736	£58,289	9
Grand Junction.....	104	2,503,671	24,073	10
Great Western.....	221½	7,455,689	33,584	8
Liverpool and Manchester.....	32	1,785,000	55,781	10
London and Birmingham.....	112½	6,614,995	58,540	10
London and South-western.....	92½	2,604,405	28,004	10
Paris and Orleans....	82	1,978,415	24,127	8
Paris and Rouen.....	84	1,440,000	17,145	8

With such results during the first few years of

the working of the system, when the machinery is comparatively new, and its business has to be diverted from its ordinary channels, what may we not anticipate from it when the main lines shall have been extended, the numerous branches completed and the business have found its way to them, as a large proportion of it will wherever they are in operation? With New York at one end, and the fertile region of country with its numerous railroads and canals, bordering upon the great lakes at the other, and its hundred miles of lateral roads diverging from it along its line, as there surely will be, where can be a better investment of capital than in this important work under the law of the last legislature?

Liverpool and London.

Two hundred and twenty miles in five hours, or 44 miles an hour, including stops! and at about 5 cents a mile in first class cars; and proportionably less, or about 3 and 2 cents in the second or third class cars. This is truly going ahead, and, as Mr. Willis says in his letter, speaking of his journey from Liverpool to London, "this travelling at forty odd miles the hour gives one's eyes hardly time to know a tree from a cow, but here and there I got a distant view in crossing a valley, and recognized the lovely rural beauty of England, the first impression of which lasts one, like an enchanted memory, thro' life. Notwithstanding the great speed, the cars ran so evenly on their admirable rails, that there was no jar to prevent one's sleeping or being comfortable, and I awoke from a very pleasant dream to find myself in London." In speaking of the pavements of London, he says "the paving of London is really most admirable. Vast city as it is, the streets are as smooth as a floor—all over it, and to ride is indeed a luxury. The break-neck, hat-jamming and dislocating jolts of Broadway must seem to English judgment an inexcusable stain on our public spirit. And apropos of paving—the wooden pavement seems to be entirely out of favor. Regent street is laid in wooden blocks, and in wet weather (and it rains here some part of every day) it is so slippery that an omnibus which has been stopped in going up the street is with difficulty started again. The horses almost always come to their knees, though the ascent is very slight, and the falls of cart and carriage horses are occurring continually. Nothing seems to 'do' like the McAdam pavement, and wherever you find it in London, you find it in as perfect order as the floor of a bowling alley. I see that all heavy vehicles, by the way, are compelled to have very broad wheels, and they rather improve the road than spoil it. A law to the same effect should be passed in New York, if it ever has a pavement worth preserving." The cost of keeping the pavements of Broadway, even in the condition we usually find them for fifteen years would make them equal to those of London and keep them so; and so of other streets. But any person with one eye only, who witnesses the manner in which the pavements are put down, or repairs are made, will see that they cannot be permanent, and must therefore be a constant source of annoyance and expense.

Branch of the Erie railroad.

The Attica and Hornellsville railroad company, says the Ithaca Chronicle, incorporated at the last session of the legislature, has organized, by appointing Geo. Palmer of Buffalo, president, and J. G. Hoyt of Attica, secretary. The books for subscription to the stock are to be opened at Buffalo, Attica and Hornellsville, on the 10th of September next.

The following article, from the Boston Courier, of July 15th, contains some valuable facts in relation to the wear of the 56 lbs. iron of the second track of the Lowell road.

It appears from these facts that the cost of renewing the iron of this road is about equal to *one cent per ton of freight per mile*—estimating the passengers and baggage as so much freight.

As the destruction of iron, according to this experience, greatly exceeds the usual estimate of the value of that item, it would be well to call the attention of engineers to this important subject, with a view to providing some adequate remedy. J.

**Wear of Railroad Iron.**

There has been a great deal of discussion and speculation during the last two years, as to the probable duration of railroad iron when exposed to a heavy traffic; and there are few subjects on which the opinions of practical men have differed more.

We have, however, at last, the means of forming a very safe estimate of the durability of a 56 pounds to the yard edge rail, when well laid, on an even and well-adjusted track.

The first ten miles of the second track of the Lowell road was first brought into use in 1838, after the "fish-belly rail" had been found inadequate. The new rail was of the H pattern—the form now most generally approved.

The following table shows the number of tons which passed over the road, in each year, from 1838, when this rail was first used, until July, 1845, when the company commenced making extensive repairs:—

In 1838 about	60,000	tons.
1839	70,000	"
1840	73,000	"
1841	86,000	"
1842	91,000	"
1843	115,000	"
1844	150,000	"
1845 (to July)	75,000	"
Total freight	720,000	"

In addition to this quantity, there has been transported, annually, about 16,000 tons of passengers and baggage, or in seven and a half years 120,000 "

Which makes the aggregate tonnage about 840,000 tons.

One half of this quantity only has passed over the second track, which, up to this time, therefore, has sustained 420,000 tons. The question is now, what effect has this tonnage produced? Is the rail visibly injured by it?

The company have relieved us of the necessity of all speculation on this point, by taking up several stretches of this rail in 1844; and they are now making still further changes—one about a mile long, near the 3 mile stone, and the other about half a mile, near South-Woburn. They will be compelled to make additional renewals this year, and probably to change the iron on the whole of this 10 miles in the course of next year. The durability of this rail may, therefore, be set down at 500,000 tons. The lowest estimate we have ever seen of the power of a good edge rail, is 1,000,000 tons.

In 1841 and 1842, the Lowell company

took up 26 miles of the "fish-belly" rail, and laid down a new iron of about 56 pounds per yard; some portion of it was 60 pounds, and that which they are now using is 63 lbs. iron per yard. This change of iron cost \$121,559, after deducting the proceeds of the old iron, or about \$4700 per mile.

The new iron was heavier than the old, which, of course, increased the cost of making the change; but, on the other hand, the new iron was purchased while railroad iron was admitted free of duty, which reduced the cost.

If we make the proper allowance for these two circumstances, we will find that the cost of taking up one track of 56 pounds iron, and replacing it by a new track of the same weight, is very nearly \$5000 per mile.

If we then divide this sum by 500,000 tons, the amount of trade which shall have destroyed it, we shall obtain *one cent per ton per mile* for the value of the wear of iron on this road. This is a larger result than we should have looked for; but as the company receive more than five cents per mile per ton, for all the freight they carry, they can afford to renew their iron and still make reasonable profits.

**Petersburg Railroad.**

We give place to the following communication, and make the corrections desired, as a matter of justice, and also as a matter of business. We aim, and have made considerable effort, to obtain from each company, or from authentic sources, correct statements of the costs, etc., of their road, but have in many instances, as our table shows, been unable to obtain anything approximating to a full statement, and have, therefore, left them blank—while in some others we have adopted statements which prove to be erroneous. The best remedy is for each company to furnish full and accurate reports, and thus enable us to place them in their proper position:—

PETERSBURG, July 21, 1845.

Editor Railroad Journal—

Sir:—A friend has just called my attention to an article in your paper of the 26th ult., a part of which I extract, as it is short:

"While I think of it I will correct the statement in relation to the road over which I preside, and two additional ones in your list.

"The gross income (Richmond, Fredericksburg, and Potomac railroad) for the fiscal year, ending 1st of April last, was.....	\$185,243
"Its net income was.....	85,688
"Its cost.....	1,454,171
"Its dividends 6 per cent.	
"The Petersburg and Roanoke railroad cost about \$950,000, instead of \$260,000, as stated, and pays 3 per cent."	

I do not suppose that the writer of the above intended to make a comparison between the two roads unfavorable to the latter, but the impression which the statement must have made on the minds of your readers was, that the first was twice as valuable an investment as the last, and that the last only "pays 3 per cent."

Let us see how far this impression is sustained by a more detailed statement in regard to the Petersburg road—"the road over which I preside."

The Petersburg (not Petersburg and Roanoke) railroad was finished in 1833. Up to 1842 it had paid in dividends 54 per cent.

In 1842 and 1843 the company rebuilt the road with 15 miles of edge rails, and the balance with  $\frac{3}{4}$  by  $2\frac{1}{2}$  inch plate iron, and constructed 3 miles of new road and an expensive bridge across Roanoke river. In three years no dividend was paid, the profits having been absorbed by the new work and the payment of debts.

The receipts of transportation for the 12 months ending Feb. 1st, 1845, were.....	\$123,670 81
Expenses of all kinds, except interest, was.....	\$49,970 33
Interest account.....	4,745 98—
	58,718 31

Net income.....	\$64,952 50
Out of this income was paid—	
Of the debts due by the company....	\$41,882 50
And a dividend of 3 per cent.....	23,070 00

Out of the profits of the last six months we have paid about \$32,000 of our debt and a dividend of 2 per cent.

This will give your readers a better idea of the value of our road than the short statement that "it pays 3 per cent."

Your informant, in sending you the statement about our road, omitted, no doubt accidentally, to give all that is necessary to fill up the blanks in your list, some of which are of importance in ascertaining the value of the investment. This I will give you.

The road is 63 miles, (instead of 60, as in your list.)

The number of shares 7,690, of \$100 each, all paid.

The amount of loans and debts Feb. 1st, 1845, was \$94,592. This was reduced to less than \$63,000 July 1st.

Last prices of stock \$75 to \$77.

I have charge also of the Greenville and Roanoke railroad, the cost of which is greatly overrated in your report.

This road is 18 miles long. It cost \$284,433. Number of shares 2000, of \$100 each, all paid. Debt, 1st of May last, \$37,544. This road was finished in 1837. Up to May last the company had paid \$46,858 of their debt out of the profits of transportation. No dividend has yet been made.—Last sales of stocks 25 to 28.

The receipts for the fiscal year, ending May 1st last, were.....	\$25,368 94
Expenses of all kinds....	\$16,620 62
Interest account.....	2,673 46—
	\$19,294 08

Net income—applied to the reduction of debt..... } \$6,074 86

I remain respectfully yours,  
H. D. BIRD.

**PITTSBURGH GAZETTE AND ADVERTISER.**

We have just received one number—and look for more—of this excellent paper, published daily, tri-weekly, and weekly, by Messrs. WHITE & HARRIS, Pittsburg, Pa. It is a very long time since we have seen a number of it, though it was formerly a regular visitor. It is a well conducted and, we judge from its advertising, a well sustained business paper—with its marine list, commercial record, etc., which gives it much the appearance of our city papers—and will be found, we doubt not, a valuable medium of

advertising for our city merchants and business men who desire to extend business in the west.

We copy from the *Albany Argus* the following exceedingly appropriate, and well written, article on the subject of railroads. It shows that "truth is mighty and will prevail."

The remark that "experience has conclusively proved that the opening of a railway invariably doubles business, and in many cases trebles, and even quintuples it," is certainly true—and a truth which we have long labored to establish—and we are much pleased to learn that the *Argus*, one of the most influential papers in the union, has hoisted the railroad flag—even at this late period. It is not yet too late for it to accomplish much in aid of the cause:—

*The railway spirit—Its present character—Progress of American railroads.*

The feeling in favor of railways is rising in every state in the union. Almost every paper we open contains a call for a railroad meeting or elaborate reports of trade and tonnage of particular routes, in order to determine the propriety of an immediate prosecution. The space that these proceedings occupy in the local papers of all parties is the best evidence of the depth and pervading intensity of public opinion. Though it may be thought that there is madness in the high-wrought feeling on this question, yet we may say there is "method in this madness." Canals are not spoken of, because business men know that any new work of internal improvement to be profitable must carry not only freight but passengers. If they can so construct a railroad as to do cheaply both kinds of business, it is obvious that many routes (now unoccupied) would support a railway where a canal could not pay its repairs. Time, and speed, and certainty, are becoming so essential an ingredient in freight, as well as passenger travelling, that the community will give the preference to railways. Canals may carry cheaper, but railroads are quicker, and what is of not less importance, can be used every month of the year, while canals are closed at least five months, or nearly half of the year, and so long are useless to the producer or manufacturer.

There is one feature which now marks the railway efforts, not only in New England and New York, but in the western, middle, and southern states, and that is, the exact amount of tonnage and the number of passengers over any proposed route, are first ascertained, before the enterprise will move. Fortunately, this important examination is undertaken, not by mere speculators, but by sound business men, of tried integrity, in whose judgment a just confidence is reposed by those who are invited to invest. When it is clear that the present business would pay a small dividend (say 3 or 4 per cent.) on the whole cost of the road and its equipments, then safety is adhered to, and though the direct return may not be large, the stockholders are sure of a small yearly income from their investment. This reliance upon present and existing business is all that is

needed to free such railway enterprises from the charge of speculating upon the credulity of the public.

In this connection we might very properly state, that experience has conclusively proved that the opening of a railway invariably doubles business. In many cases its trebles and even quintuples business. This reliance on an increase of business may be depended upon with certainty.

Where the present and existing business on a proposed route will pay a small dividend, the increase of business on the opening of a railway may be sufficient to meet all contingencies in their construction and other expenses, the exact amount of which it is at first impossible to calculate. This certain augmentation of transportation insures a dividend beyond a peradventure.

There need be but little fear that the railroad spirit will run into a dangerous mania. The currency, which in truth is the great lever of all wild speculations in this country, is fortunately on a sounder basis than it was in '35 and '36. This is a safeguard of the highest importance. When individuals have to raise the money without borrowing, or for which they have paid an actual equivalent, they will feel no disposition to waste it in railroads. They may invest it if they have reliable data which show a reasonable return, but the biting experience of '35 and '36 is not forgotten, even by the reckless and credulous. The most plausible statements are now received with distrust.

We have also marked that even in the general urgency to push forward railways we hear no more of borrowing abroad. No agents, as in '35 and '36, are traversing Europe to negotiate loans at a low rate of interest, for the purpose of forcing these works through. The revulsions of the past are not forgotten. Most fortunately those who are so earnest about railways rely entirely upon American capital—deeming it sounder policy to wait awhile, until our capitalist can accumulate sufficient means, rather than hurry these railroads through, upon the impulse of foreign capital. So long as such caution tempers the present mania we fear not the rising spirit. On the contrary, much good may come therefrom. The impulse which leads to the linking of the iron bands of brotherhood and union is a noble one. We trust that it may be rightly directed. It can be productive of the highest good to man, while it may give a steady and healthy direction to the capital of our country—inviting the hand of labor by an ample reward while it repays the munificent enterprise of capitalists.

Neither is it to be overlooked, that though railroads are one of the strongest and most enduring arms of peace, they immeasurably strengthen the military efficiency of our country and add to its national greatness and power in the eyes of the world.

The railway is becoming a marked element in the progress of civilization throughout the world. The past movements of the United States in their construction have so deeply excited the interest of Europe that a

special agent from the French government has visited the principal railroads of fifteen countries. In the course of the last year and years we have constructed five thousand even miles of railroads. But we are now in the dawning of the system.

In the next fifteen years may we not anticipate a progress accelerated by the past momentum? Who will not live to see that five thousand augmented to fifteen, and perhaps twenty-five thousand miles of railways? The vast extent and boundless fertility of our country and the irrepressible character of our people afford an unerring indication of what they will accomplish when their energies are directed upon enterprises worthy of their name and the nation, and which so peculiarly accord with the progressive spirit of our institutions.

**Railway Accidents.**

The recent accidents on the Great Western, or London and Bristol railway, is causing no little talk. We copy the following account of it from the *Railway Express*, of 20th of June, and then give the remarks of Herapath's Magazine, of the 21st:—

*Accident on the Great Western Railway.*

On Tuesday morning a serious accident took place on the Great Western railway, near the Langley station, about two miles and a half on the London side of Slough.

The express train left Paddington for Exeter on Tuesday morning, at three-quarters past nine o'clock, the whole distance (194 miles,) since this fast train has been established, being performed in four hours and a half. The train consisted of the engine and tender, a luggage van, two second class and two first class carriages. Upon the arrival of the train at a point of the railway called Dog-kennel bridge the passengers experienced an extraordinary undulatory sort of motion, and shortly afterwards the gravel and dust between the lines of rails were thrown up in clouds, into both the first and second class carriages, to the great alarm and dismay of the passengers; and, before more than a few seconds had elapsed, the two first class and one of the second class carriages were thrown with fearful violence off the line down an embankment twelve or fifteen feet in depth, with a most alarming and dreadful crash. The first of the two second class carriages was dragged completely across the four lines of rails, which having become disconnected from the luggage van, was there left in that position, while the engine, with its tender, proceeded onwards.

The whole of the carriages were nearly filled with passengers, there being upwards of one hundred and thirty second class, and between fifty and sixty first class, passengers. The only carriage having but four wheels was the luggage van. The weights of the respective vehicles, exclusive of luggage and passengers, were as follows:—The engine, 16 tons; tender, 10 tons; luggage van, 3 tons 10 cwt.; second class carriages, each 7 tons; and the first class carriages, each 7 tons 10 cwt.

Among those who were in the carriages, officially connected with the railway, were

Mr. Brunel, the engineer in chief; Mr. Jones, in Mr. Brunel's establishment; and Mr. Seymour Clarke, the chief superintendent of the locomotive department, accompanied by Mrs. Clarke. All these parties providentially escaped with but trifling bruises.

Upward of forty persons, who were more or less injured, were taken to the Royal Hotel, at the Slough station. Among those were Sir Richard Vyvan; Dr. Strong, of Rose-cottage, Hereford; the Rev. Collingwood Hughes, of Avishays-house, near Chard, and the family governess; Mr. Bristow, of Haverfordwest; and Mr. Colin Robertson, late of Honiton. None of these had sustained any serious or permanent injury.

General Pasley, the government inspector of railways, accompanied by Mr. Seymour Clarke, visited the scene of the accident on Wednesday. No defects were discovered in the line of rails to have caused the accident. Mr. S. Clark's opinion of the cause of the accident is as follows:—"The luggage van, which was a four-wheeled vehicle, and the lightest in the train, was, from some cause which cannot at present be ascertained, thrown off the line, the engine and the other carriages remaining in their proper position on the rails. It proceeded thus until it came to the cast iron girders or troughs of a bridge thrown over a road leading from Langley to Iver, when it seems that it struck one of these girders, which threw it off the timbers into the ballast of the line, pulling with it, and against the iron girders, the remainder of the train."

To the extraordinary strength of both the first and second class carriages, which, though very much damaged and shattered, stood the shock so as to enable the passengers to move freely in them, may be attributed the preservation of the lives of the numerous passengers, which were placed in the most imminent peril. The galvanic telegraph between Slough and Paddington, which had been damaged, and rendered for the time utterly useless, by the wires and posts having been severed and broken, was repaired during the night.

[From Herapath's Railway Magazine of June 21.]  
*Accident on the Great Western Railway.*

Every one must deplore the unfortunate accident which happened to the Great Western on Tuesday, not merely that it was an accident, but that it happened to a train which reflects on the enterprising spirit of the company the highest credit. Accidents all companies are liable to, but when they fall on actions which have departed from the usual cause for public accommodation and good, we cannot help feeling a more than ordinary sympathy. The Great Western fast train had set an example so bright and shining that other companies' performances, like candles in the presence of the sun, appeared dark and insignificant. If, therefore, there is any act of the Great Western more than another to which we wisened unmixed success, it was this, and we felt overpowered with vexation when we heard of their misfortune, of

which an account is given in another part of our Journal.

Lamentable, however, as the accident is, we have learned one lesson by it, which we hope will not be lost on Mr. Brunel, the engineer, who was reported, but we learn not truly, to have been present, but had the good fortune to escape uninjured. It is this:—"The cause of the accident was owing to the luggage van—which Mr. Seymour Clarke says was *"the lightest in the train"*—hopping off the rails. Our readers will remember that some twelve months ago Mr. Brunel, in some evidence he gave on the atmospheric railway, asserted that by means of the atmospheric railway they would be able to have carriages of a much lighter construction and go at a much higher speed, which we then commented on as unsound reasoning. We maintained that the weight of the carriages was one great security at high velocities against their leaving the rails, and that to diminish their weight would be to increase the public danger. An accident happened on one of the railways, shortly after, confirmatory of what we said; yet in spite of this practical fact—palpable even to a child—Mr. Brunel maintains his notions, and advances as a merit of the atmospheric plan that it will save dead weight and permit us to have carriages of a lighter description. Here, however, is a fact on his own railway which his own sub has described, that the cause of the accident was the lightest vehicle by one-half of seven in the train—namely, the luggage van jumping off the rails. The engine is set down at 10 tons, which we suspect are several tons too little, the tender at 10, two first class carriages each at 7½ tons, and two second class carriages each at 7 tons, while the luggage van is only 3½ tons. Why the luggage van was so disproportionately light, we know not. If it was made so conformably to Mr. Brunel's notions that the weight of a vehicle has nothing to do with security on the rails, here is at once a practical proof of their fallacy; for had it not been for the high speed, combined with the superior lightness of this vehicle, the chances are six to one against its leaving the rails. These odds are much increased, seeing that it was not the first but the third vehicle of the train.

Though we cannot but feel gratified at this experimental tribute to our correctness, we are sorry it should be at the expense of the company's property and the safety of the passengers. We do, however, hope, as it is never too late to learn, that the company, if Mr. Brunel should not, will be wise enough to see the impropriety and danger of continuing to use these very light vehicles with such high speeds.

We also hope that the subject will not escape the board of trade, at whose suggestions luggage vans were placed between the tender and the passenger carriages. No luggage van can at high speeds be lighter than one of the carriages without compromising the safety of the passengers.

[The following observations on this subject from a gentleman of considerable expe-

rience in railways, open up new ground, and will therefore be read with attention.]

MR. EDITOR:—It is to be hoped that a full explanation of the cause of the late accident to the express train of the Great Western company will be afforded to the public.

To those acquainted with the working of railways, it is evident that the cause originated either in neglect or was the result of accident which no human prudence could prevent.

If the facts as stated in the daily press be correct, I should fear that the luggage van next to the tender had not been properly attached to it, can hardly be supposed that the coupling and safety chains should both have given way at the same moment.

The sudden separation of the carriages of a train proceeding at a high velocity on any line would have produced a similar result, but on a line like the Great Western, the rails of which are laid on continuous or longitudinal bearers, the possibility of a similar accident is greater, not from the extreme breadth of its gauge, but from the peculiar manner in which the rails are laid.

It is admitted by all persons conversant with railways that the natural tendency of rails is to collapse, and in order to guard against this tendency, which is caused by the action of the flanch of the wheels on the inner side of each rail, every precaution is taken by offering the greatest resistance to the tendency to collapse.

In the case of continuous or longitudinal bearers, the framing to counteract lateral pressure, is placed in juxta-position to the bearers, whereas in the cross sleeper road the rail itself is acted upon by the chair in which it is seated. In the one case the resistance is direct or immediate, but in the former it is remote or contingent.

Any one who has noticed the ordinary repair of a line, the rails of which are laid on blocks, will have seen that the inner side of the block is imbedded deeper in the ballasting than the other side, and that in lines with continuous or longitudinal bearers, the inner side of the bearer requires much more packing than the outer. This adjustment is to insure a more perfect gauge of the rails. The departure from the true gauge causes the carriages to roll or to assume that oscillating motion which is commonly termed "wabbling," and in proportion to its increase, the chance of overturning is multiplied.

In cross sleeper roads, the action of the wheels of the engine upon the rails is direct, the grip or adhesion of the driving wheels acting on both rails at the same time with an equal and proper bearing, the rails being seated in chairs placed in line with each other, whereas in a continuous or longitudinal bearer the action of the driving wheels is more or less oblique from the absence of uniformity in the fixing or seating of the rails with the same precision as the chair insures.

I have no doubt that the cause of the late accident might have been accelerated by the lightness of the luggage van, and by its being (as I presume it was from the circum-



stance of its being a four wheeled carriage) of a different length to the other carriages in the train; at all events, I trust for the sake of the public and the company that the result of the inquiry will be made known.

London, June 19, 1845.

#### A TRAVELLER BY RAILWAYS.

This is an age prolific of new plans, and there must, of course, be some good ones among them. Possibly "Prosser's Railway Guide Wheels" are among the good ones; therefore we lay the following article, from Herapath, before our readers, and ask their views in return:

#### Prosser's Railway Guide Wheels.

On Wednesday last the merits of this plan were publicly tried at Wimbledon-common, where a length of about two miles of railway was laid down for the purpose. The line was not composed entirely of wooden rails, but partly of iron, to show the power of easy transition from one to the other of which the plan is capable; and this we may observe was proved beyond doubt. The shape of the line is not much unlike that of a ladle, being for some distance a straight length, at one end of which it branches off with short curves into two lines of railway, taking opposite directions to form a circle, so that the train ran down the straight line, round the circle, and returned to the place whence it set out up the straight portion. The radius of the curves (contained in the circle) is 10 chains, and the heaviest gradient on the line 1 in 50; there were other gradients of different inclination, varying from 1 in 80, 1 in 100, to 1 in 200, etc. Our readers are aware of the principle and plan of Mr. Prosser's invention; since we have had occasion to call their attention to it on former occasions; it is simply a contrivance to dispense with the ordinary flange, by employing small wheels, working against the rails obliquely at angle of 45 degrees, to do its office, by which it is professed friction is reduced, and greater safety obtained—the rubbing of the flange being obviated by the rolling of these wheels, which at the same time obtain a greater purchase on the rails, and in case of accident to the wheels or axles (unfortunately the principal cause of our and our neighbor's worst accidents, particularly that frightful one on the Versailles railway) they supply the place of the wheels themselves. The plan is equally adaptable to iron or wood, and in using the latter a saving of £2,500 to £3,000 per mile is alleged to be effected, the best guarantee for which is the contract entered into by one of the first firms of contractors to make it on the Guilford Junction line, which unfortunately perhaps for the inventor, though the large sum of £20,000 was given as compensation, was not completed, owing to the purchase of it by the South West company, to form part of an extensive scheme in connection with their railway. Had that line been made, we should have had by this time one of the best proofs we could desire of the merits of the invention, namely, the practical working of it. It is, however, to be adopted by the Waterford and Kilkenny railway; being but of so

simple contrivance, and the effect so evident, we need scarcely a practical illustration to show us the result. Although circumstances were altogether unfavorable to a trial of the plan, we must confess to our minds it was more than ever convincing of the practical utility of the plan. A suitable engine not being procurable in less time than a year and a half, the company formed to carry out the system was obliged to resort to one of Rennie's old lathe engines. This clumsy affair is more than doubly as ponderous as it should be, weighing about 11 tons, (13 with water,) the power of which does not reach 30 horses, whereas a suitable one would not have exceeded six tons. It was without springs. The rails just laid down, soused by a heavy rain, were in a most wretched state of level, such, that we believe no ordinary train, we mean constructed in the common mode, could have traversed at scarcely a walking speed, much less at that which the model obtained on Wednesday. At the left hand sharp curve, turning into the circle, where the gradient was as heavy as 1 in 100, the worst portion of the rails occurred; yet the engine and train ran up this incline, and worked the curve with the undiminished speed of 20 to 25 miles an hour. That was a pretty good test of the capabilities of the system. There was no more jolting in performing this than in running over less objectionable portions. We may remark that this "jolting," caused in a great measure by the want of springs, was apparently by no means pleasant to some of the parties invited to the experiment, who expected to have an easy ride; and, further, we have no doubt that it somewhat effected their minds as well as their digestions, in estimating, or rather underestimating, the success of the trial.—Sight seers are too apt to form opinions wholly from appearance and feeling, without making allowances for circumstances. For our part, we should prefer testing an invention under severe disadvantage to having it nicely cooked up for the occasion, since we are then enabled, though at some cost to agreeableness, to judge of its worth, if any its possessor. On the whole, we think the experiment was very satisfactory of the merits of Prosser's system.

**Chesapeake and Ohio Canal.**—We are highly gratified in being able to announce that at the adjourned meeting of the Chesapeake and Ohio canal company, held at Frederick city, on the 23d instant, the bonds required by the late law of Maryland, guaranteeing the transportation of 195,000 tons of tonnage per annum, for five years, were furnished for the whole amount. These bonds will be submitted without delay, for the approval of the Governor and the agents of the state, of which approval no doubt is entertained.

We also learn that the prospect of letting the unfinished portion of the canal, between dam No. 6 and Cumberland, to able and energetic contractors, for the bonds of the company, is encouraging; and we trust that having succeeded, thus far, after many diffi-

culties and discouragements, the progress of this great work will now be onward and prosperous.

At the same meeting, James M. Coale, Esq. was unanimously re-elected president, and John P. Ingle, Frisby Tilghman, William Price, John O. Wharton, and Daniel Buckhurst, Esqrs, were re-elected directors, and Robert W. Bowie, Esq. was elected director to fill the vacancy occasioned by the death of Mr. Darne.

**The Iron Trade of Staffordshire.**—Notwithstanding the recent extraordinary reduction in the price of iron, the extensive works of Thomas Kinnersly, Esq., at Kidsgrove, continue in full activity, and we hear that the wealthy proprietor has commenced the erection of another powerful blast, and is expending a considerable sum in other improvements.—[Staffordshire Mercury.]

**The Iron Trade of Wales.**—There is a continued reaction in the price of iron. The Ynisedwyn and Ystalyfera iron co.'s have this week lowered their prices for castings £1 per ton. We apprehend the failure of a large speculative broker and dealer has operated prejudicially on the market; but, if the fear entertained rather generally that parliament will stop the progress of many of the railway bills for this session should prove groundless, we hope there will be sufficient demand for iron to prevent a return to the old rates of wages which we fear must otherwise take place.—[Cambrian.]

**Decision of the House on the broad and narrow gauges.**—The broad gauge came off victoriously by a large majority of 134—for it, 247; against, 113; majority, 134. The grounds on which this decision appears to have been governed was the determination of the House to support their committees. It seems to have been fully known in the morning what the result would be. Nevertheless the victory may be short lived.—[Herapath's Journal.]

**TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY.** The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**FOR SALE, AT A SACRIFICE—A LOCOMOTIVE ENGINE, 4 wheels and Tender.** Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine.

2 8-horse " "

1 Upright Hydraulic Press.

All of which will be sold low, on application to

T. W. & R. C. SMITH.

Founders and Machinists,

May 12th

Alexandria, D. C.

**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. *JOHN F. WINSLOW, Agent.*

Albany Iron and Nail Works, Troy, N. Y.  
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

ja45  
**TO IRON MANUFACTURERS. THE SUBscribers,** as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of iron according to Mr. Crane's principle.

A. & G. RALSTON & CO.,  
ja45 No. 4 Sout Fronth st., Philadelphia, Pa.

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

*HENRY BURDEN, Agent.*  
Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\* \* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand.

ja45

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whit-  
**FRENCH & BAIRD.**

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.  
*Philadelphia, Pa., April 6, 1844.*

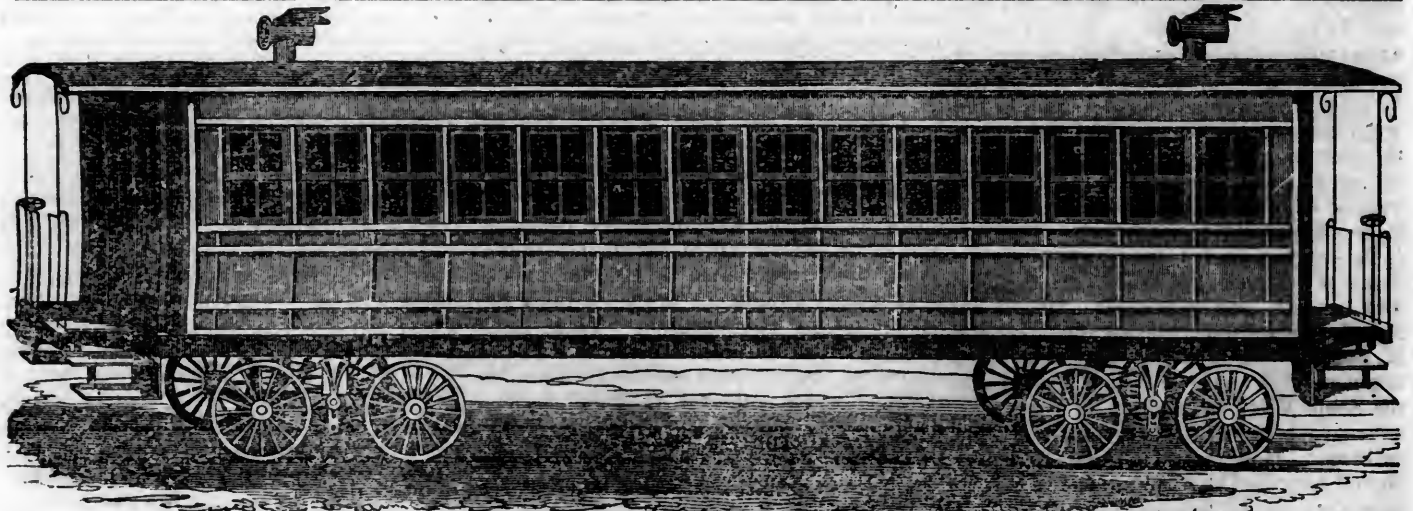
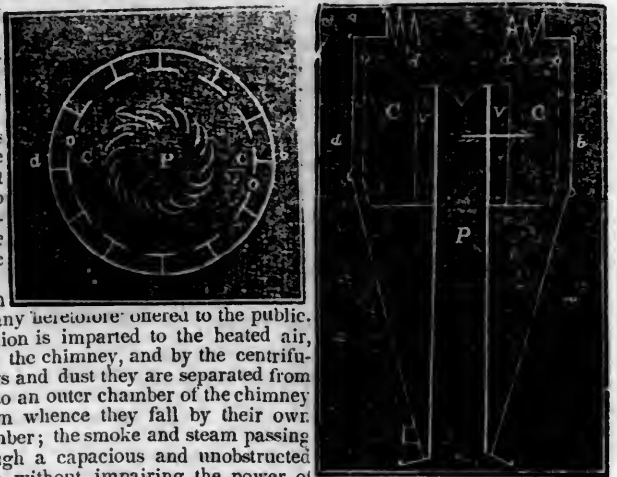
\* \* \* The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45

**SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars.** The Subscriber is engaged in manufacturing Spring Steel from 1 1/4 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address  
*JOAN F. WINSLOW, Agent,*

ja5a3 Albany Iron and Nail Works, Troy, N. Y.



**SAMUEL NOTT, CIVIL ENGINEER, SURveyor and General Agent, Bangor, Me.** Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES. —  
Boston, { Col. James F. Baldwin, Civil Engineer.  
          { Col. J. M. Fessenden, " "  
Wm. Parker, Esq., Engineer and Superintendent  
Boston and Worcester railroad. ja45



**DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS** Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**FROM PHILADELPHIA.**  
**PASSENGER LINES NORTH AND EAST.**

 **Camden and Anby Line.**— By Railroad and Steamboat from Amboy. Leave foot of Walnut street daily, Sundays excepted, at 5 1/2 a.m. Fare \$3. Forward deck \$2 25. Also for New York, by way of Trenton, Princeton, New Brunswick, Elizabethtown and Newark, N.J., daily from foot of Walnut street, at 9 a.m., and 5 p.m.—Fare \$4. 31

**For Reading and Pottsville.** By **Reading Railroad.** Daily, Sundays excepted, from the Depot, corner of Broad and Cherry streets at 8 a.m. Fare, \$3 50. Second class, \$3. To Reading \$2 25. Second class \$1 90. 31

**For Mauch Chunk and Wilkesbarre.**—By **Express and Reliance Line.** Daily, from the corner of Broad and Cherry streets, at 9 a.m. 31  
PETERS, MILTIMORE & CO.

**For Easton and Bethlehem.** By **Post Coaches.** Leave the Office, next door to the White Swan, Race street, daily, at 4 a.m. 31  
PETERS, HAMMIT & CO.

**For Baltimore.** By **Railroad.** Fare \$2. Via Chester, Wilmington, Elkton, Havre de Grace. Leave Philadelphia, Depot, 11th and Market street, daily, Sundays excepted, at 8 a.m., 4 p.m. Leave Baltimore, Depot, Pratt street, daily, Sundays excepted, at 9 a.m., 8 p.m. Tickets through to Wheeling and Pittsburg can be procured at the Depot.



Wilmington Accommodation Line, leaves the Depot, 11th and Market sts. daily, except Sunday, at 10 a.m. and 4 p.m. Leaves Wilmington at 7 a.m. and 4 1/2 p.m. G H HUDDLE, Agent. 31

**For Baltimore.** By **Newcastle & Frenchtown Railroad and Steamboat Line.** Fare \$1. The Steamboat Robert Morris, Capt. J. M. Douglass, leaves Dock street wharf daily, except Sunday, at 3 o'clock. Passengers by this line will reach Baltimore at about 10 p.m. Tickets through to Wheeling or Pittsburg can be procured on board the boat. G H HUDDLE, Agent. 31

**For Baltimore, via Lancaster, Columbia and York.** By the **Susquehanna Railroad**, daily, Sunday excepted, leave the Depot 274 Market st., at 7 1/2 a.m., and 12 at night, for Columbia, and leave Columbia at 2 p.m. for Baltimore. Dine at York and arrive in Baltimore in time for early tea; passing through the most highly cultivated and beautiful part of Pennsylvania, and romantic part of Maryland. 31

**For Pittsburg, via Columbia and Lancaster Railroads.** Leave the Depot 274 Market st. daily, at 7 1/2 a.m. The Night Line will leave as usual at 12, midnight. At Harrisburg this line connects with the Railroad and Stage Line for Carlisle, Chambersburg and Pittsburg, with the Packet boats for Lewistown, Huntingdon, Hollidaysburg and Pittsburg; also with the Susquehanna Packet boats to Northumberland, Milton, Muncy, Williamsport, etc. Through tickets for any for any of the above places can be secured at the depot, where every information relative to the above lines will be given. Passengers for York and Gettysburg will leave in the 7 1/2 line. JACOB PETERS & CO. 31



**For Pittsburg.** By the **Pioneer and Express Packet Line.** Leave the Depot, 274 Market st. above 8th, at 7 1/2 a.m. By this route travellers may be assured of a safe and comfortable passage, every arrangement having been made for their accommodation. Office N. E. 4th and Chestnut sts. Seats may also be procured at the Depot, and at 13 South 3d st. A CUMMINGS, Agent. 31

 **Susquehanna Line of Railroad Cars and Post Coaches.** 

This line leaves the depot, corner of Broad and Cherry streets, daily, [Sundays excepted] at 8 o'clock, a.m., via Reading and Pottsville railroad, for Sunbury, Danville, Cattawissa, Northumberland, Milton, Muncy, Williamsport, Towanda, Bellefonte, Jersey Shore, Lockhaven, Ralston and Elmira. For seats apply at the stage office, 104 Race street, under the White Swan Hotel. 34

S. STILES, Agent.



**FROM BALTIMORE.**  
**PASSENGER LINES SOUTH AND WEST.**

 **Baltimore and Ohio Railroad.**— For Cumberland, Hancock, Martinsburg, Harper's Ferry, Winchester, Frederick, Ellicott's Mills, and intermediate depots by the regular train, daily, at 7 1/2 o'clock, a.m. For Frederick and intermediate stations, by extra train, daily, except Sunday, at 4 p.m.

Fare in either direction between Baltimore and Cumberland \$7, and for intermediate distances at the uniform rate of 4 cts. per mile. Through tickets are issued between Baltimore and Wheeling respectively, \$11. Between Baltimore and Pittsburg, \$10. Between Philadelphia and Wheeling \$13. 31  
J. D. FOLEY, Agent.

**For Washington.** From **Baltimore** at 9 o'clock, a.m.; 5, p.m.; and 11 1/2, p.m. By order, 31  
D. J. FOLEY, Agent.

**SUMMER ARRANGEMENT--FARE REDUCED.**

 By the **Great Southern Mail**  Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

**Direct to New Orleans,** and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great **Southern Mail Line,** and the only one that issues a **through ticket South.** Those who patronize it will save their money and time. **Through Tickets** from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

**Fast Mail Line.**—Leave New York at 9 a.m. and arrive in Philadelphia at 3 p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12 1/2 to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 9 1/2 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.



Passengers by the above line will arrive at Richmond by 11 1/2 o'clock p.m. and Petersburg, Va. by 2 1/2 o'clock p.m., through to the former city in **twelve hours,** and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

**Way Mail Schedule.**—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p.m.; arrive in Baltimore at 6 a.m.; arrive in Washington at 11 a.m. **From Philadelphia by steamboat.**—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and **through tickets** apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore. 31  
STOCKTON & FALLS.

**For Norfolk and the South, by steamboat** through the Chesapeake bay to Norfolk, and then by railroad to Weldon, Wilmington or Raleigh, etc. Leaves Baltimore daily [except Sundays] from Spears' wharf, at 4 p.m., and arrives at Norfolk next morning at 7 o'clock; fare \$6. Leaves Norfolk at 8 a.m. and arrive at Wilmington next day at 12 m. and Charleston next morning at 7. Fare through \$21.

**For Philadelphia (Union Line,) via Chesapeake and Delaware Bay, and Newcastle and Frenchtown Railroad.**—The well known steamboat Constitution, Capt. Chaytor, has commenced her regular trips for the season, leaving Bowly's wharf, foot of South street, at 3 o'clock, p.m. daily [except Sundays] for Philadelphia. Through in 8 hours. Fare \$1. 31

 **Morning Train for Philadelphia.** 

The morning train leaves the depot, Pratt street, daily [except Sundays] at 9 o'clock, a.m. Passengers arrive at Philadelphia in full time to continue on by the mail train for New York. Fare \$3. The evening train leaves Pratt street depot daily, at 8 o'clock, p.m., after the arrival of the cars from the south and west. Through in seven hours. Fare \$2. 31

**For Philadelphia, via York, Columbia and Lancaster,** by the Baltimore and Susquehanna railroad. Cars leave from their office, 63 North street, daily [Sundays excepted] at 9 o'clock, a.m. Fare \$3 50. 31

**GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.**—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/2 in. to 2 1/2 in thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions. 31  
ja451y

**NICOLLS'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design. It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them. 31

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable. Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, 31  
ja45 Reading, Pa.

**MACHINE WORKS OF ROGERS, KETCHUM & Grosvenor, Patterson, N. J.** The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch. 31

**Railroad Work.** Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars. • Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship. Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions. ROGERS, KETCHUM & GROSVENOR, 31  
a45 Patterson, N. J., or 60 Wall street, N. York.

**RAILROAD IRON AND FIXTURES.** THE Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States. 31  
DAVIS, BROOKS & CO., 31  
ja45 21 Broad st., N. York.

FROM NEW YORK.

**New York and Harlem Rail-**

road Company.

Leave City Hall for Yorkville, Harlem and Morrisania at 5.30, 7, 8, 9, 10, a.m.; 1, 2, 3, 3.30, 4, 5, 5.30, 6, p.m. For Fordham and Williams' Bridge at 5.30, 7, 10, a.m.; 2, 3.30, 5, 6, p.m. For White Plains at 7 and 10 a.m.; 2 and 5 p.m. Leave Morrisania and Harlem for City Hall at 6.20, 8, 9, 10, 11, a.m.; 2, 3, 4, 2, 5.20, 6, 6.30, 7.45 p.m. Williams' Bridge for City Hall at 7, 7.40, 10.40 a.m.; 2.40, 5, 5.40, 7.20 p.m. White Plains for City Hall at 7.10 and 40.10 a.m.; 2.10 and 5.10 p.m. 31

**New York and Erie Rail-**

road Line.

For Middletown, Goshen, and intermediate places. —Two daily lines each way, as follows:—For passengers—The new, fast and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7½ o'clock, A.M., and 4 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4½, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets, 31

H. C. SEYMOUR, Superintendent.

Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc., etc. 31

**PASSENGER LINES FOR THE NORTH AND WEST.**

**Morning Line, at 7 o'clock**—For Albany, Troy, and intermediate landings.—The steamboat Troy, Capt. A. Gorham, will leave New York, foot of Barclay street, at 7 o'clock, A.M., every Tuesday, Thursday, and Saturday. The steamboat Niagara, Capt. DeGroot, leaves New York at 7 o'clock, A.M. Monday, Wednesday, and Friday. 31

**Afternoon, or 5 and 7 o'clock Line.**—At 5 o'clock, P.M., landing at intermediate places, from the foot of Barclay street.—The steamboat New Jersey, Capt. H. H. Fury, will leave on Monday, Wednesday, Friday, and Sunday. The steamboat South America, Capt. M. H. Truesdell, will leave on Tuesday, Thursday, and Saturday. For passage or freight apply on board, or to 31

P. C. SCHULTZ,

At the office on the wharf.

**Evening, or 7 o'clock Line.**—Line steamboats for Albany—Daily, Sundays excepted—Through direct at 7 o'clock P.M. from pier between Courtlandt and Liberty streets.—Steamboat Rochester, Capt. R. G. Crittenden, will leave on Monday, Wednesday, and Friday. Steamboat Knickerbocker, Captain A. Houghton, will leave on Tuesday, Thursday, and Saturday. 31

For Albany and Troy, direct, at 7 o'clock, P.M., from the steamboat pier, foot of Courtlandt street. The Empire, Capt. R. B. Macy, Tuesday, Thursday and Saturday. The Columbia, Capt. Wm. H. Peck, Monday, Wednesday, and Friday. 31

**Troy and Greenbush Rail-**

road.

Leave Troy, at 6 o'clock, A. M., to Boston and Albany; 8½, do., do., do.; 10½, do., do., do.; 2, P.M., to Boston and Albany; 4, do., do., do. Leave Albany at 7½ o'clock, A.M.; 9½ do., do.; 12, M., or on arrival of the Boston train; 3, P.M.; 6, P.M., or on arrival of the Boston train.—Fare, 12½ cents. 31

Passengers at Albany should procure tickets at the Boston railroad office, foot of Maiden lane. 31

L. R. SARGENT, Superintendent.

**Schenectady and Troy railroad cars** leave as follows:—From Troy, 7½ o'clock, A.M., daily; 1, P.M., daily, except Sundays; 7½ do., daily. From Schenectady, 3 o'clock, A.M., daily; 9, do., do., except Sundays; 3, do., daily. 31

Persons going to Saratoga and north should take the 7½, A.M., train; and passengers going west of Schenectady, the 7½, A.M., or 7½, P.M., trains. 31

L. R. SARGENT, Superintendent.

**Troy, Balls' on, and Saratoga Railroad.**—The cars of this road will run as follows:—Leave Troy at 8 o'clock, A.M., daily; do., do., 3½, P.M., except Sundays; leave Saratoga at 9, A.M., except Sundays; do., do., 3½, P. M., daily. 31

L. R. SARGENT, Superintendent.

**Lake Champlain Steamboats.**—From Whitehall to Burlington and St. John's—Morning Line on Lake Champlain, making intermediate landings—Passage \$2, breakfast on board.—The Francis Saltus, Capt. H. G. Tisdale, leaves Whitehall, Tuesdays, Thursdays, and Saturdays, at 6 o'clock, a.m., and St. John's Mondays, Wednesdays, and Fridays, at 6 o'clock, a.m. For freight or passage apply to the captain on board. H. D. FILKINS, Agent, Troy. 31

Passengers leaving Troy, Mondays, Wednesdays, and Fridays, at half-past 3 o'clock, p.m., by railroad and packet, will arrive at Whitehall in time for the above boat next morning. 31

**PASSENGER LINE EASTWARD.**

**Long Island Railroad**

Company.—Trains run from Brooklyn depot.—Boston train, 8½, a.m., daily, stopping at Farmingdale and St. George's Manor; accommodation train, 9½, a.m., and 5 p.m., for Farmingdale and intermediate places, daily; accommodation train, 3, p.m., for Greenport, daily, stopping at Jamaica, Branch, Hempstead, and Hicksville, and all the stopping places between Hicksville and Greenport. From Greenport depot: Boston train, daily, at 12½ o'clock, m., or on the arrival of steamers from Norwich. Accommodation train at 5, a.m., daily, for Brooklyn and intermediate places. From Farmingdale depot: Accommodation train at 6½, a.m., and 2½, p.m., daily, for Brooklyn and intermediate places. 31

The steamboat Statesman leaves Greenport for Sag Harbor twice each day, on arrival of the trains from Brooklyn.

Baggage crates will be in readiness, at the foot of Whitehall street, to receive baggage for the several trains, 30 minutes before the hour of starting from the Brooklyn side. 31

**Regular Mail Line between New York and Boston, via Stonington, Providence, and Newport,** composed of the following steamers, running in connection with the Stonington and Providence railroads, and the Boston and Providence railroad: Massachusetts, Capt. Comstock; Mohegan, Capt. —; Narragansett, Capt. Manchester; Rhode Island, Capt. Thayer. Via Stonington, daily, [except Sundays,] at 6 o'clock, p.m., from New York, and from Stonington on the arrival of the mail train, which leaves Boston at 5, p.m., and Providence 6½, p.m. The Rhode Island on Mondays, Wednesdays, and Fridays; the Narragansett on Tuesdays, Thursdays, and Saturdays. Via Newport, the Massachusetts leaves New York for Newport and Providence, direct, on Tuesdays, Thursdays, and Saturdays, at 5 o'clock, p.m. 31

**New York and Boston Railroad Line,** via Norwich and Worcester, daily, from pier No. 1, North river, at 6 o'clock, p.m. The Worcester, Captain Bacon, on Tuesdays, Thursdays, and Saturdays. The Cleopatra, Capt. Dustan, on Mondays, Wednesdays, and Fridays. 31

Passengers, on the arrival of the steamers at Allen's Point, will be immediately forwarded in the splendid and commodious cars of the railroad to Boston, without change of cars or baggage. 31

**For Newport and Providence,** on Monday, Wednesday, and Friday. This line leaves at 8 o'clock, in the morning, from the foot of Whitehall street, South ferry. 31

**U. S. Mail Line for New Haven, Hartford, and Springfield,** from Peck Slip, East River, daily, at 6½, a.m., by steamboat New Champion, Captain Joel Stone, connecting with the cars at New Haven, for Hartford and Springfield. Night line for New Haven: The steamboat Hero, Capt. Richard Peck, leaves on Tuesdays, Thursdays, and Saturdays, at 4, p.m. For Hartford, direct, daily, [Sundays excepted,] at 4, p.m.—The steamboat Kosciusko, Capt. Le Fevre, every Tuesday, Thursday, and Saturday, and the Globe, Capt. E. D. Roach, will leave every Monday, Wednesday, and Friday. 31

**Hoosatic Railroad; Bridgeport and New York.**—The steamboat Mutual Safety, Capt. J. B. Lober, leaves New York, from the foot of Market street, every morning, [Sundays excepted,] at 6 o'clock, arriving in Bridgeport at 11 o'clock. Returning, leave Bridgeport at 1½, p.m., on the arrival of the cars, arriving in New York at 5½ o'clock. The Nimrod, Capt. J. Brooks, Jr., leaves New York daily, at 2, p.m., and Bridgeport 7, a.m. There are no train of cars running in connection with any boat except the Mutual Safety until further notice. 31

Tickets, if not purchased at the offices on the line of the road, or on board of the boat, will be charged at advanced prices. Dated tickets positively taken only on the day specified. R. B. MASON, Superintendent. 31

**PASSENGER LINES, SOUTH AND SOUTHWEST.**

**New York and Philadelphia Railroad Line—Direct.** Leaves New York daily, from the foot of Liberty street. Morning Line, 9 o'clock, A.M. Mail Pilot Line, 4½ o'clock, P.M. Fare in first class cars, \$4. Second class cars, \$3. 31

Passengers will procure their tickets at the office foot of Liberty street. Philadelphia Baggage Crates are conveyed from city to city without being opened by the way. Each train is provided with a car, in which are apartments and dressing rooms expressly for the Ladies' use. 31

**Camden and Amboy Railroad**

Line.—For Philadelphia and intermediate places. Leaves Pier No. 2, North River, foot of Battery Place, by Steamboat to South Amboy, daily, Sundays excepted, at 5½ o'clock A.M. Passengers will take the cars at South amboy. Fare to Philadelphia, \$3. Forward deck passengers, \$2 25. To Freehold and Monmouth, via stages from Hightstown, \$1 50. To Spotswood and West 75 cents. To South Amboy, 25 cents. To Perth Amboy, Tattens, Rossville and Tufts, 12½ cents. 31

The steamboat Independence will land at each of the above named places going and returning, leaving Perth Amboy at 5 o'clock P.M. 31

**New Jersey Railroad and Transportation Company.**

—For Newark. Fare 25 cents. Leave New York at 8, 9, and 11 o'clock A.M., and 12½, 2, 3, 4½, 6½, and 8 o'clock P.M. Leave Newark at 7, 7½, 8, 9, 10½, A.M., and 1½, 4, 5½, 7½, 9½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave Newark at 11½ A.M., and 9½ P.M. 31

**For Elizabethtown.** Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Elizabethtown at 7, 7½, 8, 10½ A.M., 3½, 6½, 9½, P.M. 31

**For Rahway.** Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Rahway at 5½, 7½, 11½, A.M., 3, 6½, 9, P.M. 31

**For New Brunswick.** Fare 50 cents. Leave New York at 9 A.M., 4, 4½ P.M. Leave New Brunswick at 5½, 7½, 11, A.M., 8½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave New Brunswick at 12 M., and 8½ P.M. 31

The commutation fare between New York and New Brunswick and intermediate places, including the ferry, \$65 per annum. 31

**Paterson Railroad. Leave**

New York, 9½ A.M., 12½, 5½ P.M. Leave Paterson, 8, 11½, A.M., 4 P.M. On Sundays, leave New York 9½ A.M., 5½ P.M. Leave Paterson, 8½ A.M., 4½ P.M. Passengers are advised to be at the ferry a few minutes before the stated hours of departure. Office 75 Courtlandt street. 31

**Morris and Essex Railroad.**

Leave New York, 8 a.m., 4½ p.m. Leave Newark, 9 a.m., 5½ p.m. Leave Morristown, 7 a.m. 3½ p.m. Passengers by the morning train to Morristown, will arrive there at 10½ o'clock, where stages will be in readiness to convey them to Schooley's Mountain, Washington, Belvidere and Easton, daily; to Succasunna, Stanhope, Newtown, Milford and Owego on Mondays, Wednesdays and Fridays; and to Rockaway, Dover, Sparta and Newton on Tuesdays, Thursdays and Saturdays. Passengers from Morristown will arrive in Newark in time to take the morning and afternoon trains from Trenton and Philadelphia. 31

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 31

THURSDAY, AUGUST 7, 1845.

[WHOLE No. 475 VOL. XVIII

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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- J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)
- TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)
- ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)
- S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)
- NORRIS, BROTHERS, Philadelphia, Pa.
- KITE'S Patent Safety Beam. (See Adv.)
- FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)
- NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)
- ROSS WINANS, Baltimore, Md.
- CYRUS ALGER & Co., South Boston Iron Company.
- SETH ADAMS, Engineer, South Boston, Mass.

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- THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

**LAWRENCE'S ROSENDALE HYDRAULIC Cement.** This Cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Flooms and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by **JOHN W. LAWRENCE,** 142 Front street, New York.

Orders for the above will be received and promptly attended to at this office.

**W. R. CASEY, CIVIL ENGINEER,** NO. 23 Chambers street, New York, will make surveys estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM.

**MESSEURS. EDITORS.**—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

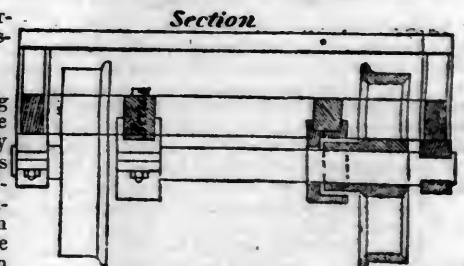
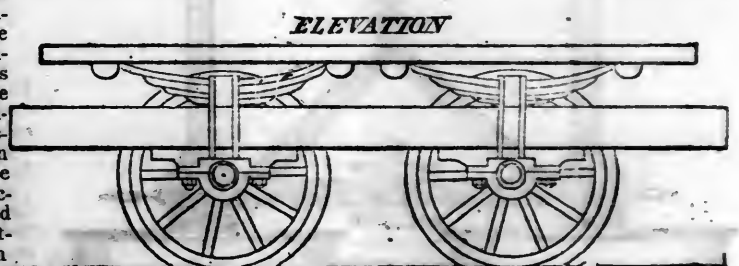
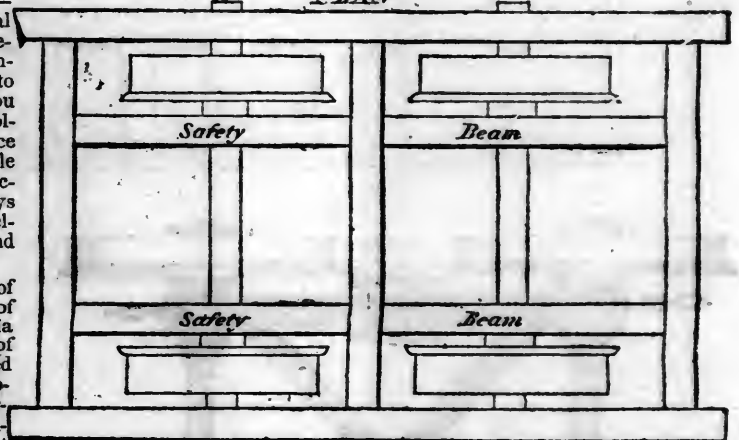
On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

**JOHN FRAZER, Agent,**  
**GEORGE CRAIG, Superintendent,**  
**JAMES ELLIOTT, Sup. Motive Power,**  
**W. L. ASHMEAD, Agent.**  
A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.

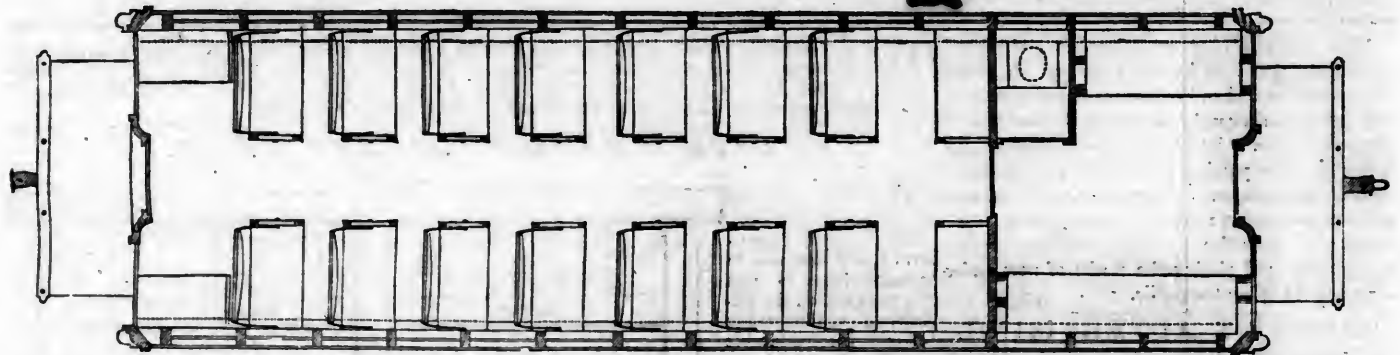
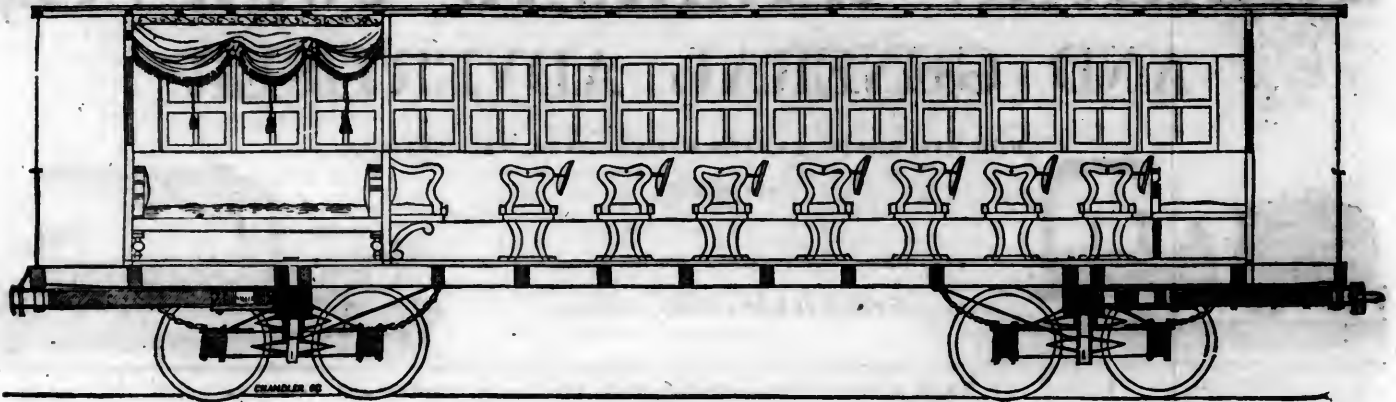
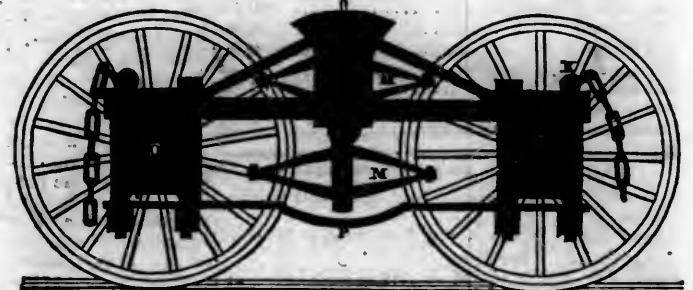
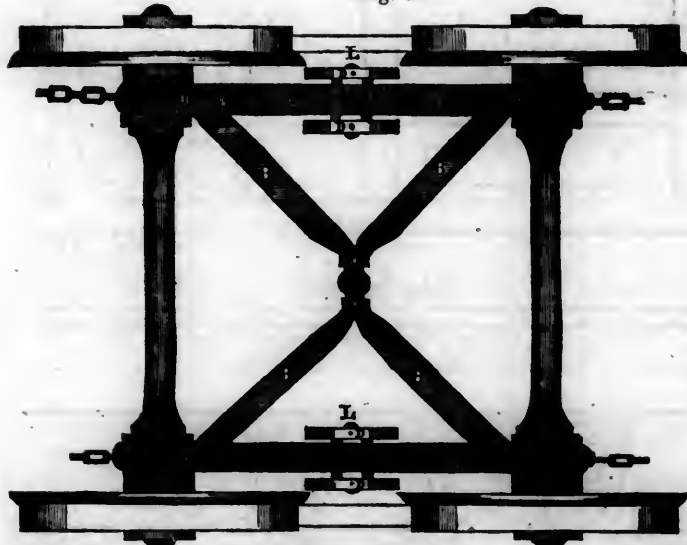


Fig. 1.

Fig. 2.



DAVENPORT & BRIDGES' IMPROVED PATENT IRON TRUCK FOR RAILROAD CARS, is presented above, and the attention of Railroad Companies is respectfully invited to the following description of their justly-celebrated invention:

Fig. 1 of the drawing above represents a top view or plan of our Improved Railroad Truck. Fig. 2 is a central, longitudinal, and vertical section. C, Fig. 1 and 2, represents the arched bars of the side trusses: they consist of two long bars of plate iron (about three inches wide by seven-eighths of an inch thick,) bent into the shape as seen in drawing 2. Each of them is placed directly over a flat and straight tie bar, A, which extends from one end to the other, as seen in Fig. 2. These parts, so arranged, receive between their ends the ends of diagonal cross bars or braces, B, which are united at their centres

upon four pedestals, F, F, which receive the bearings or boxes for the axles to run on. Another flat tie bar, P, extends from the under side of one of the pedestals to that of the other, on the same side of the frame, and the whole is secured together by eight bolts, J, J, passing down through the ends of the several bars, A, B, C and the pedestals, and on each side of the journals of the axles, O, O, in the positions represented in the drawings. From the above it will be seen that there are two bolts to each pedestal, and that this number is all that is requisite for the full security of the bars and pedestals together. The body rests and moves upon two sectional supports, D D, arranged on the sides of the truss frames, as seen in Fig. 2; they extend somewhat, or a sufficient distance above the truss frames, and are jointed at their lower ends by means of a bolt, L, which rests upon the top of the lower spring, M, which spring rests upon a bolt passing through the lower part of the inverted strap, E, which strap passes over and rests upon the top part of the upper spring, M, which is placed within the truss frame, and rests upon the top of the bar, A.

Two bands, N, N, are passed entirely around the central part of each truss frame, the object of the same being to transfer the strain, or a portion thereof, of the spring, from the tie bar, A, to the arched bar, C.

These Trucks are adapted as well for eight-wheeled passenger cars as for baggage and freight cars, giving to each a more agreeable and easy motion than any other Truck heretofore constructed or in use. They are simple in their construction, combining strength and great durability, although weighing at least twelve hundred pounds less than the common Trucks. Besides these excellences, by reason of the elasticity of the braces, B, B, B, B, as seen in the drawing, and the other peculiarities of construction, the weight is equalized upon all the wheels; and yet any one may be raised so as to pass any inequality on the rails without lifting either of the other wheels from the track, thus rendering it almost impossible to run a car off. Being bound, and having as it were but four joinings, they are protected from injury by lateral strains, and in case of damage are easily repaired.

These excellences have been fully tested by use, for a long time, on the Eastern, the Fitchburg and Long Island railroads; and for proof of the above stated superiority of these Trucks over all others, we refer to the experience of those who have used and run them.

CAMBRIDGEPORT, April 1, 1845.

DAVENPORT & BRIDGES.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

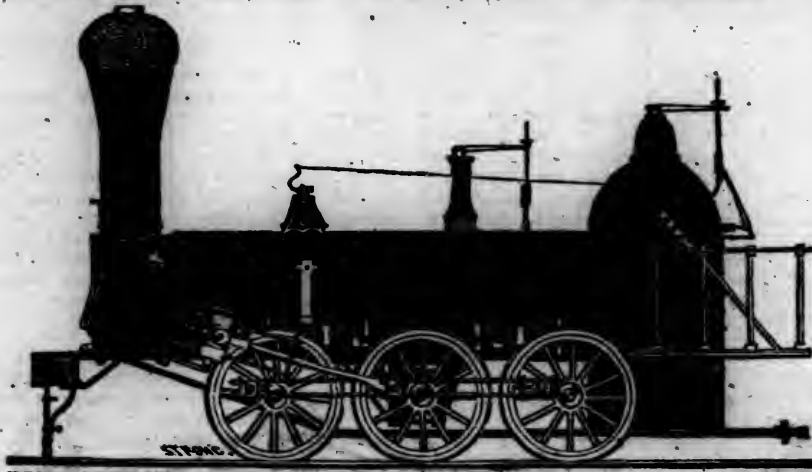
**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.  
The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NORRIS' LOCOMOTIVE WORKS**  
BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches Diameter of Cylinder,	× 20 inches Stroke.
" 2,	14 " " " " " "	× 24 " " "
" 3,	14½ " " " " " "	× 20 " " "
" 4,	12½ " " " " " "	× 20 " " "
" 5,	11½ " " " " " "	× 20 " " "
" 6,	10½ " " " " " "	× 18 " " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

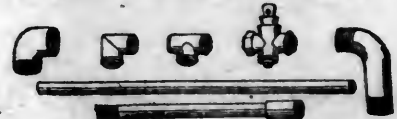
**NORRIS, BROTHERS.**

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.  
**WILLIAM YOUNG,**  
ja45im President.

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Biluminous Coal* and *Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48 State st.,** or to **CURTIS, LEAVENS & CO., 106 State st., Boston,** or to **A. & G. RALSTON & Co., Philadelphia.**  
ja45

**CYRUS ALGER & CO.,** South Boston Iron Company.

**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. *JOHN F. WINSLOW, Agent.*

Albany Iron and Nail Works, Troy, N. Y.  
The above spikes may be had at factory prices, of Erastus Coming & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co, Boston.  
ja45

**TO IRON MANUFACTURERS. THE SUB-**scribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO.,  
ja45 No. 4 Sout Front st., Philadelphia, Pa.

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

*HENRY BURDEN, Agent.*  
Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand.

ja45

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

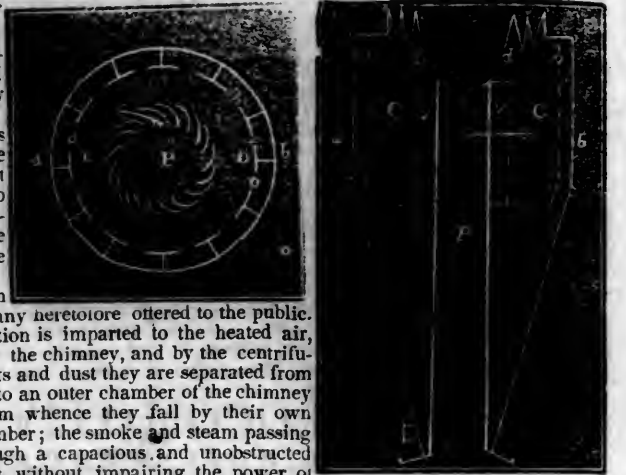
\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

**SPRING STEEL FOR LOCOMOTIVES,** Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/4 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

*JOAN F. WINSLOW, Agent,*  
j5a3 Albany Iron and Nail Works, Troy, N. Y.

**SAMUEL NOTT, CIVIL ENGINEER,** Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES. —  
Boston, { Col. James F. Baldwin, Civil Engineer.  
          { Col. J. M. Fessenden, " "  
Wm. Parker, Esq., Engineer and Superintendent  
Boston and Worcester railroad. ja45



**DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS** Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.



**Mansfield and Sandusky City Railroad.**

Thus we find one railroad after another, some shorter and some of greater length, coming into use in different sections of the country. This road will unquestionably be extended to Columbus, and probably connect with the Little Miami road at Xenia, or some other point; thus opening an easy communication from the lake to the Ohio river.

We have been looking to Cleveland, for action, upon the line of road between there and Sandusky City. It strikes us that this is their true policy.—Let them give their efforts to the completion of the road parallel with the lake, and which must be pushed through unless they are willing to have the great travel to the west in winter, and much in summer, from east of Buffalo, pass through Canada to Detroit—as they may rest assured that a road will be speedily constructed across the province from some point on the Niagara river or lake Ontario.

Will Mr. Higgins, or Mr. Williams, the engineer, please furnish us with a full description of the road—and trimmings—and let us know how and when they design to reach the Ohio river?

The Sandusky Clarion of 25th of July says:

"A few years ago a company was chartered to make a railroad from this place to Monroeville. The road was made, but not in a very substantial manner. There was a good deal of business done upon it, but at a heavy expense, as the transportation was done altogether by horse-power. The stock decreased in value, and the road was finally sold by the state for its lien, although it took stock to the amount of its claim, under the new charter. It was bought by a company, of which Mr. Burr Higgins, of this city, is the principal agent and manager. The charter was re-modeled, and was, with one or two other charters, merged in one, under the style indicated at the head of this article. Since then, perfect confidence has been felt, not only in the speedy completion of the road, and in the liberal profits to be realized by the enterprising stockholders, but in the great advantages to be derived by extending so valuable a work more than fifty miles into one of the most fertile portions of the state, hitherto denied all advantages from public improvements of any kind. So far as the construction of the road is concerned, experience has shown that this confidence has not been misplaced. The great benefits anticipated are yet to be tested.

There has been a very heavy expenditure at this place for a depot, being all built on made land in the bay, extending from the shore into deep water. The walls of the buildings are up, and are, like the road, built in the most substantial manner.

Some time ago a new locomotive, called the Mansfield, arrived, and has, for a few weeks past, been running for purposes chiefly connected with the construction of the road; but not until now has the business of carrying passengers re-commenced, which was suspended during the re-construction of the road.

On Wednesday a splendid new car, calculated for fifty-six passengers, manufactured by Hart, Higman & Co., of Utica, N. Y., arrived, and was placed upon the road, and on Thursday we availed ourselves of an in-

itation extended to our citizens by the superintendent, to take a pleasure trip Monroeville, and it was indeed a pleasure trip. The new car has 28 double seats, with a passage running the whole length between, which were nearly filled with ladies, where they could sit as comfortably as they could rest on their own sofas in their own parlors. Besides this there were several open cars, which carried as many more. Everything worked admirably; all, we believe, were highly gratified with the trip, and all, we doubt not, unite in wishing prosperity to the enterprising proprietors of this great improvement. By the first of September, next, it is expected that the road will be completed."

**Railroad Management.**

We find in the Salem Register, the following remarks in relation to the management of the Eastern railroad. It must be evident to those who will reflect one moment on the subject, that this is the true policy for every railroad company to adopt. Induce people to travel, to live along the line, to ride often by low fare, frequent trips and courteous treatment, then they are sure to make good dividends. This company has the proof in its own management for the past year. They have even with reduced fares earned over nine per cent on their capital. So with the *Dublin and Kingston* railway, of only 6 miles in length, costing £58,000 a mile, by a system inducing travel, by *accommodating* the people, they divided in 1844, 9 per cent. Let others profit by these facts.

"The Lynn travel, as well as those who wish to visit Nahant, the Ocean or Rockaway house, and the Mineral spring, are not only accommodated, but Salem, Beverly, Marblehead and Danvers, also, as well as that numerous class of passengers who come into Boston in the best trains on other roads; in short, everybody is pleased and accommodated.

The present arrangement has been in operation long enough to realize its utility, it having already induced individuals to reside in Essex who would not otherwise have done so.

The mechanic, the trader and the gentleman of leisure, can reside in Essex and transact business in Boston as conveniently, now as in any part of Norfolk or Middlesex, however near.

The cars leave Boston eight times daily, and arrive as often from Lynn and Salem, with a promptness unequalled on any other road; and what is of as much importance as any other item is the easy, affable and gentlemanly manner of the conductors, who seem to anticipate every convenience requisite to the comfort of the travelling public; and while Mr. Vanhorn is entitled to the confidence of the corporation, he deserves the thanks of the patrons of the road for the promptness and cheerfulness with which he attends to his duties as boatman. The boat under his management, is nothing more or less than a splendid saloon, as neat as a pin, always ready for company; in fact, you will always find Mr. Vanhorn at home, in the popular sense of the term. The ferry of itself, at this season of the year, is a luxury, rendered doubly so by the splendid boat under the care of such a man.

In fact, there is so much to approbate, there is a difficulty in particularizing; but Stearns the baggage master at Lynn depot, must not be forgotten; well versed in the political condition of the country, as well as the arduous duties incumbent upon him, he is always ready night or day, to render information to strangers. It is evident that the corporation appreciate his services, while we know he has the confidence of the patrons of the road. On the whole, from the president down thro' all the offices, there is a devotedness to the wishes of the travelling public which has already met with a hearty approbation. The reduction of fares has increased the revenue, and the facility rendered by the frequent trains meets not only the approbation of all, but an increase of patronage is the result.

These matters should have been attended to before; but now that the arrangements are right, we think the managers of the road are entitled to credit. It may be said they have done their duty and only that, and deserve no thanks from the public; but that is just the reason why they do deserve it.

Let the managers of this road hereafter keep up with public opinion, and the Eastern railroad will ever be the 'banner road,' without exception. The running of the trains should be changed quarterly, in order to give satisfaction; in that case there is little time to grumble, even should the arrangement be unpopular.

Already we have a double track about two thirds of the distance from Boston to Salem; and when the whole distance shall be completed, which we doubt not will be as soon as practicable, and cars run every hour, then we shall see old Essex crowded with the merchants of Boston, not only paying tribute to the stockholders but realizing the sanguine anticipations of the proprietors of the road."

**Foreign Correspondence.**

We are again under obligation to our liberal friend in London, for an interesting letter and for English Railway Journals of the latest dates by the Cambria, and probably in charge of a passenger, to whom, as well as to the gentleman who sent them, we desire to express our thanks. They came late to hand or we should have given our readers the reading of them in this number. They are, however, none the less acceptable, as their contents will be found interesting and useful to the railway cause at any and all times.

We have, also, copies of two other letters from the same pen, one addressed to the secretary of the treasury in 1842, in relation to the duty on railroad iron; the other to a gentleman in Philadelphia, last January, upon the subject of *high fares* on railroads, which we shall republish, in subsequent numbers, and both will be read with interest to all and advantage we hope, to many.

**NEW CARS.**—The Harlem railroad company are entitled to the thanks of their *tall* passengers for having furnished several superior new cars, from the factory of Eaton & Gilbert, Troy, so high that one can stand erect, when he cannot find a seat.





AMERICAN RAILROADS.													SALES.		
Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on hare	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices	Week ending July 16.	
							Gross.	Nett.		Gross.	Nett.			Shares.	Price
	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	103½	5	103½
N. H.	2 Concord.....	35	750,000									12	65		
Mass.	3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	117	8	114½
"	4 Boston and Maine extension.....	17 1-4	455,703	unfin.											
"	5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120	4	11½
"	6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	114		
"	7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	120½	54	1
"	8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
"	9 Charlestown branch.....		280,260						13	34,654	13,971	5½	112½	50	80
"	10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	113½	275	108½
"	11 Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,835		124		
"	12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	123		
"	13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
"	14 Northampton and Springfield.....		172,66	unfin.											
"	15 Norwich and Worcester.....	59	1,170,36	900.00	16,535	100	162,336	24,871		230,674	99,464	3	71½	3,355	71½
"	16 Old Colony.....		87,824	unfin.									106		
"	17 Stoughton branch.....	4	63,075	unfin.											
"	18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	118		
"	19 Vermont and Massachusetts.....														
"	20 West Stockbridge.....	3	41,514	200		100						4			
"	21 Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	101	20	102½
"	22 Worcester branch to Milbury.....		8,431	506											
"	23 Housatonic, (10 months.).....	74	1,244,123							150,000			31		
Con	24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	95	25	93
"	25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
"	26 Stonington, (year ending 1st Sept.).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29	625	28½
N. Y.	27 Attica and Buffalo.....	31	330,211				45,896	7,522		73,248	48,033	0			
"	28 Auburn and Rochester.....	78	1,796,344	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109½	10	109
"	29 Auburn and Syracuse.....	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
"	30 Buffalo and Niagara.....	23	200,000		1,500								100		
"	31 Erie, (446 miles.).....		5,000,000										29	1,325	30
"	32 Erie, opened.....	53						48,000		126,020	59,075				
"	33 Harlem.....	26	1,206,231							140,685	62,399		69½	170	69½
"	34 Hudson and Berkshire.....	31	575,611			50				35,029	1,729	0	11½		
"	35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	71	7,380	68½
"	36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	58½		
"	37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
"	38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
"	39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117		
"	40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
"	41 Troy and Greenbush.....	6	180,000												
"	42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
"	43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132	20	132
N. J.	44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		112		
"	45 Elizabethtown and Somerville.....	26	500,000												
"	46 New Jersey.....	34	2,000,000										95	100	95½
"	47 Paterson.....	16	500,000									6	90	1,225	88½
Pa.	48 Beaver Meadow.....	26	1,000,000												
"	49 Cumberland Valley.....	46	1,250,000												
"	50 Harrisburg and Lancaster.....	36	860,000										30		
"	51 Hazleton branch.....	10	120,000												
"	52 Little Schuylkill.....	29	900,000												
"	53 Blossburg and Corning.....	40	600,000												
"	54 Mauch Chunk.....	9	100,000												
"	55 Minehill and Schuylkill Haven.....	18	315,000						12				80		
"	56 Norristown.....	20	800,000										6½		
"	57 Philadelphia and Trenton.....	30	400,000										104		
"	58 Pottsville and Danville.....	29 1-2	1,500,000												
"	59 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		58	2,330	57
"	60 Schuylkill valley.....	10	1,000,000												
"	61 Williamsport and Elmira.....	25	400,000				20,000								
"	62 Philadelphia and Baltimore.....	93	1,400,000				43,043	200,000			210,000		15½	11,831	15½
Del.	63 Frenchtown.....	16	600,000												
Md.	64 Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		658,620	346,946		49½	37	48½
"	65 Baltimore and Susquehanna.....	58	3,000,000										2½		
"	66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	67 Greensville and Roanoke.....	18	284,433	37,544	2,000	100				25,368	6,074		28		
"	68 Petersburg.....	63	969,890	63,000	7,690	100				122,871	72,898	3	77		
"	69 Portsmouth and Roanoke.....	78 1-2	1,454,171												
"	70 Richmond, Fredericksb'g and Potomac.....	76	800,000							185,243	85,688	6			
"	71 Richmond and Petersburg.....	22 1-2	700,000												
"	72 Winchester and Potomac.....	32	500,000												
N. C.	73 Raleigh and Gaston.....	84 1-2	1,360,000												
"	74 Wilmington and Raleigh.....	161	1,800,000												
S. C.	75 South Carolina.....	136			34,410	75				532,871	140,196	5			
"	76 Columbia.....	66	5,671,452				201,464	77,456		328,425	180,704				
Ga.	77 Central.....	190	2,581,723				237,532	93,190							
"	78 Georgia.....	147 1-2	2,650,000				248,026	158,207		248,096	147,523				
"	79 Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Ky.	80 Lexington and Ohio.....	40	450,000												
Ohio	81 Little Miami.....	40	400,000												
"	82 Mad river.....	40	152,000												
Ind.	83 Madison and Indianapolis.....	56	212,000												
Can.	84 Champlain and St. Lawrence.....	15						12,000		58,000	24,000	110			

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.

Thursday, August 7, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 25,675 tons, and by canal 7,029 14, making 32,705 11 tons for the week.

There was transported over the Reading railroad during July, 404,565 tons of coal. Present freights \$1 10 from Scuykill Haven, \$1 20 from Pottsville.

BY RAILROAD.

From Pottsville and Port Carbon—total... 203,589  
 From Schuykill Haven—total..... 183,289  
 From Port Clinton—total..... 7,575

Total by railroad..... 397,354

BY CANAL.

From Pottsville and Port Carbon—total..... 67,895  
 From Schuykill Haven—total tons..... 18,745  
 From Port Clinton..... 24,296

Total by canal..... 110,937

Total by railroad and canal..... 508,292

LEHIGH COAL TRADE.

Total shipments from Mauch, Chunk. Lehigh coal and navigation co.

Summit mines, - 94,517  
 Room run do., - 33,288—127,805  
 Beaver Meadow railroad and coal co., 40,752  
 From Penn Haven—Hazleton coal co., 33,420  
 From Rock Port—Buck Mountain coal co., 10,084

212,061

WYOMING COAL TRADE—total..... 74,972

PINE GROVE COAL TRADE—total..... 33,649

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—

total tons..... 222,865

MOUNT CARBON RAILROAD—total tons.. 138,512

MILL CREEK RAILROAD—total..... 28,339

[Miners' Journal.]

Railroads at the North.

The railroad movements in the northern states appear to gain strength and impetus from each other. When the people on one of the proposed lines begin to agitate the subject, those on another line are sure to "fire up" and dash ahead with renewed energy; and this is sure to bring into the field those interested in a third. This appears to be especially the case on those lines in New England, contemplated from the Atlantic to Canada, and is becoming also true in relation to those lines projected in the state of New York, designed to draw the trade of the west from lake Ontario.

In New England there is, to begin east, the Portland and Montreal road; next in order, a continuation of the northern line from Concord, N. H., up the valley of the Merrimack to Haverhill, and thence probably, up the valley of the Connecticut and the Passumpsic; and then comes the road from the same point, Concord to Lebanon, Montpelier and Burlington; the fourth line will pass through the south west corner of New Hampshire by the way of Keene, to

Bellows Falls Vt., and then up the valley of the Connecticut, to White river and there connect with the road to Burlington. Here we have four lines a part of the way, all pointing towards Canada, and all looking for at least a part of their support from the great west, via lake Ontario and the St. Lawrence.

To many persons, it will doubtless appear absurd to predict that all these lines will be built; but to us it appears as plain as that two and two make four, and simply for the reason that the people along their lines cannot afford to do without them—they will be obliged to build them in self defence; therefore they would be built even if they would not pay 3 per cent on their cost. If built by the people along their lines and at their terminations, and never pay over one per cent it will be a good investment; or in other words, the property along the lines and at the terminations, would be enhanced in value, by the roads to an amount greater than the cost of the roads; therefore the people would be gainers by the operation, even if the shareholders never received a penny dividend; yet there would, in such an event, be a loss to the shareholders, as there are always some, and indeed many, who are willing to be benefited by public works, but never to aid in their construction. Fortunately, however, in these cases, or at least in the three last, there is business enough now along the line of each to insure a dividend of over 7 per cent from their completion, without taking into the account the natural increase of business created by the road, or what may be drawn over them by extensions and laterals; and as for the other, from Portland to Montreal its through business will pay a fair dividend, without its way, which will certainly be considerable and increasing.

But these are not all, there is another, a continuation of the Fitchburg road to Brattleboro, and from there to Bellows Falls, or to Rutland or both, and to Burlington. Of the construction of this road to Bellows Falls there can be no doubt; but there appears of late to be less certainty of its reaching Rutland, though we consider it as certain as either of the others, and for the reason that the Bostonians are determined to compete with New York for the business of northern Vermont, Canada and the west, by means of railroads; and the distance from the Connecticut river to Rutland, or even to Whitehall is not so great, nor the route so difficult as to deter them from stretching out an arm in that direction, especially when so much may be gained by the operation. The Boston people will not nor will the western Vermonters, rest easy until this road is constructed. When this is done—yes, and before that period—there will be another road completed from Saratoga sprigns, Whitehall and Rutland to thus opening an easy communication to Albany. So much for New England; then comes the road from Champlain to Ogdensburg, to be built mainly by Boston capital; this road brings lake Ontario, and the whole west much nearer to them. The exhibited statistics of this road show great inducements to capitalists and especially to those who have other objects in view besides the dividends on their stock. The Rome and Cape Vincent railroad is the next in order; and then the Oswego and Syracuse, which enjoys the great advantage of distance—a short line to construct—to connect with a long line now in use, with great facilities for business. Such are the movements east and north; but what, can any one tell us, in relation to the movements in this city, and south of it? What in New Jersey, Pennsylvania and in all the south? Will some one favor us with an answer.

Railways in Belgium.

The second article on the railroads and other modes of communication in Belgium, by Geo. C. Schaeffer, from Poussin's recent interesting work on Belgium, will be found in this number of the Journal. The Belgian government appears to have undertaken their works methodically and to have prosecuted them with equal energy and success. Reference is made by the author, to a "break" in use on the inclined plane at Liege, invented by M. Leignel, which has been very successful in preventing accidents in working that plain; and the plan of forming embankments on wet soils, by which slides are prevented, is also spoken of as successful and meritorious, but no details, or definite description, is given in relation to either, which we much regret, as real improvements in such important parts of the railway system will be valuable in this country as well as in Belgium. We therefore hope that Major Poussin will favor us with such details for the Journal as will enable our readers to avail themselves of their peculiar advantages.

THANKS TO THE OSWEGO DAILY ADVERTISER for its prompt response to our request to receive that spirited paper in exchange, as well as for its very favorable notice of the Journal. It has been our aim for thirteen years past, and we hope it may for as many years to come, to make the Journal useful to the cause in aid of which it was established; and our greatest source of regret has been, and now is, that when there was so much to be done, our limited ability and means have enabled us to do so little.—The period however, has now arrived when, with the liberal aid of the press throughout the country, and of the profession which has charge of the construction and management of, as well as the much more numerous class interested as shareholders in, the railroads constructed and projected, it may accomplish more than it has heretofore been able, and thus promote the interest of all, the public as well as those more directly interested; but to accomplish this it must be circulated more extensively and read more generally, which is most sure to follow when thus favorably noticed by the press. We therefore thank the editor for past favors and trust he may find cause to repeat to his readers his recommendation for them to become ours. We assure him and others that the Railroad Journal shall be made useful to the cause just in proportion as its increasing patronage furnishes us with the means to enlarge its field of operations.

Lawrence's Rosendale Hydraulic Cement.

We would direct the attention of our readers to the advertisement of this article in our columns.—Several beautiful specimens or tests of it have been left at our office, accompanied by a statement from an experienced officer of the U.S. engineer corps, who has used it many years on our fortifications, from which we shall make extracts in our next number.

### The Railroads of Belgium.

With a notice of the other modes of Internal Communication—translated and abridged from "La Belgique et les Belges," by Major G. T. Poussin, formerly of the U.S.E.

BY G. C. SCHAEFFER, C. E.

For the American Railroad Journal.

The admirable character of the means of internal communication previously existing in Belgium, renders the history of the introduction of the railroad system a matter of much interest. We shall therefore at some length develop the views of our author, at the same time introducing such observations as may serve to render them more practically useful to the American reader.

The creation of the railroad system of Belgium not only dates from the revolution of 1830 but was in fact the first national act after that event. It must be remembered that the existing modes of communication were in a measure but part of those of Holland and that the independence of Belgium deprived her of many of the advantages resulting from that connection. Moreover she must not only retrieve this loss, but place herself in a condition to rival those very works upon which she had formerly depended. The great principle at once laid down by her most distinguished statesmen, was the preservation of her national individuality. Another and very important subject, was the occupation of the heads and hands of a people just emerged from a revolution. These and other considerations lead to the examination of a route from Antwerp to the Rhine near Cologne, with the object of affording a new mouth to the Rhine and a means of competing with Holland in the traffic from Germany. These examinations led to the draught of a law which was discussed by the chambers and senate, and passed by large majorities on the 1st of May, 1834. The terms of the law are as follows: the state shall establish a railroad, having for its central point Malines (Mechlin) running eastward toward the frontiers of Prussia, by way of Louvain, Liege and Verviers; Northwardly to Antwerp; eastwardly to Ostend, by way of Termond, Ghent and Bruges; Southwardly to Brussels and the frontiers of France, passing through Hainault.

No sooner had the bill passed than the work was commenced, and by May 1835, the line from Brussels to Malines 12½ miles long, was opened. A travel of 60 to 80,000 had been counted on, but the first year 400,000 persons passed over the road. The next year the line from Malines to Antwerp 15½ miles long, was opened; and before 1837, 872,000 persons had travelled on the two sections between Antwerp and Brussels.

In May, 1837, a new bill passed by the chambers provided for the extension of the national railroad from Ghent to the frontiers of France, by way of Tournay and Courtray, and a branch from Brussels, by Braine-le-Comte and Charleroy to Namur. During this year the amount of road completed was 89 miles; in 1838 the length of line in operation was 148 miles; in 1839, 192 miles; in 1840, 206 miles; in 1841, 234 miles; in 1842, 271 miles; and in 1843, the entire line of national road was completed, being in all 347 miles.

Thus, in less than nine years, was a work executed by the state, which would not at the present time have been finished by private enterprise, as none but the more profitable portions would have been selected—while the state showed an equal or greater anxiety for the completion of the less profitable, but more necessary parts of the line.

CHARACTER OF THE LINES AND THE MORE REMARKABLE WORKS.—The location of the Belgian railroads is in general very good—the grades and curves being such that the engines draw without difficulty immense loads at high velocities, and at a moderate expense.

The grades do not exceed 5 to 1000, about 26½ ft. per mile, except near Verviers, where 8 to 1000 was adopted for about 2½ miles. The shortest curves are 400 metres (about 1,330 feet) radius, and there are but few of them.

The surface of the country generally presents but few difficulties; the continuation of the line eastward, towards the Rhine, however, required numerous and costly works, of which the most important is the inclined plane at Liege, which descends to the valley of the Meuse, 368 feet, by a grade of 3 to 100. The author speaks with approbation of the break in use on this plane, invented by M. Leignel, which has prevented all accident. On the same section of this plane is the bridge of Val Benoit, 604 feet long, and 50 feet wide, with a carriage and foot way.

The most remarkable portions of this division of the line are, however, those along the Vesder, where, sometimes by tunnel and sometimes by open work, by short curves and a succession of grades not exceeding 6 to 1000, a speedy transit is insured to the heaviest loads. The branch from Braine-le-Comte to Namur also presented difficulties, but less than those just referred to. Upon other parts of the line the greatest obstacles arose from the wet soil, but these the inhabitants of Flanders have long been accustomed to meet and to conquer with equal skill and economy. Nothing can be more simple and more ingenious than the mode of embankment for preventing the slipping of soft banks, which are so common in wet soils. Unfortunately our author gives us no further particulars of the process.

Durability and economy, rather than ornament, are the characteristics of the works.

MODE OF CONSTRUCTION.—The road is laid upon a foundation of sand and gravel; the rails, 52 lbs. to the yard, are laid upon oak cross-pieces, 8½ feet long, 1 foot wide at bottom, and 6 inches thick. The width of the track is one metre and a half, or nearly five feet—the distance between the tracks about 6 feet.

The oak cross-pieces have been used since 1841; their price in 1844 was 5 francs 28c., or about one dollar each.

Our author gives to the Belgian engineers credit for professional knowledge and practical application in all cases equal to the importance of the works entrusted to their care.

(To be continued.)

### New York and Albany allroad.

We have received a copy of the Poughkeepsie Telegraph. We should like to know who sent it. Was it the editor? We have not seen a Poughkeepsie paper before in an age. Will he send another? It contains the following letter from John Childe, Esq., in relation to the rival routes between New York and Albany. From the date it appears to have been written for a specific purpose and may have accomplished the object for which it was designed; as it has however been sent us by some one probably interested in the subject, we give it a place in the Journal, with the single remark, that we should like to receive a well written article on the same subject every week, until the road shall be completed to Albany.

While we are upon the subject of this road,

we would ask the gentlemen interested, what are you doing to insure the commencement, progress and completion of the work? You are losing valuable time. You should have your hosts marshalled and in the field, or you will allow one of the best charters in the country to die an unnatural death. Look to it.

Springfield, April 19, 1845.

Dear Sir:—The people of this country have been so much entertained by the introduction of railways and the use of steam power thereon, and have been so constantly engrossed with the enjoyment of this novel and improved mode of communication both for business and pleasure, that they have scarcely noticed, until very recently, the wide difference between one railway and another, and, now, but little regard is paid, by those most experienced in railway affairs, to the means of making others more durable and efficient than the best of those already constructed. Indeed, there are enlightened men who are still advocates of *undulating surface* roads, because they can be *cheaply* built; and a railroad is too great a matter with such speculative and superficial reasoners to allow them to look beyond present success to its permanent character as a *labor saving machine*. The true principle is, to build a railway as you would a steam engine, a printing press, a power loom or a spinning jenny; the main object being, not to construct a *cheap* machine, but one that will accomplish the greatest amount of labor in the least time, and with the smallest expenditure of power. In entering upon the great enterprise of constructing a railway from New York to Albany, this principle is of paramount importance and cannot be better illustrated than by showing the practical operation of a railway with locomotive steam power. In the works of nature there are lines of beauty; so in railways there are lines of excellence, to wit: *straight lines* of location, *horizontal* gradients and a strong unyielding iron rail. All these qualities, I know, cannot be found combined in any one route; yet every railway should be made to approximate as nearly to perfection in these particulars as the character of the country will permit, or the commercial importance of the route justify.

Assuming an average speed of 33 miles per hour, including stoppages, which shall be maintained with economy and safety, the road should be laid free from the action of frost, and contain no curve whose radius is less than 1800 feet. Over a road thus laid, expresses may be run 40 miles per hour or even faster, but regular trains, heavily loaded with passengers, at this high speed, are greatly exposed to the risk of breaking wheels and axles, the consequences of which are as fatal as would result from running off the track; for any such breakage must inevitably cause the train to leave the track. The expenses, also, of running loaded trains faster than 25 miles per hour, for fuel and wear and tear both of road and machinery, increases in a greater ratio than the speed. It is, therefore, on account of safety and economy that working speeds higher than 30 to 33 miles per hour must always be regarded as inexpedient.



and now they are actually about £250. We then thought 7 per cent. would be a fair price for it, looking prospectively forward to an increase. But to our astonishment, Mr. Hudson comes forward and gives 10 per cent. by which we and others thought he would lose some £20,000 a year. We are, however, in a fair way of being deceived. As if the success of the line had been kept back until in Mr. Hudson's power, the traffic which has been crawling along at some £1,500 per week, is now risen to £2,200."

The foregoing, as a preliminary to show what, if not who Mr. Hudson is, brings us to the subject indicated by the caption of this article, viz. that low fares and high speed for passengers, tend to increase the profits of well managed railroads, especially on long lines. Such at least appears to be the opinion of Mr. Hudson, who has had, probably, in the management of railroads, more experience than any other man living, if we may judge from the statements of Herapath, who says, "to get out of the line all it is capable of affording, and at the same time to increase the accommodation to the public, Mr. Hudson has adopted the wise policy, from the 1st inst., of sending a third class train of 1d. per mile fare all the way from London to Newcastle in one day, a distance of 303 miles.—We have little doubt but, like the London and Birmingham reduction of fares, this will result in an increase of their profits."

Who can doubt the wisdom of the policy, as well for railroad companies as for others, dependent upon the good will or necessities of the public, which shows a disposition not only to render service for a stipulated consideration, but also to render it in an acceptable manner and as much service for the consideration as can be safely done. If the service is rendered, yet in a gruff, uncourteous manner, the companies will be employed when the service cannot be dispensed with, but never from good feeling; whereas if it had been rendered in a manner which evinced a desire to oblige and at the same time to do as much as possible for the consideration, it would be the means of making friends daily, and of course, of increasing business and profits.—If this theory be correct, there are those within our knowledge, in this country, who would profit by its adoption.

We find in the money article of the Phil. Ledger of 1st inst. the following reference to the late rivalry between the Wilmington and Baltimore railroad and the Chesapeake and Delaware canal co. It is time that these ruinous rivalries between railways and canals were put an end to. Let them avoid rivalries ruinous to themselves, as well as combinations which are unjust to the public, and charge fair, living and profit giving rates that all those who invest and those who use, may be benefited by their construction.—

This is and has always been our advice, and we hope to see it adopted by the Reading railroad, and Schuylkill canal companies.—The railroad can now afford to be magnanimous, even though it has been traduced and reviled especially by *Philadelphians*, who, like *all others* that use the Anthracite coal of Pennsylvania, owe it a debt of gratitude for reducing the price of coal at least \$1 per ton since July 1843. "The Initiatory steps to a reconciliation of the suicidal rivalry existing between this road and the canal Company have been taken, and showed themselves in an announcement by the railroad Company yesterday, of a rise in the charge of freights from 5 to 40 cents per ton. The tendency of this rise will give all the freighting to the line of Ericson propellers through the canal; and it is presumed that the canal, in return, will so regulate the speed of the steamboats through the canal as to drive all the passengers over the railroad. Thus a division of the business between this city and Baltimore will be effected, and on such terms as will result to the advantage of both railroad and canal."

*Oswego and Syracuse Railroad.*—We understand that about \$80,000 of the stock of this road, has been taken in Oswego—\$40,000 at Syracuse, and some \$12 or \$15,000 elsewhere. An amount, it is believed sufficient to insure the construction of the work.

It is said that Messrs. Belknap and Co. have offered to build the road, and take their pay one half in the stock of the Company; and agree to have it ready for the iron in one year from the time of commencing operations. Their high character as builders of the Fitchburgh railroad, is an assurance that they will perform any contract they may enter into.

*Toronto and Lake Huron Railroad Company.*—We announced two weeks ago the election of the directors of this company.—A special meeting of the board was held on Saturday last, when the following resolutions were passed, settling the long vexed question of the terminus, in favor of Port Sarnia.

1st. That the line of road shall commence at Toronto and terminate at or near Port Sarnia.

2nd. That Frederick Widder, Esq., be appointed the accredited agent of the company, to proceed to England to advocate the line of road adopted, to procure stock to be taken up, and in general to further the interests of the company—and, lastly that an instalment be called in of *ten per cent.* on the capital stock subscribed.

The prospectus will be issued immediately. *Action, Action, Action*—One of the first

requisites, for success appears to characterize the friends of this road. The above is from the Toronto Globe.

*Fitchburgh Railroad.*—This company have divided 4 per cent. from the business of the last six months. Contracts have been made for the extension of the road to Athol, to be completed in little over a year. The competition was active, and the contracts have consequently been made on favorable terms.

An efficient corps of engineers says the Northampton Gazette of 29th July, will be put to this route between Northampton and Greenfield this week, under the direction of Capt. Childe, to make a final examination and location of the road. Of course, as soon as this is done, the road will be advertised for contract.

*Eastern Railroad.*—Mr. William S. Tucker, has been chosen treasurer of the Eastern railroad corporation, vice B. T. Read; resigned.

#### Rome and Cape Vincent Railroad.

We find in the Watertown (Jefferson county) Journal the proceedings of a large meeting in relation to a railroad from Rome, Oneida county, to Cape Vincent, on lake Ontario. This will, when constructed, open a new route to, and a competitor with, the Ogdensburgh and Champlain road for the Canada and western trade. We give the proceedings, in part, of the meeting—omitting the letter from Wm. S. Brown, Esq., C. E., for the present—that our readers may be aware of the movements in every direction for immediate action in relation to important lines of railroad. We look upon the numerous movements on this subject, when made in relation to necessary, or important, lines, with much pleasure, always, and admire the enterprize and energy of the people—except when we have the *city of New York* in our mind's eye! But, thank heaven, New York *must* soon act in *self-defence*—as well might the attempt be made to resist the tide of emigration *westward* as for the city of New York to attempt to retain her *relative* position without a railroad to *Albany* and to *LAKE ERIE*. This movement, it will be seen, is in unison with the people of Canada.

"At a large and very spirited meeting, held at the American, Tuesday evening, July 22d, J. L. Goldsmid, Esq., was called to the chair, and Chas. McGiven appointed secretary.

On motion, Joseph Mullin, Sam'l Buckley and Edmund Kirby were appointed a committee to draft resolutions; and during their absence Hon. L. H. Brown addressed the assemblage on the subject of the proposed railroad from Rome to Cape Vincent, stating its advantages in a very forcible manner.

Hon. Orville Hungerford then gave an account of the meeting of the delegates from Kingston and Jefferson county, at Cape Vincent, and described the spirit that prevailed among the gentlemen from Canada to be a guarantee that they would do all their duty towards promoting the undertaking.



Mr. Wm. Dewey being called upon made a few remarks upon the greatly increasing interest felt in this project, and closed by moving the following, which was adopted:

Whereas, a delegation of fifteen gentlemen from the town of Lyme has arrived to consult with the citizens of this village, as to the proper measures to forward the railroad enterprise; therefore,

Resolved, That a committee of fifteen be appointed to meet the delegation from Lyme to-morrow morning; and that they be directed to take such measures as they may deem expedient to promote the objects of the meeting — by appointing sub-committees, whose duty it shall be to visit the route and the east—to arrange with the commissioners the time and terms upon which the books shall be opened—to disseminate information, call public meetings, and do all proper and reasonable things to procure the speedy building of the road.

On motion, John F. Hutchinson, O. Hungerford, and N. M. Woodruff were delegated to appoint said committee; who nominated:

Wm. Smith, L. Paddock, Adriel Ely, H. W. Woodruff, I. H. Fisk, Daniel Lee, Eli Farewell, Hiram Merrill, Reuben Goodale, John L. Goldsmid, Wm. H. Angel, Sam'l Buckley, Jas. Mullin, Clark Rice, and John Clark.

On motion, the pominating committee were added.

The delegation from Lyme were, Smith Bartlett, Jesse Carrier, Z. Converse, S. Forsyth, J. DuVillard, T. Peugnet, H. Crevoilin, J. T. Ainsworth, F. A. Folger, J. Fellows, D. J. Schuyler, Wm. Carhise, Isaac Wells, Solon Massey, and Frederick Coffeen.

The committee were directed to meet the following morning, at 8 o'clock.

The committee on resolutions reported the following, which were adopted:

Resolved, That the interests of Jefferson county imperiously demand the construction of a railroad from Cape Vincent to the great thoroughfares passing through the centre of our state.

Resolved, That in no section of our state or country can a road be so cheaply constructed as here, and in no quarter would the benefits resulting be so great.

Resolved, That from our vicinity to the Canadian provinces, whose intercourse with our Atlantic cities, as well as with Europe, must be carried on through this county, it is absolutely certain that the proposed road would prove a good investment for capital.

Resolved that the resources of our county, consisting of its large and increasing population—its fertile soil—its immense mineral wealth, and its abundant water power, are such that we ought not, and we will not, be longer without some better outlet than we now possess for the products of our soil and labor.

Resolved, That the movements now in progress in Canada indicate that our neighbors are awake to the importance of a railway communication with the Atlantic; and

afford every reason to expect the speedy construction of a road from Kingston to Toronto, and thence to some point on the Detroit river—then the Cape Vincent route to Rome will form the connecting link between railroads reaching to the northern valley of the Mississippi and the Atlantic cities, over which, at all seasons, the rich products of the great west will find their way to the commercial emporiums."

Not only are the French people largely engaged in the construction of railroads, but also in the manufacture of railroad machinery, as will be seen from the annexed extract from the Mining Journal. The government seems disposed to encourage its own people and to develop its vast resources by every means in its power.

*Construction of Locomotives in France.*—

In consequence of the number of railways now constructing in France, traversing from one end of the country to the other, the spirit of competition has been aroused with the English manufacture of locomotives. Hitherto, the speculators in railways from Paris to Rouen, Orleans, St. Etienne, Montpellier, etc., have been under the necessity of obtaining their engines from England—the same on board the numerous steam-vessels that have of late years been constructed in the different dockyards of Calais, Havre, Brest, Cherbourg, La Rochelle, Rochefort, Nantes, etc., which were also imported from Birmingham, Manchester, Liverpool, or Glasgow. The large supply of iron mines in nearly every direction of France, with the extensive seams of coal in the principal departments of the north, east, and west, and the high price which that article is at in England for her own consumption, much less for exportation, has induced the French ironmasters and engineers to try how far they can compete against the English manufacturers of machinery, as iron is from 15 to 20 per cent. cheaper on the continent. For several years past, some of the first machinists and workmen from England have, at high wages and constant employment, been induced to introduce their industry, and initiate the French in the art and construction of locomotives and machinery in general. Some of the most extensive continental iron proprietors and civil engineers have commenced their rivalry with England by the constructing of workshops, forges, etc., on a large scale, under the superintendence of Englishmen, among whom may be mentioned Messrs. Schneider (of Creusot), Meyer (of Mulhausen), Cave, Stelin (of Bitchwiller,) and Andrew Kechlin. E. Cave has constructed several engines which competent judges affirm equal to those of the celebrated Stephenson, Sharp and Roberts, or those from Birmingham, Manchester, Liverpool, or Glasgow, and at more than one-third less in price. Those of Creusot are particularly noticed for their elegance, simplicity, and durability; these have given the enthusiastic spirit of enterprise to others. Very shortly the locomotives of Messrs. Hallette, Derosne, Cail, and Cave, will be placed on the great northern line of France, from Paris, by Amiens, Arris, Lille, Tournay, to the Belgian frontier, which have been con-

structed under the direction of M. Clapeyron, the chief engineer of that line; he was formerly chief engineer of the Paris, St. Germain, and Versailles line, and his machines have experienced the greatest eulogiums for their compactness. The directors of the Paris and Rouen railway, who are well versed in engineering economy, were the first to erect their own workshops on an extensive scale, under the superintendence of Mr. Budicom, an experienced English mechanist, and who has constructed some of the finest engines, quite equal to any imported from England, and more simple and light. This resolution of the Rouen proprietors has raised the spirit of competition and economy on other lines, as they now find that they have their own resources at hand without resorting to their rivals on the other side of the channel. The Paris and Orleans company are constructing some vast premises also for the making of their own engines, carriages, wagons, trucks, rails, etc., so that they may be quite independent of England. This system will be generally adopted throughout France; every line will construct their own materials instead of importing from Great Britain, as most experienced English workmen are to be met with in nearly every manufactory in the country. The immense sums now subscribing in England, for the laying down of lines from Bologna, Amiens, Paris, St. Quentin, Orleans, Tours, Brest, Havre, Lyons, Avignon, Marseilles, Bordeaux, Strasbourg, and every part of the kingdom, from north to south, east to west, will be the means of giving employment to thousands, raising her commerce, not only mineral and agricultural, but also greatly improving her manufactures—whilst not a franc of it scarcely will be expended out of France, which the mania for speculation of money-making John Bull, will rise to the greatest pitch of prosperity.


A railroad from Pittsfield, on the Western railroad, to North Adams, is to be built, arrangements having been made to have the stock taken up—certain parties guaranteeing six per cent for ten years.

The officers and hands employed on the Reading railroad have forwarded \$350, in aid of the sufferers by the Pittsburg fire.

*Accident on the Norwich and Worcester railroad.*—The Long Island train which arrived in this city last evening, was delayed by an accident which happened to the outward bound freight train, in Oxford, about 6 miles beyond Worcester, a short time previously to the arrival of the steamboat train at that place. The freight train ran off from the track, and the fireman was unfortunately killed. The track was considerably broken and so occupied by the freight train, that the passengers, engine and cars could not pass it. The passengers were consequently delayed until a messenger could be sent to Worcester, and an engine and cars despatched to the place to bring them forward. They arrived in this city about 9 o'clock. The baggage and mail car could not be brought forward, and consequently it was necessary to leave the mail and passengers' baggage behind.—



**FROM PHILADELPHIA.**  
**PASSENGER LINES NORTH AND EAST.**

**Camden and Amboy Line.**— By Railroad and Steamboat from Amboy. Leave foot of Walnut street daily, Sundays excepted, at 5 1/2 a.m. Fare \$3. Forward deck \$2 25. Also for New York, by way of Trenton, Princeton, New Brunswick, Elizabethtown and Newark, N.J., daily from foot of Walnut street, at 9 a.m., and 5 p.m.—Fare \$4. 31

**For Reading and Pottsville.** By Reading Railroad. Daily, Sundays excepted, from the Depot, corner of Broad and Cherry streets at 8 a.m. Fare, \$3 50. Second class, \$3. To Reading \$2 25. Second class \$1 90. 31

**For Mauch Chunk and Wilkesbarre.**—By Express and Reliance Line. Daily, from the corner of Broad and Cherry streets, at 9 a.m. 31 PETERS, MILTIMORE & CO.

**For Easton and Bethlehem.** By Post Coaches. Leave the Office, next door to the White Swan, Race street, daily, at 4 a.m. 31 PETERS, HAMMIT & CO.

**For Baltimore.** By Railroad. Fare \$2. Via Chester, Wilmington, Elkton, Havre de Grace. Leave Philadelphia, Depot, 11th and Market street, daily, Sundays excepted, at 8 a.m., 4 p.m. Leave Baltimore, Depot, Pratt street, daily, Sundays excepted, at 9 a.m., 8 p.m. Tickets through to Wheeling and Pittsburg can be procured at the Depot. 31


Wilmington Accommodation Line, leaves the Depot, 11th and Market sts. daily, except Sunday, at 10 a.m. and 4 p.m. Leaves Wilmington at 7 a.m. and 4 1/2 p.m. G H HUDDLE, Agent. 31

**For Baltimore.** By Newcastle & Frenchtown Railroad and Steamboat Line. Fare \$1. The Steamboat Robert Morris, Capt. J. M. Douglass, leaves Dock street wharf daily, except Sunday, at 3 o'clock. Passengers by this line will reach Baltimore at about 10 p.m. Tickets through to Wheeling or Pittsburg can be procured on board the boat. G H HUDDLE, Agent. 31

**For Baltimore, via Lancaster, Columbia and York.** By the Susquehanna Railroad, daily, Sunday excepted, leave the Depot 274 Market st., at 7 1/2 a.m., and 12 at night, for Columbia, and leave Columbia at 2 p.m. for Baltimore. Dine at York and arrive in Baltimore in time for early tea; passing through the most highly cultivated and beautiful part of Pennsylvania, and romantic part of Maryland. 31

**For Pittsburg, via Columbia and Lancaster Railroads.** Leave the Depot 274 Market st. daily, at 7 1/2 a.m. The Night Line will leave as usual at 12 midnight. At Harrisburg this line connects with the Railroad and Stage Line for Carlisle, Chambersburg and Pittsburg, with the Packet boats for Lewistown, Huntingdon, Hollidaysburg and Pittsburg; also with the Susquehanna Packet boats to Northumberland, Milton, Muncy, Williamsport, etc. Through tickets for any for any of the above places can be secured at the depot, where every information relative to the above lines will be given. Passengers for York and Gettysburg will leave in the 7 1/2 line. JACOB PETERS & CO. 31


**For Pittsburg.** By the Pioneer and Express Packet Line. Leave the Depot, 274 Market st. above 8th, at 7 1/2 a.m. By this route travellers may be assured of a safe and comfortable passage, every arrangement having been made for their accommodation. Office N. E. 4th and Chestnut sts. Seats may also be procured at the Depot, and at 13 South 3d st. A CUMMINGS, Agent. 31

**Susquehanna Line of Railroad Cars and Post Coaches.** 

This line leaves the depot, corner of Broad and Cherry streets, daily, [Sundays excepted] at 8 o'clock, a.m., via Reading and Pottsville railroad, for Sunbury, Danville, Catawissa, Northumberland, Milton, Muncy, Williamsport, Towanda, Bellefonte, Jersey Shore, Lockhaven, Ralston and Elmira. For seats apply at the stage office, 104 Race street, under the White Swan Hotel. 34

S. STILES, Agent.


**FROM BALTIMORE.**  
**PASSENGER LINES SOUTH AND WEST.**

**Baltimore and Ohio Railroad.**  For Cumberland, Hancock, Martinsburg, Harper's Ferry, Winchester, Frederick, Ellicott's Mills, and intermediate depots by the regular train, daily, at 7 1/2 o'clock, a.m. For Frederick and intermediate stations, by extra train, daily, except Sunday, at 4 p.m. 31

Fare in either direction between Baltimore and Cumberland \$7, and for intermediate distances at the uniform rate of 4 cts. per mile. Through tickets are issued between Baltimore and Wheeling respectively, \$11. Between Baltimore and Pittsburg, \$10. Between Philadelphia and Wheeling \$13. J. D. FOLEY, Agent. 31

**For Washington.** From Baltimore at 9 o'clock, a.m.; 5, p.m.; and 11 1/2 p.m. By order, 31 D. J. FOLEY, Agent.

**SUMMER ARRANGEMENT—FARE REDUCED.**

 By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C. 31

Direct to New Orleans, and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great Southern Mail Line, and the only one that issues a through ticket South. Those who patronize it will save their money and time. Through Tickets from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7. 31

**Fast Mail Line.**—Leave New York at 9 a.m. and arrive in Philadelphia at 3 p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12 1/2 to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 9 1/2 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m. 31

Passengers by the above line will arrive at Richmond by 11 1/2 o'clock p.m. and Petersburg, Va. by 2 1/2 o'clock p.m., through to the former city in twelve hours, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route. 31

**Way Mail Schedule.**—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p.m.; arrive in Baltimore at 6 a.m.; arrive in Washington at 11 a.m. From Philadelphia by steamboat.—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m. 31

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore. STOCKTON & FALLS. 31

**For Norfolk and the South, by steamboat** through the Chesapeake bay to Norfolk, and then by railroad to Weldon, Wilmington or Raleigh, etc. Leaves Baltimore daily [except Sundays] from Spears' wharf, at 4 p.m., and arrives at Norfolk next morning at 7 o'clock; fare \$6. Leaves Norfolk at 8 a.m. and arrive at Wilmington next day at 12 m. and Charleston next morning at 7. Fare through \$21. 31

**For Philadelphia (Union Line), via Chesapeake and Delaware Bay, and Newcastle and Frenchtown Railroad.**—The well known steamboat Constitution, Capt. Chaytor, has commenced her regular trips for the season, leaving Bowly's wharf, foot of South street, at 3 o'clock, p.m. daily [except Sundays] for Philadelphia. Through in 8 hours. Fare \$1. 31

**Morning Train for Philadelphia.** 

The morning train leaves the depot, Pratt street, daily [except Sundays] at 9 o'clock, a.m. Passengers arrive at Philadelphia in full time to continue on by the mail train for New York. Fare \$3. The evening train leaves Pratt street depot daily, at 8 o'clock, p.m., after the arrival of the cars from the south and west. Through in seven hours. Fare \$2. 31

**For Philadelphia, via York, Columbia and Lancaster,** by the Baltimore and Susquehanna railroad. Cars leave from their office, 63 North street, daily [Sundays excepted] at 9 o'clock, a.m. Fare \$3 50. 31

**GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.**—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/2 in. to 2 1/2 in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions. ja451y

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time, in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design. 31

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them. 31

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable. 31

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York. 31

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, Reading, Pa. ja45

**MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, PATTERSON, N. J.** The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch. Railroad Work. 31

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars. 31

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship. 31

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions. 31

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

**RAILROAD IRON AND FIXTURES. THE** Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States. 31

DAVIS, BROOKS & CO., 21 Broad st., N. York. ja45

FROM NEW YORK.

**New York and Harlem Railroad Company.**

Leave City Hall for Yorkville, Harlem and Morrisania at 5.30; 7, 8, 9, 10, a.m.; 1, 2, 3, 3.30, 4, 5, 5.30, 6, p.m. For Fordham and Williams' Bridge at 5.30, 7, 10, a.m.; 2, 3.30, 5, 6, p.m. For White Plains at 7 and 10 a.m.; 2 and 5 p.m. Leave Morrisania and Harlem for City Hall at 6.20, 8, 9, 10, 11, a.m.; 2, 3, 4, 2, 5.20, 6, 6.30, 7.45 p.m. Williams' Bridge for City Hall at 7, 7.40, 10.40 a.m.; 2.40, 5, 5.40, 7.20 p.m. White Plains for City Hall at 7.10 and 40.10 a.m.; 2.10 and 5.10 p.m. 31

**New York and Erie Railroad Line.**

For Middletown, Goshen, and intermediate places.—Two daily lines each way, as follows:—For passengers.—The new, fast and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7 o'clock, A.M., and 4 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4½, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets.

H. C. SEYMOUR, Superintendent.

Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc., etc. 31

**PASSENGER LINES FOR THE NORTH AND WEST.**

**Morning Line, at 7 o'clock**—For Albany, Troy, and intermediate landings.—The steamboat Troy, Capt. A. Gorham, will leave New York, foot of Barclay street, at 7 o'clock, A.M., every Tuesday, Thursday, and Saturday. The steamboat Niagara, Capt. DeGroot, leaves New York at 7 o'clock, A.M. Monday, Wednesday, and Friday. 31

**Afternoon, or 5 and 7 o'clock Line.**—At 5 o'clock, P.M., landing at intermediate places, from the foot of Barclay street.—The steamboat New Jersey, Capt. H. H. Fury, will leave on Monday, Wednesday, Friday, and Sunday. The steamboat South America, Capt. M. H. Truesdell, will leave on Tuesday, Thursday, and Saturday. For passage or freight apply on board, or to

P. C. SCHULTZ, At the office on the wharf. 31

**Evening, or 7 o'clock Line.**—Line steamboats for Albany—Daily, Sundays excepted—Through direct at 7 o'clock P.M. from pier between Courtlandt and Liberty streets.—Steamboat Rochester, Capt. R. G. Crittenden, will leave on Monday, Wednesday, and Friday. Steamboat Knickerbocker, Captain A. Houghton, will leave on Tuesday, Thursday, and Saturday. 31

For Albany and Troy, direct, at 7 o'clock, P.M., from the steamboat pier, foot of Courtlandt street. The Empire, Capt. R. B. Macy, Tuesday, Thursday and Saturday. The Columbia, Capt. Wm. H. Peck, Monday, Wednesday, and Friday. 31

**Troy and Greenbush Railroad.**

Leave Troy, at 6 o'clock, A. M., to Boston and Albany; 8½, do., do., do.; 10½, do., do.; 2, P.M., to Boston and Albany; 4, do., do., do. Leave Albany at 7½ o'clock, A.M.; 9½ do., do.; 12, M., or on arrival of the Boston train; 3, P.M.; 6, P.M., or on arrival of the Boston train.—Fare, 12½ cents.

Passengers at Albany should procure tickets at the Boston railroad office, foot of Maiden lane. 31 L. R. SARGENT, Superintendent.

**Schenectady and Troy railroad cars** leave as follows:—From Troy, 7½ o'clock, A.M., daily; 1, P.M., daily, except Sundays; 7½ do., daily. From Schenectady, 3 o'clock, A.M., daily; 9, do., do., except Sundays; 3, do., daily.

Persons going to Saratoga and north should take the 7½, A.M., train; and passengers going west of Schenectady, the 7½, A.M., or 7½, P.M., trains. 31

L. R. SARGENT, Superintendent.

**Troy, Balls'ton, and Saratoga Railroad.**—The cars of this road will run as follows:—Leave Troy at 8 o'clock, A.M., daily; do., do., 3½, P.M., except Sundays; leave Saratoga at 9, A.M., except Sundays; do., do., 3½, P. M., daily. 31 L. R. SARGENT, Superintendent.

**Lake Champlain Steamboats.**—From Whitehall to Burlington and St. John's—Morning Line on Lake Champlain, making intermediate landings.—Passage \$2, breakfast on board.—The Francis Saltus, Capt. H. G. Tisdale, leaves Whitehall, Tuesdays, Thursdays, and Saturdays, at 6 o'clock, a.m., and St. John's Mondays, Wednesdays, and Fridays, at 6 o'clock, a.m. For freight or passage apply to the captain on board. H. D. FILKINS, Agent, Troy. 31

Passengers leaving Troy, Mondays, Wednesdays, and Fridays, at half-past 3 o'clock, p.m., by railroad and packet, will arrive at Whitehall in time for the above boat next morning. 31

**PASSENGER LINE EASTWARD.**

**Long Island Railroad Company.**—Trains run from

Brooklyn depot.—Boston train, 8½, a.m., daily, stopping at Farmingdale and St. George's Manor; accommodation train, 9½, a.m., and 5 p.m., for Farmingdale and intermediate places, daily; accommodation train, 3, p.m., for Greenport, daily, stopping at Jamaica, Branch, Hempstead, and Hicksville, and all the stopping places between Hicksville and Greenport. From Greenport depot: Boston train, daily, at 12½ o'clock, m., or on the arrival of steamers from Norwich. Accommodation train at 5, a.m., daily, for Brooklyn and intermediate places. From Farmingdale depot: Accommodation train at 6½, a.m., and 2½, p.m., daily, for Brooklyn and intermediate places.

The steamboat Statesman leaves Greenport for Sag Harbor twice each day, on arrival of the trains from Brooklyn. 31

Baggage crates will be in readiness, at the foot of Whitehall street, to receive baggage for the several trains, 30 minutes before the hour of starting from the Brooklyn side. 31

**Regular Mail Line between New York and Boston, via Stonington, Providence, and Newport,** composed of the following steamers, running in connection with the Stonington and Providence railroads, and the Boston and Providence railroad: Massachusetts, Capt. Comstock; Mohegan, Capt. —; Narragansett, Capt. Manchester; Rhode Island, Capt. Thayer. Via Stonington, daily, [except Sundays,] at 6 o'clock, p.m., from New York, and from Stonington on the arrival of the mail train, which leaves Boston at 5, p.m., and Providence 6½, p.m. The Rhode Island on Mondays, Wednesdays, and Fridays; the Narragansett on Tuesdays, Thursdays, and Saturdays. Via Newport, the Massachusetts leaves New York for Newport and Providence, direct, on Tuesdays, Thursdays, and Saturdays, at 5 o'clock, p.m. 31

**New York and Boston Railroad Line,** via Norwich and Worcester, daily, from pier No. 1, North river, at 6 o'clock, p.m. The Worcester, Captain Bacon, on Tuesdays, Thursdays, and Saturdays. The Cleopatra, Capt. Dustan, on Mondays, Wednesdays, and Fridays. 31

Passengers, on the arrival of the steamers at Allen's Point, will be immediately forwarded in the splendid and commodious cars of the railroad to Boston, without change of cars or baggage. 31

**For Newport and Providence,** on Monday, Wednesday, and Friday. This line leaves at 8 o'clock, in the morning, from the foot of Whitehall street, South ferry. 31

**U. S. Mail Line for New Haven, Hartford, and Springfield,** from Peck Slip, East river, daily, at 6½, a.m., by steamboat New Champion, Captain Joel Stone, connecting with the cars at New Haven, for Hartford and Springfield. Night line for New Haven: The steamboat Hero, Capt. Richard Peck, leaves on Tuesdays, Thursdays, and Saturdays, at 4, p.m. For Hartford, direct, daily, [Sundays excepted,] at 4, p.m.—The steamboat Kosciuszko, Capt. Le Fevre, every Tuesday, Thursday, and Saturday, and the Globe, Capt. E. D. Roach, will leave every Monday, Wednesday, and Friday. 31

**Hoosatic Railroad; Bridgeport and New York.**—The steamboat Mutual Safety, Capt. J. B. Lober, leaves New York, from the foot of Market street, every morning, [Sundays excepted,] at 6 o'clock, arriving in Bridgeport at 11 o'clock. Returning, leave Bridgeport at 1½, p.m., on the arrival of the cars, arriving in New York at 5½ o'clock. The Nimrod, Capt. J. Brooks, Jr., leaves New York daily, at 2, p.m., and Bridgeport 7 a.m. There are no train of cars running in connection with any boat except the Mutual Safety until further notice.

Tickets, if not purchased at the offices on the line of the road, or on board of the boat, will be charged at advanced prices. Dated tickets positively taken only on the day specified. R. B. MASON, Superintendent. 31

**PASSENGER LINES, SOUTH AND SOUTHWEST.**

**New York and Philadelphia Railroad Line—Direct.**

Leaves New York daily, from the foot of Liberty street. Morning Line, 9 o'clock, A.M. Mail Pilot Line, 4½ o'clock, P.M. Fare in first class cars, \$4. Second class cars, \$3.

Passengers will procure their tickets at the office foot of Liberty street. Philadelphia Baggage Crates are conveyed from city to city without being opened by the way. Each train is provided with a car, in which are apartments and dressing rooms expressly for the Ladies' use. 31

**Camden and Amboy Railroad Line.**

For Philadelphia and intermediate places. Leaves Pier No. 2, North River, foot of Battery Place, by Steamboat to South Amboy, daily, Sundays excepted, at 5½ o'clock A.M. Passengers will take the cars at South Amboy. Fare to Philadelphia, \$3. Forward deck passengers, \$2 25. To Freehold and Monmouth, via stages from Hightstown, \$1 50. To Spotswood and West 75 cents. To South Amboy, 25 cents. To Perth Amboy, Tattens, Rossville and Tuffits, 12½ cents.

The steamboat Independence will land at each of the above named places going and returning, leaving Perth Amboy at 5 o'clock P.M. 31

**New Jersey Railroad and Transportation Company.**

For Newark. Fare 25 cents. Leave New York at 8, 9, and 11 o'clock A.M., and 12½, 2, 3, 4½, 6½, and 8 o'clock P.M. Leave Newark at 7, 7½, 8, 9, 10½, A.M., and 1½, 4, 5½, 7½, 9½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave Newark at 11½ A.M., and 9½ P.M.

**For Elizabethtown.** Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Elizabethtown at 7, 7½, 8, 10½ A.M., 3½, 6½, 9½, P.M.

**For Rahway.** Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Rahway at 5½, 7½, 11½, A.M., 3, 6½, 9, P.M.

**For New Brunswick.** Fare 50 cents. Leave New York at 9 A.M., 4, 4½ P.M. Leave New Brunswick at 5½, 7½, 11, A.M., 8½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave New Brunswick at 12 M., and 8½ P.M.

The commutation fare between New York and New Brunswick and intermediate places, including the ferry, \$65 per annum. 31

**Paterson Railroad. Leave**

New York, 9½ A.M., 12½, 5½ P.M. Leave Paterson, 8, 11½, A.M., 4 P.M. On Sundays, leave New York 9½ A.M., 5½ P.M. Leave Paterson, 8½ A.M., 4½ P.M. Passengers are advised to be at the ferry a few minutes before the stated hours of departure. Office 75 Courtland street. 31

**Morris and Essex Railroad.**

Leave New York, 8 a.m., 4½ p.m. Leave Newark, 9 a.m., 5½ p.m. Leave Morristown, 7 a.m. 3½ p.m. Passengers by the morning train to Morristown, will arrive there at 10½ o'clock, where stages will be in readiness to convey them to Schooley's Mountain, Washington, Belvidere and Easton, daily; to Succasunna, Stanhope, Newtown, Millford and Owego on Mondays, Wednesdays and Fridays; and to Rockaway, Dover, Sparta and Newton on Tuesdays, Thursdays and Saturdays. Passengers from Morristown will arrive in Newark in time to take the morning and afternoon trains from Trenton and Philadelphia. 31

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

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THURSDAY, AUGUST 14, 1845.

[WHOLE No. 476, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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 TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)  
 ROGERS, KETCHUM & GROSVENOR, Patterson, N. J. (See Adv.)  
 S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
 NORRIS, BROTHERS, Philadelphia, Pa.  
 KITE'S Patent Safety Beam. (See Adv.)  
 FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)  
 NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)  
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 THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM. PLAN

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

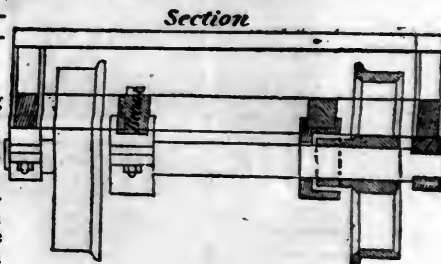
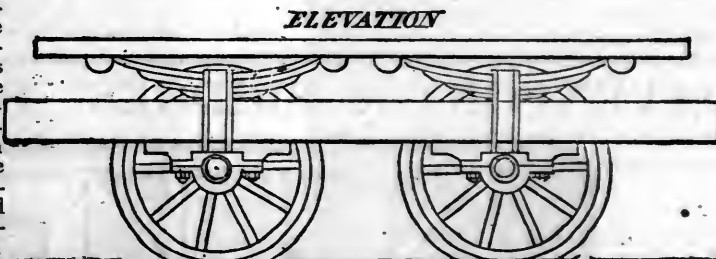
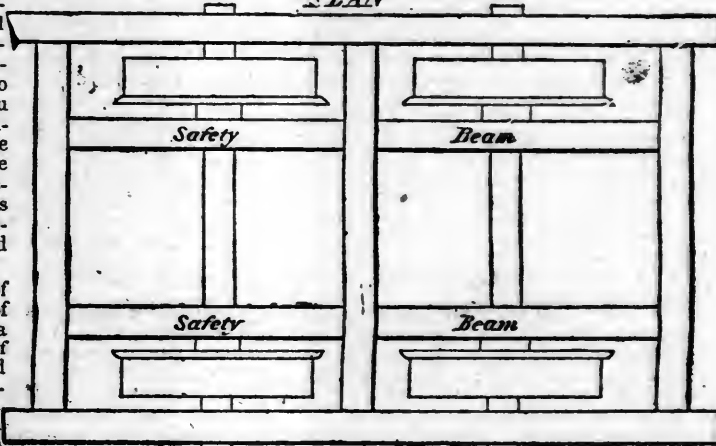
The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
 GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
 W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. **JOHN F. WINSLOW, Agent.**

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston.

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**TO IRON MANUFACTURERS. THE SUBSCRIBERS, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.**

**A. & G. RALSTON & CO.,** No. 4 South Front st., Philadelphia, Pa.

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

**HENRY BURDEN, Agent.** Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand.

ja45

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Supt Hartford and New Haven Railroad; W. R. M'Kee, Supt Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Supt New Jersey Railroad Trans. Co.; J. Elliott, Supt Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Supt Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Supt Macon Railroad, Macon, Ga.; J. H. Cleveland, Supt Southern Railroad, Monroe, Mich.; M. F. Chittenden, Supt M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. **FRENCH & BAIRD.** Philadelphia, Pa., April 6, 1844.

\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

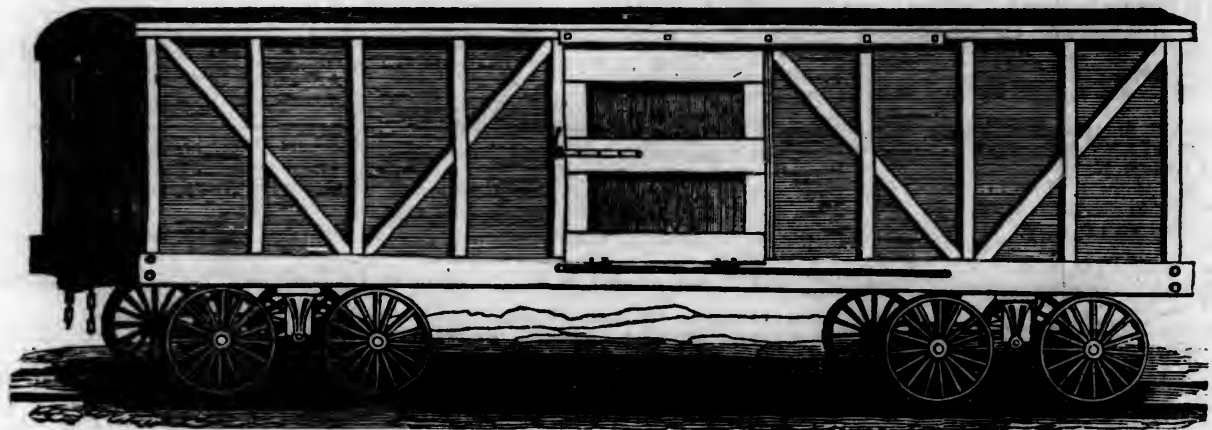
**SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars.** The Subscriber is engaged in manufacturing Spring Steel from 1 1/4 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

**JOAN F. WINSLOW, Agent,** Albany Iron and Nail Works, Troy, N. Y.

**SAMUEL NOTT, CIVIL ENGINEER, SURVEYOR and General Agent, Bangor, Me.** Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES. —  
Boston, { Col. James F. Baldwin, Civil Engineer.  
          { Col. J. M. Fessenden, " "  
          { Wm. Parker, Esq., Engineer and Superintendent  
Boston and Worcester railroad. ja45

**DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.**



**DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS.** Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**RAILROAD IRON AND LOCOMOTIVE**  
 Tyres imported to order and constantly on hand  
 by **A. & G. RALSTON**  
 Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
 Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gear- ing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
 ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
 etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

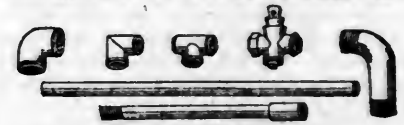
**W. Mc. C. CUSHMAN, Civil Engineer,**  
 Albany, N. Y.  
 Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

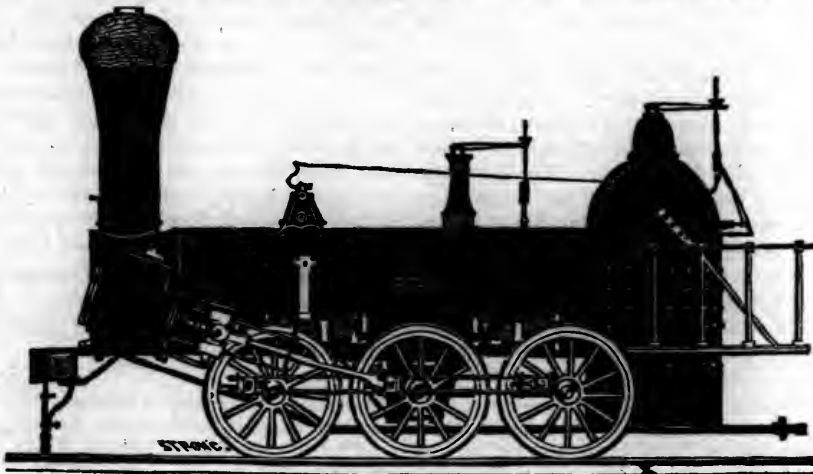
From 4 inches to 4 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
 Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**

*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
"	2,	14	"	"	×	24	"
"	3,	14½	"	"	×	20	"
"	4,	12½	"	"	×	20	"
"	5,	11½	"	"	×	20	"
"	6,	10½	"	"	×	18	"

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.

**WILLIAM YOUNG,**  
 President.

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 90 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48 State st.**, or to **CURTIS, LEAVENS & CO., 106 State st.**, Boston, or to **A. & G. RALSTON & Co., Philadelphia.**

**CYRUS ALGER & CO., South Boston, Iron Company.**

**Northern, or Ogdensburgh and lake Champlain Railroad.**

We have had upon our table, for several days past, a pamphlet containing much interesting and useful information in relation to the business operations of the northern part of the state of New York, lake Ontario and Canada—in connection with the railroad from Ogdensburgh to lake Champlain. The pamphlet appears to have been prepared expressly for the Boston market, towards which city all favorable projects and meritorious enterprises seem now to be attracted. The pamphlet appears to have been prepared by Mr. J. G. Hopkins. It has been got up with great care, and will be likely to effect the object in view, viz. to draw the attention of Boston capitalists, and business men to the advantages which this road will be likely, in connection with the Vermont railroad to Burlington, to afford them. We are well convinced that there are very few people who justly appreciate the amount of business which is sure, in a few years, to float upon lake Ontario. The boundless and fertile west will furnish an amount of produce, almost beyond ordinary comprehension; a large part of which must reach the Atlantic states, through the medium of the lakes, railroads and canals, and when once loaded into lake vessels it will be likely to seek that point nearest to the place of its destination, and from whence it can be most cheaply and speedily transported before it will be unloaded. That designed for New York will find an outlet at Oswego, either by the canal, or the railroad that is soon to be, while all that is destined for the interior of New England, much even for Boston itself will be landed at Ogdensburgh, and pass over the Northern railroad to lake Champlain, thence to Boston and throughout New England by railroads.

The length of the road is by one line surveyed 120 miles; and the highest grade 40 feet to the mile, and by the other line 121 1/4 miles—the estimated cost of the first line is \$1,778,459—and of the other \$1,923,108—but we advise them to fix their minds upon a road which shall not cost less than \$2,500,000 when in complete running order. Begin right—persevere and then it will be sure to come out right.

We make a few extracts to show the business, and its annual increase on the N. Y. canals.

“The tonnage of products, sent to tide water on the N. Y. canals in 1844, was 1,019,025 tons, valued at more than \$34,000,000, and that 176,737 tons of merchandize was sent from tide water on those canals in the same year. We have been moderate enough to claim for Boston only a small share of the increase of that trade, as has been seen, which render our road a very productive one.

“The average increase of tonnage arriving at tide water from the west, by the Erie canal, is 161,031 tons per year, for the last ten years. Of this annual increase, 150,084 tons are agricultural products.

“The number of tons merchandize which ascended the New-York canals from tide water in 1844, was 135,616, and including coal, &c., was 176,737, and the year previous, 143,595. If Boston should send over the Ogdensburgh road 20,000 tons of merchandize to the west, it would be but little more than half the mere increase of the whole number of tons going on the canals from tide water, the last year, and less

than the increase of the year previous. If we include eastern manufactures, to which this road would open a direct market in the west, the goods of emigrants to the west and to Canada, and merchandize to the western states and to Canada which will open some trade to Boston as will yet be seen, it cannot be extravagant to set down all this trade at 20,000 tons.”

We give the following in relation to the character of the route, surveys and estimates of business upon the road, that our readers may have a better idea of the project. The estimates in relation to the business which will pass over the road should be taken with some grains of allowance—not however as over but rather as under estimated if we take an average of 7 years from its completion.

“THE COST OF CONSTRUCTION.—The route has been twice carefully surveyed, at an expense of more than thirty thousand dollars, by able and accomplished engineers, under appointments from the governor of New-York; once by Edwin F. Johnson, and again by Edward H. Brodhead. The appropriation for the first survey did not admit of as full an examination of other lines as was deemed desirable, and a further survey was ordered by the legislature in 1840, without limiting the expense. The line was again surveyed, with all other routes deemed at all practicable for reaching lake Champlain. The result confirmed the selection made by Mr. Johnson, with slight variations. The first survey made the line 119 miles from Ogdensburgh to Plattsburgh, and the highest grade 45 feet, with an estimated cost \$1,451,805. Mr. Brodhead, having more time for examination, was enabled, by extending the line, to reduce the highest grade to 40 feet in the mile. He surveyed two routes for part of the distance, making the line 120 miles on one, with an estimated cost of construction \$1,778,459, and the other 121 1/4 miles, to cost \$1,923,108.

An examination of the very able and full reports of the engineers, and the maps and profiles, must show satisfactorily that the surveys have been made with great care. And when the favorable character of the soil, (ascertained by frequent shafts,) and the uniformity of the surface, and the cheapness of materials, are considered, it will not excite surprise, when the opinion is expressed that the road may be finished with a substantial freight track within the estimates. Very little expense will have to be incurred, it is believed, in obtaining the land for the roadway. The route is also through a country of great uniformity of surface, and known there to be peculiarly free from deep snows and snowdrifts, and little interruption will ever arise from this source. The estimates do not include the cost of engines, cars, &c.; and if, in addition to this expense, and for the purpose of furnishing the most ample accommodations for transporting so great an amount of freights as is expected to pass on the road, the outlay of capital should be larger than has been anticipated, it is believed that the

receipts will still afford a large profit upon the investment. It will be seen that the profits resulting from the estimates made are sufficient to admit of much abatement on account of errors, if any, in the estimates, either of cost of construction or of business, and also for reduction of prices of freight, if found necessary or desirable.

The charter extends fifty years, and is a liberal one, adopting that of the Attica and Buffalo company, whose road, built, it is believed, principally with Boston capital, has for some years been in successful operation. It has been seen that the stockholders will be well protected in their privileges by the provision of the constitution, which prevents any alteration except by the votes of two-thirds of all the members elected to each branch of the legislature. Since this is the case, and absence is the same as a negative vote, there is little danger, where railroad interests are so extended, of the incorporation of any injurious principle on charters, already granted.

“The estimates are only intended as approximations towards the actual results, and are presented as some convenience to those who may investigate the subject, who of course, it is hoped, will not form an opinion of their merits till they have fully examined the grounds upon which they are based.

Submitted in behalf of the Ogdensburgh Railroad Committee,  
G. HOPKINS.

JULY 15, 1845.

	Tons.
ESTIMATES OF FREIGHTS.—Products of the western states, (not including New York,) say the mere increase of the quantity sent on New York canals from the western states the last year, and being only one quarter of the increase of the whole quantity, (including New York,) sent on the canals to tide water that year, (and believed to be a mere approximation of what it will be,) 51,649, say.....	50,000
Merchandize and eastern manufactures going to western states and Canada, (including goods of emigrants, and goods imported under the recent act of congress,) being less than the increase of merchandize that ascended the New York canals from tide water the last year.....	20,000
From western New York.—Ground plaster, salt, flour, fruit, &c., going to lake Champlain and eastern states,.....	8,000
From northern New York.—Timber, sawed lumber, staves, shingles, &c., going to lake Champlain or beyond, estimated average for 10 years.....	50,000
Pig and bar iron, nails, stoves, castings, &c., products of iron mines, estimated to pass on the road as soon as constructed, (and will probably be much more,).....	5,000
Pot and peal ashes, stone, marble, lime, water lime, glass, beef, pork, live cattle, butter, cheese, venison, poultry, &c., sent to market.....	15,000
Merchandize, eastern manufactures, fish, goods of emigrants, &c., coming into New York, and salt, flour, plaster, from Ogdensburgh and other local and way freight to places on the road,....	1,000
	Tons, 158,000
Passengers.—Average number of through passengers on 12 railroads in Zew	



York, being all that were reported, and including the poorest, and most unprofitable roads in the state.....	56,308
Do. way passengers, (calling 4 equal to one through) 4) 28,894.....	7,227
	63,535
Profits.—63,535 passengers at \$2.50 per head, being only about 2 cents per mile, (low enough to induce thousands more to take this route).....	157,787
Transportation of the mails.....	6,000
158,000 tons freight at \$2.50 per ton, (much of it would bear higher, and some going to the sea-board might have to be taken at lower rates).....	395,000
	552,787
Average expense of repairs and running on the above 12 railroads in New York per mile is \$1290, which for 120 miles is.....	154,800

Net receipts \$403,987

Being over 20 per cent. on a capital of \$2,000,000, and 16 per cent. on \$2,500,000.

We should like to give the extracts entire from the letters of H. A. S. Dearborn, Esq., in relation to Ogdensburgh and that region of country, which accompany this exposition but a press of other matter prevents, yet we cannot omit the following, which show so clearly that the writer has a clear and far reaching view of the future for our favored country.

OGDENSBURGH AND ITS ADVANTAGES.

Extracts from "Letters on the Internal Improvements and Commerce of the West, by H. A. S. Dearborn," written at Buffalo, after visiting the different parts of the state.

"Ogdensburgh, says Gen. Dearborn, has, within the immediate surrounding country, invaluable sources of wealth, which will render that town the most eminent for its extent of business and population of any between Montreal and Oswego, should neither of the proposed channels of transportation be formed, (alluding to the proposed railroad to lake Champlain, and the extension of the Black River canal, &c.) but if completed, its rapid rise in the commercial prosperity and consequence is beyond all doubt. The harbor is excellent, and may easily be rendered more capacious and secure at but little expense, compared with the business which will there be concentrated in the progress of events which are daily becoming of greater import with the general march of internal improvements.

"The town is situated on the St. Lawrence, at the mouth of the Oswegatchie. The Oswegatchie has many tributary streams, which extend into the St. Lawrence, Jefferson, Lewis, and Herkimer counties, and four or five miles above Ogdensburgh, it receives the waters of Black lake, twenty-four miles long, navigated by steam and other boats, and thus becomes a means of communication with a large tract of the country. Below the junction are two rapids, and a very considerable fall near the mouth of the river, furnishing most valuable hydraulic powers, that are already used to a considerable extent, there being two large flour, two grist, and two saw mills, three foundries, extensive distilling and

tanning establishments, machine and other factories.

"That there will be a canal or railroad from Ogdensburgh to lake Champlain, and that soon, is certain.

"The numerous natural and artificial lines of communication, which I have attempted, but very imperfectly, to describe, and which concentrate in the valley of the Hudson, exhibit the wonderful influence which the Erie canal has already produced.

"What an exciting and glorious spectacle to the public works of this peculiarly favored state present. The prospective results, from the mighty causes which are and soon will be in full action, are far beyond what the most gifted prescience can predict, not merely as relates to this rich section of country, and its appendant regions, but to the whole republic. The magnificent revelation of coming years will be such as no other age or nation has experienced. We have been wrapt in wonder at the astonishing exhibition which genius, intelligence, and industry, have presented in our day; but the next generation will look back upon what has been done and is doing, with an amazement which will be as much greater as the extent of population and its advancement in all the arts of civilization will exceed what now exists."

Atmospheric Railway.

The New Orleans Picayune has the following paragraph in relation to the Kingston and Dalkey—not "Dublin" Atmospheric Railway. "The trials of the atmospheric railway at Dublin have shown that a much greater quantity of fuel will be required than by the locomotive system. It is also found very difficult to remedy the leakage in the long valve which covers the slit in the upper surface of the pipe. From the first we had no faith in this "atmospheric" business.—The obvious physical difficulties in the way of its success are almost as clear as those which prevent communication by balloons and flying-machines."

Such however are not the conclusions of those who have the immediate charge of the working operations of that line. We find, in the proceedings of a special meeting of the London and Croyden Atmospheric Railway Co., held on 4th. July ult., the following remarks, by the chairman W. W. Wilkinson Esq., which are to the point.

"It had been industriously circulated that they (the Croyden directors) had misgivings as to the success of the atmospheric principle, and that that was the reason why they had not opened the line, being fearful of the result of the experiment becoming known. The reason was, that all things were new, and although they had proceeded at once to make a contract for the pipes, etc., with one of the first houses, yet they had been disappointed in obtaining them, (from the cause he had stated) so soon as was expected; but he had every hope that they would be enabled to open before the end of July. Nothing had happened whatever to shake their confidence in the success of the system, and he was surprised—perhaps he had no right to say surprised—he was astonished that dur-

ring the investigations that had been going on during the present session, nothing better had been shown against the system. All that was said was, that what they had done could not be done. They had been materially assisted by the valuable testimony of Mr. Gibbon, the engineer of the Kingstown and Dalkey line, who had given evidence that even as late as last Sunday week, he believed on the occasion of the arrival of the *Great Britain*, 5,000 persons passed over the line. They began first by running trains every half hour, then every quarter of an hour, and finally every ten minutes, and continued throughout the day without the slightest irregularity, though they lost two or three of the locomotive trains which was acting in conjunction with them, so that he considered that that showed that it would bear favorable comparison even with the locomotive.

There is too much truth in the following remark of Mr. Wilkinson, in relation to new propositions, or systems. The real merits are not sought for, but "public opinion" is, and too often as popular opinion sets so goes the press, instead of investigating the matter, ascertaining as near as possible the truth, and then enlightning public opinion. "He, Mr. Wilkinson, would caution them generally not to be misled by its being stated, as he had no doubt it would be, when they opened, that the system had failed, because, being new, they had almost the whole of the press against them. The press was so, being the representatives of public opinion—and the public being generally against them, because they mostly had an interest in the locomotive, and it was feared that this principle would interfere with some vested interest. He advised them, therefore, to be patient, and trust to their talented engineer for the result."

The first portion of the Croyden Atmospheric line, Mr. Cubitt stated would be ready either the end of this month, or the first week in August.

*Canals turning into Railways.*—The plausible project says the Ledger, of running a railroad along the line of our canals between this city and Pittsburg, in connection with the Columbia and Portage railroads, thus connecting the two cities by an iron band and reducing the time of travel between them two thirds is not without similar examples in Europe. The London Times of the 2d ult. has a notice of a meeting in London of the proprietors of the Kennet and Avon canal, at which it was unanimously resolved to take measures to ascertain the practicability of converting that canal into a railway. Steps have been taken for the conversion of the Ellesmere and Chester, and the late Birmingham and Liverpool junction canals into railways. The advantages which railways possess over canals of being available the entire year—in time of ice as well as of drought—and the greater expedition with which distance may be achieved over them, mark them out as the kind of intercommunication, for freight and passengers, likely to find favor in this country, or, indeed, anywhere. We have, seen the last canal, of any magnitude that will ever be constructed in the United States.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.				Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.			
							Per share.		Per cent.								
							£	s.	d.	£	s.	d.					
Arboath and Forfar.....	15	102,000	35,000	138,870			0	12	6	2	10	0	25	20	Aberdeen.....	1,600,000	
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5	0	2	10	0	100	100	Barnsley Junction.....	200,000	
Branding Junction.....	23	161,700	365,470	481,452							4	10	0	50	54	Belfast and Ballymena....	385,000
Bristol and Gloucester.....	37	400,000	211,000	657,825							nihil.			30	59	Blackburn and Accrington..	400,000
Chester and Birkenhead.....	14	750,000	143,170	518,989	5,856	13,148	0	10	0	2	0	0	50	60	Birk. and Ches. Junction...	1,000,000	
Dublin and Drogheda.....	31	450,000	150,000	582,254							nihil.			60	115	Bolt., Wigan and Liverpool	800,000
Dublin and Kingston.....	6	200,000	152,200	349,736			9	0	0	9	0	0	100	251	Caledonian.....	1,800,000	
Dundee and Arbroath.....	16	100,000	49,445	153,416	2,989	6,993	1	5	0	5	0	0	25	36	Cambridge and Lincoln....	1,250,000	
Durham and Sunderland.....	18	169,350	124,055	270,392	9,889	17,702					nihil.			50	25	Chatham and Portsmouth...	5,000,000
East County and North and East.....	86	4,443,200	1,341,155	3,931,905	47,385	118,726	1	6	6				45	57	Chester and Wrexham....	120,000	
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1	5	0	5	0	0	50	78	Churnet valley.....	1,800,000	
Glasgow, Paisley and Ayr.....	51	937,500	1,071,258	2,042,756	12,446	36,736	1	5	0	5	0	0	50	72	Direct Northern to York...	4,000,000	
Glasgow, Paisley and Greenock.....	22	650,000	216,666	797,643	11,830	23,447	0	5	0	2	0	0	25	21	Dublin and Belfast.....	950,000	
Grand Junction.....	104	2,478,712	2,503,671	84,309	195,080	5	0	0	10	0	0	0	100	239	Dunee and Perth.....	250,000	
Great North of England.....	45	969,000	581,017	1,307,487	12,201	36,189	3	0	0	6	0	0	100	230	Edinburg and Northern...	800,000	
Great Western.....	221	4,650,000	3,679,343	7,445,689	143,279	440,046	4	0	0	8	0	0	80	215	Ely and Bedford.....	270,000	
Hartlepool.....	15	438,000	155,540	719,205							8	0	0	100		Glosgow, Dum. & Carlisle.	1,300,000
Leicester and Swannington.....	16	140,000	140,000	2,207	6,317	1	5	0	5	0	0	0	50			Gt. South and West Ext....	1,200,000
Liverpool and Manchester.....	32	1,209,000	497,750	1,785,000	64,885	141,252	5	0	0	10	0	0	100	214		Gt. Grimsby and Sheffield.	600,000
Llanelly.....	27	200,000	44,000	221,624			1	0	0	2	0	0	87			Harwich and E. coun. Jun.	160,000
London and Birmingham.....	202	6,874,976	928,845	6,614,005	96,413	456,997	5	0	0	10	0	0	100	245		Huddersfield & M. rl. & cl.	60,000
London and Blackwall.....	3	804,000	266,000	1,768,851	15,978	23,870	0	3	0	1	10	0	16	10		Kendal and Windermere...	125,000
London and Brighton.....	56	1,935,000	705,000	2,637,753	30,490	130,156	1	10	0	6	0	0	50	77		Leeds and Dewsbury.....	400,000
London and Croyden.....	8	550,000	229,000	761,885	7,583	10,545	0	8	0	4	0	0	14	23		Leeds and Thirsk.....	800,000
London and Greenwich.....	31	759,383	233,300	1,040,930	15,193	28,933					nihil.			13	11	Liv. Ormskirk and Preston	600,000
London and South Western.....	92	2,222,100	630,100	2,604,405	89,439	190,631	2	0	0	10	0	0	41	82		London and Portsmouth...	1,750,000
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1	0	0	5	0	0	40	62		London and York.....	5,000,000
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2	2	0	4	10	0	93	169		Londonderry & Enniskillen	500,000
Manchester and Leeds and Hull.....	87	2,937,500	943,932	3,921,593	46,653	156,761				8	10		60	170		Lynn and Ely.....	200,000
Midland railway.....	179	5,158,900	1,719,630	6,279,838	75,227	276,129	3	0	0	6	0	0	100	192		Manchester, Bury and Ross	300,000
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	46,745	5	0	0	5	0	0	100	113		Manchester and Buxton...	250,000
Newcastle and Darlington.....	23	500,000	405,728				1	0	0	8	0	0	21	56		Mullingar and Athlone....	
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466				6	9	0	50	69		Newcastle and Berwick...	700,000
North Union.....	39	739,201	308,306	1,028,593	24,788	37,794	2	10	0	6	5	0	100	176		Richmond & W. End Junc.	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415			0	16	0	8	0	0	20	45		Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000			31,247	91,171				8	0	0	20	40		Sheffield and Lincolnshire.	650,000
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066				4	0	0	50	32		Shrewsbury and Gd. Junc.	400,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876				nihil.			87	135		Shrew. Wolv. Dudley & B..	900,000
South Eastern.....	88	2,996,000	1,530,277	3,461,172	69,288	139,042				3	1	4	33	48		Trent Valley.....	900,000
Taff Vale.....	30	465,000	195,000	595,089	9,115	22,692	0	17	7	3	15	0	100	104		West London Extension...	64,000
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0	15	0	5	1	8	32	52		West Yorkshire.....	1,000,000
Yarmouth and Norwich.....	20	187,500	62,500	230,036	5,186	10,008	1	0	0	5	0	0	20	29		Whitehaven and Maryport	100,000
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	1,107,146	31,349	75,474	2	10	0	10	0	0	50	115		FRENCH RAILWAYS.	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15	15	Loughborough.....	70	142	142	70	1140	
Anti Dry Rot.....	10,000	10	18		2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35		34		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27	27	Mersey and Irwell.....	500	100	100	0		
Gt Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2	15	15
Metropolitan Wood Pav..	15,000	10	6	5	6		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental..	11,493	50	50	7	64	65	Regents or Loncon.....	21,418	33	33	2	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....				6			Somerset coal.....	800	150	150	7	123	123
Reversionary Int. Soc.....	5,387	100	100	4	104	104	Stafford and Worcester...	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				SVERN & Why & Rail Av.	3,762	26	26	5	30	30

Canals.

Ashby de la Zouch.....	1,432	113	av.	4	70	70
Barnsley.....	720	100	100	14	180	180
Birmingham, 1-16 share..	3,000	118	79	10	150	160
Do. and Liverpool Junction	4,000	160	100		13	13
Coventry.....	500	100	100	20	365	365
Cromford.....	460	do.	do.	21	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forth and Clyde.....	1,297	400	40	4	440	440
Grand Junction.....	11,600	100	100	7	162	161
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Rerkley...	5,000	do.	do.		8	8
Grantham.....	749	150	150	8	185	185
Lancaster.....	11,699	47	47	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	640
Leicester.....	545	14	140	9	9	139

Water Works.

Birmingham.....	4,800	25	25	3	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41	2-3	7	88
New River L. B. Ann.....	1,500			2	57	57
Manchester and Salford....	6,486	av.	30	8	55	55
Vauxhall, lt. S. London...	1,000	100	100	5	57	55
West Middlesex.....	8,294	av.	63	6	126	127

Docks.

Commercial Dock.....	1,065	100	100	3	10	
East and West India.....		sto.		5	137	
London.....	3,238,310	sto.		4	114	115
Katharine.....	1,352,752	sto.		5	116	171
Southampton.....	7,000	50	50			



AMERICAN RAILROADS.													SALES.		
RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	Week ending July 15.	Shares.	Price.
						Gross.	Nett.		Gross.	Nett.					
Me. 1	Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	103½	5	103½
N. H. 2	Concord.....	35	750,000									12	65		
Mass. 3	Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	117	8	114½
" 4	Boston and Maine extension.....	17 1-4	455,703	unfin.											
" 5	Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120	4	111½
" 6	Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	114		
" 7	Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	120½	54	1
" 8	Berkshire.....	21	250,000	not stated				17,500	7	17,737					
" 9	Charlestown branch.....		280,260						13	34,654	13,971	5½	112½	50	80
" 10	Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	113½	275	108½
" 11	Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,835		124		
" 12	Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	123		
" 13	New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
" 14	Northampton and Springfield.....		172,883	unfin.											
" 15	Norwich and Worcester.....	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	71½	3,355	71½
" 16	Old Colony.....		57,820	unfin.									106		
" 17	Stoughton branch.....	4	63,075	unfin.											
" 18	Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	118		
" 19	Vermont and Massachusetts.....														
" 20	West Stockbridge.....	3	41,516	200		100						4			
" 21	Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	101	20	102½
" 22	Worcester branch to Milbury.....		8,431	506											
" 23	Housatonic, (10 months,).....	74	1,244,123							150,000			31		
Con 24	Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	95	25	93
" 25	Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
" 26	Stonington, (year ending 1st Sept.).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29	625	28½
N. Y. 27	Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0			
" 28	Auburn and Rochester.....	78	1,796,341	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109½	1	109
" 29	Auburn and Syracuse.....	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
" 30	Buffalo and Niagara.....	22	200,000		1,500								100		
" 31	Erie, (446 miles,).....		5,000,000										29	1,325	30
" 32	Erie, opened.....	53						48,000		126,020	59,075				
" 33	Harlem.....	26	1,206,231							140,685	62,399		69½	170	69½
" 34	Hudson and Berkshire.....	31	575,613			50				35,029	1,789	0	11½		
" 35	Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	71	7,380	68½
" 36	Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	58½		
" 37	Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
" 38	Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
" 39	Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117		
" 40	Tonnawanda.....	43	727,332				76,227			114,177	75,865	5			
" 41	Troy and Greenbush.....	6	180,000												
" 42	Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
" 43	Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132	20	132
N. J. 44	Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		112		
" 45	Elizabethtown and Somerville.....	26	500,000												
" 46	New Jersey.....	34	2,000,000										95	100	95½
" 47	Paterson.....	16	500,000									6	90	1,225	88½
Pa. 48	Beaver Meadow.....	26	1,000,000												
" 49	Cumberland Valley.....	46	1,250,000												
" 50	Harrisburg and Lancaster.....	36	860,000										30		
" 51	Hazleton branch.....	10	120,000												
" 52	Little Schuylkill.....	29	900,000												
" 53	Blossburg and Corning.....	40	600,000												
" 54	Mauch Chunk.....	9	100,000												
" 55	Minehill and Schuylkill Haven.....	18	315,000						12				80		
" 56	Norristown.....	20	800,000										6½		
" 57	Philadelphia and Trenton.....	30	400,000										104		
" 58	Pottsville and Danville.....	29 1-2	1,500,000												
" 59	Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		58	2,330	57
" 60	Schuylkill valley.....	10	1,000,000												
" 61	Williamsport and Elmira.....	25	400,000				20,000								
" 62	Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		15½	11,831	15½
Del. 63	Frenchtown.....	16	600,000												
Md. 64	Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		358,620	346,946		49½	37	48½
" 65	Baltimore and Susquehanna.....	58	3,000,000										2½		
" 66	Baltimore and Washington.....	38	1,800,000												
Va. 67	Greensville and Roanoke.....	18	284,433	37,544	2,000	100				212,129	104,529		84		
" 68	Petersburg.....	63	969,880	63,000	7,690	100				25,368	6,074		28		
" 69	Portsmouth and Roanoke.....	78 1-2	1,454,171							192,871	72,898	3	77		
" 70	Richmond, Fredericksb'g and Potomac.....	76	800,000							185,243	85,688	6			
" 71	Richmond and Petersburg.....	22 1-2	700,000												
" 72	Winchester and Potomac.....	32	500,000												
N. C. 73	Raleigh and Gaston.....	84 1-2	1,360,000												
" 74	Wilmington and Raleigh.....	161	1,800,000												
S. C. 75	South Carolina.....	136													
" 76	Columbia.....	66	5,671,452		34,410	75	201,464	77,456		532,871	140,196	5			
Ga. 77	Central.....	190	2,581,722				227,532	93,190		328,425	180,704				
" 78	Georgia.....	147 1-2	2,650,000				248,026	158,207		248,096	147,523				
" 79	Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Ky. 80	Lexington and Ohio.....	40	450,000												
Ohio 81	Little Miami.....	40	400,000												
" 82	Mad river.....	40	152,000												
Ind. 83	Madison and Indianapolis.....	56	212,000												
Can. 84	Champlain and St. Lawrence.....	15						12,000		58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Thursday, August 14, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 24,032 tons, and by canal 7,160 16, making 31,192 17 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total.....	196,606
From Schuylkill Haven—total.....	214,030
From Port Clinton—total.....	8,749

Total by railroad..... 421,280

BY CANAL.

From Pottsville and Port Carbon—total.....	72,514
From Schuylkill Haven—total tons.....	19,853
From Port Clinton.....	25,730

Total by canal..... 118,098

Total by railroad and canal..... 539,481

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines, -	61,517
Room run do., -	33,289—127,805
Beaver Meadow railroad and coal co.,	40,752
From Penn Haven—Hazleton coal co.,	33,420
From Rock Port—Buck Mountain coal co.,	10,084

212,061

WYOMING COAL TRADE—total..... 81,526

PINE GROVE COAL TRADE—total..... 35,792

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons..... 234,758

MOUNT CARBON RAILROAD—total tons.. 145,001

MILL CREEK RAILROAD—total..... 32,018

[Miners' Journal.

The Great Britain.

This much talked of, and long looked for, steamship has arrived, and has produced a sensation little, if any, less than did the GREAT WESTERN on her first arrival under the same gentlemanly commander in the summer of 1839. The passage was made in one or two hours short of fifteen days, notwithstanding several days of rough weather, and it was remarked to us, by one of the passengers, that "she behaved remarkably well, especially when the weather was roughest."

Many thousand people thronged the wharfs to see this wonderful evidence of the rapid progress of the arts; and all, who were so fortunate as to witness her beautiful model, and graceful movement as she passed up the bay and the East river to her berth, foot of Clinton street, appeared astonished and delighted; and while some gave utterance to their astonishment in remarks that "she will never be beat!" to us she appeared merely as "a link between the past and the future" only as another evidence, that we are still in the infancy of the useful application of steam power. The first half century has not yet passed since the first successful application of steam power to useful purpose, and who can estimate the extent and value of its present use? If, then, so much has been accomplished, within that period, where nothing was before known, and very little

imagined, or anticipated, what may not be accomplished with the present experience with its use in a thousand different modes!

We have received our regular files of English railway periodicals by the Great Britain, but find little new of interest. The numerous applications before Parliament for railroads are still pushed with vigor, and "the battle of the gauges," seems to be as far as ever from a termination. The prices of iron have receded a little. It was decided at a meeting of the iron masters of Dudley district on the 15th of July, that the reduction of £2 per ton, recommended at a previous meeting, should be confirmed; and the prices adopted at the works, were £8 for bar, and £3 10 to £4 for pig. There is however great activity in all the iron districts—and such is the demand, that, in the vicinity of Merthyr Tidvil, there is no cessation of labor, not even on Sundays.

The most interesting, and important information which we derive from our journals is the astonishing advance in the value of railway shares since first December last. We have compared the prices of 19th July, with those in our Journal of 2nd January last—taking thirty of the roads, in that table the average amount paid on the shares of which is only £59 6s.—and the average value of which was, in December last, £77 15s., we find the average value, as given in the last quotations, to be £109 5s. 1 or an average advance in value, from December 1st, 1844, to July 19th 1845, of £31 10., and on the average cost of £49 19s., or over 80 per cent. The advance has not been as great in all, yet almost every railroad in use in England, or indeed in Europe shows a regular increase of business, and advance in the value of the shares—facts cheering to us in this country; and of a character which ought to stimulate us to renewed efforts for the early completion of the important lines from our large cities to the interior and especially in New York, Philadelphia, Baltimore, Charleston and Savannah. These cities must see to the completion of the lines terminating in each, and reaching the fertile regions from which they derive their prosperity, if they desire to keep pace with the cities of New England and especially with Boston.

We shall give in our next the list of roads referred to, that our readers may have all the facts before them, upon which we base this almost incredible statement.

Hartford, Danbury & New York Railroad.

Active operations have commenced on this line, as we learn from a letter, an extract from which we give annexed. This is the way to succeed; first resolve to succeed and then use the necessary effort. The writer says: "I am happy to say that the ex. committee have engaged the services of Edward H. Beoadhead, esq., an engineer of distinguished ability and reputation, well known in your state, for the survey of the proposed New York and Hartford railroad, and that he has already commenced an exploration of the route. The interest in favor of this route and the sense of its great importance, are daily increasing, and if New Yorkers have their eyes open to solid and profitable investments, this road will be completed from New York to Hartford within a few years."

The charter for this road was not obtained without considerable effort. A rival route and the sound steamboat interest, were arrayed against it, and if we recollect, it was reported against by a majority of the joint select committee of the legislature; yet it was passed by large majorities, 14 to 7 in the senate, 111 to 61 in the lower house.

The minority report of the committee, gives the following good reasons why the charter should be granted. We coincide entirely with the reasons of this report, especially with that part which says that "the legislature shall not withhold the privilege of creating at their own expense the facilities for their industry, which have not been withheld from other sections of the state," as well as in that part which says that "as the amount of travel and transportation are in all cases greatly increased by railroads, there will be sufficient business for all." We will add, 'all' which the people may build with their own means. There is now little fear that the people will pay out their own money to build useless railroads; there is much more danger that they will not build all that are necessary, and that would be profitable. The minority say:

"That the towns upon the proposed route in the interior being destitute of steamboat facilities, and without navigable rivers, have great need of the proposed railroad, and strong claims that the legislature shall not withhold from them the privilege of creating, at their own expense, the facilities for their industry, which have in no instance been refused to other sections of the state.

"That independent of the long travel, the resources of the towns upon and in the vicinity of the route, and their ability to sustain a railroad with their local business and travel, are fully equal to those of any other section of the state, for the same distance.

"That the route is a feasible one; it does not, like the Western road, cross the hills at right angles, but diagonally, and cannot be more difficult than the road surveyed from Fitchburg to Brattleboro', which competent engineers have estimated to cost not exceeding \$23,000 per mile.

"That in time of war this interior route will not be exposed to invasion or attacks by sea, and will therefore for the transport of troops and supplies, as well as of the public mails, be of great national as well as local utility.

"That inasmuch as the amount of travel and transportation are in all cases greatly increased by railroads, there will be sufficient business for all; and while this state supports three railroads running from north to south, it can at least sustain one running from east to west, and thus accommodate those towns which have not the good fortune to be located in the direction of the river valleys or upon the sea coast.

"That since the legislature do not undertake to reduce the tolls and charges of any chartered companies, whether exorbitant or not, the only way to protect the public adequately, is to create the fair competition of new routes, and thus prevent any one company from assuming the character of a monopoly, oppressive to the community.

"That this road is called for by the real wants of the public, and not by speculators; it is supported by the undivided approval of the inhabitants on the line of the road and receives no opposition except from corporations already chartered, who would thus seek to render their own privileges exclusive, and free their power over the public from the salutary check of competition."

(Foreign Correspondence of the American Railroad Journal.)

21 TOKEN HOUSE YARD, }  
London, July 16th, 1845. }

Dear Sir:—I had the pleasure to address you on the 4th inst., by the steamer *Great Western*, and then told you there was no celebration of the anniversary of our country's national birth in London, but I found, subsequently, that this day did not pass over uncelebrated and forgotten, for I learn by the newspapers that Mr. Forrest, Mr. Wickoff and others of our countrymen met and did honor to the memorable day which should always be kept in remembrance as long as our nation exists. I now enclose you Bradshaw's monthly railway guide, which will give you much information respecting the British and Continental railways, also Herapath's Railway Journal, received since I sent the last five or six numbers by the *Great Western*, together with five numbers of the *Railway Chronicle*, an excellent weekly publication on railways, which with Herapath's I will continue to send you regularly by each steamer. I think with these two London papers you will get all the information you can desire respecting European railway improvements, which are going on with great spirit, not only in Great Britain and Ireland, but also in most countries on the continent. In Herapath's Journal of July 5th, you will find an excellent article on George Hudson and George Stephenson, well worthy of republication in your Journal. So also, in the *Railway Chronicle* of July 5th, you will find an article on George Hudson, who is generally called the "Napoleon of railways," but in my opinion, this really useful man is worth as many Napoleons and Alexanders (falsely called *great*) as could be placed between this and York, where Mr. Hudson resides.—Great warriors are great murderers and destructives, but George Hudson is only great in the good deeds he is constantly effecting by means of his extraordinary judgment—great and indefatigable exertions aided by his great capital. He has so much of the public confidence that every one rallies around him and enables him to effect the most astonishing public works, many of which, until he appeared upon the stage, were in a state of abeyance or neglect, and produced no income to their proprietors. The moment Mr. Hudson undertakes a thing, it succeeds.—There are numerous examples of his buying up railway companies that yielded either no dividend at all or only a nominal one of 1 or 2 per cent. per annum, which after being under his charge for 18 months or two years have become valuable, and now produce 8, 10, 12 and even 15 per cent. per annum di-

vidends among the proprietors. Mr. Hudson was a few years ago, a haberdasher (a shop keeper) in York, where he made a comfortable fortune, but since he commenced diverting his attention to railways, he became chairman of the "York and North Midland railway company," and numerous other companies, whereby he has made an immense fortune, and is now a *millionaire* of the 1st rank. If Pennsylvania had a George Hudson to buy up the Philadelphia and Columbia railway, the Lancaster and Harrisburg and the Harrisburg and Chambersburg railways, and then carry on the railway to Pittsburgh he would confer inestimable benefits upon my own state, Pennsylvania, where for want of a man of commanding influence and talents, railway transportation and railway concerns languish most deplorably. It is a miserable plan to have three railway corporations between Philadelphia and Chambersburg. If the three concerns were under the administration of one company, or under one head, the expenses would be incalculably diminished, the efficiency would be immeasurably increased, and the shareholders as well as the whole community would be excessively benefitted. The amalgamation of small railways with larger ones, has been practised in this country by Mr. Hudson, with singular advantage to himself, the different companies and the whole community, and I trust this excellent example will be imitated in New York, by getting the whole line of roads between Albany and Buffalo under one management, and also in my own state, by amalgamating the railways from Philadelphia to Chambersburg, and having one efficient and judiciously conducted administration, instead of the present three most inefficient and expensively conducted concerns, nearly worthless to the proprietors and of little use to the community.

In Herapath's Journal, July 5th, you will find an article headed "American railway management," and refers to "our intelligent contemporary, the editor of the *American Railroad Journal*," and gives sound advice respecting the reduction of fares upon our American roads, which between New York and Washington are too high, and might be lowered with great profit to the proprietors and the travelling community.

JULY, 17th.

I send you a newspaper slip, which my friend, Mr. Cresson, of Philadelphia, had circulated after publishing a letter I wrote to him under date, January 2, 1845. As this letter contains some information, it may be worth while to republish it in your Journal. There is no doubt that diminution of fares

increases amazingly the number of travellers in a line of country where population exists as is the case between New York and Washington. It appears to me that our railway companies do not lay themselves out for carrying cattle, horses, sheep, pigs, poultry, etc., as much as they ought to. In this country, the transportation of these animals is a source of a very large and increasing profit. It is found the loss to cattle by bringing them to market on the hoof is very much greater than the expense of conveying them in quick and comfortable railway trains. I am happy to say that railway iron has declined since I wrote to you. I could now get good edge rail of the common patterns used in America, at £9 per ton, less 5 per cent. discount for cash. I do not suppose there will be any further abatement of price, for there will be at least 2,500 miles of double track railway sanctioned by parliament at the present session, which with rails at 75 lbs. per yard, and all the accessories will require at least 500 tons per mile, which will require a good lot of iron, but as this supply will not be wanted immediately, but will be required from time to time during the next two or three years, I do not think it probable the price will advance again to the high rate it did in March and April, the result of the efforts of speculators. I see by your journal that most important railway projects are contemplated in our country. The completion of the road from the Hudson to lake Erie, the New York and Albany road, and the several routes from Boston towards Montreal. These are all of vast importance, and I hope most sincerely they will be carried on, but I fear the high price of iron with \$25 per ton duty, will offer a most serious impediment to their construction. I hope congress, legislating for the whole country, will take this matter into consideration, and, if not abolish the duty altogether for 10 years, at least reduce it to a more reasonable scale. I really hope when our Pennsylvania iron masters come to view this important matter in its true light, that they will no longer oppose a measure which is calculated to promote the prosperity of our country in a most important manner, without interfering with their own profits. Some time ago, you published my letter on this subject, to the secretary of the treasury, and as all the arguments are equally strong in favor of this measure now, that they were then, I will be obliged if you will republish this letter again, and I accordingly send you a copy of it. I hope all the railway companies in the United States will unite in application to congress, to effect an abolition of the duty on railway iron, at least

on edge rails, for ten years, by the expiration of which time, I hope our countrymen will be prepared to manufacture all kinds of iron at home. I have marked in the Railway Chronicle, a notice of the steam pile driver, well worthy of your attention. In the same number, (for July 12th,) I have marked several other articles, which may be worth your looking at. In the Railway Guide, are two maps, of Ireland and Great Britain, which show all the railway projects now contemplated. I shall always be happy to serve you, and remain, dear sir,

Most sincerely yours,  
GERARD RALSTON.

**Wear of Iron on Railroads.**

For the American Railroad Journal.

Mr. Editor:—Is not your correspondent J, giving himself unnecessary anxiety on the subject of the wear of iron on railways.—May it not be, that owing to an interested partiality for water carriage, the *thought* is in his case father to the *wish*.

Without, however, discussing the truth of the premises by which he comes to the deduction that the said wear is equal to one cent per ton per mile, which is in fact destructive to the future prosecution of the railway system, we may, in ample refutation of any such assumption, refer to the immense spread of that system in all parts of the world, feeling assured that were there any such destructive flaw in it, we should have had it sounded in the various *English, American, German, French and Russian* journals devoted to the discussion of railway progress. On the contrary, what has appeared in these journals goes to establish the fact that, *a railway bar of good quality and form will not wear at a rate beyond the means of provision, by a moderate annual appropriation from the earnings of the road, as for its other component items, and therefore can be maintained forever doing any amount of business.*

In the case of the Lowell railroad 26 miles long with a rail 56 lbs. per yard, at say \$66 per ton—to what does such an assumption of wear tend;—Take its business for 1845 at 180,000 tons, and that for 1846 at 200,000 tons: it should thus be at the end of two years, near its dissolution, and the tonnage have then reached the point at which the rail will require renewal *every year* thereafter. Thus if the business of this road only continues to increase in the same rapid ratio, its existence will soon be brought into a very narrow span. Its directors have now, however, been awakened to their danger, by your correspondent, and we may soon hear from them directly whether they sanction such a doctrine.

If, indeed, this position of your correspondent were true, how fatal would it prove to that great work the Reading railroad, so particularly the friend of the poor; and we strongly suspect it to have been mainly intended as a shaft aimed at this valuable road, now materially interfering with a certain canal; but not regarding the immense amount of tonnage which a portion of the rails on this road has already borne without injury in past years, we are willing to await the result of that which will pass on its new track in the present year of 1845, which cannot be less, of coal alone, than 800,000 tons, in the full confidence that one position above will be maintained, and that its then condition will afford ample guarantee of its long after continuing to be "fit for safe usage." And who can question the fact of the line of this road soon presenting an almost continuous succession of furnaces, forges and rolling mills, and affording it unrivalled advantages for the cheapest renewal of its rails, small as the demand in this respect promises to be. F.

**Hydraulic Cement.**

The following extract from a letter in relation to "Lawrence's Rosendale Hydraulic Cement," may be useful to some of our readers, we therefore give it a place in the Journal, with the remark, that every barrel is warranted.

For the American Railroad Journal.

FORT ADAMS, R.I. }  
July 11th, 1845. }

D. J. Ogden, Jr., Sir:—Several years ago a great variety of mortars were mixed at this place, for the purpose of ascertaining the relative strengths of different proportions of cement, lime and sand. In all these mortars the Lawrence cement was the cement used. The mortars were made into prisms 6 in. long and 2 in. square. They were broken just one year after they were made, and the weights producing the fractures carefully ascertained. The prisms 6 in. long were supported for an inch at each end, leaving 4 in. between the points of support: a stirrup of iron with a knife edge, just so dull as to prevent any cutting action, was hung over the middle of the prism, to this was attached a pan into which sand was poured until the prism broke, and the weight producing rupture noted:

A mortar of Lawrence cement *alone* broke with the following weights: three cases,—657, 774, 801 lbs.: av. 744 lbs.

A mortar of cement, measured dry, with one half its bulk of sand, broke with the following weights: fourteen cases—918, 738, 936, 666, 495, 738, 486, 612, 684, 1,008, 783, 954, 522, 558: av. 721 lbs.

A mortar of cement mixed with an equal bulk of sand, broke with the following

weights: ten cases—315, 225, 130, 220, 360, 396, 306, 360, 315, 450: av. 308 lbs.

A mortar of cement mixed with double its bulk of sand, broke with the following weights: eight cases—117, 270, 117, 162, 126, 211, 135, 209.

Here is something from which to judge of the strength of mortar made of Lawrence cement.

I have used it under water, in cases in which it had to be lowered into the water in buckets, the buckets upset when the concrete had been lowered to the point of deposite, and upset too, directly in the water. This is the severest trial of cement. I filled a large hole in a wall, under water last year, with concrete made of this cement, and the filling perfectly answered its purpose.

It has been the only cement used at this work for many years, and it has proved to be an excellent material, in all its applications.

**American Railway Management.**

It affords us much pleasure to learn that we are fully sustained in our views on the subject of "low fares, frequent trains and high speed for passengers," on railroads, by that able, independent, and we believe, the oldest English railway periodical, "Hera-path's Journal and Railway Magazine." It is well known, perhaps *too* well for some of our readers, that we let no opportunity pass, of inculcating this doctrine. Yet we did not hesitate to oppose the attempt made last winter, in our legislature to appoint a commissioner and to *compel* the railway companies, from the Hudson west to Buffalo, to reduce their fares. We should cheerfully advocate the passage of a law relieving those companies from the present *restrictions* upon their carrying freight—because it may *save money to the people* and reduce the canal tolls—and would not object to couple with it a clause prohibiting them from charging to exceed 3 cents—we believe 2½, or even 2 cents, would be better for the companies—per mile for passengers and a like amount per ton for freight. They will yet adopt rates as low as these from choice, because they will find it for their interest to do so. It was not just however to restrict them further on passengers unless they were relieved from the *prohibition* to carry freight, therefore we published and sustained their remonstrance to the legislature—and it is that remonstrance published in this journal, which called forth the following exceedingly just and appropriate remarks, by the independent and able editor of Herapath's Journal, on "American Railway Management." The views of the writer are clearly and forcibly expressed, and well sustained by numerous undeniable facts, and we desire to thank him for coming to our aid in this contest with a few powerful companies, and for expressing and sustaining our views in a manner so much better than we could do it ourselves. We will also assure him that the people here—the millions who travel—and at no distant day the *shareholders* also, will fully appreciate his motives in, and feel grateful to him for, thus calling attention to the subject, and furnishing them with important facts, which must ere long produce the desired result. For ourselves we cannot more forcibly express our approval of the motives

which dictated the remarks, than by republishing them in the Journal, and also by requesting their general re-publication in those papers with which we exchange. Great good will surely follow their re-publication in this country.

If we may be permitted to judge by a few instances, the Americans, notwithstanding their long and cheaply-constructed railways, impose a fare about equal to that charged in England—nay, in some cases higher. This appears to us quite opposed to the "Go-ahead" principle of that people, unless it be in the wrong way. Considering the relative positions of the two, the Americans should charge a fare *much cheaper* than we do. The average cost of their railways is perhaps, at the greatest, not more than a sixth of the cost of the English; for, if we allow their average cost per mile to be £5,000 which we believe is a full estimate, six times that amount would make our average £30,000 per mile—a sum which we heartily wish we could say was a fair average of what our railways have cost. Further, the Americans are not surely in a position to afford to pay as dearly as we can: money is a much more prevalent and cheaper commodity here than it is there. Looking, therefore, to these two circumstances alone, the much less costly nature of their lines of railway, and their inability to pay prices comparatively high, it is quite clear, to be on a par with our accommodation, their fare should be considerably lower than ours, instead of being, as it is, about equal to it.

We have been led to make these remarks by seeing in the "American Railroad Journal" a report in the shape of a "remonstrance," of the several companies on the line of railway from Attica to Albany, against sundry petitions of the inhabitants. The object of these petitions is to induce government interference to reduce the fares, to appoint a government commissioner, and to compel the companies to run night trains.

We are aware that the people of America enjoy in general the character of being stirring fellows, and are as prone to agitate against their own party as against other nations; but still, making allowance for this propensity, we fear there is some cause for their complaints of the manner in which the railway companies treat them. We imagine that the very terms of the remonstrance affecting the fares are sufficient to pour down upon the devoted heads of the directors petitions without number from enlightened citizens of New York. Therein they (the directors) "claim that four cents per mile is a reasonable fare." Four cents is rather more than 2d. a mile; we understand the petitioners to require its permanent reduction to 1½d. per mile, or to three cents. Now 2d. a mile over their long and cheaply constructed lines, levied upon a public to whom 4s. 2d., is, perhaps, equivalent in value to 6s. with us, certainly does appear a heavy charge. Why, what will our American directors say when we tell them that one of our highest-fared railways, and one, too, of our most costly lines, upon which upwards of £50,000 per mile has been expended, the Great Western railway, charge an average fare *less than*

theirs—namely, about 1½d. per mile. What will they say to that? We could quote innumerable other instances in which our fare is *much less* than theirs at 2d. a mile. Such is the Blackwall, where the average is a shade above 1½d. per mile. The Manchester and Leeds charge about 1.65, or a fraction higher than 1½d., three cents. The former of these lines cost about £300,000 per mile, and the latter £60,000 per mile. Moreover, we have fares to suit every class; any one that pleases so to do is allowed to avail himself of either uninterruptedly. Every line in the kingdom is compelled to carry passengers by the third-class at 1d. a mile, and it is a matter of notoriety that some of the first merchants in this country have been, and are frequently, seen in these carriages. And what is the result? Why it has been found, without exception, that the company is not in the least prejudiced by it, and that cheap fares produce the largest and most profitable income; that invariably where a reduction in the fare has been made a more than proportionate increase in the number of passengers has taken place. This, one would suppose, was the case only where the class of passengers was of a poor description, or where the fares were too high to admit of a large traffic. But no, it is not so. We have a notable instance to the contrary in the London and Birmingham railway. On this railway the largest and most wealthy description of traffic of any in the kingdom had for years existed at a certain fare; the line, as we all know, prospered well upon it; so well that the company, as an act of generosity towards the public, and expressly with the object of handing over to the public a portion of their large profits, reduced in a certain ratio the whole of their fares. What followed? Contrary to their expectation this reduction was immediately attended by an increase of traffic to an extent that the company derived a larger profit from it than it had by the old fare. The most zealous advocate for low fares did not anticipate this good result from the reduction they made. The reduction was not calculated to produce, as one would suppose, a greater number of passengers—a reduction, we will say, at about the rate of £1 7s. 6d. to £1 5s. We have the experience of nearly every line in the country which has tried the experiment, lines carrying passengers of all grades, to show that the lowest reasonable charges are compatible with the largest profits. It was but the other day that the chairman of the Manchester and Leeds railway, than which there is not a railway on which a large traffic is more ably managed, declared before a committee of the house of lords, that at the outset of their career, finding the traffic did not produce a sufficient dividend, the directors resorted to the bold, and some would say insane, measure, of considerably reducing the whole of the fares; and had succeeded in *creating* by that means an immense traffic, and in raising an uncertain next-to-nothing dividend to the large one of 10 per cent—more permanent, because they depended less on the caprices of a few. What do all these facts show?

Why, as clear as daylight, that the interests of the public and of shareholders are identical. that the better the one is served, the higher will be the dividend of the other.

Perhaps it will be argued, that the character and habits of the American and English people are widely different, and therefore a comparison does not hold. If there be any distinction, we think it would be in favor of cheap travelling in America; for undoubtedly of the two, the Americans, both from circumstances and inclination, are more prone to low prices, and being proverbially of mercurial, moving habits, would be induced, to a much greater extent than we are, to take advantage of the facility afforded to go "slickly" and inexpensively from place to place.

We trust that these remarks will be received by our friends across the water in the same spirit in which they are intended to be made. Our intelligent cotemporary, the Editor of the "American Railroad Journal" will, we are confident, do us that justice.—And if he would but expound to his railroad countrymen the results of our experience, rather of an extensive nature, he may serve them a good turn, by leading them to adopt generally the mutually advantageous low-fare system. The force of example is great.

#### New York and Boston.

We find the following exceedingly well written article on the relative progress of these two cities in the "Morning News" of 7th inst. The writer of it has clear and correct views on the subject, with the ability to express them in an unusually forcible manner as well as to sustain them by figures and facts which ought to be brought under the observation of every property holder, and business man in this community.

The great difficulty, in arousing the people of this city to prompt and efficient action in relation to the two important lines of railroad north and west from it, lies in the very general opinion entertained by those who are "to the manor born," that New York has natural advantages so far superior to those of other cities, as to render all their efforts to compete with us of no avail; therefore it is quite unnecessary for them to build railroads, or other artificial means of communication, to retain their position. How sadly will they find themselves mistaken, when Boston, Portsmouth and Portland shall each have opened an easy and rapid means of communication with the canals, and the great and fertile west! When the means of *avoiding* New York shall be much more complete, and cheaper than those for reaching her, they will then find their relative position, as it stood ten years ago wonderfully changed. It will be somewhat similar, we imagine, to that of the Schuylkill canal and Reading railroad: a few years since the canal carried *all* the coal to market from that region,



and were able to divide 15, 18, and even 20 per cent. and over, among the shareholders. These enormous dividends induced parties, not interest in the canal, to undertake to construct a railroad to compete for the coal carrying trade. At which those interested in the canal, turned up—not the whites of their eyes but—their dignified noses in utter contempt; as many of the people of New York have at the idea of anything like successful rivalry from Boston; and instead of paying off their loans, or enlarging their canal, and strengthening their connection with the mines by laying down the necessary tracks, and furnishing cars to the colliers, and reducing their charges for toll, they go on ridiculing the railroad—continue their high charges and making large dividends until, in the face of almost insurmountable difficulties, a single track of the railroad is completed to the coal region, and put into use, in competition, under great disadvantages, with the canal. Short of motive power, short of cars, and short of money, and without any connection with the mines, they commence the transportation of coal in 1842, and got down that year by great efforts 49,000 tons, while the canal brought down that year, if we recollect correctly, nearly 500,000 tons. Since that period the railroad has laid a second track, increased its motive power and cars, formed important and permanent connection with the mines, until they were able to bring down in the month of July past, notwithstanding two holidays, 104,565 tons of coal: and the canal during the same period brought down 25 or 26,000 tons, thus completely reversing the position of the two companies in three years. The success of the railroad has put the canal company earnestly at work, now they have lost the business, to regain it. They long since ceased making dividends, have reduced their tolls—and are enlarging the canal; and are resolved to regain what they have lost—which they will find more difficult a task than to loose it. So it will be with the citizens of New York, when Boston, Portsmouth and Portland have each their railroads penetrating the interior, with their business connections formed throughout the Canadas, and the western states—they will then be obliged to construct railroads and will find it no easier task to regain the business she has lost—but might have retained—than will the Schuylkill canal company to regain the coal trade. We ask the serious attention of our city readers especially to the following, and shall consider ourselves fortunate and well compensated for any amount of effort, within our power if we can be instrumental in arousing our citizens to the importance of immediate action which shall

effect the construction of the New York and Erie, and the New York and Albany railroads. The "News" says:

"We have before us the report of the auditor of the city of Boston for the fiscal year ending May 1st, 1845. Boston has in the last ten years, during which her great web work of railroads has been connected with the whole of New England, as well as with the trade of western New York by canal and railroads, run a race of rivalry with this city. Our property holders and business men have looked on with the most perfect display of Dutch phlegm, and Boston has gone ahead in a surprising manner. As an indication of this progress we will compare the personal and real estate valuations on which taxes were levied, for three years, as follows.

1841. Boston.		New York.	
Real estate	62,063,000	186,350,948	
Personal	36,043,606	98,106,606	64,843,972
			251,194,920
1842.			
Real	65,509,500	176,489,042	
Personal	41,223,800	106,733,300	61,294,559
			237,783,601
1844.			
Real	72,048,000	171,936,591	
Personal	46,402,300	118,450,300	64,023,456
			235,960,047

Here is a very remarkable result. Boston has increased \$20,000,000, or 20 per cent, while New York has declined \$15,234,873, or 7 per cent. Whence this great change in the prosperity of the two cities? If we compare the year 1841 with the year 1844, the result is as follows:

Boston.		New York.	
Real Estate.	Personal.	Real Estate.	Personal.
1841.	62,063,000	36,043,600	186,350,948
1844.	72,048,000	46,402,300	171,936,591
Increase	9,985,000	10,358,700	
Decrease.			14,414,357
			820,516

"We have in these figures the palpable effects of the completion of the Western railroad, upon the fortunes of Boston while New York has "remained in her shell." The difference between what New York city has lost, and Boston has gained, is \$35,000,000, and between what New York should have gained, \$50,000,000—enough to build ten railroads between here and Albany. Yet with many noble enterprises half-finished in our vicinity, no more life is apparently among moneyed men than if New York had a chartered right to all the business in the country. The wealth which Boston has acquired by her past enterprise has given her the means and the impulse to prosecute new ones. Already she is strengthening her communication with the lakes through the Ogdensburgh road, by which route she will have the cheapest and shortest channel for goods to go west and produce to come east. Every western banker knows and feels daily in the character of the drafts discounted, how rapidly business connections are forming in Boston and breaking off from New York. The capital of Boston is ample to afford the greatest facilities to business, and when once the channel is open she will have the whole of it. When western connections are once formed in Boston how will they be got back? They never can be recovered. If once, through the inertness of our citizens, the trade is lost, it is lost forever.

"The receipts and expenses of the city of Boston, as compared with New York, for the year ending May, 1845, are as follows:

	Boston.	New York.
Receipts.....	\$1,078,057	\$1,536,781
Expenses.....	869,575	1,536,781
Balance on hand	130,872	

"The heads of expenditure compare as follows:

	Boston.	New York.
Watch.....	\$47,905	\$265,021
Lamps.....	24,749	146,246
Street cleaning..	41,956	121,793
" Repairs...	38,732	33,663
Alms House.....	44,151	249,121
Police.....	9,762	35,080
Salaries.....	37,176	207,779
State tax.....	25,488	275,000

"The total expenses in Boston bears very nearly the same proportion to the assessed valuation, as do those of New York."

*Canada West Railroads.*—It appears by the London railway Times of 5th July that the *Huron and Ontario* railroad has found substantial aid in England.

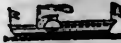

*Huron and Ontario Railway.*—This great Canadian undertaking continues to excite attention in the city, which will, we have reason to think, be shortly increased when circumstances have transpired, to which at present we can only allude. Of course we mean the progress towards a closer union with the Canada company, who naturally ought to be the parties to project and carry out the line. The most perfect understanding at this moment exists between the companies, so that we doubt not to be able in another week to announce a board of direction strengthened by some of the first names in this city. Of this we are certain, that the shareholders of the railway company will be indebted to the promoters of this union for their ultimate success—acting in opposition to the views of the Canada company failure was inevitable.—Nothing now need retard the company from immediately following out its original scheme of a direct line from Toronto to Goderich, which is, in fact, in a national point of view, the only one deserving of English support. The Canadian papers, just received, are full of reports of public meetings at Goderich, Hamilton, and Toronto, in support of the railway, to which 25,000l. were subscribed on the spot, the agent of the Canada company putting down 3,000l. towards the expense of the survey.

There will be little difficulty in obtaining English capital to aid in constructing railroads in Canada. There are various reasons why it should be so; one of which is that it will be a good investment, another it will be as good as fortifications, or armies in case of war.

*The Scotch Pig-Iron Trade.*—The manufacture of pig-iron in Scotland says the London Mining Journal of 28th June, is steadily on the increase. In the *Mining Journal*, of the 7th inst., we gave a tabular statement of the number of furnaces in existence and in operation, from which it will be seen that, up to the end of May, the total number of furnaces in Scotland was 91, of which 75 were in and 16 out of blast. We now find, from the following table, that up to the end of June there are 99 built, 12 building, and 90 in blast, being an enormous increase in so short a time, and fully proves that there exist capabilities for increasing the make of iron in proportion to the demand, to an extent which some of our contemporaries have deemed impossible. We have seen it asserted, that "not another furnace could be blown in within 12 months;" yet here we have an additional number at work, capable of producing several hundred tons of pig-iron per week. That an enormous and continually increasing demand for iron, for all the great engineering works proposed, must take place there is no doubt,



**FROM PHILADELPHIA.**  
**PASSENGER LINES NORTH AND EAST.**

 *Camden and Amboy Line.*— By Railroad and Steamboat from Amboy. Leave foot of Walnut street daily, Sundays excepted, at 5 1/4 a.m. Fare \$3. Forward deck \$2 25. Also for New York, by way of Trenton, Princeton, New Brunswick, Elizabethtown and Newark, N.J., daily from foot of Walnut street, at 9 a.m., and 5 p.m.—Fare \$4. 31

*For Reading and Pottsville.* By *Reading Railroad.* Daily, Sundays excepted, from the Depot, corner of Broad and Cherry streets at 8 a.m. Fare, \$3 50. Second class, \$3. To Reading \$2 25. Second class \$1 90. 31

*For Mauch Chunk and Wilkesbarre.*—By *Express and Reliance Line.* Daily, from the corner of Broad and Cherry streets, at 9 a.m. 31 PETERS, MILTIMORE & CO.

*For Easton and Bethlehem.* By *Post Coaches.* Leave the Office, next door to the White Swan, Race street, daily, at 4 a.m. 31 PETERS, HAMMIT & CO.

*For Baltimore. By Railroad.* Fare \$2. Via Chester, Wilmington, Elkton, Havre de Grace. Leave Philadelphia, Depot, 11th and Market street, daily, Sundays excepted, at 8 a.m., 4 p.m. Leave Baltimore, Depot, Pratt street, daily, Sundays excepted, at 9 a.m., 8 p.m. Tickets through to Wheeling and Pittsburg can be procured at the Depot.


Wilmington Accommodation Line, leaves the Depot, 11th and Market sts. daily, except Sunday, at 10 a.m. and 4 p.m. Leaves Wilmington at 7 a.m. and 4 1/4 p.m. G H HUDDLELL, Agent. 31

*For Baltimore. By Newcastle & Frenchtown Railroad and Steamboat Line.* Fare \$1. The Steamboat Robert Morris, Capt. J. M. Douglass, leaves Dock street wharf daily, except Sunday, at 3 o'clock. Passengers by this line will reach Baltimore at about 10 p.m. Tickets through to Wheeling or Pittsburg can be procured on board the boat. G H HUDDLE, Agent. 31

*For Baltimore, via Lancaster, Columbia and York.* By the *Susquehanna Railroad*, daily, Sunday excepted, leave the Depot 274 Market st., at 7 1/4 a.m., and 12 at night, for Columbia, and leave Columbia at 2 p.m. for Baltimore. Dine at York and arrive in Baltimore in time for early tea; passing through the most highly cultivated and beautiful part of Pennsylvania, and romantic part of Maryland. 31



*For Pittsburg, via Columbia and Lancaster Railroads.* Leave the Depot 274 Market st. daily, at 7 1/4 a.m. The Night Line will leave as usual at 12, midnight. At Harrisburg this line connects with the Railroad and Stage Line for Carlisle, Chambersburg and Pittsburg, with the Packet boats for Lewistown, Huntingdon, Hollidaysburg and Pittsburg; also with the Susquehanna Packet boats to Northumberland, Milton, Muncy, Williamsport, etc. Through tickets for any for any of the above places can be secured at the depot, where every information relative to the above lines will be given. Passengers for York and Gettysburg will leave in the 7 1/4 line. JACOB PETERS & CO. 31

*For Pittsburg. By the Pioneer and Express Packet Line.* Leave the Depot, 274 Market st. above 8th, at 7 1/4 a.m. By this route travellers may be assured of a safe and comfortable passage, every arrangement having been made for their accommodation. Office N. E. 4th and Chestnut sts. Seats may also be procured at the Depot, and at 13 South 3d st. A CUMMINGS, Agent. 31

 **Susquehanna Line of Railroad Cars and Post Coaches.**

This line leaves the depot, corner of Broad and Cherry streets, daily, [Sundays excepted] at 8 o'clock, a.m., via Reading and Pottsville railroad, for Sunbury, Danville, Cautawissa, Northumberland, Milton, Muncy, Williamsport, Towanda, Bellefonte, Jersey Shore, Lockhaven, Ralston and Elmira. For seats apply at the stage office, 104 Race street, under the White Swan Hotel. 34 S. STILES, Agent.


**FROM BALTIMORE.**  
**PASSENGER LINES SOUTH AND WEST.**

 *Baltimore and Ohio Railroad.*— For Cumberland, Hancock, Martinsburg, Harper's Ferry, Winchester, Frederick, Ellicott's Mills, and intermediate depots by the regular train, daily, at 7 1/4 o'clock, a.m. For Frederick and intermediate stations, by extra train, daily, except Sunday, at 4 p.m.

Fare in either direction between Baltimore and Cumberland \$7, and for intermediate distances at the uniform rate of 4 cts. per mile. Through tickets are issued between Baltimore and Wheeling respectively, \$11. Between Baltimore and Pittsburg, \$10. Between Philadelphia and Wheeling \$13. D. J. FOLEY, Agent. 31

*For Washington. From Baltimore* at 9 o'clock, a.m.; 5, p.m.; and 11 1/2, p.m. By order, D. J. FOLEY, Agent. 31

**SUMMER ARRANGEMENT—FARE REDUCED.**

 By the *Great Southern Mail Line*, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

*Direct to New Orleans*, and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great *Southern Mail Line*, and the only one that issues a *through ticket South*. Those who patronize it will save their money and time. *Through Tickets* from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

*Fast Mail Line.*—Leave New York at 9 a.m. and arrive in Philadelphia at 3 1/4 p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12 1/2 to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.

Passengers by the above line will arrive at Richmond by 11 1/2 o'clock p.m. and Petersburg, Va. by 2 1/2 o'clock p.m., through to the former city in *twelve hours*, and to the latter in fourteen and a half hours, (and in *eight hours less time than by the Bay route*), and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

*Way Mail Schedule.*—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p.m.; arrive in Baltimore at 2 1/4 p.m.; arrive in Washington at 7 p.m. *From Philadelphia by steamboat.*—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and *through tickets* apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore. 31 STOCKTON & FALLS.

*For Norfolk and the South, by steamboat* through the Chesapeake bay to Norfolk, and then by railroad to Weldon, Wilmington or Raleigh, etc. Leaves Baltimore daily [except Sundays] from Spears' wharf, at 4 p.m., and arrives at Norfolk next morning at 7 o'clock; fare \$6. Leaves Norfolk at 8 a.m. and arrive at Wilmington next day at 12 m. and Charleston next morning at 7. Fare through \$21.

*For Philadelphia (Union Line), via Chesapeake and Delaware Bay, and Newcastle and Frenchtown Railroad.*—The well known steamboat Constitution, Capt. Chaytor, has commenced her regular trips for the season, leaving Bowly's wharf, foot of South street, at 8 o'clock, p.m. daily [except Sundays] for Philadelphia. Through in 8 hours. Fare \$3. 31

 **Morning Train for Philadelphia.**

The morning train leaves the depot, Pratt street, daily [except Sundays] at 9 o'clock, a.m. Passengers arrive at Philadelphia in full time to continue on by the mail train for New York. Fare \$3. Sunday evening Mail Train—the only line that departs from Baltimore on Sundays for Philadelphia, is the mail train which leaves Pratt street depot, at 8 p.m. Fare \$3. 31

*For Philadelphia, via York, Columbia and Lancaster,* by the Baltimore and Susquehanna railroad. Cars leave from their office, 63 North street, daily [Sundays excepted] at 9 o'clock, a.m. Fare \$3 50. 31

**GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.**—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/2 in. to 2 1/2 in thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions. ja45ly

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, ja45 Reading, Pa.

**MACHINE WORKS OF ROGERS, KETCHUM & Grosvenor, Paterson, N. J.** The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

**Railroad Work.** Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

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ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

**RAILROAD IRON AND FIXTURES. THE** R Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO., ja45 31 Broad st., N. York.

FROM NEW YORK.

**New York and Harlem Railroad Company.**

Leave City Hall for Yorkville, Harlem and Morrisania at 5.30, 7, 8, 9, 10, a.m.; 1, 2, 3, 3.30, 4, 5, 5.30, 6, p.m. For Fordham and Williams' Bridge at 5.30, 7, 10, a.m.; 2, 3.30, 5, 6, p.m. For White Plains at 7 and 10 a.m.; 2 and 5 p.m. Leave Morrisania and Harlem for City Hall at 6.20, 8, 9, 10, 11, a.m.; 2, 3, 4, 2, 5.20, 6, 6.30, 7.45 p.m. Williams' Bridge for City Hall at 7, 7.40, 10.40 a.m.; 2.40, 5, 5.40, 7.20 p.m. White Plains for City Hall at 7.10 and 40.10 a.m.; 2.10 and 5.10 p.m. 31

**New York and Erie Railroad Line.**

For Middletown, Goshen, and intermediate places. —Two daily lines each way, as follows:—For passengers—The new, fast and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7½ o'clock, A.M., and 4 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4½, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets, 31

H. C. SEYMOUR, Superintendent.

Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale, Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc. 31

**PASSENGER LINES FOR THE NORTH AND WEST.**

**Morning Line, at 7 o'clock.**—For Albany, Troy, and intermediate landings.—The steamboat Troy, Capt. A. Gorham, will leave New York, foot of Barclay street, at 7 o'clock, A.M., every Tuesday, Thursday, and Saturday. The steamboat Niagara, Capt. DeGroot, leaves New York at 7 o'clock, A.M. Monday, Wednesday, and Friday. 31

**Afternoon, or 5 and 7 o'clock Line.**—At 5 o'clock, P.M., landing at intermediate places, from the foot of Barclay street.—The steamboat New Jersey, Capt. H. H. Fury, will leave on Monday, Wednesday, Friday, and Sunday. The steamboat South America, Capt. M. H. Truesdell, will leave on Tuesday, Thursday, and Saturday. For passage or freight apply on board, or to 31

P. C. SCHULTZ, At the office on the wharf.

**Evening, or 7 o'clock Line.**—Line steamboats for Albany—Daily, Sundays excepted—Through direct at 7 o'clock P.M. from pier between Courtlandt and Liberty streets.—Steamboat Rochester, Capt. R. G. Crittenden, will leave on Monday, Wednesday, and Friday. Steamboat Knickerbocker, Captain A. Houghton, will leave on Tuesday, Thursday, and Saturday. 31

For Albany and Troy, direct, at 7 o'clock, P.M., from the steamboat pier, foot of Courtlandt street. The Empire, Capt. R. B. Macy, Tuesday, Thursday and Saturday. The Columbia, Capt. Wm. H. Peck, Monday, Wednesday, and Friday. 31

**Troy and Greenbush Railroad.**

Leave Troy, at 6 o'clock, A. M., to Boston and Albany; 8½, do., do., do.; 10½, do., do., do.; 2, P.M., to Boston and Albany; 4, do., do., do. Leave Albany at 7½ o'clock, A.M.; 9½, do., do.; 12, M., or on arrival of the Boston train; 3, P.M.; 6, P.M., or on arrival of the Boston train.—Fare, 12½ cents. 31

Passengers at Albany should procure tickets at the Boston railroad office, foot of Maiden lane. 31

L. R. SARGENT, Superintendent.

**Schenectady and Troy railroad cars** leave as follows:—From Troy, 7½ o'clock, A.M., daily; 1, P.M., daily, except Sundays; 7½ do., daily. From Schenectady, 3 o'clock, A.M., daily; 9, do., do., except Sundays; 3, do., daily. 31

Persons going to Saratoga and north should take the 7½, A.M., train; and passengers going west of Schenectady, the 7½, A.M., or 7½, P.M., trains. 31

L. R. SARGENT, Superintendent.

**Troy, Ballston, and Saratoga Railroad.**—The cars of this road will run as follows:—Leave Troy at 8 o'clock, A.M., daily; do., do., 3½, P.M., except Sundays; leave Saratoga at 9, A.M., except Sundays; do., do., 3½, P. M., daily. 31

L. R. SARGENT, Superintendent.

**Lake Champlain Steamboats.**—From Whitehall to Burlington and St. John's—Morning Line on Lake Champlain, making intermediate landings—Passage \$2, breakfast on board.—The Francis Saltus, Capt. H. G. Tisdale, leaves Whitehall, Tuesdays, Thursdays, and Saturdays, at 6 o'clock, a.m., and St. John's Mondays, Wednesdays, and Fridays, at 6 o'clock, a.m. For freight or passage apply to the captain on board. 31

H. D. FILKINS, Agent, Troy.

Passengers leaving Troy, Mondays, Wednesdays, and Fridays, at half-past 3 o'clock, p.m., by railroad and packet, will arrive at Whitehall in time for the above boat next morning. 31

**PASSENGER LINE EASTWARD.**

**Long Island Railroad Company.**

Trains run from Brooklyn depot.—Boston train, 8½, a.m., daily, stopping at Farmingdale and St. George's Manor; accommodation train, 9½, a.m., and 5 p.m., for Farmingdale and intermediate places, daily; accommodation train, 3, p.m., for Greenport, daily, stopping at Jamaica, Branch, Hempstead, and Hicksville, and all the stopping places between Hicksville and Greenport. From Greenport depot: Boston train, daily, at 12½ o'clock, m., or on the arrival of steamers from Norwich. Accommodation train at 5, a.m., daily, for Brooklyn and intermediate places. From Farmingdale depot: Accommodation train at 6½, a.m., and 2½, p.m., daily, for Brooklyn and intermediate places. 31

The steamboat Statesman leaves Greenport for Sag Harbor twice each day, on arrival of the trains from Brooklyn.

Baggage crates will be in readiness, at the foot of Whitehall street, to receive baggage for the several trains, 30 minutes before the hour of starting from the Brooklyn side. 31

**Regular Mail Line between New York and Boston, via Stonington, Providence, and Newport,** composed of the following steamers, running in connection with the Stonington and Providence railroads, and the Boston and Providence railroad: Massachusetts, Capt. Comstock; Mohegan, Capt. —; Narragansett, Capt. Manchester; Rhode Island, Capt. Thayer. Via Stonington, daily, [except Sundays,] at 6 o'clock, p.m., from New York, and from Stonington on the arrival of the mail train, which leaves Boston at 5, p.m., and Providence 6½, p.m. The Rhode Island on Mondays, Wednesdays, and Fridays; the Narragansett on Tuesdays, Thursdays, and Saturdays. Via Newport, the Massachusetts leaves New York for Newport and Providence, direct, on Tuesdays, Thursdays, and Saturdays, at 5 o'clock, p.m. 31

**New York and Boston Railroad Line,** via Norwich and Worcester, daily, from pier No. 1, North river, at 6 o'clock, p.m. The Worcester, Captain Bacon, on Tuesdays, Thursdays, and Saturdays. The Cleopatra, Capt. Dustan, on Mondays, Wednesdays, and Fridays. 31

Passengers, on the arrival of the steamers at Allen's Point, will be immediately forwarded in the splendid and commodious cars of the railroad to Boston, without change of cars or baggage. 31

**For Newport and Providence,** on Monday, Wednesday, and Friday. This line leaves at 8 o'clock, in the morning, from the foot of Whitehall street, South ferry. 31

**U. S. Mail Line for New Haven, Hartford, and Springfield,** from Peck Slip, East river, daily, at 6½, a.m., by steamboat New Champion, Captain Joel Stone, connecting with the cars at New Haven, for Hartford and Springfield. Night line for New Haven: The steamboat Hero, Capt. Richard Peck, leaves on Tuesdays, Thursdays, and Saturdays, at 4, p.m. For Hartford, direct, daily, [Sundays excepted,] at 4, p.m.—The steamboat Kosciusko, Capt. Le Fevre, every Tuesday, Thursday, and Saturday, and the Globe, Capt. E. D. Roach, will leave every Monday, Wednesday, and Friday. 31

**Hoosatic Railroad; Bridgeport and New York.**—The steamboat Mutual Safety, Capt. J. B. Lober, leaves New York, from the foot of Market street, every morning, [Sundays excepted,] at 6 o'clock, arriving in Bridgeport at 11 o'clock. Returning, leave Bridgeport at 1½, p.m., on the arrival of the cars, arriving in New York at 5½ o'clock. The Nimrod, Capt. J. Brooks, Jr., leaves New York daily, at 2, p.m., and Bridgeport 7 a.m. There are no train of cars running in connection with any boat except the Mutual Safety until further notice. 31

Tickets, if not purchased at the offices on the line of the road, or on board of the boat, will be charged at advanced prices. Dated tickets positively taken only on the day specified. R. B. MASON, Superintendent. 31

**PASSENGER LINES, SOUTH AND SOUTHWEST.**

**New York and Philadelphia Railroad Line—Direct.** Leaves New York daily, from the foot of Liberty street. Morning Line, 9 o'clock, A.M. Mail Pilot Line, 4½ o'clock, P.M. Fare in first class cars, \$4. Second class cars, \$3. 31

Passengers will procure their tickets at the office foot of Liberty street. Philadelphia Baggage Crates are conveyed from city to city without being opened by the way. Each train is provided with a car, in which are apartments and dressing rooms expressly for the Ladies' use. 31

**Camden and Amboy Railroad Line.**

For Philadelphia and intermediate places. Leaves Pier No. 2, North River, foot of Battery Place, by Steamboat to South Amboy, daily, Sundays excepted, at 5½ o'clock A.M. Passengers will take the cars at South Amboy. Fare to Philadelphia, \$3. Forward deck passengers, \$2 25. To Freehold and Monmouth, via. stages from Hightstown, \$1 50. To Spotswood and West 75 cents. To South Amboy, 25 cents. To Perth Amboy, Tattens, Rossville and Tufts, 12½ cents. 31

The steamboat Independence will land at each of the above named places going and returning, leaving Perth Amboy at 5 o'clock P.M. 31

**New Jersey Railroad and Transportation Company.**

For Newark. Fare 25 cents. Leave New York at 8, 9, and 11 o'clock A.M., and 12½, 2, 3, 4½, 6½, and 8 o'clock P.M. Leave Newark at 7, 7½, 8, 9, 10½, A.M., and 1½, 4, 5½, 7½, 9½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave Newark at 11½ A.M., and 9½ P.M. 31

**For Elizabethtown.** Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Elizabethtown at 7, 7½, 8, 10½ A.M., 3½, 6½, 9½, P.M. 31

**For Rahway.** Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Rahway at 5½, 7½, 11½, A.M., 3, 6½, 9, P.M. 31

**For New Brunswick.** Fare 50 cents. Leave New York at 9 A.M., 4, 4½ P.M. Leave New Brunswick at 5½, 7½, 11, A.M., 8½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave New Brunswick at 12 M., and 8½ P.M. 31

The commutation fare between New York and New Brunswick and intermediate places, including the ferry, \$65 per annum. 31

**Paterson Railroad. Leave**

New York, 9½ A.M., 12½, 5½ P.M. Leave Paterson, 8, 11½, A.M., 4 P.M. On Sundays, leave New York 9½ A.M., 5½ P.M. Leave Paterson, 8½ A.M., 4½ P.M. Passengers are advised to be at the ferry a few minutes before the stated hours of departure. Office 75 Courtland street. 31

**Morris and Essex Railroad.**

Leave New York, 8 a.m., 4½ p.m. Leave Newark, 9 a.m., 5½ p.m. Leave Morristown, 7 a.m. 3½ p.m. Passengers by the morning train to Morristown, will arrive there at 10½ o'clock, where stages will be in readiness to convey them to Schooley's Mountain, Washington, Belvidere and Easton, daily; to Succasunna, Stanhope, Newtown, Milford and Owego on Mondays, Wednesdays and Fridays; and to Rockaway, Dover, Sparta and Newton on Tuesdays, Thursdays and Saturdays. Passengers from Morristown will arrive in Newark in time to take the morning and afternoon trains from Trenton and Philadelphia. 31

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.

ESTABLISHED 1831.



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THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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- TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)
- ROGERS, KETCHUM & GROSVENOR, Patterson, N. J. (See Adv.)
- S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)
- NORRIS, BROTHERS, Philadelphia, Pa.
- KITE'S Patent Safety Beam. (See Adv.)
- FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)
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W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

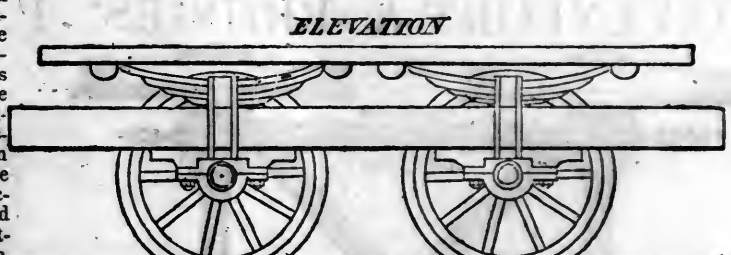
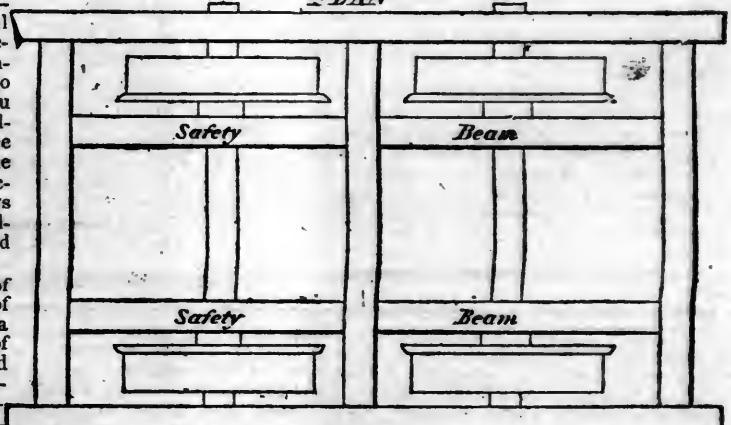
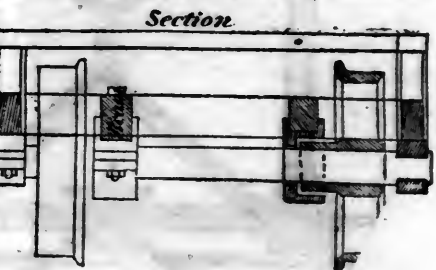
On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,  
A model of the above improvement is to be seen at the New Jersey railroad office, No. 1 Hanover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co. Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

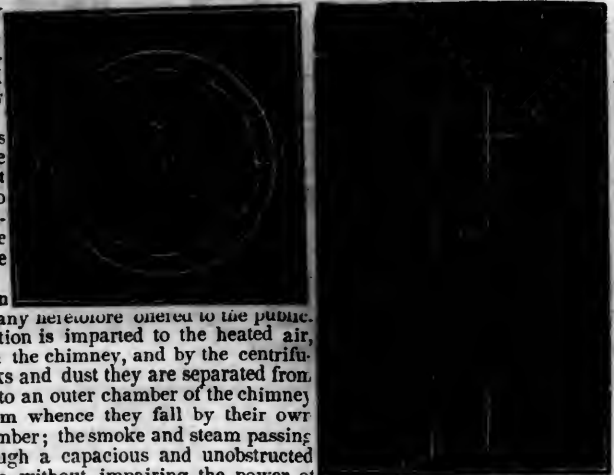
These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Supt Hartford and New Haven Railroad; W. R. M'Kee, Supt Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Supt New Jersey Railroad Trans. Co.; J. Elliott, Supt Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Supt Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Supt Macon Railroad, Macon, Ga.; J. H. Cleveland, Supt Southern Railroad, Monroe, Mich.; M. F. Chittenden, Supt M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

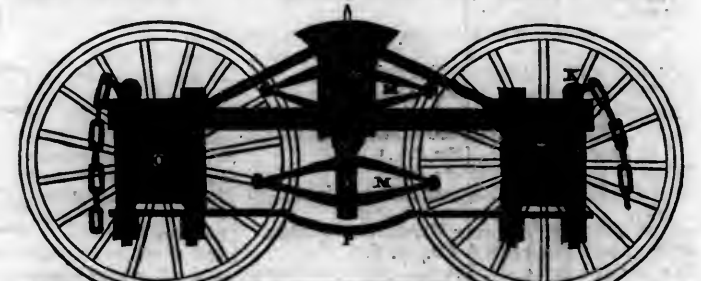
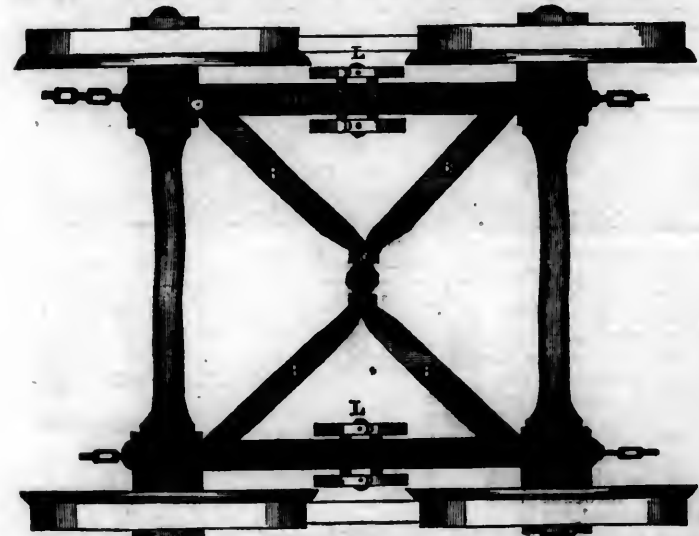
N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. Philadelphia, Pa., April 6, 1844.

\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45



**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

**DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.**



**DAVENPORT & BRIDGES' IMPROVED PATENT IRON TRUCK FOR RAILROAD CARS,** is presented above, and the attention of Railroad Companies is respectfully invited to the following description of their justly-celebrated invention.

These Trucks are adapted as well for eight-wheeled passenger cars as for baggage and freight cars, giving to each a more agreeable and easy motion than any other Truck heretofore constructed or in use. They are simple in their construction, combining strength and great durability, although weighing at least twelve hundred pounds less than the common Trucks. Besides these excellences, by reason of the elasticity of the braces, B, B, B, B, as seen in the drawing, and the other peculiarities of construction, made for inside or outside bearing, the weight is equalized upon all the wheels, and yet any one may be raised so as to pass any inequality on the rails without lifting either of the other wheels from the track, thus rendering it almost impossible to run a car off. Being bound, and having as it were but four joinings, they are protected from injury by lateral strains, and in case of damage are easily repaired. These excellences have been fully tested by use, for a long time, on the Eastern, the Fitchburg and Long Island railroads; and for proof of the above stated superiority of these Trucks over all others, we refer to the experience of those who have used and run them.

CAMBRIDGEPORT, April 1, 1845.

DAVENPORT & BRIDGES.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gear- ing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

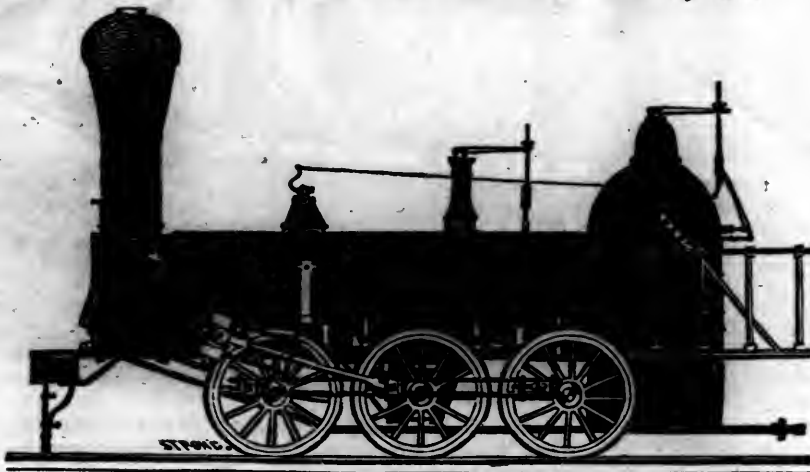
From 4 inches to 1 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse E. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**

*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.  
**WILLIAM YOUNG,**  
President.

**TWO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Biluminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48 State st.,** or to **CURTIS, LEAVENS & CO., 106 State st., Boston,** or to **A. & G. RALSTON & Co., Philadelphia.**

**CYRUS ALGER & CO., South Boston, Iron Company.**

**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
" 2,	14	"	"	"	24	"
" 3,	14 1/2	"	"	"	20	"
" 4,	12 1/2	"	"	"	20	"
" 5,	11 1/2	"	"	"	20	"
" 6,	10 1/2	"	"	"	18	"

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

THE STEAM SHIP GREAT BRITAIN.



We referred in our last, to the arrival of this monster ship. We have since, by the politeness of the agent, Richard Irvin, Esq., and her gentlemanly commander Captain Hosken, had an opportunity of examining her at our leisure. A single visit gives one only an opportunity to examine and admire the beauty, and strength of this remarkable structure and a half dozen visits would not enable us to give as good a description as the following.

The ship is entirely built of iron, with the exception of the boarding of her decks and some of her cabin fittings and carved work. Her model is somewhat peculiar, yet accordant with the taste (when she was built) of many nautical men; and the speed she has since attained, together with her good sea qualities, prove that their opinions were well founded. Her sides tumble or fall in, a good deal towards the top deck, from about the middle of her length to the stern, giving her a man-of-war like appearance, and a wholesome rotundity in the after body.— Abreast of the boilers, which are forward of the longitudinal centre, her sides are rather flattish, but she has, after all, abundance of bearing for a steamer, and more aloft might have produced heavy rolling in a sea-way. Her bottom bearings are simple and she is finely moulded with a sharp entrance, approaching the plough form, and an equally fine run. Her upper works, like most of the Bristol ships, are plain, but substantial in finish. The hull is formed of iron plates, decreasing in thickness from the keel upwards, and angle iron ribs of great strength. The plates are not, however, so thick in pro-

portion to her size as those of some iron vessels since constructed, particularly those built at North Birkenhead, (for war purposes) but she is nevertheless a very strong ship, being bound securely by rods on the tension principle. The plates of her keel are from  $\frac{3}{4}$  inch thick in the middle, to 1 inch at the ends, and all the plates under water are from  $\frac{5}{8}$ ths to  $\frac{1}{2}$  inch at the top, except the upper plate which is  $\frac{5}{8}$ ths. She is chiefly clencher built, and double riveted at many points.— The ribs are 6 inches by  $3\frac{1}{2}$ , by  $\frac{1}{2}$  inch at the bottom of the vessel, and 7-16ths at the top. Her rig is that of what may be called a six-masted schooner, with fore and aft sails, and lugger topsails, with the exception of the mainmast, (the second from the bow,) which will carry a square mainsail and a topsail over it. She has four decks, and the upper spar deck is three hundred and eight feet in length. The engines are somewhat on the patent of Sir Mark Brunel, with the cylinders, in place of being upright, standing on an angle of about 60 degrees. The main shaft for the turning of the screw, and which is of great length and large diameter, was made at the Mersey Iron Works, in Liverpool; and is itself a great curiosity.

On the spar deck there are eight sky-lights for the fore saloon, and one large light over the engine room. The under decks and apartments have borrowed lights from these, and also circular lights in the sides of the ship—the latter of plate glass an inch in thickness. The companions, or entrances from the deck, are fitted with doors on either

side, so as always to have a weather and a lee door, the former of which may be closed during gales. The windlass is on a patent principle. The best bower anchor weighs about three tons, and its iron chain cable is of  $2\frac{1}{2}$  inches diameter in the metal of the link. The bowsprit is proportionably short, owing to the great length of the vessel.— The bow is enriched with carved work; in the center are the royal arms, surrounded by emblems of the arts and sciences of the empire, and (in illustration of the power and speed of the ship,) representations of the thunderbolt of Jove and the caduceus of Mercury.

THE SCREW

Perhaps the most interesting portion of the whole structure is the machinery, and the Screw by which she is propelled. The latter is on the same principle, but slightly modified, as that invented by Mr. F. P. Smith, of the Patent Ship Propeller Company (who supplied it,) and who some years ago exhibited it at Liverpool in the Archimedes.

BOILER AND MACHINERY.

	ft.	in.
Boiler [square on plan] about.....	33	0
Length of fires.....	6	0
Width of fires.....	2	0
Total surface of fire bar [feet superficial].....	281	0
Chimney, diameter.....	8	0
Height of chimney, about.....	45	0
Diameter of four cylinders.....	7	4
Length of main wrought iron shaft.....	15	9
Diameter at centre for driving wheel.....	2	3
Weight in the rough, as from the forge, upwards of sixteen tons.		
Diagonal framing for support of shaft, of very hard and strong foreign wood.		
Cranks, thickness at large hole.....	1	6



Width at the head.....	3 6
Diameter of large driving wheel.....	26 0
Diameter of rigger on screw shaft.....	6 0
Keel under screw, 12 inches wide on the top face, 9 inches under face, 5 inches thick.	
Screw stern post, 20 inches across the centre; rudder 6 feet 6 inches wide at bottom.	
Distance between the stern and posts.....	11 0
Height of screw, about.....	15 0

The boiler platform is of plate iron, supported upon ten iron kelsons, of which the centre ones are 3 feet 3 inches deep. These kelsons are formed like the floorings, of iron plates placed on the edge.

THE HULL.

The hull is divided into five distinct compartments, by means of water tight iron bulk-heads.

The whole of the materials and workmanship, both of ship and machinery, appear to be of the first order.

On the angle iron beams of the lower decks there is an iron plate of from 2 to 3 feet wide by half an inch thick, running along against each side of the vessel, the edge of which is fitted up against the ribs, and riveted on the flat angle iron beams.— This continuous plate is made of the ordinary boiler plates, united at the end with a joining fillet, single riveted to each, and over it are laid the deck planks, to which they are bolted; it being therefore firmly secured between the beams and planking, cannot fail to aid very materially in resisting any sudden and partial resistance externally, and to maintain the original form.

The upper, or main deck, is planked longitudinally 3 inches thick in the middle, 6 inches near the sides, from which there is a mass of timber forming the "water ways," increasing from about 6 inches to about 2 feet in dept against the outside plating, forming a curve surface against the ships sides, above and below, to admit of which the iron beams are bent down at the ends. The planking of the first saloon deck consists also of longitudinally laid planks, 6 inches wide, 4 inches thick, with water ways 10 inches thick at the sides; and as it lies on the before mentioned horizontal plates, the projection is all above the surface of the deck.— The planking of the third deck runs across the ship, with 6x4 inch water ways, as in that immediately above.

ENGINES.

The boiler presents a great space of heating surface, and is amply strong for condensing engines. The foundation plate of the engines has a conical depression of about 12 inches, into which the piston dips; this depression fits into the bend of the ship, and is therefore taken advantage of in depressing both faces of the piston, and also dishing the cylinder cover to about 9 inches at the centre thereby affording the connecting rod to be that much larger. The piston is cast with its top and bottom face, arms and outer ring, in one piece; and for fitting in the keys to fasten to the rod there are two holes, into one of the spaces between the arms through which the fitting and fastening is performed, and which holes are then stopped by circular plates, with valve mitre edges, and made fast. The rubbing or the 'metallic' surface of the piston is one ring of cast iron, cut open at one point, with a half-lapped joint

depth 7 to 8 inches to be packed behind. The nuts for holding down the screws for the packing ring are turned cylindrical, and inserted into holes of 2½ inches diameter, drilled into the top of the piston. The holes to be expanded by heat, and the nuts inserted cold, so as to be held in by friction, and secured by a tap screw. The shells of the piston valve are brass cylinders with steam openings, having a 'twist' to render the wear more uniform. The piston valves have a cast iron expanding ring as have the cylinders. The pistons are worked by eccentrics, in the usual way, but the 'reversing' is effected by an 8 feet spur wheel attached to the eccentric, with an appropriate contrivance to put it into gear.

THE CABINS.

The Great Britain has 26 state rooms with one bed each, and 113 with two; so that in addition to her crew, officers, firemen, &c., she can accommodate 252 passengers, each of whom can be provided with a single bed, and that without making up a single sofa, or any other temporary convenience.

The walls of the after or principal promenade saloon are painted in delicate tints; and along the sides are several fixed chairs of oak. A row of well proportioned pillars, which range down the centre of the promenade, serve the double purpose of ornament to the room and support to the deck. In this saloon, on either side, is a range of exceedingly comfortable state rooms and sleeping berths. About twelve of these on each side of the deck will be reserved for ladies, as they are made to communicate with two commodious ladies' boudoirs, or private sitting rooms, measuring 17 feet by 14 feet. The advantages of this arrangement must be obvious, as ladies who may be indisposed, or in *neglige* will be enabled to reach their sleeping berths without their being the slightest necessity of their appearing in public. The frame-work of the stair cases, communicating, from this saloon, is of iron. The stairs are far more wide and commodious than is generally met with on ship-board. From this promenade you descend into the main or dining saloon, which is 98 feet six inches long, by 30 feet wide. This is really a beautiful room. A large sum of money has not been uselessly squandered in procuring for it gaudy decorations, not harmonizing with its uses, but its fittings are alike chaste and elegant. Down the centre are twelve principal columns of white and gold with ornamental capitals of great beauty.— Twelve similar columns also range down the walls on either side. Between these latter and the entrances to the sleeping-berths are (on each side of the deck) eight pilasters in the Arabesque style (of which character the room generally partakes,) beautifully painted with oriental birds and flowers. On either side are seven doors, which open into as many passages, each of which communicates with four bedrooms. The archways of the several doors are tastefully carved and gilded and are surmounted with neat medallion heads. Some looking glasses are so arranged as to reflect the saloon lengthwise at two opposite sides, from which a very pleasing

illusion is produced. The walls of this apartment are of a delicate lemon-tinted drab, relieved with blue, white, and gold. At the stern-end are a number of sofas, which range one above the other, nearly up to the stern-lights. At the opposite extremity is a large room for the steward's use. The saloon is fitted with rows of dining tables of sufficient capacity to admit of 360 persons sitting down to dinner at one time, with perfect convenience and comfort. On each side of the forward promenade saloon there are 36 berths or sleeping places, and in the saloon below are 30 in each side, making in all, forward, 132. To the state-rooms there are passages leading from the saloons, and running athwart the ship.

In the fore-castle are berths, 36 in number, for a portion of the crew. The iron ribs, and the mode in which the ship is riveted can be well inspected from this apartment.

ADDITIONAL MEMORANDA.

The length of the Great Britain from her figure head to her taffrail being 322 feet, she is 60 or 70 feet longer than a line-of-battle ship. All the masts, except the mainmast, are affixed to the deck by iron joints, and in the event of a strong head wind, can be lowered like the mast of a canal boat. The diameter of the mainmast below is 34 inches, and its height above the level of the deck 74 feet. The main top mast is 55 feet long. Diameter of foremast, 19 inches, height 68 feet. The other masts proportionate.

Eight walks round the principal deck are about equal to a mile in length.

In the construction of the hull and engines, the enormous quantity of 1500 tons of iron have been used.

The rigging is of iron wire rope, offering less resistance in going to windward than hemp, which would require greater thickness for equal strength.

The engine weighs 340 tons.

The main shaft is 28 inches in diameter in the centre, and 24 inches in the bearings; in the rough, before turned, it weighed 16 tons. It has been lightened by a hole of ten inches in diameter bored through it. A stream of water passes through the cranks and this hole when the engines are at work.

The screw shaft is in one long and two short, or coupling parts. The part next the engine, solid, 28 feet by 16 inches in diameter. The hollow intermediate shaft 65 by 2 feet 8 inches diameter. The screw part is 25 feet 6 inches, and also 16 inches in diameter. The total length is 130 feet, and it weighs altogether 38 tons.

SIZE.

The following are the dimensions of the ship:

Length of keel.....	289 feet.
Length from figurehead to taffrail.....	322 "
Extreme width.....	51 "
Depth of hold, from upper or spar deck..	38½ "
Burthen, by old measurement, about....	3443 tons.
Power, 2 engines, 500 horse power each.	1000 "
Boiler [square] 34 feet by 22 in height.	1100 "
Furnaces, 24—12 forward and aft.	
Stroke of piston.....	6 feet.
Displacement of water, when drawing about 16 feet, or loaded, about.....	3000 tons.
Stowage for coal.....	1100 "
Stowage goods, additional, about.....	1200 "
Dining accommodation for 380 passengers.	
Crew and firemen, 350 persons.	

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds, as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.		Shares Capital.	
						Per share.	Per cent. per annum.			Aberdeen.....	1,600,000		
Arboath and Forfar.....	15	102,000	35,000	138,870		0	12 6 2	10 0	25	20	Barnsley Junction.....	200,000	
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1 5 0	2 10 0	100	100	Belfast and Ballymena.....	385,000	
Branding Junction.....	23	161,700	365,470	481,452				4 10 0	50	54	Blackburn and Accrington.....	400,000	
Bristol and Gloucester.....	3	400,000	211,000	657,825				nihil.	30	59	Birk. and Ches. Junction.....	1,000,000	
Chester and Birkenhead.....	1	750,000	143,170	518,989	5,856	13,148	0 10 0	2 0 0	50	60	Bolt, Wigan and Liverpool.....	800,000	
Dublin and Drogheda.....	31	450,000	150,000	582,254				nihil.	60	115	Caledonian.....	1,800,000	
Dublin and Kingston.....	6	200,000	152,200	349,736				9 0 0	100	251	Cambridge and Lincoln.....	1,250,000	
Dundee and Arbroath.....	16 1/2	100,000	49,445	153,416	2,989	6,993	1 5 0	5 0 0	25	36	Chatham and Portsmouth.....	5,000,000	
Durham and Sunderland.....	18 1/2	169,350	124,055	270,392	9,889	17,702		nihil.	50	25	Chester and Wrexham.....	120,000	
East County and North and East.....	86 1/2	4,443,200	1,341,155	3,931,905	47,385	118,726	1 6 6		45	57	Churnet valley.....	1,800,000	
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1 5 0	5 0 0	50	78	Direct Northern to York.....	4,000,000	
Glasgow, Paisley and Ayr.....	51	937,500		1,071,258	12,446	36,736	1 5 0	5 0 0	50	72	Dublin and Belfast.....	950,000	
Glasgow, Paisley and Greenock.....	22 1/2	650,000	216,666	797,643	11,830	23,447	0 5 0	2 0 0	25	21	Dundee and Perth.....	250,000	
Grand Junction.....	104	2,478,712		2,503,671	84,309	195,060	0 0 10	0 0 0	100	239	Edinburg and Northern.....	800,000	
Great North of England.....	45	969,000	581,017	1,307,487	12,201	36,189	3 0 0	6 0 0	100	230	Ely and Bedford.....	270,000	
Great Western.....	221 1/2	4,650,000	3,679,343	7,445,689	143,279	440,046	4 0 0	8 0 0	80	215	Glogow, Dum. & Carlisle.....	1,300,000	
Hartlepool.....	15 1/2	438,000	155,540	719,205				8 0 0	100		Gt. South and West Ext.....	1,200,000	
Leicester and Swannington.....	16 1/2	140,000		140,000	2,207	6,317	1 5 0	5 0 0	50		Gt. Grimsby and Sheffield.....	600,000	
Liverpool and Manchester.....	32	1,209,000	497,750	1,785,000	64,585	141,252	5 0 10	0 0 0	100	214	Harwich and E. coun. Jun.....	160,000	
Llanelly.....	27	200,000	44,000	221,624				1 0 0	2 0 0	87	Huddersfield & M. rl. & cl.....	60,000	
London and Birmingham.....	202 1/2	6,874,976	1,928,845	6,614,005	96,413	456,997	5 0 10	0 0 0	100	245	Kendal and Windermere.....	125,000	
London and Blackwall.....	3 1/2	804,000	266,000	1,768,851	15,978	23,870	3 0 1	10 0 0	16	10	Leeds and Dewsbury.....	400,000	
London and Brighton.....	56	1,935,000	705,000	2,637,753	30,490	130,156	10 0 6	0 0 0	50	77	Leeds and Thirsk.....	800,000	
London and Croyden.....	8 1/2	550,000	229,000	761,885	7,583	10,545	0 8 0	4 0 0	14	23	Liv. Ormskirk and Preston.....	600,000	
London and Greenwich.....	3 1/2	759,383	233,300	1,040,930	15,193	28,933		nihil.	13	11	London and Portsmouth.....	1,750,000	
London and South Western.....	92 1/2	2,222,100	630,100	2,604,405	89,439	190,631	2 0 0	10 0 0	41	82	London and York.....	5,000,000	
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1 0 0	5 0 0	40	62	Londonderry & Enniskillen.....	500,000	
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2 2 0	4 10 0	93	169	Lynn and Ely.....	200,000	
Manchester and Leeds and Hull.....	87	2,937,500	1,943,932	3,921,593	46,653	156,761		8 1/2 & 10 1/2	60	170	Manchester, Bury and Ross.....	300,000	
Midland railway.....	179 1/2	5,158,900	1,719,630	6,279,838	75,227	276,129	3 0 0	6 0 0	100	192	Manchester and Buxton.....	250,000	
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	46,745	5 0 0	5 0 0	100	113	Mullingar and Athlone.....		
Newcastle and Darlington.....	23	500,000		405,728				1 0 0	8 0 0	21	56	Newcastle and Berwick.....	700,000
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466		6 9 0	50	69	Richmond & W. End Junc.....		
North Union.....	39	739,201	308,306	1,028,593	24,788	37,794	2 10 0	6 5 0	100	176	Scottish Central.....	700,000	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415				0 16 0	8 0 0	20	45	Sheffield and Lincolnshire.....	650,000
Paris and Rouen.....	84	1,440,000			31,247	91,171		8 0 0	20	40	Shrewsbury and Gd. Junc.....	400,000	
Preston and Wyre.....	19	630,000	179,852	355,161	4,191	7,066		4 0 0	50	32	Shrew. Wolv. Dudley & B.....	900,000	
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876		nihil.	87	135	Trent Valley.....	900,000	
South Eastern.....	88	2,996,000	1,530,277	3,464,172	69,288	139,042		3 1 4	33	48	West London Extension.....	64,000	
Taff Vale.....	30	465,000	195,000	595,069	9,115	22,692	1 17 3	15 0 0	100	104	West Yorkshire.....	1,000,000	
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0 15 0	5 1 8	32	52	Whitehaven and Maryport.....	100,000	
Yarmouth and Norwich.....	20 1/2	187,500	62,500	230,036	5,186	10,008	1 0 0	5 0 0	20	29	FRENCH RAILWAYS.		
York and N. Mid. and Leeds and Selby	28 1/2	1,062,500	167,500	1,107,146	31,349	75,474	2 10 0	10 0 0	50	115	Boulogne and Amiens.....	1,500,000	

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15 1/2	15 1/2	Loughborough.....	70	142 1/2	142 1/2	70	1140	
Anti Dry Rot.....	10,000		18 1/2		2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company.....	5,700	100	35		34 1/2		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation.....	20,000	15	14	10	27 1/2	27	Mersey and Irwell.....	500	100	1 0	10		
Gt Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2 1/2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6 1/2		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1 1/2		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental.....	11,493	50	50	7	64 1/2	65	Regents or Loncon.....	21,418	33 1/2	33 1/2	2 1/2	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....				6			Somerset coal.....	800	150	150	7 1/2	123	123
Reversionary Int. Soc.....	5,387	100	100	4 1/2	104	104	Stafford and Worcester.....	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36 1/2	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7 1/2	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Seyern & Why & Rail Av.....	3,762	26 1/2	26 1/2	5 1/2	30	30

Canals.

Ashby de la Zouch.....	1,432	113	av.	4	70	70
Barnsley.....	720	100	100	14	180	180
Birmingham, 1-16 share.....	3,000	118 1/2	79	10	150	160
Do. and Liverpool Junction.....	4,000	160	100		13 1/2	13 1/2
Coventry.....	500	100	100	20	365	365
Cromford.....	460	do.	do.	24	250	250
Derby.....	600	do.	do.	9	105	105
Erewash.....	231	do.	do.	32	440	440
Forth and Clyde.....	1,297	400 1/2	40 1/2	4	440	440
Grand Junction.....	11,600	100	100	7	162	161 1/2
Grand Surrey.....	1,500	do.	do.		20	
Gloucester and Rerkley.....	5,000	do.	do.		8	8
Grantham.....	749	150	150	8	185	185
Lancaster.....	11,699	47 1/2	47 1/2	3	40	40
Leeds and Liverpool.....	2,897	100	100	34	640	640
Leicester.....	545	14	140	9	139	139

Warwick and Birmingham.....	1,000	100	100	10 1/2	167	167
Warwick and Napton.....	980	100	100	8 1/2	122	122
Trent and Mersey.....	2,600	10	50	65	495	495
Thames and Medway.....	8,149	19 1/2	19 1/2		10	10
Warwick and Birmingham.....	1,000	100	100	10 1/2	167	167
Warwick and Napton.....	980	100	100	8 1/2	122	122

Water Works.

Birmingham.....	4,800	25	25	3 1/2	28	28
East London.....	4,433	100	100	8	223	225
Grand Junction.....	5,500	av.	41 2-3	7 1/2	88	90
New River L. B. Ann.....	1,500			2 1/2		
Manchester and Salford.....	6,486	av.	30	8 1/2	57	57
Vauxhall, lt. S. London.....	1,000		100	5	55	55
West Middlesex.....	8,294	av.	63 1/2	6 1/2	126	127

Docks.

Commercial Dock.....	1,065	100	100	3	80	
East and West India.....		sto.		5 1/2	137	
London.....	3,238,310	sto.		4 1/2	114 1/2	115
Katharine.....	1,352,752	sto.		5	116	171
Southampton.....	7,000	50	50			



RAILROADS.		Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	SALES.	
							Gross.	Nett.		Gross.	Nett.			Shares.	Price
Me.	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	103½	5	103½
N. H.	2 Concord.....	35	750,000									12	65		
Mass.	3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	117	8	114½
"	4 Boston and Maine extension.....	17 1-4	455,703	unfin.											
"	5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	120	4	11½
"	6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	114		
"	7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	120½	54	1
"	8 Berkshire.....	21	250,000	not stated				17,500			17,737				
"	9 Charlestown branch.....		280,260						13	34,654	13,971	5½	112½	50	80
"	10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	113½	275	108½
"	11 Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,835		124		
"	12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	123		
"	13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
"	14 Northampton and Springfield.....		172,885	unfin.											
"	15 Norwich and Worcester.....	59	2,170,364	900,000	16,535	100	162,336	24,871		230,674	99,464	3	71½	3,355	71½
"	16 Old Colony.....		87,824	unfin.									106		
"	17 Stoughton branch.....	4	63,075	unfin.											
"	18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	118		
"	19 Vermont and Massachusetts.....														
"	20 West Stockbridge.....	3	41,516	200		100						4			
"	21 Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	101	20	102½
"	22 Worcester branch to Milbury.....		8,431	506											
"	23 Housatonic, (10 months,).....	74	1,244,123							150,000			31		
Con	24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	95	25	93
"	25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
"	26 Stonington, (year ending 1st Sept.).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29	625	28½
N. Y.	27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0			
"	28 Auburn and Rochester.....	78	1,796,344	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109½	1	109
"	29 Auburn and Syracuse.....	26	766,657		133½		86,291	27,334		96,738	52,544	6	116		
"	30 Buffalo and Niagara.....	22	200,000		1,500								100		
"	31 Erie, (446 miles,).....		5,000,000										29	1,325	30
"	32 Erie, opened.....	53						48,000		126,020	59,075				
"	33 Harlem.....	26	1,206,231							140,685	62,399		69½	170	69½
"	34 Hudson and Berkshire.....	31	575,611		50					35,029	1,789	0	11½		
"	35 Long Island.....	96	1,610,221	392,340	20,846					153,456	58,996	0	71	7,380	68½
"	36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	58½		
"	37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
"	38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
"	39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117		
"	40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
"	41 Troy and Greenbush.....	6	180,000												
"	42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
"	43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132	20	132
N. J.	44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		112		
"	45 Elizabethtown and Somerville.....	26	500,000												
"	46 New Jersey.....	34	2,000,000										95	100	95½
"	47 Paterson.....	16	500,000									6	90	1,225	88½
Pa.	48 Beaver Meadow.....	26	1,000,000												
"	49 Cumberland Valley.....	46	1,250,000												
"	50 Harrisburg and Lancaster.....	36	860,000										30		
"	51 Hazleton branch.....	10	120,000												
"	52 Little Schuylkill.....	29	900,000												
"	53 Blossburg and Corning.....	40	600,000												
"	54 Mauch Chunk.....	9	100,000												
"	55 Minehill and Schuylkill Haven.....	18	315,000						12				80		
"	56 Norristown.....	20	800,000										6½		
"	57 Philadelphia and Trenton.....	30	400,000										104		
"	58 Pottsville and Danville.....	29 1-2	1,500,000												
"	59 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		58	2,330	57
"	60 Schuylkill valley.....	10	1,000,000												
"	61 Williamsport and Elmira.....	25	400,000				20,000								
"	62 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		15½	11,831	15½
Del.	63 Frenchtown.....	16	600,000												
Md.	64 Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		658,620	346,946		49½	37	48½
"	65 Baltimore and Susquehanna.....	58	3,000,000										2½		
"	66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	67 Greensville and Roanoke.....	18	284,433	37,544	2,000	100				25,368	6,074		28		
"	68 Petersburg.....	63	969,880	63,000	7,690	100				122,871	72,808	3	77		
"	69 Portsmouth and Roanoke.....	78 1-2	1,454,171												
"	70 Richmond, Fredericks'b'g and Potomac.....	76	800,000							185,243	85,688	6			
"	71 Richmond and Petersburg.....	22 1-2	700,000												
"	72 Winchester and Potomac.....	32	500,000												
N. C.	73 Raleigh and Gaston.....	84 1-2	1,360,000												
"	74 Wilmington and Raleigh.....	161	1,800,000												
S. C.	75 South Carolina.....	136			34,410	75				532,871	140,196	5			
"	76 Columbia.....	66	5,671,452							328,425	180,704				
Ga.	77 Central.....	190	2,581,723				201,464	77,456							
"	78 Georgia.....	147 1-2	2,650,000				227,532	93,190		248,026	158,207				
"	79 Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Ky.	80 Lexington and Ohio.....	40	450,000												
Ohio	81 Little Miami.....	40	400,000												
"	82 Mad river.....	40	152,000												
Ind.	83 Madison and Indianapolis.....	56	212,000												
Can.	84 Champlain and St. Lawrence.....	15						12,000		58,000	24,000	110			

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Thursday, August 21, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 24,692 tons, and by canal 7,346 18, making 32,038 18 tons for the week.

The following is a comparative statement of the trade to same period last year:

	1844.	1845.
Schuylkill, railroad.....	228,091 07	446,059 02
"    canal.....	210,202 02	125,444 07
Lehigh.....	173,735 00	225,952 00
Lackawana.....	140,000 09	160,000 00
Susquehanna.....	60,000 00	86,526 00
Pinegrove.....	24,528 16	35,792 12
	836,556 05	1,079,794 01
		836,556 05

Increase in 1845, tons..... 243,237 16

Import of Coals at Boston.—During July there were received of foreign, 3763 chaldrons. Coastwise, 29,027 tons and 46,500 bushels.

BY RAILROAD.

From Pottsville and Port Carbon—total.....	209,244
From Schuylkill Haven—total.....	226,918
From Port Clinton—total.....	9,916

Total by railroad.....446,097

BY CANAL.

From Pottsville and Port Carbon—total.....	76,774
From Schuylkill Haven—total tons.....	21,237
From Port Clinton.....	27,432

Total by canal.....125,444

Total by railroad and canal.....571,541

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines, -	100,233
Room run do., -	36,477—136,710
Beaver Meadow railroad and coal co.,	43,370
From Penn Haven—Hazleton coal co.,	35,564
From Rock Port—Buck Mountain coal co.,	10,308

.....225,952

WYOMING COAL TRADE—total.....86,526

PINE GROVE COAL TRADE.—total.....35,792

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....246,826

MOUNT CARBON RAILROAD—total tons.. 151,914

MILL CREEK RAILROAD—total.....35,831

[Miners' Journal.]

Arrival of the Hibernia.

The regularity of the Cunard Steamers is truly astonishing. The Hibernia arrived at Boston yesterday in twelve days—and the letters and papers were sent on by the postmaster who chartered the steam-boat Traveller expressly for the purpose.

We have received by this arrival our regular files of the English Railway Journal to 2nd inst., inclusive—in which we find many matters of interest, but have space only for a few extracts in this number,—we shall however draw largely upon them for our next.

The Acadia arrived out on the 29th, in 12½ days.

By official returns, says the Railway Chronicle, of 2nd Aug., it appears that the amount of railway traffic for the last week was £150,136, or £80,134 for passengers, and £22,567 for freight, being an increase of £23,314 over the corresponding week of last year. The half yearly reports of several companies have been recently made, which show a large increase of business. The receipts on the Grand Junction for the past half year are stated at £30,000 greater than the corresponding half yearly report last year, and this notwithstanding the reduction of the fares. The number of passengers has increased 90,000, and freight 22,000 tons. The directors divided ten per cent., and have on hand a reserve fund of £64,000. Having learned by experience the results of reducing fares they are about making another reduction and at the same time increase their speed. The fare is to be from Liverpool to Birmingham, 98 miles, 17 shillings for first class passengers—it is now 20s., and the rates on goods are also to be reduced in a similar ratio.

"The good old mother of railways," as the "Liverpool and Manchester" is justly termed, held its annual meeting, in the usual manner—declared a dividend of 10 per cent. per annum, passed the usual resolutions, and adjourned without any speech making. "Such," says the Chronicle, "is the management of a half yearly meeting, by Mr. Saunders and Mr. Booth."

The Chester and Birkenhead company have declared a dividend of 4 per cent. per annum.

The great topic now under consideration appears to be the turning of canals into railways. The canals from Liverpool to London, through Chester, Birmingham and Wolverhampton, are it is said, to be turned into a railway. The proprietors of these canals having become satisfied that they cannot compete successfully with railways, have come to the wise conclusion to be their allies. They have therefore formed a confederation with each other to unite all these canals "into one continuous group of canal railways." The water is to be let out and the canals to be filled up in part by levelling the banks. New capital to be raised and then they are to be allied with the present railways, which are to aid in furnishing five millions sterling, and thus avoid rivalry. Thus it is with canals having railroads along side of them, with few exceptions—the Erie canal will be an exception—they must yield; in the same manner that stage coaches have yielded to railway cars. "This," says the Chronicle, "is truly a gigantic scheme, but we have reason to know that it is not the only one of the kind, a similar intention being entertained by the canal proprietors in the southern and western part of England, in the district of the great western railway."

Sale of the Munroe (Ga.) Railroad.—We are informed that this railroad was sold, on the 5th inst, by order of the court. Mr. J. Cowles bid it off at \$155,100—one half, it is said, on account of parties in New York and the other half for citizens of Macon. We hope the road will now be put in good condition.

Iron Bridge on the Reading Railroad.

In compliance with our request, we have been furnished by Mr. Morris, the engineer, with the detailed dimensions of the iron bridge, heretofore referred to in the Journal. We have also a drawing showing the ground plan and elevation of the bridge, on a scale of half an inch to the foot, which may be seen at our office.

For the American Railroad Journal.

In compliance with your request, I send you a

tracing of one of the main trusses and the bottom bracing of the iron bridge on this road—together with the dimensions and weight of iron work.

Yours truly, ROBT. MORRIS,  
 Assist. Engineer, Reading railroad.

DIMENSIONS.

Span at bearings.....	34-2
Total length of bed.....	40-10
Top chords.....	2 x 2
Bottom chords.....	2½ x 2
Braces.....	3½ x 2½
Blocks.....	6 x 6½ x 2
Gibbs.....	3 x 2
Height of main truss.....	41½ inches.
Bolster.....	1 x 6
Vertical bolt.....	1½ inches.
Spaces.....	1-915 feet.
Width from outside to outside.....	21 ft. ¼ in.
Width from inside to inside.....	20 ft. 3 in.
Horizontal bracing.....	2 x 2
From inside of centre truss to outside of main truss.....	9 ft. 10½ in.
Height of centre truss.....	31½ inches.
Floor joists, white pine.....	8 x 9
String pieces, white oak.....	6 x 8.

WEIGHT OF IRON WORK.

	ton.	cwt.	qr.	lb.
Total weight of all iron work in	9	8	1	8
bridge.....	3	0	0	0
Weight of one main truss.....	2	17	0	0
Weight of centre truss.....				560
Weight of horizontal bolts.....				1972
Vertical bracing, main truss (cast iron).....				2940
Top and bottom chords (wrot. iron).				376
Two bolsters (cast iron).....				934
Weight of vertical bolts in main truss including two wrought iron washers to each bolt.....				592
Weight cast iron blocks, main truss.				829½
Chords in centre truss same as main.				1680
Bolts.....				122
Blocks.....				138
Braces.....				60
End posts.....				
End braces.....				
Twelve lateral brace blocks.....				

The superior safety of railway over post coach travelling is beautifully illustrated in the following extract from the London Railway Chronicle of 2nd inst.

"SAFETY OF RAILWAY TRAVELLING.—Mr. Wakley, the coroner, at an inquest, held on Saturday, on the body of a laborer who had been accidentally killed on the Great Western last week, said, "it was a singular fact, that during the six years he had filled the office of coroner, although 15 miles of the Great Western, and 14 miles of the London and Birmingham lines passed through his district, he had not held an inquest on a single passenger who had met his death on a railroad. During the same time he had held several inquests on passengers by stage coaches."

CROYDON AND EPSOM ATMOSPHERIC.—During the week a locomotive has been travelling up and down the line from Dartmouth Arms to Croydon, for the purpose of consolidating it prior to opening in the course of three weeks. The tube, which is now laid down over the 5½ miles, is now undergoing the process of "sealing." The stationary engine at Dartmouth Arms is fixed, and those at the other stations are progressing. The staking out of the Epsom line has been commenced under the superintendence of Mr. Gregory, the acting engineer.

**The Railroads of Belgium.**

With a notice of the other modes of Internal Communication—translated and abridged from "La Belgique et les Belges," by Major G. T. Poussin, formerly of the U.S.E.

BY G. C. SCHAEFFER, C. E.

For the American Railroad Journal.

**COST OF CONSTRUCTION.**—The whole length of line completed is 347 miles—148 miles only, having a double track. To defray the expense of construction, the chambers ordered a loan of 150 millions of francs with 5 per cent. interest and 1 per cent. to the extinction of the debt. The whole cost of the railroads including interest on capital during the time of construction was 150,822,702 73 fr., or 284,119 fr. per kilometre—about \$90,000 per mile.

The actual expenditure up to Jan. 1845, was.....144,746,774 06 fr. divided as follows:

Cost of road.....	122,742,168 73
" stations....	9,471,624 20
Means of transp..	18,134,947 78
General expense..	4,398,033 35
<b>Total.....</b>	<b>144,746,774 06 fr.</b>

The actual expenditure, is therefore, but 258,948 fr. per kilometre.\*

The following table shows the average cost of railroads in various countries.

In England.....	500,000 fr. per kilometre.
France.....	380,000 " "
Belgium.....	284,119 " "
Germany.....	232,000 " "
United States.....	150,000 " "

**COST OF WORKING.**—Return for 1845, 347 miles of road.

Receipts: Passengers.....	6,166,548 94 fr.
Baggage.....	394,731 12
Merchandise.....	4,222,551 95
Carriages, horses, cattle.	331,174 00
Other sources.....	115,487 30
<b>Total.....</b>	<b>11,230,493 31</b>

Expenses: Maintenance of road and stations.....	1,400,071 34
Transportation.....	1,160,121 39
General administration.	363,503 56
Cost of locomotion.....	2,841,734 51
<b>Total.....</b>	<b>5,765,430 80</b>

Excess of receipts over expenses. 5,465,062 51 fr.

Thus the net receipts are 48.66 per cent. of the total receipts; the expenses, 51.34 per cent.

Proportion of expense of working, to total receipts.

In Germany.....	59.1 per cent.
Belgium.....	51.34 " "
England.....	50.9 " "
France.....	49.15 " "
United States.....	44. " "

The whole amount received on account of the railroads, amounts to a little more than the sum named, being 10,259 50 fr. per kilometre, and paying on the whole capital employed almost exactly 4 per cent. But the state pays annually 6 per cent. on the same capital—the annual loss to government being 2 per cent.—1 per cent. being for a sinking fund.

This apparently unfavorable result is to be considered in connection with the fact that the whole line has been in operation not ten years, and that while the receipts are increasing the expenses are diminishing, as will presently be shown.

\* As in many cases the kilometre is mentioned (for we have not the thought it requisite in all instances to reduce it to miles,) the reader will please remember that it is equal to .214, or nearly 5-8 of a mile.

**REMARKS UPON THE DIRECT AND INDIRECT RESULTS OF THE RAILROADS.**—Although peculiarly the Belgian railroads are not profitable, M. Poussin considers the result as conformable to general experience, that while the roads between great centres of trade and population are profitable, the numerous lines needful to the supply of the wants of the whole population are not so, that is, do not pay a large dividend. This he considers, very justly, as one of the most powerful arguments for the entire control of the roads by the state, for it alone, is able to place the prices so low as to afford the entire benefit of a system of railroads, finding in an infinite variety of ways an ample, although indirect return to the treasury, of all moneys expended. We may remark that this reasoning, although admirable for a monarchical government, is not at all adapted to our free country, where the doctrine of "rotation in office," "spoils," etc., would in all cases convert public "improvements" to public "curses;" and where a holy dread of monopolies has left all public interests in the hands of hungry speculators.

It will be seen from the table, that the cost of working the Belgian railroads is greater than it should be, but several things are to be taken into consideration. In the first place the material of the roads is as yet insufficient, and many points have required immediately on the opening of lines, a greater portion of attention to supply their wants than could be economically afforded with inadequate means. Particularly in the transportation department is this felt, as empty cars have to travel the road to supply the demand at various points.

Another very serious difficulty is the concentration of all the lines at Mechlin and not at Brussels, the capital; this is undoubtedly a great mistake and must each year be productive of more disadvantage. The only reason for this arrangement would appear to be the more suitable position for the shops and depots at Mechlin, but the course of trade to the capital should not and cannot be diverted by any such consideration.

The minister of public works has declared that the expenses have reached their maximum while the receipts are continually increasing. Moreover the full benefit of these roads cannot be felt until the complete connection with the great routes of France and Germany is established and until such inter-national arrangements shall have been made as shall place the intercourse upon the most favorable footing.

The great effect of the railroad system upon society, is not yet fully developed. Already it would appear that railroads are beneficial to large cities and ruinous to small ones; thus Brussels which before had many rivals in the provincial cities, is now rapidly outstripping them all.

The effects produced are not to be measured by the return of four per cent. upon the capital invested, but by the influence upon the country in all directions. Before the establishment of railroads, 600,000 passengers travelled annually upon the ordinary roads, now three millions four hundred thousand, (3,400,000) pass over the railroads, nearly ten times the original number—and equivalent to the whole population, while formerly only one individual out of five travelled. What amount of money has been by this means put into circulation—certainly not less than 20 millions of francs. But these three millions and a half of passengers have realized vast benefits in the reduction of expense and the saving of time by at least one half, in many cases by two thirds, which can now be devoted to business. Thus twice the amount of business may

be transacted in less than half the time at one half of the expense; for the average cost of travel was formerly 2-8 cents per mile; it is now but 1-6 cents. These are direct advantages easily translated into figures and which cannot be estimated at less than forty-five millions of francs.

But this extraordinary movement of the population has not taken place without corresponding changes in everything bearing any relation to it. Thus ordinary carriages have increased in number in all cities traversed by the lines, and in some they have been introduced for the first time since the opening of the railroads—and from all the stations the increased number is necessary to supply the wants of the places not on the line.

The working of quarries, mines, etc., has been very greatly favored by the railroads, while the fisheries have found a more certain distribution of their products, among a people famous for their religious observances and economy—in short, great fish eaters—in time too, a large supply will be required in Germany. In fact no branch of industry is without some benefit.

Finally, a new business has arisen from the introduction of railroads, likely to be very beneficial to Antwerp. Emigrants for Texas and the United States are carried over the Belgian railroads—baggage gratis—and this saving has drawn large numbers.

We must not forget to mention that the Belgian roads transport couriers and their dispatches gratuitously; and at a reduced price, music etc., for the national festivals, students of colleges, objects of art or industry intended for exhibition, soldiers and prisoners.

Can we wonder that our author uses the expressive term "vivified," when speaking of the effects of railroads in Belgium. That country has indeed been brought to life by the system and has given a valuable lesson to every nation.

M. Poussin, however, maintains that only under the control of the state, can all these benefits be obtained. Although many may not agree with him in this, it is very certain that such remarkable improvements to a whole nation could in no other manner be accomplished.

(To be continued.)

**Duty on Railway Iron.**

The republication of the following letter to the secretary of the treasury in May 1842, upon a subject of vast importance to the railway cause, may be useful, it is thought by many interested; we therefore give it a place in the Journal, and ask for it a candid perusal by all parties. The columns of the Journal are open to the discussion of the subject by those entertaining different views.

PHILADELPHIA, }  
May 20, 1842. }

To the Hon. W. Forward, Sec. of the Treasury.

Dear Sir: The subject to which I beg to call your attention is *railway iron*, which I observed in your tariff bill lately presented to the house of representatives, it is proposed to charge with \* \$30 per ton duty, being almost equivalent to its first cost in England, and if to this be added the expenses of inspection, export duty from England, the freight, insurance, merchants'

\* The rate of duty afterwards imposed by congress is \$25 per ton, the same as on rolled or merchant iron.

commission, cartage, storage, and all other charges, independently of the expenses of getting it to the line of railway, will amount to at least 33 per cent. more, which will make the cost of this material so high as to interrupt very seriously the importation, and thus interfere most essentially with the further construction of railways in this country, which for the rapid conveyance (at all seasons of the year) of intelligence, travellers, and merchandize, as well as for the defence of the country, may be considered indispensable, and ought by all means to be encouraged by the federal government. If however the manufacture of railway iron in this country could be expected within a reasonable time, there might be some inducement for endeavoring to encourage the home production of it, but from the fact that the importation of merchant iron and even pig iron, notwithstanding the high duties on them, has continued; I conclude there is not capital and skill enough in this country, engaged in making them, to supply the demand. This supposition is based upon the fact that in the last five years the annual average importation of these two articles, pig and bar iron, has been about 100,000 tons. But there has been no edge railway iron rolled in this country, and it is not reasonable to expect that any will be until the manufacture of these (comparatively) raw materials shall be made in sufficient quantity to shut out their further importation. The cause of no edge railway iron being made here, and why none ought to be expected to be manufactured for some years to come, is that it requires more manipulation, more expensive and very much heavier machinery, more skill and experience in rolling, and is altogether a more expensive article than merchant iron; and cannot be made even in South Wales under 40 shillings per ton advance over the price of bar iron, and if our people in Pennsylvania (where iron can be made cheapest in the United States,) were to attempt it they could not succeed in making it at less than \$20 to \$25 per ton over the price of bar iron. The manufacture of flat bar railway iron, with countersunk holes and mitered or square ends, has been attempted in this country, but only at three establishments and all in this state\* who have however made not exceeding 400 to 500 tons total. As the flat bar railway iron has been made in this country, I suppose the manufacture may be extended and therefore I would encourage its domestic production; but it being impossible to make edge rails for some years to come, I propose to allow edge rails of 40 lbs. and up-

wards per yard in weight to be imported free of duty, for 6 years, say up to the 4th July 1848, by which time I hope our establishments will have acquired sufficient extension as well as capital and skill to undertake the manufacture of edge rails. To show what I mean by edge rails, I send you enclosed a sheet containing tracings of sections of the different patterns of rails in use in the United States and in Europe, but under this denomination I class all rails which are rolled that are not *flat bars*, whether they be of the T pattern, the H pattern, or the bridge pattern or any other pattern that ever has been rolled. My reason for restricting the *minimum* weight to 40 lbs. per yard is that the heavier (within reasonable bounds) the rail the more perfect the railway will be. Most of the railways in Rhode Island, Massachusetts and the eastern states have iron weighing from 55 to 65 lbs. per yard, and the use of the flat bar is going out wherever the parties are rich enough to replace it with the edge rail. The use of the flat bar is most inexpedient, and, though less in the first cost of the railway, ends in being more costly as the expense of repairs, cost of transportation, and danger of throwing the trains of the tracks, render it in every point of view excessively inferior to the edge rail. In new and poor districts of country where every penny of expense in the first cost must be looked after, the flat bar may be used until by establishing channels of trade, sufficient capital may be accumulated to justify the cost of replacing them with heavy or edge rails. This has been done in several parts of the country already and will become universal wherever railway concerns can bear the expense and inconvenience arising from a change. I might give many other reasons for keeping the duty off edge rails for a few years longer, but fearing to intrude too much on your time I will only mention one other reason, and that affects the interest of the American iron master himself. The principal expense of making iron in this country arises from transporting materials to the place of manufacture and afterwards the manufactured article to market; for example, the ironstone and fuel (wood) are generally in the same neighborhood, but the limestone may be 10, 15, or 20 miles off, the furnace for smelting the ore into pigs is generally many miles distant from the forge or rolling mill, for converting into merchant iron, so also the rolling and slitting mills for the manufacture of nails, &c., are usually still more distant from the smelting furnace, therefore until all these establishments or these elements for the manufacture of iron are concentrated as they are in Wales and Stafford-

shire and other parts of England and also in Scotland, the iron masters, (and also the consumer) are interested to have the importation of railway iron from England continued free of duty. Besides, the construction and use of railways calls for a very enlarged consumption of iron (every pound of which must be made by the American iron master) in making locomotives and iron tenders, iron wagons, wheels, axles, spikes, screws, and a great many other articles of iron which are all to be furnished exclusively by the home producer. I will not trespass more on your time, but conclude by reiterating the hope expressed above, viz. that all edge rails of 40 lbs. per yard and above that weight may continue to be imported free of duty 6 years, up to the 4th July 1848. I have the honor to remain &c.

(Signed,)

G. RALSTON of A. & G., R. & Co."

P. S. The Liverpool and Manchester railroad company, began with rails 34 lbs. per yard, but through successive changes going higher and higher, it now has rails of 70 lbs per yard. The heaviest iron used on any railway in England,\* is on the London and Brighton railway, which weighs 76 lbs. per yard. On the Philadelphia and Columbia railroad, the rail imported 10 years ago was only 41½ lbs. per yard. What has been imported recently (within 2 years) weighs 56 lbs. per yard. So also on the Philadelphia and Reading railroad, their first rails did not exceed 42 lbs. per yard, but the recent importations weigh 55 lbs. and this must give place in a few years for rails of 70 to 75 lbs. per yard, to accommodate the heavy trade of coal and iron on that road. If a duty on edge rails be imposed, the importation will cease altogether, or the rails will be rolled lighter and lighter instead of as experience has taught us they should be, heavier and heavier than they have been."

*Northern, N. H. and Central Vt. Railroads.*—These two roads, which are to unite at the mouth of White river, will complete a line of railroad from Boston to Burlington. The distance is about 250 miles, and the route generally exceedingly favorable. The line is now controlled by *five* distinct companies—with as many sets of officers to pay—and distinct establishments to keep up, which of course greatly increase the expenses of the line and must inevitably sometimes cause disarrangements. There will be occasionally misunderstandings arising from diversity of interest, and causes beyond the control of human foresight. With the very best intentions in all parties it will be found impossible

\* The writer is probably not aware that Messrs Gaylord & Co. of Portsmouth, Ohio, rolled iron in 1841 for the Madison and Indianapolis railroad. (Ed. R. R. Journal.)

\* Since then the heaviest rail used in England is 89 lbs per yard. London, July 12, 1845.

always for five heads, stationed at distant points to see alike, think alike, and act alike. Is it not important then that there should be a union of interest, a concentration of action, and a singleness of purpose? To us it appears that here is an opportunity for adopting the Hudsonian plan in England, of uniting several short roads under one head—one management which has proved so eminently successful not only to the shareholders by increasing their profits, but also to the public, by increasing, to an astonishing extent, its facilities for business. Railroads are constructed to facilitate business, to accommodate the public, and not to furnish offices for a few individuals who must live—and, if judiciously located and well managed, they will yield liberal returns to those who furnish the capital necessary for their construction. The interests of the shareholders and those who pay for the use of the roads are identical. When the people are well and cheaply accommodated then the shareholders receive liberal returns; therefore it appears to us the true policy to have only as many officers as are necessary to manage efficiently, only as many machine shops as are absolutely assential along the line, and as few hangers on as possible; then with low charges, frequent trains, and as high speed as the nature of the case will admit of, the people will be accommodated, and the shareholders liberally compensated for the use of their capital.

We learn from the newspapers that the two companies have recently organized by choosing the following named gentlemen, directors and officers:

**Northern Railroad.**—At the meeting of the subscribers to the stock in the Northern railroad, at Concord, says the Boston Courier, the following gentlemen were chosen directors—George W. Nesmith of Franklin, Nathan Carruth of Boston, Solomon Wildes of Boston, Timothy Kenrick of Lebanon, Isaac Spaulding of Nashau, Charles T. Russell of Boston, and Francis N. Fisk of Concord.

At a meeting of the board of directors, the following officers were unanimously elected: George W. Nesmith president, Nathan Carruth treasurer, and N. G. Upham clerk. An assesment of five dollars per share was ordered, payable on the first of September.

**The Central, Vermont, Railroad.**—We announced in our postscript edition of last week," says the Burlington Free Press, "the organization of this company. Board of directors: Charles Paine of Northfield; Rob. G. Shaw, Samuel S. Lewis, Jacob Foster, of Boston; Daniel Baldwin, James R. Langdon, of Montpelier; John Peck, of Burlington.

At a subsequent meeting of the board, Charles Paine was chosen president, Samuel H. Walley, jr. of Boston, treasurer, and

E. P. Walton, jr. secretary. The subscription exceeds two millions one hundred thousand dollars, and it will be observed that a call of five dollars is made, payable on the first of Sept., with a view to an immediate commencement of the work."

**Wear of Railroad Iron.**

The facts stated in the following communication require no comment from us. They speak the right sort of language for those interested in railroads; and will we doubt not be amply sustained by experience.

For the American Railroad Journal.

Mr. Editor:—My attention has been called to an article in the Journal of the 31st ult. entitled "wear of railroad iron," which seems to prove that the present iron in use will not bear a heavy traffic for any length of time. The writer of this article takes the iron used on the Lowell railroad, and says that this iron is of the most approved pattern, viz. the H weighing 56 lbs. per yard; and goes on to state that the company have found it necessary to take up and renew the rails, after having born but 420,000 tons, and therefore sets down 500,000 tons as the maximum which iron of that weight will bear.

I will just give the comparison between the Lowell and the Philadelphia and Reading road: and take that portion of the road extending from Pottstown to Reading a distance of 17 miles. This track was first used in 1837 and there has been transported over one track from that time to the present the following amount of freight, including passengers merchandise and coal:

Total tonnage up to Dec.:	1841	70,740 tons.
do " " "	'42	98,668 "
do " " "	'43	338,000 "
do " " "	'44	507,608 "
do " " "jy 31 '45		421,386 in coal

Total tonnage 1,434,202

Showing more than three times the amount transported over the Lowell road, and yet it has not been found necessary to renew or tear up this track. This track is laid with T rail, and weighs 51 lbs. per lineal yard. The second track of this road is laid with the best T rail weighing 61 lbs. per yard; with the exception of the aforesaid 17 miles—and with the experience already had there is no doubt but that ten times the above can be rolled over the road without destroying the rail. Instead of the H pattern being the most approved, it is just the contrary, as it abandoned altogether on all modern roads both in England and in this country. M.

A NEW ROUTE from the Atlantic to Montreal, is marked out by our Concord, (N. H.) friends. The last N. H. Patriot says:

"The distance from Portsmouth to Newmarket at Lamprey river village, on the line of the proposed railroad, is a little over eight miles. From Lamprey river to Concord, by

the most direct of the routes proposed, it is something less than thirty miles. It is therefore safe to presume that the distance between Concord and Portsmouth cannot exceed forty miles.

"For more than half the distance—for more than twenty miles from Portsmouth, the face of the country admits of a perfectly level grade, and the variation, for the purposes of economy will render the undulations very slight, and the course nearly straight.

"The remaining part of the distance the course lies through vallies admirably adapted to the purposes of this enterprize, admitting of a very straight and a very level course, requiring in no case, it is believed, a grade of more than forty feet, and probably less than thirty to any one mile. \* \* \* \* \*

"By this road the whole interior is brought from 35 to 40 miles nearer to the sea-board than by any other, and at a point, too, more favorable than any other upon the coast.

"Portsmouth, it is admitted, has the best harbor in the United States. Accessible at all times and under all circumstances, with a sufficient depth of water to float the largest ships. Completely sheltered from the destructive storms often so disastrous in other ports. Unobstructed in the least by ice, in the most severe seasons. And, on the whole, embracing all the facilities and conveniences for a safe, expeditious and economical prosecution of commercial operations."

Referring to the Portland and Montreal road, the writer says:

"This work can hardly be set down for this generation, as the same object is attained by way of Concord, with, probably little or no increase in the distance.

"It is justifiable then to presume, that the Concord and Portsmouth road is to be the most easily line of railroad communication from the Atlantic coast to the Canadas—and it may be added, the easiest and most direct."

We do not give the writer credit for being either a prophet or the son of a prophet—in relation to this matter; yet he has the undoubted right to entertain and express such views as his position leads him to entertain; yet others who look upon the various projected, and important lines of railroad in New England from a more distant and less interested position, with a full understanding of the onward progress, and advantages of the system, will be very likely to entertain a different opinion—at least within a twelvemonth, if not now. A word of advice to those who are engaged in this new enterprize. Adopt different grounds to encourage its friends, and others, it is in reality an important road, and especially so to Portsmouth, and therefore should be taken early in hand; and it appears to us that it will be quite as likely to be constructed, at an early period, if it is believed that the Portland and Montreal road will be constructed as if the people were sure it would not be. The people of Portsmouth and along its line, will need the road for their own convenience



and prosperity; which will not be in any manner increased by depriving Portland of equal advantages. It is a mistaken idea that the prosperity of one city is arrested because another is increased, if the *natural* advantages and *artificial* facilities are equal; yet with the best natural advantages, a city will not retain its relative position unless it also keeps pace in its artificial, with less favored rivals. Say therefore to those interested that "this road *must* be built if Portsmouth would keep pace with Portland as the road to Montreal will most assuredly be built!"

**Petersburg Railroad.**

We republish the following letter, which appeared in the number for the 31st July, that we may correct the errors of the press—and at the same time make an apology for their occurrence. They were marked in the proof, but accidentally omitted in the correction, we shall endeavor to avoid similar omissions hereafter.

PETERSBURG, July 21, 1845.

Editor Railroad Journal—

SIR:—A friend has just called my attention to an article in your paper of the 26th ult, a part of which I extract, as it is short:

"While I think of it I will correct the statement in relation to the road over which I preside, and two additional ones in your list.

"The gross income (Richmond, Fredericksburg, and Potomac railroad) for the fiscal year, ending 1st of April last, was \$185,243  
 "Its net income was 85,688  
 "Its cost 1,454,171  
 "Its dividend 6 per cent.

"The Petersburg and Roanoke railroad cost about \$950,000, instead of \$260,000, as stated, and pays 3 per cent."

I do not suppose that the writer of the above intended to make a comparison between the two roads unfavorable to the latter, but the impression which the statement must have made on the minds of your readers was, that the first was twice as valuable an investment as the last, and that the last only "pays 3 per cent."

Let us see how far this impression is sustained by a more detailed statement in regard to the Petersburg road—"the road over which I preside."

The Petersburg (not Petersburg and Roanoke) railroad was finished in 1833. Up to 1842 it had paid in dividends 54 per cent. In 1842 and 1843 the company rebuilt the road with 15 miles of edge rails, and the balance with  $\frac{3}{4}$  by  $2\frac{1}{2}$  inch plate iron, and constructed 3 miles of new road and an expensive bridge across Roanoke river. In these years no dividend was paid, the profits having been absorbed by the new work and the payment of debts.

The receipts of transportation for the 12 months ending Feb. 1st, 1845, were \$123,670 81  
 Expenses of all kinds, \$49,972 33  
 except interest, was 8,745 98— 58,718 31  
 Interest account

Net income \$64,952 50  
 Out of this income was paid—

Of the debts due by the company... \$41,882 50  
 And a dividend of 3 per cent ..... 23,070 00

Out of the profits of the last six months we have paid about \$32,000 of our debt and a dividend of 2 per cent.

This will give your readers a better idea of the value of our road than the short statement that "it pays 3 per cent."

Your informant, in sending you the statement about our road, omitted, no doubt accidentally, to give all that is necessary to fill up the blanks in your list, some of which are of importance in ascertaining the value of the investment. This I will give you.

The road is 63 miles, (instead of 60, as in your list.)

The number of shares 7,690, of \$100 each all paid.

The amount of loans and debts Feb. 1st, 1845, was \$94,592. This was reduced to less than \$63,000 July 1st.

Last prices of stock \$75 to \$77.

I have charge also of the Greenville and Roanoke railroad, the cost of which is greatly overrated in your report.

This road is 18 miles long. It cost \$284,433. Number of shares 2000 of \$100 each, all paid. Debt, 1st of May last, \$37,544. This road was finished in 1837. Up to May last the company had paid \$46,858 of their debt out of the profits of transportation. No dividend has yet been made. Last sales of stocks 25 to 28.

The receipts for the fiscal year, ending May 1st last, were \$25,368 94  
 Expenses of all kinds... \$16,620 62  
 Interest account..... 2,673 46—\$19,294 08

Net income—applied to the reduction of debt..... } \$6,074 86

I remain respectfully yours,

H. D. BIRD.

**The King of Railways.—Mr. George Hudson.**—There is much more pith in the reply of Mr. Hudson in the following paragraph than kindness or candor in the remark of my Lord Brougham. There are many others, we imagine beside "Lady \* \* \*" who think that his Lordship's "chatterings in the house" oftentimes do more "mischief" than good, and who would give him the same advice, if an opportunity should present, as Mr. Hudson, which we find in Herapath of 12th July, as follows, viz. "lately Lord Brougham seeing Mr. Hudson in conversation with some peers, stepped up to the place and said, "make way, my lords, that I may be introduced to the king of railways," then addressing Mr. Hudson, he observed "Lady \* \* \* has written to me to say, that I have done her a great deal of mischief by my chattering in the house, what would you advise me to do in that case, Mr. Hudson?" "Cease your 'chattering.'" was the pithy reply. Knowing how impossible that is, the noble lord looked very blank, and, *mirabile dictu*, was silent for once.

**Railroad Warehouse.**—The Auburn and Rochester railroad company have nearly completed the warehouse on the north of the depot. The building is a very substantial one of stone, 60 feet front by 125 deep. It

will be used exclusively for storing railroad freight.

**Astonishing Increase of Railway Traffic.**—We find in the Mining Journal of 12th July the following statement in relation to the increase of railway traffic during the last six months. Such is the impulse given to business and to travel by railroads that we really cannot realize the increase until we see the figures footed up, and even then so astonishing is the result that we can hardly believe our own eyes.

**"Returns of Railway Traffic for the Past Six Months.**—It will be seen, by the following return, that the average business of our railways is still progressively on the increase. On thirty-nine lines, embracing nearly 1800 miles, the traffic for the six months ending June, amounts in round numbers to 2,850,000.—being an increase of 550,000 more than the corresponding six months of 1844. Of this increase, the London and Birmingham line has 52,000; or 2000 per week; Great Western, 41,000; Grand Junction, 30,000; Midlands, 57,000; Brighton, 14,000; and South-Western, 8000. Taking the value of money at 4 per cent, it gives an increase in the value of the above railway property of upwards of 26,000,000 sterling, the result of increasing prosperity, although, on some lines, considerable extensions have been made."

In speaking of Nasmyth's steam pile driver the Mining Journal says, "At the great marine works, at Morice Town, near Portsmouth, the sea wall will be 1600ft. in length, the coffer dam for the construction of which is formed by a bouble row of piles from 45ft. to 66ft. in length, and from 14in. to 16 in. square. The size of this coffer dam is quite unprecedented, and by the use of the steam pile driver a saving of time will be affected of two years, and in money of 50,000. The pile under the operation is seen to sink into the ground from 1ft. to 6ft. at a stroke, and the whole time occupied in driving a pile of 66 ft. long, is under four minutes—an operation which, by the old system, took from fifteen to twenty hours; the iron rim on the head of the pile is also dispensed with, and yet the timber remains without the slightest injury. It is almost impossible to imagine the great and important results which must ensue from this powerful agent, as by it numerous marine and railway works can be accomplished under circumstances which, with the old machine, would be impossible, such as harbors of refuge, piers, recovering land from the sea, and other extensive undertakings." We should like to know how this machine differs from "Crams steam pile driver" which has been used on several of our American railroads.

**Speed on Railways.**—A return has just been published of the weight and speed of the express trains on several lines, from which we select the following:—Brighton averages 30 tons, performs 50 miles in 1h. and 27 m., or 34 miles per hour, including stoppages; the Northern and Eastern, 27 tons, 32½ miles, 45 miles per hour; South-Western, 33 tons, 78 miles in 1h. and 57m., or 40 miles



**FROM PHILADELPHIA.  
PASSENGER LINES NORTH AND EAST.**

**Camden and Amboy Line.**—By Railroad and Steamboat from Amboy. Leave foot of Walnut street daily, Sundays excepted, at 5½ a.m. Fare \$3. Forward deck \$2 25. Also for New York, by way of Trenton, Princeton, New Brunswick, Elizabethtown and Newark, N.J., daily from foot of Walnut street, at 9 a.m., and 5 p.m.—Fare \$4. 31

**For Reading and Pottsville.** By Reading Railroad. Daily, Sundays excepted, from the Depot, corner of Broad and Cherry streets at 8 a.m. Fare, \$3 50. Second class, \$3. To Reading \$2 25. Second class \$1 90. 31

**For Mauch Chunk and Wilkesbarre.**—By Express and Reliance Line. Daily, from the corner of Broad and Cherry streets, at 9 a.m. 31  
PETERS, MILTIMORE & CO.

**For Easton and Bethlehem.** By Post Coaches. Leave the Office, next door to the White Swan, Race street, daily, at 4 a.m. 31  
PETERS, HAMMIT & CO.

**For Baltimore. By Railroad.** Fare \$2. Via Chester, Wilmington, Elkton, Havre de Grace. Leave Philadelphia, Depot, 11th and Market street, daily, Sundays excepted, at 8 a.m., 4 p.m. Leave Baltimore, Depot, Pratt street, daily, Sundays excepted, at 9 a.m., 8 p.m. Tickets through to Wheeling and Pittsburg can be procured at the Depot.

Wilmington Accommodation Line, leaves the Depot, 11th and Market sts. daily, except Sunday, at 10 a.m. and 4 p.m. Leaves Wilmington at 7 a.m. and 4½ p.m. G H HUDDLELL, Agent. 31

**For Baltimore. By Newcastle & Frenchtown Railroad and Steamboat Line.** Fare \$1. The Steamboat Robert Morris, Capt. J. M. Douglass, leaves Dock street wharf daily, except Sunday, at 3 o'clock. Passengers by this line will reach Baltimore at about 10 p.m. Tickets through to Wheeling or Pittsburg can be procured on board the boat. G H HUDDLELL, Agent. 31

**For Baltimore, via Lancaster, Columbia and York.** By the Susquehanna Railroad, daily, Sunday excepted, leave the Depot 274 Market st., at 7½ a.m., and 12 at night, for Columbia, and leave Columbia at 2 p.m. for Baltimore. Dine at York and arrive in Baltimore in time for early tea; passing through the most highly cultivated and beautiful part of Pennsylvania, and romantic part of Maryland. 31

**For Pittsburg, via Columbia and Lancaster Railroads.** Leave the Depot 274 Market st. daily, at 7½ a.m. The Night Line will leave as usual at 12, midnight. At Harrisburg this line connects with the Railroad and Stage Line for Carlisle, Chambersburg and Pittsburg, with the Packet boats for Lewistown, Huntingdon, Hollidaysburg and Pittsburg; also with the Susquehanna Packet boats to Northumberland, Milton, Muncy, Williamsport, etc. Through tickets for any for any of the above places can be secured at the depot, where every information relative to the above lines will be given. Passengers for York and Gettysburg will leave in the 7½ line. JACOB PETERS & CO. 31

**For Pittsburg. By the Pioneer and Express Packet Line.** Leave the Depot, 274 Market st. above 8th, at 7½ a.m. By this route travellers may be assured of a safe and comfortable passage, every arrangement having been made for their accommodation. Office N. E. 4th and Chestnut sts. Seats may also be procured at the Depot, and at 13 South 3d st. A CUMMINGS, Agent. 31

**Susquehanna Line of Railroad Cars and Post Coaches.**

This line leaves the depot, corner of Broad and Cherry streets, daily, [Sundays excepted] at 8 o'clock, a.m., via Reading and Pottsville railroad, for Sunbury, Danville, Catawissa, Northumberland, Milton, Muncy, Williamsport, Towanda, Bellefonte, Jersey Shore, Lockhaven, Ralston and Elmira. For seats apply at the stage office, 104 Race street, under the White Swan Hotel. 34  
S. STILES, Agent.

**FROM BALTIMORE.  
PASSENGER LINES SOUTH AND WEST.**

**Baltimore and Ohio Railroad.**—For Cumberland, Hancock, Martinsburg, Harper's Ferry, Winchester, Frederick, Ellicott's Mills, and intermediate depots by the regular train, daily, at 7½ o'clock, a.m. For Frederick and intermediate stations, by extra train, daily, except Sunday, at 4 p.m.

Fare in either direction between Baltimore and Cumberland \$7, and for intermediate distances at the uniform rate of 4 cts. per mile. Through tickets are issued between Baltimore and Wheeling respectively, \$11. Between Baltimore and Pittsburg, \$10. Between Philadelphia and Wheeling \$13. 31  
D. J. FOLEY, Agent.

**For Washington. From Baltimore** at 9 o'clock, a.m.; 5 p.m.; and 11½ p.m. By order, 31  
D. J. FOLEY, Agent.

**SUMMER ARRANGEMENT—FARE REDUCED.**

By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

**Direct to New Orleans,** and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great Southern Mail Line, and the only one that issues a through ticket South. Those who patronize it will save their money and time. Through Tickets from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

**Fast Mail Line.**—Leave New York at 9 a.m. and arrive in Philadelphia at 3½ p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12½ to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C. at 6 a.m.

Passengers by the above line will arrive at Richmond by 11½ o'clock p.m. and Petersburg, Va. by 2½ o'clock p.m., through to the former city in twelve hours, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

**Way Mail Schedule.**—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p.m.; arrive in Baltimore at 2½ p.m.; arrive in Washington at 7 p.m. From Philadelphia by steamboat.—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore. 31  
STOCKTON & FALLS.

**For Norfolk and the South, by steamboat** through the Chesapeake bay to Norfolk, and then by railroad to Weldon, Wilmington or Raleigh, etc. Leaves Baltimore daily [except Sundays] from Spears' wharf, at 4 p.m., and arrives at Norfolk next morning at 7 o'clock; fare \$6. Leaves Norfolk at 8 a.m. and arrive at Wilmington next day at 12 m. and Charleston next morning at 7. Fare through \$21.

**For Philadelphia (Union Line), via Chesapeake and Delaware Bay, and Newcastle and Frenchtown Railroad.**—The well known steamboat Constitution, Capt. Chaytor, has commenced her regular trips for the season, leaving Bowly's wharf, foot of South street, at 8 o'clock, p.m. daily [except Sundays] for Philadelphia. Through in 8 hours. Fare \$3. 31

**Morning Train for Philadelphia.**

The morning train leaves the depot, Pratt street, daily [except Sundays] at 9 o'clock, a.m. Passengers arrive at Philadelphia in full time to continue on by the mail train for New York. Fare \$3. Sunday evening Mail Train—the only line that departs from Baltimore on Sundays for Philadelphia, is the mail train which leaves Pratt street depot, at 8 p.m. Fare \$3. 31

**For Philadelphia, via York, Columbia and Lancaster,** by the Baltimore and Susquehanna railroad. Cars leave from their office, 63 North street, daily [Sundays excepted] at 9 o'clock, a.m. Fare \$3 50. 31

**GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.**—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1½ in. to 2½ in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wrought Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wrought Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions. 31  
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**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design. It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, Reading, Pa. 31  
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**MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Paterson, N. J.** The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

**Railroad Work:** Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars. Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

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ja45 21 Broad st., N. York.

FROM NEW YORK.

**New York and Harlem Railroad Company.**  
 Leave City Hall for Yorkville, Harlem and Morrisania at 5.30, 7, 8, 9, 10, a.m.; 1, 2, 3, 3.30, 4, 5, 5.30, 6, p.m. For Fordham and Williams' Bridge at 5.30, 7, 10, a.m.; 2, 3.30, 5, 6, p.m. For White Plains at 7 and 10 a.m.; 2 and 5 p.m. Leave Morrisania and Harlem for City Hall at 6.20, 8, 9, 10, 11, a.m.; 2, 3, 4, 2, 5.20, 6, 6.30, 7.45 p.m. Williams' Bridge for City Hall at 7, 7.40, 10.40 a.m.; 2.40, 5, 5.40, 7.20 p.m. White Plains for City Hall at 7.10 and 40.10 a.m.; 2.10 and 5.10 p.m. 31

**New York and Erie Railroad Line.**  
 For Middletown, Goshen, and intermediate places. —Two daily lines each way, as follows:—For passengers—The new, fast and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7½ o'clock, A.M., and 4 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4½, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets.

H. C. SEYMOUR, Superintendent.  
 Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Pleasant, Binghamton, Owego, Port Jervis, Honesdale, Carbondale, etc.  
 On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc. 31

PASSENGER LINES FOR THE NORTH AND WEST.

**Morning Line, at 7 o'clock**—For Albany, Troy, and intermediate landings.—The steamboat Troy, Capt. A. Gorham, will leave New York, foot of Barclay street, at 7 o'clock, A.M., every Tuesday, Thursday, and Saturday. The steamboat Niagara, Capt. DeGroot, leaves New York at 7 o'clock, A.M. Monday, Wednesday, and Friday. 31

**Afternoon, or 5 and 7 o'clock Line.**—At 5 o'clock, P.M., landing at intermediate places, from the foot of Barclay street.—The steamboat New Jersey, Capt. H. H. Fury, will leave on Monday, Wednesday, Friday, and Sunday. The steamboat South America, Capt. M. H. Truesdell, will leave on Tuesday, Thursday, and Saturday. For passage or freight apply on board, or to

P. C. SCHULTZ,

At the office on the wharf.

**Evening, or 7 o'clock Line.**—Line steamboats for Albany.—Daily, Sundays excepted.—Through direct at 7 o'clock P.M. from pier between Courtlandt and Liberty streets.—Steamboat Rochester, Capt. R. G. Crittenden, will leave on Monday, Wednesday, and Friday. Steamboat Knickerbocker, Captain A. Houghton, will leave on Tuesday, Thursday, and Saturday. 31

For Albany and Troy, direct, at 7 o'clock, P.M., from the steamboat pier, foot of Courtlandt street. The Empire, Capt. R. B. Macy, Tuesday, Thursday and Saturday. The Columbia, Capt. Wm. H. Peck, Monday, Wednesday, and Friday. 31

**Troy and Greenbush Railroad.**  
 Leave Troy, at 6 o'clock, A.M., to Boston and Albany; 8½, do., do.; 10½, do., do.; 2, P.M., to Boston and Albany; 4, do., do., do. Leave Albany at 7½ o'clock, A.M.; 9½ do., do.; 12, M., or on arrival of the Boston train; 3, P.M.; 6, P.M., or on arrival of the Boston train.—Fare, 12½ cents.

Passengers at Albany should procure tickets at the Boston railroad office, foot of Maiden lane. 31  
 L. R. SARGENT, Superintendent.

**Schenectady and Troy railroad cars** leave as follows:—From Troy, 7½ o'clock, A.M., daily; 1, P.M., daily, except Sundays; 7½ do., daily. From Schenectady, 3 o'clock, A.M., daily; 9, do., do., except Sundays; 3, do., daily.

Persons going to Saratoga and north should take the 7½, A.M., train; and passengers going west of Schenectady, the 7½, A.M., or 7½, P.M., trains. 31

L. R. SARGENT, Superintendent.

**Troy, Balls'ton, and Saratoga Railroad.**—The cars of this road will run as follows:—Leave Troy at 8 o'clock, A.M., daily; do., do., 3½, P.M., except Sundays; leave Saratoga at 9, A.M., except Sundays; do., do., 3½, P. M., daily. 31  
 L. R. SARGENT, Superintendent.

**Lake Champlain Steamboats.**—From Whitehall to Burlington and St. John's.—Morning Line on Lake Champlain, making intermediate landings.—Passage \$2, breakfast on board.—The Francis Saltus, Capt. H. G. Tisdale, leaves Whitehall, Tuesdays, Thursdays, and Saturdays, at 6 o'clock, a.m., and St. John's Mondays, Wednesdays, and Fridays, at 6 o'clock, a.m. For freight or passage apply to the captain on board. H. D. FILKINS, Agent, Troy. 31

Passengers leaving Troy, Mondays, Wednesdays, and Fridays, at half-past 3 o'clock, p.m., by railroad and packet, will arrive at Whitehall in time for the above boat next morning. 31

PASSENGER LINE EASTWARD.

**Long Island Railroad Company.**—Trains run from Brooklyn depot.—Boston train, 8½, a.m., daily, stopping at Farmingdale and St. George's Manor; accommodation train, 9½, a.m., and 5 p.m., for Farmingdale and intermediate places, daily; accommodation train, 3, p.m., for Greenport, daily, stopping at Jamaica, Branch, Hempstead, and Hicksville, and all the stopping places between Hicksville and Greenport. From Greenport depot: Boston train, daily, at 12½ o'clock, m., or on the arrival of steamers from Norwich. Accommodation train at 5, a.m., daily, for Brooklyn and intermediate places. From Farmingdale depot: Accommodation train at 6½, a.m., and 2½, p.m., daily, for Brooklyn and intermediate places. 31

The steamboat Statesman leaves Greenport for Sag Harbor twice each day, on arrival of the trains from Brooklyn.

Baggage crates will be in readiness, at the foot of Whitehall street, to receive baggage for the several trains, 30 minutes before the hour of starting from the Brooklyn side. 31

**Regular Mail Line between New York and Boston, via Stonington, Providence, and Newport,** composed of the following steamers, running in connection with the Stonington and Providence railroads, and the Boston and Providence railroad: Massachusetts, Capt. Comstock; Mohegan, Capt. —; Narragansett, Capt. Manchester; Rhode Island, Capt. Thayer. Via Stonington, daily, [except Sundays,] at 6 o'clock, p.m., from New York, and from Stonington on the arrival of the mail train, which leaves Boston at 5, p.m., and Providence 6½, p.m. The Rhode Island on Mondays, Wednesdays, and Fridays; the Narragansett on Tuesdays, Thursdays, and Saturdays. Via Newport, the Massachusetts leaves New York for Newport and Providence, direct, on Tuesdays, Thursdays, and Saturdays, at 5 o'clock, p.m. 31

**New York and Boston Railroad Line,** via Norwich and Worcester, daily, from pier No. 1, North river, at 6 o'clock, p.m. The Worcester, Captain Bacon, on Tuesdays, Thursdays, and Saturdays. The Cleopatra, Capt. Dustan, on Mondays, Wednesdays, and Fridays. 31

Passengers on the arrival of the steamers at Allen's Point, will be immediately forwarded in the splendid and commodious cars of the railroad to Boston, without change of cars or baggage. 31

For Newport and Providence, on Monday, Wednesday, and Friday. This line leaves at 8 o'clock, in the morning, from the foot of Whitehall street, South ferry. 31

**U. S. Mail Line for New Haven, Hartford, and Springfield,** from Peck Slip, East river, daily, at 6½, a.m., by steamboat New Champion, Captain Joel Stone, connecting with the cars at New Haven, for Hartford and Springfield. Night line for New Haven: The steamboat Hero, Capt. Richard Peck, leaves on Tuesdays, Thursdays, and Saturdays, at 4, p.m. For Hartford, direct, daily, [Sundays excepted,] at 4, p.m.—The steamboat Kosciusko, Capt. Le Fevre, every Tuesday, Thursday, and Saturday, and the Globe, Capt. E. D. Roach, will leave every Monday, Wednesday, and Friday. 31

**Hoosatic Railroad; Bridgeport and New York.**—The steamboat Mutual Safety, Capt. J. B. Lober, leaves New York, from the foot of Market street, every morning, [Sundays excepted,] at 6 o'clock, arriving in Bridgeport at 11 o'clock. Returning, leave Bridgeport at 1½, p.m., on the arrival of the cars, arriving in New York at 5½ o'clock. The Nimrod, Capt. J. Brooks, Jr., leaves New York daily, at 2, p.m., and Bridgeport 7. a.m. There are no train of cars running in connection with any boat except the Mutual Safety until further notice.

Tickets, if not purchased at the offices on the line of the road, or on board of the boat, will be charged at advanced prices. Dated tickets positively taken only on the day specified. R. B. MASON, Superintendent. 31

PASSENGER LINES, SOUTH AND SOUTHWEST.

**New York and Philadelphia Railroad Line—Direct.** Leaves New York daily, from the foot of Liberty street. Morning Line, 9 o'clock, A.M. Mail Pilot Line, 4½ o'clock, P.M. Fare in first class cars, \$4. Second class cars, \$3. 31

Passengers will procure their tickets at the office foot of Liberty street. Philadelphia Baggage Crates are conveyed from city to city without being opened by the way. Each train is provided with a car, in which are apartments and dressing rooms expressly for the Ladies' use. 31

**Camden and Amboy Railroad Line.**—For Philadelphia and intermediate places. Leaves Pier No. 2, North River, foot of Battery Place, by Steamboat to South Amboy, daily, Sundays excepted, at 5½ o'clock A.M. Passengers will take the cars at South Amboy. Fare to Philadelphia, \$3. Forward deck passengers, \$2 25. To Freehold and Monmouth, via stages from Hightstown, \$1 50. To Spotswood and West 75 cents. To South Amboy, 25 cents. To Perth Amboy, Tattens, Rossville and Tuffits, 12½ cents. 31

The steamboat Independence will land at each of the above named places going and returning, leaving Perth Amboy at 5 o'clock P.M. 31

**New Jersey Railroad and Transportation Company.**—For Newark. Fare 25 cents. Leave New York at 8, 9, and 11 o'clock A.M., and 12½, 2, 3, 4½, 6½, and 8 o'clock P.M. Leave Newark at 7, 7½, 8, 9, 10½, A.M., and 1½, 4, 5½, 7½, 9½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave Newark at 11½ A.M., and 9½ P.M. 31

For Elizabethtown. Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Elizabethtown at 7, 7½, 8, 10½ A.M., 3½, 6½, 9½, P.M. 31

For Rahway. Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Rahway at 5½, 7½, 7½, 11½, A.M., 3, 6½, 9, P.M. 31

For New Brunswick. Fare 50 cents. Leave New York at 9 A.M., 4, 4½ P.M. Leave New Brunswick at 5½, 7½, 11, A.M., 8½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave New Brunswick at 12 M., and 8½ P.M. 31

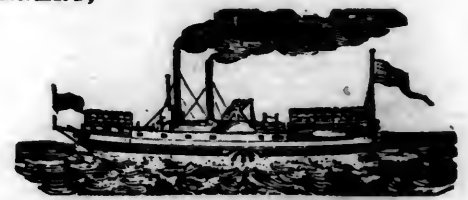
The commutation fare between New York and New Brunswick and intermediate places, including the ferry, \$65 per annum. 31

**Paterson Railroad. Leave**  
 New York, 9½ A.M., 12½, 5½ P.M. Leave Paterson, 8, 11½, A.M., 4 P.M. On Sundays, leave New York 9½ A.M., 5½ P.M. Leave Paterson, 8½ A.M., 4½ P.M. Passengers are advised to be at the ferry a few minutes before the stated hours of departure. Office 75 Courtland street. 31

**Morris and Essex Railroad.**  
 Leave New York, 8 a.m., 4½ p.m. Leave Newark, 9 a.m., 5½ p.m. Leave Morristown, 7 a.m. 3½ p.m. Passengers by the morning train to Morristown, will arrive there at 10½ o'clock, where stages will be in readiness to convey them to Schooley's Mountain, Washington, Belvidere and Easton, daily; to Succasunna, Stanhope, Newtown, Milford and Owego on Mondays, Wednesdays and Fridays; and to Rockaway, Dover, Sparta and Newton on Tuesdays, Thursdays and Saturdays. Passengers from Morristown will arrive in Newark in time to take the morning and afternoon trains from Trenton and Philadelphia. 31

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

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THURSDAY, AUGUST 28, 1845.

[WHOLE No. 478, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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A. & G. RALSTON & Co., Philadelphia, Penn. (See Adv.)  
THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM. PLAN

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

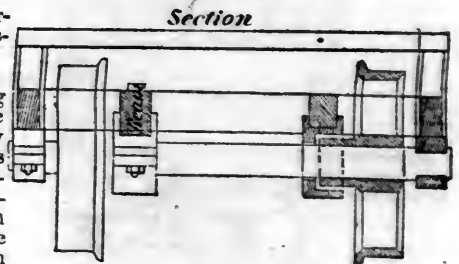
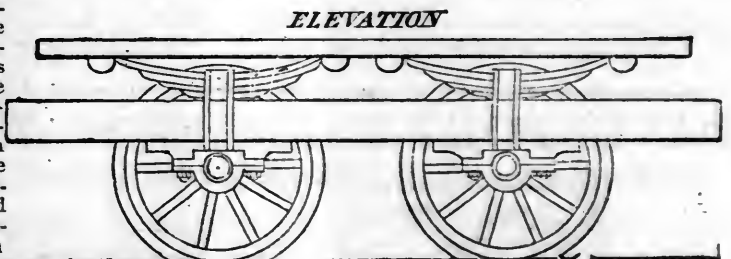
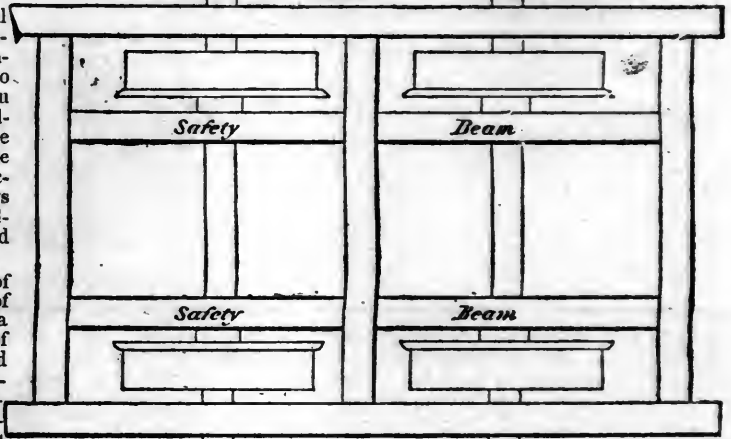
The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. **JOHN F. WINSLOW, Agent.**

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

**HENRY BURDEN, Agent.** Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

••• Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arrester have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

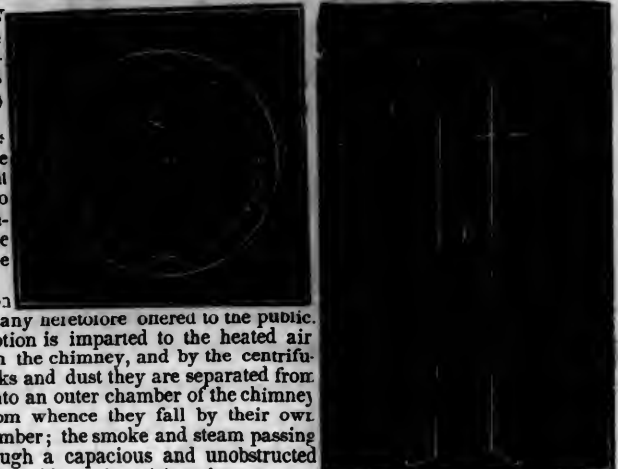
These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

••• The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45

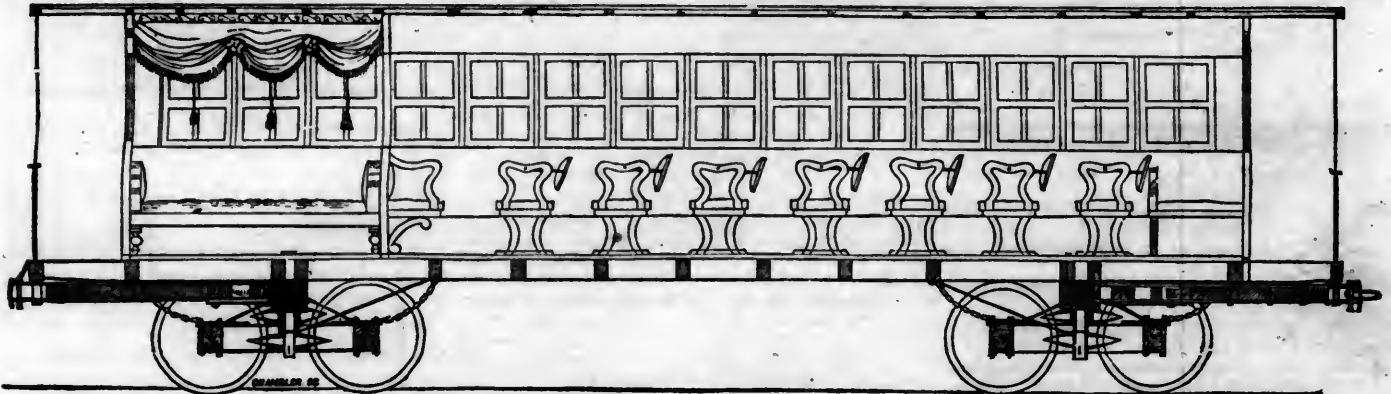


**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

The article is complete in itself, occupies but little space, is perfectly portable, and requires no brick work, not even to stand upon. It is valuable, not only in the saving of time and labor, but in the economy of fuel, as it has been ascertained by accurate measurement, that the saving in that article is fully two-thirds over other methods heretofore in use. They are now for the first time introduced into New York and Boston by the subscriber, who has the exclusive right for the New England states, New York and New Jersey, and are manufactured by

CURTIS & RANDALL, Boston; and by FORCE, GREEN & CO. New York.

**DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.**



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

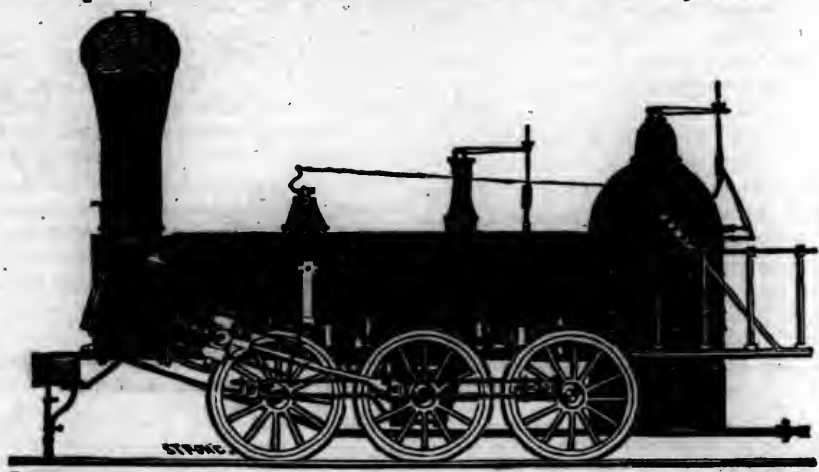
From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T. L. and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**

*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches Diameter of Cylinder,	× 20 inches Stroke.
"	2,	14	" " × 24 " "
"	3,	14 1/2	" " × 20 " "
"	4,	12 1/2	" " × 20 " "
"	5,	11 1/2	" " × 20 " "
"	6,	10 1/2	" " × 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.

**WILLIAM YOUNG,**  
President.

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Biluminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48 State st.,** or to **CURTIS, LEAVENS & CO., 106 State st., Boston,** or to **A. & G. RALSTON & Co., Philadelphia.**

**CYRUS ALGER & CO., South Boston Iron Company.**

LONG ISLAND RAILROAD.—It is reported in the papers that several rails were removed from the Long Island Railroad on the 22d inst. near St. George's Manor, and that, but for the precautionary measure of sending out a pioneer engine, in all probability a serious accident would have occurred to the passenger train. This is a high handed measure and a liberal reward should be offered by the president of the company for the detection and conviction of the *villains* who would thus hazard the safety and *lives* of passengers to gratify their personal feelings. If they have just claims against the company prosecute, *not persecute* them. What would be said of the company or of an individual who having claims against any one of the Long Island farmers, which he might not be able to satisfy, or which he did not deem equitable to the full amount claimed & therefore refused to pay it until it was adjusted—should set fire to his house in the night, or destroy his cattle and crops? Would not the perpetrators of such crimes be execrated by all right minded persons, and punished by the laws of the land? Most assuredly and so also should those be who would jeopard the lives of passengers on a railroad to spite its managers. No acts of the company can palliate the proceedings of the people, or rather of a few rioters, as we are sure the *people* of Long Island are not abettors of such a course—if they are it is with an ill grace that they complain that the company does not consult their convenience in running their trains.

We call upon the people of Long Island to ferret out the miscreants who have been guilty of this outrage—and upon the company to prosecute them to the extent of the law, and also to adjust and settle the difficulties between the company and the people—and at the same time to so arrange their business as to accommodate the business of the Island as the interests of the people and the company are *identical*.

**European Railroads.**

The Evening Post of 2d inst. gives the following graphic description of the *vertebral* railroad (that is to be) in Europe.

*European Railroads.*—Those who thought last year that the railroad movement in Europe was merely speculative, now acknowledge their error, and begin to consider it in its true light, as one of those changes in the mode of intercommunication which mark an era in the progress of civilization. The opposition to these projects came partly from the conservatives, who are in all countries opposed to any thing new, and from the miserable bureaucracy of some of the most enslaved states, who feared the extension of knowledge, and dreaded the facilities given

for the rapid movement of any other masses of men than their own troops.

The two great powers, however, of eastern Europe, one of them secure in the great extent of its sovereignty, and the other in the supine and emasculated condition of its people, gave a powerful stimulus to the extension of the great improvement of the age. The emperor of Russia foresaw in it the establishment of a splendid monument of his reign, and the prime minister of Austria, really anxious for the welfare and comforts of the people, provided they did not venture to think for themselves, projected and is now completing, a great chain of railroads, which will soon intersect the great continent of the old world, and diffuse the blessings of commerce and interchange of thought, from the wilds of Siberia to the pillars of Hercules.

The enumeration of these great works, which we extract from an English paper, does not include those of Austria or Italy, nor does it embrace many of the French and German roads. It is confined to one great Aosta of this system of circulation, and yet in that one line comprises a length of more than two thousand miles.

*Great Vertebral Railroad through Europe to Asia.*—In looking at the map of the railroads in Europe, either already executed or projected, a grand vertebral line of communication may be perceived, stretching from Lisbon to Konigsberg, the capital of Eastern Prussia. The following is the enumeration and length of the various railroads composing this gigantic line:

- |   |       |
|---|-------|
| 1. From Lisbon to Madrid, still only projected, by an Anglo-Portuguese Spanish company, by Alcantara, Almaraz, Talavera, and Escalona, showing a length of English miles..... | 350   |
| 2. From Madrid to the frontier of France, near Bayonne, passing by Calatayel and Pampeluna, projected by an English company, about.....                                       | 20    |
| 3. From Bayonne to Bordeaux, several companies formed—projected (except the part between Bordeaux and Teste, now open to the public).....                                     | 2     |
| 4. From Bordeaux to Orleans, by Angouleme, Poitiers, and Tours; in course of execution; conceded to the company Mackenzie.....  | 88    |
| 5. From Orleans to Paris; conceded to a French company, and open to circulation from 1843.....  | 83    |
| 6. The Great Northern Line from Paris, by Creil, Clermont, Amiens, and Arras, to Lille and Valenciennes; a line executed by the state, and almost terminated.....             | 210   |
| 6. From the Frontier of France, or rather from Valenciennes to Brussels; executed by the Belgian government, and open to the public since 1841.....                           | 52    |
| 8. From Brussels to Liege; executed by the Belgian government.....  | 48    |
| 9. From Liege to Aix-la-Chapelle and Cologne, open to the public since 1843.....  | 104   |
| 10. From Cologne, by Minden, Hanover, and Hildesheim, to Brunswick, now in course of construction.....  | 210   |
| 11. From Brunswick, by Magdeburgh to Berlin, terminated.....  | 100   |
| 12. From Berlin to Stettin, along the Baltic sea, terminated.....   | 90    |
| 13. From Stettin, by Stolea, Dantzic, and Elbing, to Konigsberg, in course of execution under the superintendence of the engineers of the Prussian government.....            | 241   |
| Total length.....   | 2,138 |

This grand European line will not stop short on the banks of the Pregel. If the emperor Nicholas gives permission, a company will immediately offer to extend it, by Tilsit, Kowno, Wilna and Smolensko, to the ancient capital of Russia; and it would be a still more easy matter to continue it in the direction of St. Petersburg, by Memel, Mittau, Riga, and Dorpat. This grand line would thus be joined to the railway which the Autocrat is at present constructing between the two capitals of his empire, a railroad which he intends continuing to Nishnei-Novogorod, a commercial town situated at the conflux of the Volga and the Oka, the rendezvous of the traders of Europe and central Asia.—From Nishnei-Novogorod steamers descend the Volga to Kasan and Astracan. In this latter city the emperor of Russia has lately got several steamers built, for the purpose of plying on the Caspian sea and keeping up commercial relations between Russia and Persia, Independent Tartary, and the provinces beyond the Caucasus. Thus, should peace continue, there will be no difficulty in a short time in travelling from the mouth of the Tagus to the very centre of Asia.—Whilst looking forward to the realization of this magnificent work, we can announce with certainty that in the course of 1846 two considerable portions of the vertebral line will be completed—one from Tours, by Paris and Brussels, to Cologne, and the other from Hanover, by Berlin, to Stettin.

**Tonawanda Railroad.**

The railroad from Rochester to Batavia has, we understand, been rebuilt in a very substantial manner and laid with a heavy plate rail. It has also, within the last year, been connected with the road eastward, so that there is not now as formerly, the trouble of carting baggage through the city from the depot to the street and the reverse, as there was no depot building, we believe in Rochester, for this road. It always affords us pleasure to hear that a company that began early—and this was one of the earliest in operation in the state—and has had serious obstacles to encounter, has surmounted them and is able to renew and improve its works. We take the following extract from an article in the Rochester Democrat, and we congratulate the people of Rochester and all others interested upon the result of their efforts. They will yet lay a heavy edge rail upon their road.

“The proprietors who had never despaired of the success of their enterprize, began, about a year since, with renewed energy to redeem the reputation of the road, and restore its waning fortunes. Through the means of a loan based upon increased capital stock, they have within a year completed a connection with the Eastern railroad, through the city of Rochester, with a solid H rail, at an expense of about \$35,000, and re-constructed thirty-three miles of their road from Ro-



chester to Batavia, with a heavy plate rail, in 1829, and it was opened for public use in at an expense of about \$130,000, making a 1831. Since that time the transportation over total expenditure of \$165,000. All this has been done without interrupting the running of the road. Much energy, perseverance, activity and ingenuity, were required on the part of the company and the contractors to effect this; and much credit is due to Messrs. Dutton and Fowler, the contractors, and Asa Sprague, esq., the superintendent, for completing this work so thoroughly and so promptly. The whole work is thoroughly done with a heavy wooden superstructure, and it is perhaps the best specimen of a railroad with plate in the United States. The re-construction was completed on Saturday, July 5, a third or day train was put on between Rochester and Buffalo for the accommodation of pleasure and local travel. The time saved in passing between Rochester and Buffalo by the new structure is full one hour or one-fifth the former time. A great portion of the debt created to accomplish this work has been paid by a sale of the increased stock at par."

**Railroads in Schuylkill County, Pa.**

The following is from that excellent paper, the *Miners' Journal*, published at Pottsville. It is the commencement of precisely what we have long desired to see published by the newspapers in the vicinity of the different railroads. There are several railroads in different parts of the country, in relation to which we have not been able to obtain accurate or even any, details. It is so in relation to the numerous short roads in the coal region of Pennsylvania; we are therefore the more obliged to the editor of the *Journal* for having commenced a good work, in which we hope he will persevere, and join us in calling upon the editors of papers residing in other parts of the coal region, and indeed, upon all editors residing near any railroad in the United States, to obtain and publish, a concise description, with full details of them, similar to the one which we now give of the "Mine Hill and Schuylkill Haven railroad." If they will do so, we will re-publish all, and thus put in the possession of each, the details of all the roads; by which thousands of people will be furnished with very desirable information. What say you gentlemen of the press, will you obtain and publish a description of the roads in your vicinity?

"Few of our readers are acquainted with the cost of the public railroads constructed in Schuylkill county while the trade was in its infancy,—and as these roads are daily rising in the scale of importance, we have taken measures to procure the necessary information correctly, and will lay the same before our readers as we obtain it. If it serves no other purpose, it will be data to refer to hereafter. We commence with *The Mine Hill and Schuylkill Haven Railroad*. This road extends from Schuylkill Haven to the Broad mountain a distance of 10 miles. It has three branches—one of which extends up the West Branch of the Schuylkill a distance of 4½ miles—another up Muddy Branch 3 miles, and another up Wolf Creek about 2 miles—making the total length of the road at present 19½ miles.

The company was incorporated by an act passed on the 24th, March 1828.

The construction of the road commenced

The road and its laterals, are constructed with heavy iron T rails the whole distance with trifling exceptions, and with a double track. On the descending track for the whole extent of road and on both tracks below the junctions of the West and North West branches of the Schuylkill, the rails are of an average weight of about sixty pounds to the yard; on the ascending track above the junction, thirty-six pounds to the yard. These rails are secured by cast iron chairs, bolted or screwed into wooden sleepers resting on mud-sills and placed at distances of three feet apart. No steam power has been used on this road.

In addition to the above, the company have during the present season [1845] extended the Muddy Branch lateral one mile with a double track, and have determined to extend a lateral into the Swatara coal region about 8 miles, which will be commenced as soon as the company have fixed on the most eligible route.

The superstructure of the road as originally constructed was a wooden rail with flat iron bar. The whole of the wooden rail with light flat bar was superceded, partly by a T rail, which has since given way to one of greater weight. During the present season about 3 miles of the road have been relaid—and an extension made of one mile.

The whole cost of the road as at present constructed, is.....\$393,881 10  
Real estate [collector's house]..... 2,296 23

The capital stock consists of  
7019 shares of \$50 each,  
amounting to.....350,950  
A loan of \$25,000 part of  
mortgage remaining unpaid. 25,000

Contingent fund..... 20,221 25

The alterations of the superstructure of the road as above stated, prevent the wear and tear of it from being estimated with anything like precision.

This is decidedly one of the most prosperous railroad companies in the United States. The dividends have exceeded 12 per cent. per annum, during which time its length has been considerably extended, and nearly the whole route relaid with heavy iron rails out of the profits of the company. The stock is now quoted at \$80 for \$50 paid. Last year 334,000 tons of coal were transported over the road, and this year the quantity will exceed 450,000 tons.

**Reduction of Fares on Railways.**—In the early development of the railway system in this country says the *London Mining Journal*, it was generally feared that the companies would become a giant monopoly; and that when the coaches were driven off the common roads, the public would be subject to any extravagant charges, which the caprice, or cupidity, of the executive might impose, and for the first few years there were good grounds for those fears; but, as the system extended, and some spirited directors began

to try the experiment of cheap fares, it was soon found they not only tended to the accommodation and comfort of the public, but to the profits of the proprietors. Such reduction of fares on the different great lines has already had its beneficial effect on the coffers of the various companies, who have judiciously taken into consideration the facilities the public have been looking forward to for some time—"cheap travelling," and which will insure a greater traffic on the lines, and maintain their stability in these days of railway competition.

The following return of the London and Birmingham railway is a convincing proof of the benefit of this reduction compared with last year:—Week ending July 19th, 1844, trucks 1215, tonnage 2955, and receipts £3,609; for the same period of 1845, trucks 2203, tonnage 5282, and receipts £3355—showing an increase of 2327 tons in traffic, while the difference in the money returns is only £954 less than formerly—viz., before the reduction in June. For the week ending July 26th, 1845, the total receipts for passengers, parcels, mails, carriages, horses, merchandize, and cattle, £22,504 4s. 10d. A reduction of 10s. in 23s. took place on the tonnage of goods since last year, which, it will be seen, immediately had the effect of nearly doubling the quantity, and no doubt will gradually increase. On the South-Eastern railway a reduction of 3s. in the first class, 2s. in the second, and 1s. 4d. in the third, has been adopted by the directors. The following are the comparative fares:—

	1st class.	2d class.	3d class.
Old fares	18s.	12s.	7s. 4d.
New fares.	15s.	10s.	6s. 0d.

Day tickets to be granted one-fourth below the regular charges, and season tickets to be issued; these alterations will come into operation on the 1st of September. The directors of the new railways passed this session cannot be too particular in turning their attention to this point. In France the benefits of cheap travelling is most forcibly shown on the Paris and Rouen railway, which averages 155,922fr. per week—whilst last year it was only 131,620fr. On the Paris and Orleans 153,016fr.; last year it was only 128,810fr. On the Paris and Versailles, St-Germain, and other lines, the traffic has increased.

Amount of all the tolls received on all the New York state canals in each of the following years:

	2d week in Aug.	Total to 15th Aug.
1839.....	\$30,907	\$325,377
1840.....	39,820	792,867
1841.....	46,125	1,003,295
1842.....	32,269	811,755
1843.....	54,823	972,496
1844.....	64,971	1,261,636
1845.....	58,047	1,223,080

It will be seen that the amount thus far received is \$38,000 behind the last year, but considerably in advance of 1843.

The business of the Reading railroad for the second week in August in the last three years was:

	Business.	Tonnage.
Week ending August 19, 1843..	\$11,947	6,728
" " 17, 1844..	16,627	12,129
" " 16, 1845..	29,004	23,820

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.	
							Per share.	Per cent. per annum.					
							£	s. d.	£				
Arboath and Forfar.....	15	102,000	35,000	138,870			0	12 6 2	10 0	25 20	Aberdeen.....	1,600,000	
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5 0 2	10 0	100 100	Barnsley Junction.....	200,000	
Bramling Junction.....	23	161,700	365,470	481,452						50 54	Belfast and Ballymena....	385,000	
Bristol and Gloucester.....	37½	400,000	211,000	657,825					nihil.	30 59	Blackburn and Accrington....	400,000	
Chester and Birkenhead.....	14½	750,000	143,170	518,989	5,856	13,148	0	10 0 2	0 0	50 60	Birk. and Ches. Junction....	1,000,000	
Dublin and Drogheda.....	31	450,000	150,000	582,254					nihil.	60 115	Bolt, Wigan and Liverpool	800,000	
Dublin and Kingston.....	6	200,000	152,200	349,736			9	0 0 9	0 0	100 251	Caledonian.....	1,800,000	
Dundee and Arbroath.....	16½	100,000	49,445	153,416	2,989	6,993	1	5 0 5	0 0	25 36	Cambridge and Lincoln....	1,250,000	
Durham and Sunderland.....	18½	169,350	124,055	270,392	9,889	17,702			nihil.	50 25	Chatham and Portsmouth....	5,000,000	
East County and North and East.....	86½	4,443,200	1,341,155	3,931,905	47,385	118,726	1	6 6		45 57	Chester and Wrexham....	120,000	
Edinburgh and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1	5 0 5	0 0	50 78	Churnet valley.....	1,800,000	
Glasgow, Paisley and Ayr.....	51	937,500		1,071,258	12,446	36,736	1	5 0 5	0 0	50 72	Direct Northern to York....	4,000,000	
Glasgow, Paisley and Greenock.....	22½	650,000	216,666	797,643	11,830	23,447	0	5 0 2	0 0	25 21	Dublin and Belfast.....	950,000	
Grand Junction.....	104	2,478,712		2,503,671	84,309	195,080	5	0 10 0	0 0	100 239	Dundee and Perth.....	250,000	
Great North of England.....	45	969,000	581,017	1,307,487	12,201	36,189	3	0 0 6	0 0	100 230	Edinburgh and Northern....	800,000	
Great Western.....	221½	4,650,000	3,679,343	7,445,689	143,279	440,046	4	0 0 8	0 0	80 215	Ely and Bedford.....	270,000	
Hartlepool.....	15½	438,000	155,540	719,205					8 0 0	100 00	Glasgow, Dum. & Carlisle..	1,300,000	
Leicester and Swannington.....	16½	140,000		140,000	2,207	6,317	1	5 0 5	0 0	50 00	Gt. South and West Ext....	1,200,000	
Liverpool and Manchester.....	32	1,209,000	497,750	1,785,000	64,885	141,252	5	0 0 10	0 0	100 214	Gt. Grimsby and Sheffield..	600,000	
Llanelly.....	27	200,000	44,000	221,624			1	0 0 2	0 0	87 00	Harwich and E. coun. Jun..	160,000	
London and Birmingham.....	202½	6,874,976	1,928,845	6,614,005	96,413	456,997	5	0 0 10	0 0	100 245	Huddersfield & M. rl. & cl.	600,000	
London and Blackwall.....	3½	804,000	266,000	1,768,851	15,978	23,870	0	3 0 1	10 0	16 10	Kendal and Windermere..	125,000	
London and Brighton.....	56	1,935,000	705,000	2,637,753	30,490	130,156	1	10 0 6	0 0	50 77	Leeds and Dewsbury.....	400,000	
London and Croyden.....	8½	550,000	229,000	761,885	7,583	10,545	0	8 0 4	0 0	14 23	Leeds and Thirsk.....	800,000	
London and Greenwich.....	3½	759,383	233,300	1,040,930	15,193	28,933			nihil.	13 11	Liv. Ormskirck and Preston	600,000	
London and South Western.....	92½	2,222,100	630,100	2,604,405	89,439	190,631	2	0 0 10	0 0	41 82	London and Portsmouth....	1,750,000	
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1	0 0 5	0 0	40 62	London and York.....	5,000,000	
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2	2 0 4	10 0	93 169	Londonderry & Enniskillen	500,000	
Manchester and Leeds and Hull.....	87	2,937,500	1,943,932	3,921,593	46,653	156,761			8 10 10	60 470	Lynn and Ely.....	200,000	
Midland railway.....	179½	5,158,900	1,719,630	6,279,838	75,227	276,129	3	0 0 6	0 0	100 192	Manchester, Bury and Ross	300,000	
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	46,745	5	0 0 5	0 0	100 113	Manchester and Buxton....	250,000	
Newcastle and Darlington.....	23	500,000		405,728			1	0 0 8	0 0	21 56	Mullingar and Athlone....		
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466			6 9 0	50 69	Newcastle and Berwick....	700,000	
North Union.....	39	739,201	308,306	1,028,593	24,788	37,794	2	10 0 6	5 0	100 176	Richmond & W. End Junc..		
Paris and Orleans.....	82	1,600,000	400,000	1,978,415					8 0 0	20 45	Scottish Central.....	700,000	
Paris and Rouen.....	84	1,440,000			31,247	91,171			8 0 0	20 40	Sheffield and Lincolnshire.	650,000	
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066			4 0 0	50 32	Shrewsbury and Gd. Junc..	400,000	
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876			nihil.	87 135	Shrew. Wolv. Dudly & B..	900,000	
South Eastern.....	88	2,996,000	1,530,277	3,464,172	69,288	139,042			3 1 4	33 48	Trent Valley.....	900,000	
Taff Vale.....	30	465,000	195,000	595,079	9,115	22,692	1	17 7	3 15 0	100 104	West London Extension....	64,000	
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0	15 0 5	1 8	32 52	West Yorkshire.....	1,000,000	
Yarmouth and Norwich.....	20½	187,500	62,500	230,036	5,186	10,008	1	0 0 5	0 0	20 29	Whitehaven and Maryport	100,000	
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	1,107,146	31,349	75,474	2	10 0 10	0 0	50 115	FRENCH RAILWAYS.		

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15½	15½	Loughborough.....	70	142½	142½	70	1140	
Anti Dry Rot.....	10,000				2		Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35		34½		Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27½	27	Mersey and Irwell.....	500	100	1 0	10		
Gt Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2½	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6½		Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1½		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental..	11,493	50	50	7	64½	65	Regents or Loncon.....	21,418	33½	33½	2½	25	25
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....				6			Somerset coal.....	800	150	150	7½	123	123
Reversionary Int. Soc.....	5,387	100	100	4½	104	104	Stafford and Worcester...	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36½	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7½	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100				Seyern & Why & Rail Av.	3,762	26½	26½	5½	30	30

Canals.

Ashby de la Zouch.....	1,432	113	av.	4	70	70	Trent and Mersey.....	2,600	50	50	65	495	
Barnsley.....	100	100		14	180	180	Thames and Medway.....	8,149	19½	19½		10	10
Birmingham, 1-16 share..	3,000	118½		10	150	160	Warwick and Birmingham..	1,000	100	100	10½	167	
Do. and Liverpool Junction	4,000	160			13½	13½	Warwick and Napton.....	980	100	100	8½	122	
Coventry.....	500	100		20	365	365	Water Works.						
Cromford.....	460	do.	do.	24	250	250	Birmingham.....	4,800	25	25	3½	28	28
Derby.....	600	do.	do.	9	105	105	East London.....	4,433	100	100	8	223	225
Erewash.....	231	do.	do.	32	440	440	Grand Junction.....	5,500	av.	41 2-3	7½	88	90
Forth and Clyde.....	1,297	400½	40½	4	440	440	New River L. B. Ann.....	1,500			2½		
Grand Junction.....	11,600	100	100	7	162	161½	Manchester and Salford....	6,486	av.	30	8½	57	57
Grand Surrey.....	1,500	do.	do.		20		Vauxhall, lt. S. London....	1,000		100	5	55	55
Gloucester and Rerkley....	5,000	do.	do.		8	8	West Middlesex.....	8,294	av.	63½	6½	126	127
Grantham.....	749	150	150	8	185	185	Docks.						
Lancaster.....	11,699	47½	47½	3	40	40	Commercial Dock.....	1,065	100	100	3	>0	
Leeds and Liverpool.....	2,897	100	100	34	640	640	ast and West India.....		sto.		5½	137	
Leicester.....	545	14	140	9	139	139	ondon.....	3,238,310	sto.		4½	114½	115
							Katharine.....	1,352,752	sto.		5	116	171
							athampton.....	7,000	50	50			

AMERICAN STATE WORKS AND CANALS, ETC.

STATE WORKS.		Length in miles.	Cost.	1843.		1844.		The State Canals are all 4 feet deep, and the locks are 13 to 17 feet wide, and 80 to 90 feet in length.
				Income.	Expensd.	Income.	Expensd.	
N. Y.	1 Black river canal.....	35	1,524,967					<p>The six millions paid to the canal fund from auction and salt duties are not included in the estimate of cost. The Genesee valley and the Black river canals require large sums for their completion, the interest of which additional sum is much greater than the estimated gross income of these canals when finished. The sums required to complete these two canals are \$2,000,000 and \$600,000, making their total cost when finished \$5,553,000 and \$2,409,000; an expenditure incurred on estimated incomes (admitted to be liberal.) of \$39,000 and \$14,000 respectively.</p> <p>The total receipts from the works of Pennsylvania for 1843 were \$1,019,401; for 1844 \$1,164,326, and the cost about 30 millions.</p> <p>The receipts for 1844 were as follows:</p> <p>Canal tolls, - - - - - 578,404                      Railroad tolls, - - - - - 252,855                      Motive power, - - - - - 319,590                      Trucks, - - - - - 13,477                      of which \$585,922 is from 118 miles of railroad, and \$578,404 from 550 miles of canal.</p> <p>The canals of Ohio are supported by a property tax of 5¢ mills on the dollar. There are 853 miles of canal in the State, which yielded in 1843 \$471,623, and in 1844 \$515,393, the cost, 1st Jan. '43 being \$15,577,233. The increase of '44 over '43 is only \$43,770, though the year '44 has exhibited a greater increase throughout the country than ever before known.</p> <p>These 21 millions on sundry works yield no nicome whatever.</p> <p>The central railroad yields above 6 per cent., and is the only State work—the Erie canal excepted—which is able to stand alone.</p>
"	2 Cayuga and Seneca.....	21	237,000	16,557	10,953	24,618	14,443	
"	3 Champlain canal.....	64	1,251,604	102,308		116,739		
"	4 Chemung.....	23	684,600	8,140	14,486	14,385	12,740	
"	5 Chenango.....	97	2,420,000	16,195	15,967	22,179	15,960	
"	6 Crooked lake.....	8	156,777	461	3,674	1,498	3,951	
"	7 Erie—enlargement of.....	363	12,648,852	1,880,316				
"	8 Genesee valley.....	120	3,739,000					
"	9 52 miles opened, cost \$1,500,000.....			12,292	13,819	19,641	15,557	
"	10 Oneida lake.....	6	50,000	225	2,239	621	1,636	
"	11 Oswego.....	38	565,437	29,147	22,742	56,165	28,599	
Pa.	12 Beaver division canal.....	25				7,381	5,386	
"	13 Delaware canal.....	60				109,278	22,870	
"	14 French creek.....	45						
"	15 Seneca river towing path.....		69,276			391		
"	16 Columbia railroad.....	82½	4,201,969			443,336	205,067	
"	17 Eastern division.....	36				179,781	138,915	
"	18 Juniata canal.....	93						
"	19 Portage railroad.....	36½	1,828,461			351,102	248,943	
"	20 Western division canal.....	105						
"	21 North branch Susquehanna canal.....	73				101,949	57,633	
"	22 West.....	72						
Ohio	23 Hocking canal.....	56	975,130	4,757		5,236	4,139	
"	24 Miami canal.....	85	1,660,742	68,640	38,826	77,844	23,341	
"	25 Miami extension.....	105	2,856,636	8,291		12,723	14,741	
"	26 Miami northern division.....	35	322,000			unfin'd.		
"	27 Muskingum.....	91	1,627,318	23,167		29,385	15,027	
"	28 Ohio.....	334	4,600,000	322,754	123,398	343,711	113,210	
"	29 Wabash.....	91	3,028,340	35,922	6,400	45,589	12,817	
"	30 Walhonding.....	25	607,269	838	39,005	1,977	1,238	
"	31 Western road.....	31	255,015	7,254	1,782	8,747	2,929	
Ind.	32 Sundry works.....		11,000,000					
"	33 Maume canal.....							
Ill.	34 Sundry works.....		10,000,000					
Mich.	35 Central railroad.....	110	1,842,308	149,987	75,960	211,170	89,420	
"	36 Southern railroad.....	68	936,295	24,064	7,907	60,341	70,000	

CANALS.	Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
			Gross.	Nett.		Gross.	Nett.			
Blackstone.....										
Bald Eagle Navigation.....	25	400,000								
Beaver and Sandy, (part).....		1,000,000								
Charleston, (S. C.).....										
Chesapeake and Ohio.....	184	12,370,470	47,637							We may, perhaps, at some future time be enabled to give the particulars of all these canals.
Conestota.....	12	300,000								The Chesapeake and Ohio canal is not yet completed to the coal mines, hence its trifling income.
Delaware and Chesapeake.....	13									The enlargement of the Schuylkill canal has been commenced.
Schuylkill.....	108	3,500,000	279,795	102,221		190,693	120,624		26	The Morris canal was lately sold for one million, about one-fourth of its cost. It is said in the papers that it is to be enlarged. We have seen no report, nor heard of the appointment of any engineer.
Farmington.....										
James river and Kenhawa.....										
Middlesex.....										
Port Deposit.....	10	200,000								
Delaware and Raritan.....	43	2,900,000	99,623	53,327		131,491	84,455			
Southwark.....		300,000								
Tide Water.....	45	2,900,000								
Union.....	80	2,000,000								
Morris.....	101	1,000,000							27½	
Dismal Swamp.....										

CANADIAN CANALS.										Income.		
	Length in miles.	No. of locks.	Lockage in feet.	Size of locks.			Width of canal.		Estimate.	Expended to Sept. 1843.	1843.	1844.
				Length of chamber.	Width.	Depth on mitre sill.	Bottom.	Surface.				
The Welland canal.....				feet.	feet.	feet.	feet.	feet.	3,948,572	2,485,572	64,658	
{ Main trunk from Port Colborne to Port Dalhousie	28	31	328	150	26 1-2	8 1-2	45	81				
{ Junction branch to Dunville { not added	21	1	6	150	26 1-2	8 1-2	35	71				
{ Broad creek branch to Port Maitland { below.	1 1-2	1	6	200	45	9	45	85				
The St. Lawrence canal.....												
{ Galops and Port Cardinal.....	2	2	7	200	45	9	50	90				
{ Rapid Plat.....	4	2	11 1-2	200	45	9	50	90	672,498	973		
{ Farren's point.....	3-4	1	3 1-2	200	45	9	50	90				
Cornwall, passing the Long Sault rapids.....	11 1-2	7	48	200	55	9	100	150	865,372	1,665,663		
Beauharnois, do. Coteau, Cedars and Cascades road	11 1-4	9	82 1-2	200	45	9	80	120	1,190,087	275,426		
Lachine, do. Lachine rapids.....	8 1-2	5	44 1-2	200	45	9	80	120	old canal 1,001,333	400,000	29,288	
Elargement of do.....										61,429		
Total from lake Erie to the sea.....	12	57	525									
Chambly.....	66	9	74	120	24	6	36	60	200,000	440,000	1,409	

COAL COMPANIES.										REMARKS.		
	Length in miles.	R. rd. Canals.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.		
				Gross.	Nett.		Gross.	Nett.				
Delaware and Hudson.....	16	108	2,800,000	930,203	196,702	10				130		
Lehigh.....	20	72	6,000,000							31		

RAILROADS.		Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on hare	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices	SALES.	
							Gross.	Nett.		Gross.	Nett.			Week ending Aug. 23.	Price
Me.	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	101	24	101½
N. H.	2 Concord.....	35	750,000									12	65		
Mass.	3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	114	6	114½
"	4 Boston and Maine extension.....	17 1-4	455,703	unfin.											
"	5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	116	3	108
"	6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	112	15	112½
"	7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	116½	59	116½
"	8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
"	9 Charlestown branch.....		280,260						13	34,654	13,971	5½	112½	50	80
"	10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	108½	38	108½
"	11 Fitchburg.....	50	1,150,000	just opn'd						42,759	26,835		124		
"	12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	123		
"	13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
"	14 Northampton and Springfield.....		172,883	unfin.											
"	15 Norwich and Worcester.....	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	66½	4,550	67
"	16 Old Colony.....		87,820	unfin.									105	40	105
"	17 Stoughton branch.....	4	63,075	unfin.											
"	18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	118		
"	19 Vermont and Massachusetts.....														
"	20 West Stockbridge.....	3	41,516	200		100						4			
"	21 Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	99½	378	97½
"	22 Worcester branch to Milbury.....		8,431	506											
"	23 Housatonic, (10 months.).....	74	1,244,123							150,000			26	35	26
Con	24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	95	25	93
"	25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
"	26 Stonington, (year ending 1st Sept.).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29	770	29
N. Y.	27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0			
"	28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109½	10	109
"	29 Auburn and Syracuse.....	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
"	30 Buffalo and Niagara.....	22	200,000		1,500								100		
"	31 Erie, (446 miles.).....		5,000,000										26	650	26½
"	32 Erie, opened.....	53						48,000		126,020	59,075				
"	33 Harlem.....	26	1,206,231							140,685	62,399		62	1,150	60½
"	34 Hudson and Berkshire.....	31	575,613			50				35,029	1,789	0	11½		
"	35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	62	6,750	61½
"	36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	56	450	56½
"	37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
"	38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
"	39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117		
"	40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
"	41 Troy and Greenbush.....	6	180,000										89	10	89
"	42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
"	43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132	20	132
N. J.	44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		112		
"	45 Elizabethtown and Somerville.....	26	500,000												
"	46 New Jersey.....	34	2,000,000										95	100	95½
"	47 Paterson.....	16	500,000									6	90	1,225	88½
Pa.	48 Beaver Meadow.....	26	1,000,000												
"	49 Cumberland Valley.....	46	1,250,000												
"	50 Harrisburg and Lancaster.....	36	860,000										30		
"	51 Hazleton branch.....	10	120,000												
"	52 Little Schuylkill.....	29	900,000												
"	53 Blossburg and Corning.....	40	600,000												
"	54 Mauch Chunk.....	9	100,000												
"	55 Minehill and Schuylkill Haven.....	19 1-2	396,117	25,000	7,019	50			12			12	80		
"	56 Norristown.....	20	800,000										6½		
"	57 Philadelphia and Trenton.....	30	400,000										104		
"	58 Pottsville and Danville.....	29 1-2	1,500,000												
"	59 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		50	1,650	49½
"	60 Schuylkill valley.....	10	1,000,000												
"	61 Williamsport and Elmira.....	25	400,000				20,000								
"	62 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		15½	11,831	15½
Del.	63 Frenchtown.....	16	600,000												
Md.	64 Baltimore and Ohio, (1st Oct.).....	183	7,623,600				575,235	279,402		658,620	346,946		49½	37	48½
"	65 Baltimore and Susquehanna.....	58	3,000,000										21		
"	66 Baltimore and Washington.....	38	1,800,000												
Va.	67 Greensville and Roanoke.....	18	284,433	37,544	2,000	100				212,129	104,529		84		
"	68 Petersburg.....	63	969,880	63,000	7,690	100				25,368	6,074		28		
"	69 Portsmouth and Roanoke.....	78 1-2	1,454,171							122,871	72,898	3	77		
"	70 Richmond, Fredericksb'g and Potomac.....	76	800,000							185,243	85,688	6			
"	71 Richmond and Petersburg.....	22 1-2	700,000												
"	72 Winchester and Potomac.....	32	500,000												
N. C.	73 Raleigh and Gaston.....	84 1-2	1,360,000												
"	74 Wilmington and Raleigh.....	161	1,800,000												
S. C.	75 South Carolina.....	136								532,871	140,196	5			
"	76 Columbia.....	66	5,671,452		34,410	75	201,464	77,456		328,425	180,704				
Ga.	77 Central.....	190	2,581,723				227,532	93,190							
"	78 Georgia.....	147 1-2	2,650,000				248,026	158,207		248,096	147,523				
"	79 Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Ky.	80 Lexington and Ohio.....	40	450,000												
Ohio	81 Little Miami.....	40	400,000												
"	82 Mad river.....	40	152,000												
Ind.	83 Madison and Indianapolis.....	56	212,000												
Can.	84 Champlain and St. Lawrence.....	15						12,000		58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.

Thursday, August 28, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 23,625 tons, and by canal 7,814 15, making 31,439 03 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total.....	221,361
From Schuylkill Haven—total.....	237,233
From Port Clinton—total.....	11,110

Total by railroad.....469,704

BY CANAL.

From Pottsville and Port Carbon—total.....	81,888
From Schuylkill Haven—total tons.....	25,641
From Port Clinton.....	28,728

Total by canal.....133,259

Total by railroad and canal.....602,963

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines, -	112,046
Room run do., -	41,569—153,615
Beaver Meadow railroad and coal co.,	49,227
From Penn Haven—Hazleton coal co.,	40,533
From Rock Port—Buck Mountain coal co.,	12,013

WYOMING COAL TRADE—total.....	255,388
PINE GROVE COAL TRADE—total.....	91,326
MINEHILL and SCHUYLKILL HAVEN RAILROAD—total tons.....	39,741
MOUNT CARBON RAILROAD—total tons.....	259,030
MILL CREEK RAILROAD—total.....	158,502
	39,712

[Miners' Journal.]

OMISSION.—We desire to acknowledge, even at this late day, our obligations to the editors of the *Tribune* for the engraving of the steam ship *Great Britain*, which, with description appeared in our last. This acknowledgement was prepared to accompany the description, which, however, occupied so much space that the remarks in relation to it were excluded.

LONG ISLAND RAILROAD.—The receipts upon this road are increasing rapidly. They were for the first sixteen days in August \$24,140 11. This looks well, but it is only the beginning of what it might be, of what it will be, when the managers adopt a system which enables the people to avail themselves of the full benefit of the road. There are hundreds of people in this city who would like to live out of it, and especially on Long Island, if they could be assured that they could go and come at convenient hours. To accommodate them trains must run frequently, and what is of equal importance, regularly at stated hours throughout the year—that is at certain hours during the mild season, and at other hours during the winter, and they should run early and late, with or without passengers until the people could see that they were sure to get home, up to a certain hour at all times, and then they will avail themselves of the railroad, and its stock will take a high stand in the market; and real estate will ad-

vance along the line of the road, especially at Jamaica, which will in a few years become a suburb of New-York; and hundreds of families, which could and would avail themselves of a country residence by means of the railroad, would enjoy more health and happiness. They must also court the Long Island business—of that, by proper management, they may be always sure—as they will have many rivals for the “long travel.”

As a proof of the correctness of the policy for railroad companies, emanating from large cities, to adopt means to create business, we again refer to the report of the Dublin, Kingston and Dalkey railroad, which will be found in No. 22, or 29th May of present volume. In that report is the following—when speaking of the causes of increase of business, “but there is one of those causes so peculiar that we desire especially to call your attention to it, as it has grown out of that system which you have long since sanctioned, and which after much discouragement has led to such gratifying results in the management of our undertaking, namely, that of endeavoring to create a traffic, and to increase it to the greatest possible extent, by affording to the public the utmost possible accommodation, and at the very lowest rates,” and what do you suppose was the result of such a course of measures in the five years terminating 28th February last? It was an increase from 1,280,761 passengers in the year ending February 1840, to 2,234,430, in the year ending with February 1845, which enabled them to pay 9 per cent. on a road which cost £59,833 per mile! Who will deny that the Long Island company may also divide nine per cent. if they manage properly,—if they accommodate the people of the city and the Island as they may do? Look to it gentlemen.

RAILROAD ACCIDENT.—A sad accident occurred on the railroad at Albany, on the 21st inst., at the point where it crosses the main street towards the north, or broad-way, by which Mrs. Anthony was killed and Mr. Lyman injured, and the wonder is that all in the carriage were not killed. According to the report the blame rests entirely on the driver George Wilson, of Cohoes, as he was warned by the man in charge of the crossing not to attempt to pass, yet he persisted and the loss of life and maimed limbs was the consequence. Is he not liable to the penalty of manslaughter?

Now a word to the railroad company, who owe it to the community to use all possible precaution to avoid such accidents—would not substantial posts with chains to stretch across the street on each side of the rail track, in charge of a careful resolute man have prevented this? It appears so to us, and we think it your duty to prevent a repetition of similar accidents in future.

The frequency, we like to have said the rapid increase, of accidents on railroads demands energy and vigilance on the part of those in charge of them. They must recollect that many of their passengers have little idea of the various ways in which accidents may occur; they are not familiar with the details, and should therefore be prevented from exposing themselves.

We have often felt called upon to speak of the dangers arising from narrow bridges, and narrow gate-ways into depots. With all the care of the conductor possible, passengers will thoughtlessly expose themselves in passing bridges and in entering depots—structures too narrow, and therefore dangerous, in the first place, have become still more so by the increased width of the cars; and they should therefore in all cases be made wider as soon as it is possible to do so; and more effectual measures must be taken to avoid accidents at the crossings of high ways and streets. A careful man and

good strong chains stretched across streets, and a swing bar, or a chain at the crossings of high ways which should be always in their place at the hour when the engine should be there, and opened to let teams pass if need be until the train is within sight or hearing. Accidents, on railroads and steamboats, are much more numerous in this country than in England, where the number of passengers who travel is much greater than here; and why is it so? Is it because those who have the management are held to a much more strict account? We think so and therefore believe that with greater care fewer accidents would occur here.

RAILROAD RECEIPTS continue favorable in this country as well as in Europe. The income on the Central, Georgia, railroad, was \$43,749 greater during April, May, June and July this, than for the same period last year, and \$70,698 greater than in 1843. They will be still greater next year and continue to increase. On the Western railroad the receipts this year, to 16th inst., were \$34,959 greater than last year. At a reduced rate of fare, we are of the opinion that the increase would have been still greater. Such has been the effect of reductions in England, especially on the Grand Junction railway, as was stated in our last number. Others might also be referred to, and we think the Long Island road will prove the truth of this position. They charge their “through” travel lower fares and give them higher speed, we believe, than any other railroad in the country; we wish we could say as much in relation to their way—but they will learn wisdom.

LEXINGTON AND OHIO RAILROAD.—It will be recollected that we recently published a statement in relation to this railroad from the *Louisville Democrat*, we have received a letter from a gentleman, an engineer of great experience, who is familiar with this road, its cost, its working, its present business and its future prospects, and he assures us that the estimate given in that statement is entirely within the mark, and may be implicitly relied on. So we think, unless the cost of iron is put too low, and would therefore put the cost of completion and furnishing at \$2,000,000. We are also of the opinion that the traffic is put to low. If the present road of 28 miles transports 11,000 tons of freight and 18,500 passengers, the road when worked its entire length, 93 miles, will transport more than three times that amount and number.

We consider this an important road to Kentucky which ought to be completed without delay—and we are encouraged to believe that it will be under the management of its present able and experienced president *Wm. R. McKee, Esq.* It certainly will if the people of Kentucky have any enterprize or public spirit—as it will lead to other works of the kind, and open to her city of Louisville an extensive business which she cannot otherwise obtain. By a reference to our advertising pages the business arrangements of this road will be seen.

CANANDAIGUA AND CORNING RAILROAD.—A preliminary survey has been made of the proposed route for a railroad from Canandaigua to Corning, designed as a connecting link between the Albany and Buffalo and New York and Erie railroads. The distance to Corning is 69 miles and the estimated cost of road, and appendages, ready for use is 950,100 dollars, and its net income 119,252 dollars. Or 12½ per cent. This estimate is based upon a superstructure similar to that of the Utica and Syracuse road, but the engineer Mr. Marvin Porter, recommends a more expensive road—the use of heavier iron and puts the cost at 1,306,530 dollars, and so do we by all means, use the heavy rail, the cost is something more, yet the expense will be less in the end, and the safety greater; therefore use the heavy rail.

Georgia Railroad and Banking Co.

We owe an apology to the gentlemen of this company, for the delay in publishing their report. A copy of it was received at an early date, but was mislaid, and forgotten, but the receipt of a second copy has reminded us of our remissness and we now give the engineer's report, including a statement of the receipts, from different sources for the year, omitting the monthly statement—and a detailed statement of expenses in working and sustaining the road; that our readers may compare them with the report of last year published in this Journal, pages 246 and 274.

Since the report of last year was made, the road has been extended 26 miles to Covington, and is therefore now 137½ miles in length including 43 miles of branches, when completed as it is to be by 1st Sept., it will be 214½ miles in length. It is to be connected at Decatur with the "State," or "Western and Atlantic Railroad," which is also to be completed to Oostenaula river in September, when there will be a continuous line of railroad of 343 miles, and including branches, of 452, terminating at Charleston S. C., thus securing that ancient city an amount of trade which, if she consults her own interest, and extends the railroad to the water—which must make her a place of business; but to derive all the advantages which the railroads are susceptible of affording her, she must remove the present obstructions which arise from having "a carrying place," between the termination of the road and the shipping.—Great difficulties have been encountered, and overcome by this company, and they are now, we are gratified in being able to say, about to realize at least one important object for which they have labored, the completion of their road—and they will, we trust, soon realize another equally important consideration, viz. ample dividends, as they must at no distant day, from the amount of travel and freight which is sure to pass over it.

ENGINEER'S DEPARTMENT, }  
Geo. Railroad and Banking Co. }  
Augusta, May 1st, 1845.

To the Hon. Jno. P. King, President;

SIR:—Since the date of my last annual report, our road has been extended to Covington, twenty-six miles west of its former terminus at Madison. During the same period, the graduation and bridging upon the whole line, with some immaterial exceptions, have been completed.

The wood work of the superstructure will be laid in a few days, continuously to the Little Stone Mountain, 17 miles above Covington, and the iron (which has been delayed by the Yellow river bridge) to a point some six miles beyond the river. To get thus far, we have had to require the iron to be wagoned across the river, at the expense

of the bridge contractor. Within a week, however, the bridge will be finished so as to pass the trains, and there will then be no farther interruption to a rapid continuation of the work to its final terminus.

The following statement will show the amount expended on account of the extension of the road, up to this date:

For graduation and culverts,.....	\$264,708 95
" Bridging.....	48,559 42
" Superstructure (including duty on iron,).....	366,744 07
" Right of way.....	17,147 84
" Real estate.....	10,431 53
" Engineering, depots, wells, division houses, &c.....	24,259 30
	\$731,851 11
Estimated cost of road, including duty,.....	\$894,000 00

Leaving to be expended,.....\$162,148 89

Which amount will be sufficient to meet all further demands for construction of road, depots, &c., extend the warehouse at Augusta, and supply such additional machinery as may be required for the road this year.

Notwithstanding the interruption to the progress of the work, from the magnitude of some of the bridges, and the almost impenetrable character of many of the rock excavations, I have every confidence that the entire road will be ready for use by the time reported to the last annual convention of stockholders. In connection with the Western and Atlantic Railroad (which will be finished to the Oostenaula about the same time,) we shall then have a continuous line of railway from Augusta, of 250 miles—nearly double the length of our main line in use at the present time.

The extension of the Western and Atlantic railroad beyond the Oostenaula is, for the present, suspended in consequence of the absorption of the state appropriation upon the road below it. It seems to me, however, that its early continuation to the Tennessee, appeals to too many of the incentives that control the actions of individuals and communities, to permit a long time to elapse before the work shall be again resumed. Without this extension to the navigable waters of the west, the state cannot expect to receive a remunerating traffic upon her road. With it, she will not only add greatly to the revenues of her work, but elevate its character, for a mere local improvement, to that of a national thoroughfare, connecting the "fertile west" with all the important markets on the southern Atlantic slope. The completion of the road to Chattanooga, will also place the Tennessee river in the same commanding position, as an avenue of trade between the west and the southern Atlantic states, that the Ohio now holds to the northern and middle states, and will present equal claims upon the general government for appropriations, to render it navigable for steamboats at all seasons, which it is understood can be effected at a much less cost than upon the Ohio.

The importance of the early completion of the improvements referred to above, to the prosperity of our enterprise, are too well known and appreciated by our stockholders to have required any notice of them in this re-

port. But as public attention has been called to another route, to accomplish the same object, terminating on the Tennessee lower down, which may divide the friends of the work, and consequently, delay its execution. I have thought it proper to present a few remarks on this subject, which, it appears to me, is so deeply interesting to us, both as citizens of the state and stockholders in our road.

While I am inclined to admit, that a route terminating on the Tennessee, at Gunter's landing, would have been preferable as the original design to that at Chattanooga, I am decidedly of the opinion, in view of the small amount necessary to complete the road as now laid out, and the impossibility of raising the capital required to build it on the route proposed, in a satisfactory manner, that it would be both a waste of time and money, to deviate from the present track.

In expressing doubts whether the terminus selected for the state road on the Tennessee, at Chattanooga, was the best that could have been obtained, I am not insensible to the many and strong reasons which influenced its choice, and must confess, that even with all the lights now before me, any preference entertained for the Gunter's landing route, would be surrendered, if the navigation of the river between these points should be perfected. The whole of north Alabama and Tennessee would then be accommodated, and by a short branch to Rome, the rich valley of the Coosa would also be drained.

The business of the road, and the expenses incurred in working it, during the year ending on the 31st of March, are shown in the following summary statement. A statement in detail of the several accounts below, will be found among the accompanying papers.

BUSINESS.]	
Passengers up,.....	\$40,234 75
" down,.....	34,017 80
Freight up,.....	72,033 21
" down,.....	90,121 67
United States mail,.....	31,960 32
Extra trips with passengers, &c.,.....	3,381 77
	\$271,749 52
EXPENSES.	
Conducting Transportation,.....	\$32,280 67
Motive power,.....	28,734 13
Maintenance of way,.....	45,054 60
Maintenance of cars,....	16,252 38
	\$122,311 78
Deduct estimated actual outlay for transporting 3,300 tons of iron, wooden rails and mud sills, at \$1 50 per ton,...	\$5,100 00
	\$117,211 78
Leaving nett profits...	\$154,537 74

The expenses of the road, as anticipated, are greater than they were last year, in consequence of higher wages paid for labor, and the increased business of the road, together with the necessity of substituting larger axles for many of those first put under the cars. The excess of down freight over the up, compared with the previous year, has also added to the expenses a greater percentage than to

the receipts. The difference, however, is only 3 per cent. The expenses last year being 40 per cent. of the receipts, and this year 43 per cent.

If we take the number of miles run by the trains to perform the year's business, the comparison shows favorably with any previous period. The following statement gives it for the last two years :

	1844.	1845.
Conducting		
Transportation per mile run	\$0 17 50-100	\$0 16 50-100
Motive power, " " "	0 16 80-100	0 14 70-100
Maintenance of cars,	0 06 75-100	0 08 25-100
Maintenance of way,	0 25	0 23
<b>Total,</b>	<b>\$0 66 5-100</b>	<b>\$0 62 45-100</b>

The transportation on the road, including iron and lumber for the extension, and exclusive of materials for repairs of road, &c., is equal to 2,352,896 tons carried one mile.—Exclusive of materials for the extension, it is 2,022,896 tons; which gives the cost of transportation, dividing the expenses between the passenger and freight trains according to the distance run by each, on the main line, and calling the Athens train a freight train, 3½ cents per ton per mile. The cost of transporting passengers (making due allowance for the mails,) is 2½ cents per passenger per mile. The cost of transporting, per ton and per passenger, here given as the deduction from our past year's business, is not to be taken as a criterion of the cost of carriage on railroads. This is mainly dependant upon the amount and character of the business done; and without a knowledge of these facts, no comparison can be made with other works. With double the amount of freight, our expenses would probably not have exceeded 2 cents per ton per mile; and if it had been received in such quantities as to have insured loaded trains each way, 1½ cents per ton would have covered expenses.

The cost of keeping up the road, estimating the average length of road in use during the year, at 155 miles, is \$290 <sup>40</sup>/<sub>100</sub> per mile. Last year it was \$260 per mile for 147½ miles then in operation. The length of road now in use, including 43 miles of branches, is 173½ miles. When the entire line is completed it will be 214½ miles. The cost of keeping up the road for the last two years, is below what we may expect as an average rate. But I do not believe that it will, at any time, exceed \$350 per mile, unless occasioned by some extraordinary casualties, or the necessity of greatly increasing the speed of our trains, when it will be important to keep the track in more perfect adjustment.

The charges upon the books of the bank against the business of the road, up to this date, May 1, 1845, are..... \$179,612 23  
The actual expenses (including the transportation of iron,) are,..... 122,311 78

Leaving, ..... \$57,300 45

Which is accounted for by materials furnished and work done for the road, at the shops, as follows :

Cars built previous to April 1st, 1844 and not charged,.....	\$ 4,691 99
34 burden cars built since April 1st, 1844,.....	17,750 00
Extension of machine shop 70 feet,...	1,150 30
Extension of road—Alcovy Bridge,...	3,567 31
Wood's Mill Bridge,	739 15
Bolts, Spikes, &c.,...	961 26

Superstructure,.....	244 31
Materials on hand, for repairs of road and for car and engine work, at shops, purchased since April 1st, 1844,.....	\$24,900 29
Disbursements to date, on account of business of 1845, and '46,.....	3,287 84
<b>Amount as above,.....</b>	<b>\$57,300 45</b>

The unusually large amount of materials on hand, consists in a great measure of car wheels and bar and pig iron, which was purchased in view of an anticipated rise in these items, and which could not now be replaced without an additional outlay of several thousand dollars.

The stock of cars on the road on the 1st of April, 1844, was of passenger cars\* 47 close, and 41 open burden cars. We now have the same number of passenger cars, 66 close and 56 open burden cars. Orders have been given to construct two more passenger and 50 close burden cars, to be ready for the opening of the business upon the Western and Atlantic railroad. This number will be further increased with the demands for their use.

We have also ordered two additional freight locomotives to be delivered during the ensuing summer. These will increase the number of our engines to 14, which we think will be sufficient to do the next winter's business.

The business of the road has exceeded that of last year, \$23,653 08, of which, the increase on up freight is \$2,372 02; on down freight, \$11,721 41; on passengers, \$6,749 33, and mails, \$2,810 32. From this exhibit it will be perceived, that notwithstanding many of our old customers have been attracted to new channels of transportation, we have been steadily drawing from other sections of the country, a trade that has more than compensated for their loss. We should not, however, rest satisfied without making some efforts to remove or modify the difficulties which have caused in many instances a diversion of our trade. These difficulties arise mainly from the imperfect connection between the eastern terminus of our road and the sea board. Upon the Charleston route, the drayage at both ends of their road is excessive, but particularly so at this end; and from the circumstances that it comes immediately under the notice of the interior merchants, who frequently remain in Augusta to forward their goods, is particularly objectionable to them.

Whether any modification of the present system can be brought about, I am unable to state; but it seems to me incumbent upon our company, either to make some efforts to modify the objections complained of, or endeavor to effect an arrangement which will insure a more perfect communication between this city and Savannah. The transportation upon the river is now not only dependent upon the stage of the water, but the freight lists of the steamboat companies exhibit rates for heavy articles—especially on those of little value—which, when compared with similar charges on rivers whose navigation is not more perfect than that of the Savannah, may be considered extravagant.

Upon the Ohio river between Pittsburg

and Cincinnati, a distance three times further than from Augusta to Savannah, the rates are only one half of those on the Savannah, or, one-sixth of them per 100 lbs. per mile.

Upon the Alabama river, the rates of freight are also greatly below those of the Savannah. But the chief difficulty on our river route is, the entire absence of boats calculated to run during the frequent low stages of the water. This difficulty will be considered surprising, when it is recollected that the water on the most difficult bars, never, as I am informed, falls below a depth of 20 inches—a point which it reaches only once in a series of years. With this minimum depth of water, I am satisfied from the inquiries that I have made, that produce and merchandize can be transported between Augusta and Savannah, at all seasons of the year, provided fair loads can be obtained each way, at a cost of 5½ cents per 100 lbs., including interest on capital, repairs, and depreciation in value of boats. If an average of only half loads, or full loads one way, can be obtained, then 9 cents would cover costs, &c., &c.

The importance of this subject to the revenues of our company, will be appreciated by those who witnessed the great loss of freight sustained by the road during last season—amounting, at the lowest estimate I can make, to \$15,000—probably much more.

The adjustment of our rates of freight, has heretofore been assigned to the engineer department; but as the extension of the road has greatly increased the importance and responsibility of this duty, I would respectfully suggest to the board the propriety of appointing an executive committee to take charge of this subject.

Before another meeting of our stockholders, the enterprize upon which they have been so long engaged, will be brought to a final termination; and I trust that they will then begin to receive an adequate return for their capital invested. The period chosen for the extension of the road, could not have been more propitious. Not only have we been enabled to get the work executed upon the most favorable terms, but a timely order for our iron has given us that item at about \$150,000 less than it can now be bought for.

In closing this communication, I regret to state, that the company will shortly lose the efficient services of Mr. Peters, who has been associated with me, either on the construction of the road, or the management of its business, from the commencement of the work. His place at the head of the transportation department, will be filled by F. C. Arms, Esq., already favorably known to the stockholders, and who has been for some time fulfilling the duties of the office, under the immediate direction of Mr. Peters.

All of which, is respectfully

submitted by your ob't serv't,

J. EDGAR THOMPSON.

Ch'l. Eng'r. & Gen'l. Ag't.

Statement of the aggregate amount of business done on the Georgia railroad from April 1, 1844, to April 1 1845.

Passengers,.....	74,252 55
Freight,.....	162,154 88

Mail, .....	31,960 32
Way passengers, warrenton br'ch..	33 64
Extra trips, .....	2,132 99
Extra baggage, etc.....	502 23
Lots negroes.....	642 75
Freight between stations.....	70 16
	<hr/>
	\$271,749 52

Statement of the expenses incurred for working the Georgia Railroad, from April 1, 1844, to April 1, 1845.

CONDUCTING TRANSPORTATION.

Stationery and printing, etc.....	1,735 15
Loss, damage (including \$342 42-100 for stock killed by trains).....	1,004 89
Incidentals.....	1,885 25
Oil and tallow for cars.....	178 38
Provisions, clothing, doctors' bills, etc. for negroes.....	3,244 12
Expenses of Warrenton branch.....	586 32
Expenses of horse car, Athens branch.....	1,145 35
Wages laborers and watchmen.....	4,317 84
Agents and clerks.....	13,168 56
Conductors.....	4,997 81
Work done by machine shops.....	16 00
	<hr/>
	\$32,280 67

MOTIVE POWER.

Expenses of water stations.....	2,023 57
Incidentals.....	210 19
Wood for locomotives.....	7,602 62
Oil and tallow for engines.....	1,280 42
Ordinary and extraordinary repairs to locomotives.....	5,352 50
Engineers and firemen.....	8,331 35
Provisions, clothing, doctors' bills, etc. for negroes.....	3,348 88
Work done by car factory.....	524 60
	<hr/>
	28,724 13

MAINTENANCE OF WAY.

Men's wages.....	16,381 97
Supervisors.....	2,380 00
Provisions, clothing, doctors' bills, etc. for negroes.....	4,145 98
Incidentals.....	86 51
Tools.....	941 33
Spikes.....	2,153 23
Wooden rails and cross ties.....	17,475 60
Work done by car factory.....	537 00
"    "    "    Machine shops.....	943 98
	<hr/>
	\$45,054 60

MAINTENANCE OF CARS.

Re-building passenger car, Covington,	1,600 00
Repairs of passenger and burden cars,	4,952 38
New cars in place of others worn out,	2,250 00
Renewal of wheels and axles.....	7,450 00
	<hr/>
	\$16,252 38

Total expenses.....	\$122,311 78
Deduct estimated actual cost of transporting lumber and iron, for 26 miles of extension of road—equal to 3,300 tons \$1 50,.....	\$5,100 00
	<hr/>
	\$117,211 78

Leaving the expenses of the regular business for the year.....

The Canal Tolls Reduced.

We find in the Albany Argus the following statement in relation to the reduction of the tolls on the N. Y. canals. It will be seen by this that the tolls as now arranged for 1846 on the up and down freight together, will be just one half that of 1832. That is to say in 1832 the freight on a ton of merchandize up, and a ton of flour down, was \$15,241,—whereas it will be by this rate \$7,621—and the difference in the tolls on a boat load of fifty tons to Buffalo and fifty tons of flour back to Albany will be \$113,90—a very important reduction, certainly; yet we have not a doubt but that the tolls for 1846 and 47 will exceed those of 1844 and 45, as much as those of 1835 and 36 exceeded those of the two years preceding the

reduction of 1833 and 34. This is the true method of inducing or creating business.

"The canal board, it is generally known, has been in session in this city for the past fortnight. The canal tolls, among other subjects have been fully considered, and a general reduction of the rates of toll on the state canals has been made, to take effect the opening of navigation in 1846. The Atlas contains the following statement of the extent and effect of these reductions :

"The rate on flour, wheat, beef, pork, and most agricultural products, has been reduced from 4½ to 4 mills per 1000 lbs. per mile. This alteration on the quantity of agricultural products transported in 1844, will make a difference of more than one hundred thousand dollars.

"The rates on salt and gypsum of this state, not entitled to bounty, have been reduced from 2 mills and 3-10ths to 1½ mills per 1000 lbs. per mile.

"Mineral coal, not entitled to bounty has been reduced from 4½ mills to one mill.

"Timber squared and round, has been reduced from 5 to 4 mills. The same in rafts is not altered from the old rates. A scale of rates per thousand pounds is fixed for various kinds of sawed timber, but the toll is not essentially altered : when not weighed, the rate per 1000 feet reduced to inch measure, stands at 5 mills.

"Staves and headings for barrels as well as hogshead, are put at 1½ mills per 1000 lbs. per mile ; wood for fuel, in boats, is reduced from one cent per cord, per mile, to half a cent, to take effect on the first of August, 1845.

"All articles of merchandize, heretofore, have been grouped and charged at 9 mills. The board has now made a discrimination between heavy and light articles ; and on sugar, molasses, coffee, nails, spikes, iron and steel, the toll is reduced from 9 mills per 1000 pounds per mile, to 5 mills. All other articles of merchandize and non-enumerated articles going from tide water, are to be charged at 8 mills per 1000 lbs. per mile.

"The reduction of one mill on the quantity of merchandize transported in 1844, is equal to sixty-five thousand dollars. The farther reduction of 3 mills on sugar, molasses and the other articles enumerated, will add very essentially to the aggregate reduction on merchandize ; but the precise amount cannot be ascertained.

"The reduction on sugar, molasses, and other heavy articles of merchandize was rendered necessary by the reduced rate at which these articles are transported on rival routes. The reduction on minerals not embraced in the law giving a bounty, was made on a representation that considerable quantities of bituminous coal may be brought on to Erie canal from Pennsylvania by way of Buffalo. The bounty law does not reach this case, but is confined to coal, "coming through a lateral canal."

"The toll on packet boats running on the Genesee Valley, Chenango, and Cayuga and Seneca canals is reduced to 3 cents per mile, to take effect 1st of August. All non-enume-

rated articles coming towards tide water are reduced from 4½ to 4 mills per 1000 lbs. per mile.

"It is estimated that the whole reduction, applied to the quantity of articles transported in 1844, would be equal to \$250,000. In the years 1833 and 1834, reductions were made in the rates of toll equal to an average of about 35½ per cent on all articles. Instead of diminishing the aggregate amount of revenue, the tolls for two years after the reduction exceeded by \$333,000 the amount collected in the two preceding years at the old rates of toll. If a similar increase is not realized by the present reduction, it is confidently anticipated that the measure will not have an unfavorable influence on revenue, and will have a decidedly favorable effect on the trade of the canals.

The following comparative statement of the sums charged on property transported, at four different periods, shows the extent of the diminution in the rates of toll, and the saving which these modifications secure to those who use the canals.

"Toll on 1000 lbs. of merchandize from Albany to Buffalo, and on 1000 lbs. of flour or provisions from Buffalo to Albany.

	1832.	1833	1834.	1846.
Up toll,	\$5 08 2-10	\$4 35 6-10	\$3 26 70-100	\$2 35 95-100
Down "	2 54	1 81 5-10	1 62 35-100	1 35 20-100
	<hr/>	<hr/>	<hr/>	<hr/>
	\$7 62 2-10	\$6 17 1-10	\$4 89 5-100	\$3 81 15-10

"It is seen above, that the toll has been reduced one half since 1832.

"The toll on a boat load of 50 tons of merchandize, from Albany to Buffalo, (363 miles) would amount, by the rates in 1844, to..... \$326 70 And by the rates in 1846, estimating one half the cargo to be sugar, molasses, and articles enumerated at 5 mills, and the other half the cargo at 8 mills,..... 235 95

Gain to the owner on a single load,..... \$90 96  
The toll on fifty tons of flour or agricultural products from Buffalo to Albany, would amount at the rates of toll in 1844, to..... \$168 35  
And by the rates in 1846, to..... 145 20

Gain to the owner by the reduction in the rates of toll..... \$23 15

Thus the transporter who brings a load of produce from Buffalo to Albany, of 50 tons and returns with a cargo of 50 tons of merchandize, makes a clear gain by the present reduction in the rates of toll, equal to \$113 90. And comparing the rates as established for 1846, with the rates of 1832, and there is a saving to the transporter on two cargoes as before referred to, of \$381 15, equal to a reduction of one half since 1832."

The Words of Truth and Soberness.—The following extract from a letter dated Ballston Spa, July 24th, published in the Journal of Commerce, contains many important truths in a very small compass, and we ask for it the serious and immediate attention of every New Yorker. They may rest assured that they have got these roads to build, even in self defence, and it will cost less to complete them within the next three years, than at any future period. It is therefore for



their interest to avail themselves of the present exceedingly favorable law of the last legislature.

"I have also visited that *omnium gatherum*—Saratoga springs. It is crowded in the extreme. Boston is well represented there.—The enterprize of our down east friends in the railroad line—their successful efforts in diverting from us a portion of our trade, is with them a subject of exultation, which they do not take much pains to suppress. The great Northern railroad from Ogdensburgh to lake Champlain, and thence to Boston, is the *point* or subject upon which they are now most excited. From what I have heard and seen since I left the city, I am convinced that that gigantic work will be executed. Then, when a great portion of our western trade shall be lost, New Yorkers will begin to reproach themselves for not having seasonably put forth their strong arms and held on to their *own*. This they can do by making the Erie railway. Extend the Harlem to Albany, and complete the Erie, and New York will be safe. Without these two great thoroughfares, much of her trade will be lost to her. She will be tapped at various points. British capitalists have resolved to construct a railroad from Toronto to Detroit, so as to drive more of the western trade down the St. Lawrence. This I have learned from the best authority. Is it not astonishing that, with a bonus from the state of \$3,000,000 our capitalists and business men in New York have not long since raised the three millions required by the late act of legislature? Talk with a Bostonian, and he cannot understand it. "What!" said one, the other day, "cannot the great city of New York raise this comparatively small sum for so great an object—one warranting such strong hopes of large dividends? I made the best explanation that the case admitted of, but almost hung my head for being a New Yorker.

"In regard to the Erie railroad, it must be vigorously commenced *now* or never. The legislature will grant no further favor, and I have reason to believe, that if the conditions of the act of the last session are not strictly complied with, the three million bonus will be irretrievably lost. The time for raising the three millions by subscription will never be extended. It is to be hoped, then, that our Rip Van Winkles will awake from their false security before the expiration of the term specified in the act. Our late calamity should teach capitalists a lesson. They should learn from it, that stocks may burn; that houses and stores may burn; that mortgages too, may burn with the buildings which constitute their security. Let them then try another basket for some of their eggs—one that has proved such a *favorite* one with down easters. With *them*, railroad stocks are regarded as the best of investments."

How true the remark that "stocks may burn" and "houses and stores may burn" and that "mortgages too may burn, with the buildings that constitute their security"—but where is there an instance, either in this coun-

try or in Europe of a judiciously located, well constructed and well managed railroad which does not pay a fair and regularly increasing interest upon the investment, in *addition* to the benefits and conveniences which it affords to the *thousands*—to the people!—We know not one.

#### Railroad Lettings.

The directors of the Cheshire railroad are ready we understand, to receive proposals for grading the first section of their road, namely, that part of the route which lies between the Massachusetts line, at Winchendon, and Keene, in New Hampshire.

We learn from the Belknap Gazette that \$20,000 of the stock of the Boston, Concord and Montreal road is taken in Holderness, and that between \$200,000 and \$300,000 of the stock was subscribed for in Boston up to Friday last. A considerable amount of the stock has been subscribed for in this town.

It is said that the stock is nearly, if not quite, all taken up of the Portsmouth and Concord railroad.

More than half the embankment for the Northampton and Springfield railroad is graded and finished, and the rest will be ready as soon as it is needed for the rails. The bridge at Chicopee is progressing rapidly.

The union of short roads where it can be done strikes us as good policy, as it reduces expenses, and insures greater unity of action; we are therefore pleased to learn that the stockholders in Randolph and Bridgewater, Middleboro and Fall River railroads, have united in one corporation. An engineer we understand will at once proceed to survey the entire line.

The Ogdensburgh railroad commissioners are now in Boston, and have met with a very favorable reception.

A further assessment of ten dollars per share has been made by the Brattleboro railroad directors.

We could never see the policy, or the necessity, of a railroad from Providence to Worcester, which it is now thought, will not succeed, \$300,000 are still wanting and the spirit is subsiding.

STOCKTON & DARLINGTON RAILROAD COMPANY.—This Co., it appears by the Railway Chronicle of July 19th, "have reduced railway dues," or charges, "33 per cent. on all coals conveyed over their line from the Auckland coalfield to river Tees for shipment.—This reduction has been made to enable the coal owners to meet the great competition in the trade," and well can they afford to reduce their charges, as their stock stands quoted at £250, per share for £100, paid in.

ROUEN AND HAVRE RAILROAD.—The works on this road are advancing rapidly, and it is anticipated that it will be in readiness for use by the 1st of May next. There is much heavy work on this line, the *tunnels* being 6224 metres—about 3½ miles, and the viaduct over the Mirville is to have 50 arches of 10 metres, or 33 feet span each, and 52 metres or about 170 feet high.

*Mining in America.*—Agents for parties in the United States interested in the extension and success of mineral works there, are now in England, busily engaged in selecting our best workmen, and engaging them for employment in America: no less than forty of the men at the Bishop Wearmouth Iron-Works have been tempted to give up their employment in England, and to proceed to the United States, to be employed in a manufactory there."

We are always pleased to learn that good mechanics, or other artisans are emigrating to this country—we can assure the editor of the Mining Journal that he need not fear that any of them will be under the necessity of returning again to England: nor need he be surprised to hear within a few years that some of them are iron masters, or manufacturers on their own account—nor even to hear that some of them are members of our state legislatures, or of congress.

*Improvements in the Manufacture of Iron.*—We find the following in relation to the manufacture of iron in the Mining Journal of 26th. July. At the late meeting of the British Association, at Cambridge, Dr. Lyon Playfair read a report, prepared by Prof. Bunsen and himself, on the chemical changes occurring in iron furnaces. During many years the attention of scientific men on the continent had been directed to the employment as fuel of the combustible gases that escaped from the mouths of furnaces. Dr. Playfair and Prof. Bunsen have carefully examined the gasses taken from the different heights of the furnace, and gave tabulated results of their analyses, the results of which were that for the depth of twenty-four feet down the body of iron hot-blast furnaces worked with coal there is no available heat for the melting of the metal, the whole of the heat for that extent of the furnace being employed in distilling the coal. The important fact which they established by their experiments is, that in common hot-blast furnaces, as at present employed, 91 per cent. of the heating power of the fuel is lost—that is, only nine parts out of one hundred are effective, the remaining portion being carried off in gases. It was proposed, therefore, to collect the gas as it issues from the furnace mouth, and to employ it usefully in various parts of the works, though they did not recommend the re-introduction of such gas into the furnace for smelting the metal. Dr. Playfair said that these researches had led them to the consideration of a new system of manufacturing iron, which would produce a complete revolution in the

present mode, but they had not had sufficient time to digest the plan to authorize them to recommend it to the association; it would form the subject of their labors for the next year.

**LEXINGTON**

and OHIO RAILROAD. Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m. Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1-25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above. 1y35

**TO IRON MANUFACTURERS. THE SUBSCRIBERS, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.**

A. & G. RALSTON & CO., ja45 No. 4 Sout Fronth st., Philadelphia, Pa.

**SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars.** The Subscriber is engaged in manufacturing Spring Steel from 1 1/4 to 6 inches in width, and of any thickness required; large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent, ja53 Albany Iron and Nail Works, Troy, N. Y.

**SAMUEL NOTT, CIVIL ENGINEER, Surveyor and General Agent, Bangor, Me.** Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

REFERENCES. Col. James F. Baldwin, Civil Engineer. Col. J. M. Fessenden, " Wm. Parker, Esq., Engineer and Superintendent Boston and Worcester railroad. ja45

**LAWRENCE'S ROSENDALE HYDRAULIC Cement.** This Cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floods and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE, 142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 32

**PASSENGER LINES FROM BOSTON.**

**Eastern Railroad—Boston to Portland, via Salem Newburyport, Portsmouth and Saco.** Trains leave daily, except Sundays. Boston for Portland 7 1/2 a.m. and 2 1/2 p.m.; Newburyport and Portsmouth 7 1/2 a.m., 2 1-2, 5 1-2 p.m.; Salem 7 1/2, 9 a.m., 12 1/2, 2 1-2, 3 1-2, 5 1-2, 6 1/2 and 8 p.m.; Salem for Marblehead 8 1/2, 9 1/2 10 1/2 a.m.; 1, 3 1/2, 4 1/2, 6 1/2, 8 1/2 p.m. 32

**Boston and Maine railroad—Upper route.** Boston to Portland, via Charlestown, Wilmington, Andover, North Andover, Haverhill, Exeter, Dover, Somersworth, Berwick, Kennebunk, Saco, and Scarborough. Passenger trains will run daily, Sundays excepted, as follows, viz: Leave Boston for Portland at 7 1/2 a.m. and 2 1/2 p.m.; for Great Falls at 7 1/2 a.m., 2 1/2, 4 1/2 p.m.; for Haverhill at 7 1/2 a.m., 2 1/2, 4 1/2 and 6 1/2 p.m.; leave Portland for Boston at 7 1/2 a.m. and 3 p.m.

A special train will leave Boston for Andover at 12 m., and Andover for Boston at 4 1/2 p.m.

The depot in Boston is at the corner of Canal and Traverse streets. CHARLES MINOT, 32 Superintendent.

**Norwich and Worcester railroad.**—Accommodation trains, daily, except Sunday. Leave Norwich at 6 a.m. and 4 1/2 p.m., leave Worcester at 10 a.m. and 4 1/2 p.m. The morning train from Norwich, and the morning and evening train from Worcester, connect with the Boston, Western and Hartford and Springfield railroads. New York train, via steamboat, leaves Norwich for Worcester and Boston, except Monday, upon the arrival of the boat from New York, about 2 o'clock; leave Worcester for Norwich and New York at 5 1/2 p.m. daily, except Sundays. New York train, via Long Island railroad, leaves Norwich about 3 1/2 p.m. for Worcester and Boston daily, except Sunday; leaves Worcester for Norwich and New York at 7 1/2 a.m. daily, except Sunday, and arrives at Norwich at 9 1/2.

Fares are less when paid for tickets than when paid in the cars. EMERSON FOOTE, 32 Superintendent.

**Boston and Lowell Railroad, Summer Arrangement.**—The passenger trains will run as follows: Leave Boston at 7 and 11 a.m., 2 1-2 and 5 1-2, p.m.; leave Lowell at 7 1/2 and 11 a.m., 2 and 5 1/2 p.m. Fare 75 cents. 32

**Nashua and Lowell Railroad.**—Passenger trains will run as follows: Leave Boston at 7 a.m., 11 a.m. and 5 p.m.; leave Nashua at 6 1-2 a.m., 1 1/2 p.m. and 4 1/2 p.m. 32

**Concord and Nashua Railroad.**—Passenger trains run daily, Sundays excepted, in connection with the Boston and Lowell, and Nashua and Lowell railroads, as follows: Leave Boston at 7 a.m., 11 a.m. and 5 1-2 p.m.; leave Concord at 4 1/2 a.m., 11 1/2 a.m. and 3 1/2 p.m. The second train arrives in Boston in season for passengers to take the railroad train to New York. Stages, on the arrival of the first train at Concord, leave by various routes for the different parts of the state, Vermont and Canada. On the second day from Boston Stages reach Royalton, Middlebury, Montpelier and Burlington, connecting there with the steamboat line to Montreal. Stages also run from Haverhill to Stanstead and Montreal. 32

**Woburn Branch Railroad.**—Special trains will run as follows: Leave Boston at 8 and 11 1/2 a.m., and 3 and 6 1-2 p.m.; leave Woburn Centre at 7 and 9 a.m., and 1 1-2 and 5 1/2 p.m. These trains will stop for way passengers anywhere between Woburn Centre and Boston. 32

WALDO HIGGINSON, Agent B. & L. Railroad Co.

**Fitchburg Railroad.**—Leave Charlestown at 7 and 11 a.m. and 5 p.m.; leave Fitchburg at 6 1-2 and 11 a.m. and 4 1-2 p.m. Special trains will be run to Waltham and Concord as follows: Leave Concord for Charlestown at 7 a.m.; leave Waltham for Charlestown at 7 1-2 and 10 1-2 a.m., 4 1/2 p.m.; leave Charlestown for Waltham at 9 1-2 a.m., 3 and 6 p.m.; leave Charlestown for Concord at 6 p.m. On the arrival of the two morning trains at Fitchburg stages will leave for all the principal towns in western Massachusetts, New Hampshire and Vermont. S. M. FELTON, 32 Eng. and Sup't.

**Boston and Worcester Railroad.**—Summer arrangement.—For Worcester and way stations at 7 1-2 a.m., 1 3-4 and 5 p.m.; for Milbury at 7 1-2 a.m. and 5 p.m.; for New York, by Norwich and steamer, 4 p.m.; day line for New York, by Long Island railroad, at 6 a.m.; for Boston and way stations at 7 and 10 a.m., 4 1-2 p.m. Newton trains, daily, except Sunday, from Boston at 9 1-2 a.m., 3, 5 1/2 and 7 p.m.; from Newton at 7 1/2 and 10 1/2 a.m., 4 and 6 p.m.

Fares are less at the ticket offices than in the cars. WM. PARKER, Sup't. 32

**Boston and Providence Railroad.**—Passenger trains run as follows: For New York, night line, via Stonington; leave Boston every day, Sundays excepted, at 5 o'clock p.m.; accommodation trains leave Boston at 7 1-2 a.m. and 4 p.m., and Providence at 8 a.m. and 4 p.m.; Dedham trains leave Boston at 8 1/2 a.m., 12 1-2, 3 1-2 and 6 1-2 p.m.; Leave Dedham at 7 and 10 a.m., 2 1/2 and 5 1/2 p.m.; Stoughton trains leave Boston at 12 m. and 5 30 p.m.; leave Stoughton at 7 1-2 a.m. and 3 p.m. 32 WM. RAYMOND LEE, Sup't.

**Western Railroad.**—Summer arrangement.—Passenger trains leave daily, Sundays excepted, as follows: Boston 7 1 1/2 a.m. and 4 p.m. for Albany; Albany 6 3-4 a.m. and 2 1-2 p.m. for Boston; Springfield 7 a.m. and 1 p.m. for Albany; Springfield 7 a.m. and 1 1-2 p.m. for Boston. For Albany and Buffalo—Leave Boston at 7 1-2 a.m., arrive at Albany at 6 p.m.; leave Albany at 8 p.m. for Buffalo, or at 7 1-2 o'clock next morning. For Montreal—Passengers proceed from Albany to Troy, thence by railroad and canal to Whitehall, and thence by the commodious steamers of Lake Champlain (stopping at Burlington) to St. Johns, thence by railroad to La Prairie, and thence by steam to Montreal. New York, via Hartford and New Haven; day route—Leave Boston at 4 p.m., lodge at Springfield or Hartford; leave Springfield at 9 1/2 a.m., and arrive in New York at 6 p.m. Passengers may also leave Boston at 7 1-2 a.m., proceed at 1 or 4 1-2 p.m. from Springfield to New Haven; leave New Haven at 10 p.m. and arrive in New York at 6 o'clock next morning.

For further information apply to Charles A. Read, agent, 27 State street, Boston.

JAMES BARNES, Superintendent and Engineer. 32

**Taunton Branch and New Bedford Taunton Railroads.**—Trains leave Boston for Taunton and New Bedford at 7 1-2 o'clock a.m. and 4 p.m.; leave Providence for Taunton and New Bedford at 8 o'clock a.m. and 4 p.m.; leave New Bedford for Boston and Providence at 7 1/2 o'clock a.m. and 3 1/2 p.m.; leave Taunton for Boston and Providence at 8 o'clock a.m. and 4 p.m.; leave Taunton for New Bedford at 9 o'clock a.m. and 5 1-2 p.m. Afternoon trains connect with Stonington cars and steamers for New York. Morning cars connect with the Long Island train on Monday, Wednesday and Friday. W. A. CROCKER, 32 General Superintendent.

**Fall river Branch Railroad.**—Trains leave Boston for Fall River daily, Sundays excepted, at 7 1-2 a.m. and 4 p.m.; trains leave Fall River for Taunton, Boston and Providence at 7 1/2 a.m. and 3 p.m.; trains leave Fall River for New Bedford at 7 1/2 and 9 a.m., and 5 1-2 p.m.

For Newport.—Passengers from Boston to Newport will find stages in readiness on the arrival of the morning cars at Fall River to take them onward. Fare through \$2. Tickets for the stage will be furnished by the conductor on the Fall River Branch Road.

Stages also leave Fall River at 1 o'clock p.m., for Tiverton, Four Corners, Adamsville and Little Compton. SAM'L H. P. LEE, Jr., 32 Superintendent.

**TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY.** The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

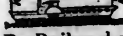

**FOR SALE, AT A SACRIFICE—A LOCOMOTIVE Engine, 4 wheels and Tender.** Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine. 2 8-horse " " " " 1 Upright Hydraulic Press.

All of which will be sold low, on application to T. W. & R. C. SMITH.

Founders and Machinists, Alexandria, D. C. May 12th

**FROM PHILADELPHIA.  
PASSENGER LINES NORTH AND EAST.**

 *Camden and Amboy Line.*— By Railroad and Steamboat from Amboy. Leave foot of Walnut street daily, Sundays excepted, at 5 1/2 a.m. Fare \$3. Forward deck \$2 25. Also for New York, by way of Trenton, Princeton, New Brunswick, Elizabethtown and Newark, N.J., daily from foot of Walnut street, at 9 a.m., and 5 p.m.—  
31 Fare \$4.

*For Reading and Pottsville. By Reading Railroad.* Daily, Sundays excepted, from the Depot, corner of Broad and Cherry streets at 8 a.m. Fare, \$3 50. Second class, \$3. To Reading \$2 25. Second class \$1 90.  
31

*For Mauch Chunk and Wilkesbarre.*—*By Express and Reliance Line.* Daily, from the corner of Broad and Cherry streets, at 9 a.m.  
31 PETERS, MILTIMORE & CO.

*For Easton and Bethlehem. By Post Coaches.* Leave the Office, next door to the White Swan, Race street, daily, at 4 a.m.  
31 PETERS, HAMMIT & CO.

*For Baltimore. By Railroad.* Fare \$2. Via Chester, Wilmington, Elkton, Havre de Grace. Leave Philadelphia, Depot, 11th and Market street, daily, Sundays excepted, at 8 a.m., 4 p.m. Leave Baltimore, Depot, Pratt street, daily, Sundays excepted, at 9 a.m., 8 p.m. Tickets through to Wheeling and Pittsburg can be procured at the Depot.

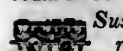
Wilmington Accommodation Line, leaves the Depot, 11th and Market sts. daily, except Sunday, at 10 a.m. and 4 p.m. Leaves Wilmington at 7 a.m. and 4 1/2 p.m.  
G H HUDDLE, Agent. 31

*For Baltimore. By Newcastle & Frenchtown Railroad and Steamboat Line.* Fare \$1. The Steamboat Robert Morris, Capt. J. M. Douglass, leaves Dock street wharf daily, except Sunday, at 3 o'clock. Passengers by this line will reach Baltimore at about 10 p.m. Tickets through to Wheeling or Pittsburg can be procured on board the boat.  
G H HUDDLE, Agent. 31

*For Baltimore, via Lancaster, Columbia and York. By the Susquehanna Railroad,* daily, Sunday excepted, leave the Depot 274 Market st., at 7 1/2 a.m., and 12 at night, for Columbia, and leave Columbia at 2 p.m. for Baltimore. Dine at York and arrive in Baltimore in time for early tea; passing through the most highly cultivated and beautiful part of Pennsylvania, and romantic part of Maryland.  
31



*For Pittsburg, via Columbia and Lancaster Railroads.* Leave the Depot 274 Market st. daily, at 7 1/2 a.m. The Night Line will leave as usual at 12, midnight. At Harrisburg this line connects with the Railroad and Stage Line for Carlisle, Chambersburg and Pittsburg, with the Packet boats for Lewistown, Huntingdon, Hollidaysburg and Pittsburg; also with the Susquehanna Packet boats to Northumberland, Milton, Muncy, Williamsport, etc. Through tickets for any for any of the above places can be secured at the depot, where every information relative to the above lines will be given. Passengers for York and Gettysburg will leave in the 7 1/2 line.  
JACOB PETERS & CO. 31

*For Pittsburg. By the Pioneer and Express Packet Line.* Leave the Depot, 274 Market st. above 8th, at 7 1/2 a.m. By this route travellers may be assured of a safe and comfortable passage, every arrangement having been made for their accommodation. Office N. E. 4th and Chestnut sts. Seats may also be procured at the Depot, and at 13 South 3d st.  
A CUMMINGS, Agent. 31

 **Susquehanna Line of Railroad Cars and Post Coaches.**

This line leaves the depot, corner of Broad and Cherry streets, daily, [Sundays excepted] at 8 o'clock, a.m., via Reading and Pottsville railroad, for Sunbury, Danville, Cattawissa, Northumberland, Milton, Muncy, Williamsport, Towanda, Bellefonte, Jersey Shore, Lockhaven, Ralston and Elmira. For seats apply at the stage office, 104 Race street, under the White Swan Hotel.  
34 S. STILES, Agent.



**FROM BALTIMORE.  
PASSENGER LINES SOUTH AND WEST.**

 *Baltimore and Ohio Railroad.*— For Cumberland, Hancock, Martinsburg, Harper's Ferry, Winchester, Frederick, Ellicott's Mills, and intermediate depots by the regular train, daily, at 7 1/2 o'clock, a.m. For Frederick and intermediate stations, by extra train, daily, except Sunday, at 4 p.m.

Fare in either direction between Baltimore and Cumberland \$7, and for intermediate distances at the uniform rate of 4 cts. per mile. Through tickets are issued between Baltimore and Wheeling respectively, \$11. Between Baltimore and Pittsburg, \$10. Between Philadelphia and Wheeling \$13.  
31 D. J. FOLEY, Agent.

*For Washington. From Baltimore* at 9 o'clock, a.m.; 5, p.m.; and 11 1/2, p.m. By order,  
31 D. J. FOLEY, Agent.

**SUMMER ARRANGEMENT—FARE REDUCED.**

 *By the Great Southern Mail*— Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

*Direct to New Orleans,* and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great *Southern Mail Line,* and the only one that issues a *through ticket South.* Those who patronize it will save their money and time. *Through Tickets* from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

*Fast Mail Line.*—Leave New York at 9 a.m. and arrive in Philadelphia at 3 1/2 p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12 1/2 to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.

Passengers by the above line will arrive at Richmond by 11 1/2 o'clock p.m. and Petersburg, Va. by 2 1/2 o'clock p.m., through to the former city in *twelve hours,* and to the latter in fourteen and a half hours, *(and in eight hours less time than by the Bay route,)* and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those who take the Bay route.

*Way Mail Schedule.*—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p.m.; arrive in Baltimore at 2 1/2 p.m.; arrive in Washington at 7 p.m. *From Philadelphia by steamboat.*—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and *through tickets* apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore.  
31 STOCKTON & FALLS.

*For Norfolk and the South, by steamboat* through the Chesapeake bay to Norfolk, and then by railroad to Weldon, Wilmington or Raleigh, etc. Leaves Baltimore daily [except Sundays] from Spears' wharf, at 4 p.m., and arrives at Norfolk next morning at 7 o'clock; fare \$6. Leaves Norfolk at 8 a.m. and arrive at Wilmington next day at 12 m. and Charleston next morning at 7. Fare through \$21.

*For Philadelphia (Union Line,) via Chesapeake and Delaware Bay, and Newcastle and Frenchtown Railroad.*—The well known steamboat Constitution, Capt. Chaytor, has commenced her regular trips for the season, leaving Bowly's wharf, foot of South street, at 8 o'clock, p.m. daily [except Sundays] for Philadelphia. Through in 8 hours.  
Fare \$3.  
31

 **Morning Train for Philadelphia.**

The morning train leaves the depot, Pratt street, daily [except Sundays] at 9 o'clock, a.m. Passengers arrive at Philadelphia in full time to continue on by the mail train for New York. Fare \$3. Sunday evening Mail Train—the only line that departs from Baltimore on Sundays for Philadelphia, is the mail train which leaves Pratt street depot, at 8 p.m. Fare \$3.  
31

*For Philadelphia, via York, Columbia and Lancaster,* by the Baltimore and Susquehanna railroad. Cars leave from their office, 63 North street, daily [Sundays excepted] at 9 o'clock, a.m. Fare \$3 50.  
31

**GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.**—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/2 in. to 2 1/2 in thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shalting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions.  
ja45ly

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention; for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.  
G. A. NICOLLS,  
ja45 Reading, Pa.

**MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Patterson, N. J.** The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.  
Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,  
a45 Paterson, N. J., or 60 Wall street, N. York.

**RAILROAD IRON AND FIXTURES. THE** Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO.,  
ja45 21 Broad st., N. York.

## FROM NEW YORK

## New York and Harlem Rail-

road Company.

Leave City Hall for Yorkville, Harlem and Morrisania at 5.30, 7, 8, 9, 10, a.m.; 1, 2, 3, 3.30, 4, 5, 5.30, 6, p.m. For Fordham and Williams' Bridge at 5.30, 7, 10, a.m.; 2, 3.30, 5, 6, p.m. For White Plains at 7 and 10 a.m.; 2 and 5 p.m. Leave Morrisania and Harlem for City Hall at 6.20, 8, 9, 10, 11, a.m.; 2, 3, 4, 2, 5.20, 6, 6.30, 7.45 p.m. Williams' Bridge for City Hall at 7, 7.40, 10.40 a.m.; 2.40, 5, 5.40, 7.20 p.m. White Plains for City Hall at 7.10 and 40.10 a.m.; 2.10 and 5.10 p.m. 31

## New York and Erie Rail-

road Line.

For Middletown, Goshen, and intermediate places. —Two daily lines each way, as follows:—For passengers—The new, fast and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7½ o'clock, A.M., and 4 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4½ P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets, 31

H. C. SEYMOUR, Superintendent.

Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale, Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc., etc. 31

## PASSENGER LINES FOR THE NORTH AND WEST.

**Morning Line, at 7 o'clock.**—For Albany, Troy, and intermediate landings.—The steamboat Troy, Capt. A. Gorham, will leave New York, foot of Barclay street, at 7 o'clock, A.M., every Tuesday, Thursday, and Saturday. The steamboat Niagara, Capt. DeGroot, leaves New York at 7 o'clock, A.M. Monday, Wednesday, and Friday. 31

**Afternoon, or 5 and 7 o'clock Line.**—At 5 o'clock, P.M., landing at intermediate places, from the foot of Barclay street.—The steamboat New Jersey, Capt. H. H. Fury, will leave on Monday, Wednesday, Friday, and Sunday. The steamboat South America, Capt. M. H. Truesdell, will leave on Tuesday, Thursday, and Saturday. For passage or freight apply on board, or to 31

P. C. SCHULTZ,

At the office on the wharf.

**Evening, or 7 o'clock Line.**—Line steamboats for Albany—Daily, Sundays excepted.—Through direct at 7 o'clock P.M. from pier between Courtlandt and Liberty streets.—Steamboat Rochester, Capt. R. G. Crittenden, will leave on Monday, Wednesday, and Friday. Steamboat Knickerbocker, Captain A. Houghton, will leave on Tuesday, Thursday, and Saturday. 31

For Albany and Troy, direct, at 7 o'clock, P.M., from the steamboat pier, foot of Courtlandt street. The Empire, Capt. R. B. Macy, Tuesday, Thursday and Saturday. The Columbia, Capt. Wm. H. Peck, Monday, Wednesday, and Friday. 31

## Troy and Greenbush Railroad.

Leave Troy, at 6 o'clock, A. M., to Boston and Albany; 8½ do., do., do.; 10½ do., do., do.; 2, P.M., to Boston and Albany; 4, do., do., do. Leave Albany at 7½ o'clock, A.M.; 9½ do., do.; 12, M., or on arrival of the Boston train; 3, P.M.; 6, P.M., or on arrival of the Boston train.—Fare, 12½ cents. 31

Passengers at Albany should procure tickets at the Boston railroad office, foot of Maiden lane. 31

L. R. SARGENT, Superintendent.

**Schenectady and Troy railroad cars** leave as follows:—From Troy, 7½ o'clock, A.M., daily; 1, P.M., daily, except Sundays; 7½ do., daily. From Schenectady, 3 o'clock, A.M., daily; 9, do., do., except Sundays; 3, do., daily. 31

Persons going to Saratoga and north should take the 7½, A.M., train; and passengers going west of Schenectady, the 7½, A.M., or 7½, P.M., trains. 31

L. R. SARGENT, Superintendent.

**Troy, Ballston, and Saratoga Railroad.**—The cars of this road will run as follows:—Leave Troy at 8 o'clock, A.M., daily; do., do., 3½, P.M., except Sundays; leave Saratoga at 9, A.M., except Sundays; do., do., 3½, P. M., daily. 31

L. R. SARGENT, Superintendent.

**Lake Champlain Steamboats.**—From Whitehall to Burlington and St. John's—Morning Line on Lake Champlain, making intermediate landings.—Passage 2, breakfast on board.—The Francis Saltus, Capt. H. G. Tisdale, leaves Whitehall, Tuesdays, Thursdays, and Saturdays, at 6 o'clock, a.m., and St. John's Mondays, Wednesdays, and Fridays, at 6 o'clock, a.m. For freight or passage apply to the captain on board. H. D. FILKINS, 31

Passengers leaving Troy, Mondays, Wednesdays, and Fridays, at half-past 3 o'clock, p.m., by railroad and packet, will arrive at Whitehall in time for the above boat next morning. 31

## PASSENGER LINE EASTWARD.

**Long Island Railroad Company.**—Trains run from 31

Brooklyn depot.—Boston train, 8½, a.m., daily, stopping at Farmingdale and St. George's Manor; accommodation train, 9½, a.m., and 5 p.m., for Farmingdale and intermediate places, daily; accommodation train, 3, p.m., for Greenport, daily, stopping at Jamaica, Branch, Hempstead, and Hicksville, and all the stopping places between Hicksville and Greenport. From Greenport depot: Boston train, daily, at 12½ o'clock, m., or on the arrival of steamers from Norwich. Accommodation train at 5, a.m., daily, for Brooklyn and intermediate places. From Farmingdale depot: Accommodation train at 6½, a.m., and 2½, p.m., daily, for Brooklyn and intermediate places. 31

The steamboat Statesman leaves Greenport for Sag Harbor twice each day, on arrival of the trains from Brooklyn. 31

Baggage crates will be in readiness, at the foot of Whitehall street, to receive baggage for the several trains, 30 minutes before the hour of starting from the Brooklyn side. 31

**Regular Mail Line between New York and Boston, via Stonington, Providence, and Newport,** composed of the following steamers, running in connection with the Stonington and Providence railroads, and the Boston and Providence railroad: Massachusetts, Capt. Comstock; Mohegan, Capt. —; Narragansett, Capt. Manchester; Rhode Island, Capt. Thayer. Via Stonington, daily, [except Sundays,] at 6 o'clock, p.m., from New York, and from Stonington on the arrival of the mail train, which leaves Boston at 5, p.m., and Providence 6½, p.m. The Rhode Island on Mondays, Wednesdays, and Fridays; the Narragansett on Tuesdays, Thursdays, and Saturdays. Via Newport, the Massachusetts leaves New York for Newport and Providence, direct, on Tuesdays, Thursdays, and Saturdays, at 5 o'clock, p.m. 31

**New York and Boston Railroad Line,** via Norwich and Worcester, daily, from pier No. 1, North river, at 6 o'clock, p.m. The Worcester, Captain Bacon, on Tuesdays, Thursdays, and Saturdays. The Cleopatra, Capt. Dustan, on Mondays, Wednesdays, and Fridays. 31

Passengers, on the arrival of the steamers at Allen's Point, will be immediately forwarded in the splendid and commodious cars of the railroad to Boston, without change of cars or baggage. 31

**For Newport and Providence,** on Monday, Wednesday, and Friday. This line leaves at 8 o'clock, in the morning, from the foot of Whitehall street, South ferry. 31

**U. S. Mail Line for New Haven, Hartford, and Springfield,** from Peck Slip, East river, daily, at 6½, a.m., by steamboat New Champion, Captain Joel Stone, connecting with the cars at New Haven, for Hartford and Springfield. Night line for New Haven: The steamboat Hero, Capt. Richard Peck, leaves on Tuesdays, Thursdays, and Saturdays, at 4, p.m. For Hartford, direct, daily, [Sundays excepted,] at 4, p.m.—The steamboat Kosciusko, Capt. Le Fevre, every Tuesday, Thursday, and Saturday, and the Globe, Capt. E. D. Roach, will leave every Monday, Wednesday, and Friday. 31

**Hoosatic Railroad; Bridgeport and New York.**—The steamboat Mutual Safety, Capt. J. B. Lober, leaves New York, from the foot of Market street, every morning, [Sundays excepted,] at 6 o'clock, arriving in Bridgeport at 11 o'clock. Returning, leave Bridgeport at 1½, p.m., on the arrival of the cars, arriving in New York at 5½ o'clock. The Nimrod, Capt. J. Brooks, Jr., leaves New York daily, at 2, p.m., and Bridgeport 7. a.m. There are no train of cars running in connection with any boat except the Mutual Safety until further notice. 31

Tickets, if not purchased at the offices on the line of the road, or on board of the boat, will be charged at advanced prices. Dated tickets positively taken only on the day specified. R. B. MASON, 31

## PASSENGER LINES, SOUTH AND SOUTHWEST.

**New York and Philadelphia Railroad Line—Direct.** Leaves New York daily, from the foot of Liberty street. Morning Line, 9 o'clock, A.M. Mail Pilot Line, 4½ o'clock, P.M. Fare in first class cars, \$4. Second class cars, 3. 31

Passengers will procure their tickets at the office foot of Liberty street. Philadelphia Baggage Crates are conveyed from city to city without being opened by the way. Each train is provided with a car, in which are apartments and dressing rooms expressly for the Ladies' use. 31

## Camden and Amboy Railroad Line.

—For Philadelphia and intermediate places. Leaves Pier No. 2, North River, foot of Battery Place, by Steamboat to South Amboy, daily, Sundays excepted, at 5½ o'clock A.M. Passengers will take the cars at South Amboy. Fare to Philadelphia, 3. Forward deck passengers, 2 25. To Freehold and Monmouth, via stages from Hightstown, 1 50. To Spotswood and West 75 cents. To South Amboy, 25 cents. To Perth Amboy, Tattens, Rossville and Tufts, 12½ cents. 31

The steamboat Independence will land at each of the above named places going and returning, leaving Perth Amboy at 5 o'clock P.M. 31

## New Jersey Railroad and Transportation Company.

—For Newark. Fare 25 cents. Leave New York at 8, 9, and 11 o'clock A.M., and 12½, 2, 3, 4½, 6½, and 8 o'clock P.M. Leave Newark at 7, 7½, 8, 9, 10½, A.M., and 1½, 4, 5½, 7½, 9½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave Newark at 11½ A.M., and 9½ P.M. 31

**For Elizabethtown.** Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Elizabethtown at 7, 7½, 8, 10½ A.M., 3, 6½, 9½, P.M. 31

**For Rahway.** Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Rahway at 5½, 7½, 11½, A.M., 3, 6½, 9, P.M. 31

**For New Brunswick.** Fare 50 cents. Leave New York at 9 A.M., 4, 4½ P.M. Leave New Brunswick at 5½, 7½, 11, A.M., 8½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave New Brunswick at 12 M., and 8½ P.M. 31

The commutation fare between New York and New Brunswick and intermediate places, including the ferry, 65 per annum. 31

## Paterson Railroad. Leave

New York, 9½ A.M., 12½, 5½ P.M. Leave Paterson, 8, 11½, A.M., 4 P.M. On Sundays, leave New York 9½ A.M., 5½ P.M. Leave Paterson, 8½ A.M., 4½ P.M. Passengers are advised to be at the ferry a few minutes before the stated hours of departure. Office 75 Courtland street. 31

## Morris and Essex Railroad.

Leave New York, 8 a.m., 4½ p.m. Leave Newark, 9 a.m., 5½ p.m. Leave Morristown, 7 a.m. 3½ p.m. Passengers by the morning train to Morristown, will arrive there at 10½ o'clock, where stages will be in readiness to convey them to Schooley's Mountain, Washington, Elvidere and Easton, daily; to Succasunna, Stanhope, Newtown, Milford and Owego on Mondays, Wednesdays and Fridays; and to Rockaway, Dover, Sparta and Newton on Tuesdays, Thursdays and Saturdays. Passengers from Morristown will arrive in Newark in time to take the morning and afternoon trains from Trenton and Philadelphia. 31

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 36.]

THURSDAY, SEPTEMBER 4, 1845.

[WHOLE No. 479, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 23, 1840.

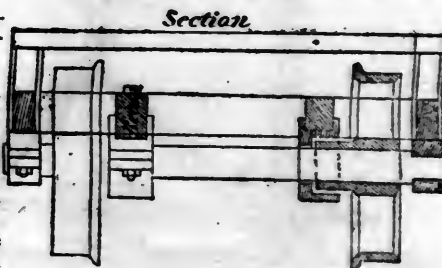
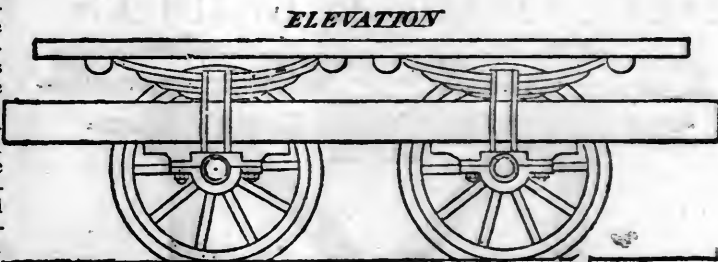
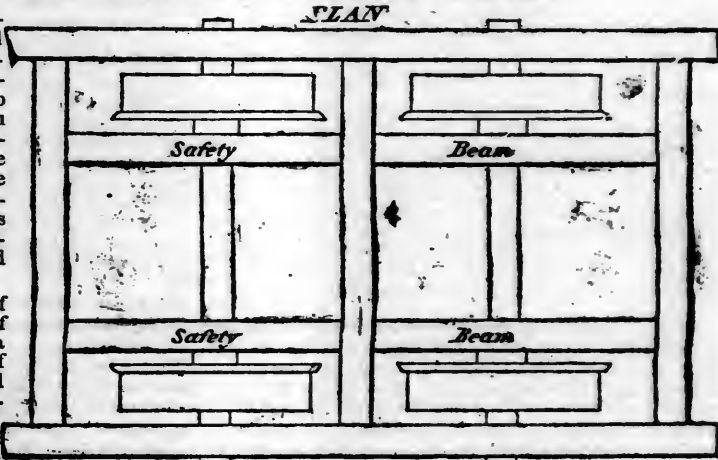
The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
 GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
 W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. **JOHN F. WINSLOW, Agent.**

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co, Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

**HENRY BURDEN, Agent.**

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand.

ja45

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

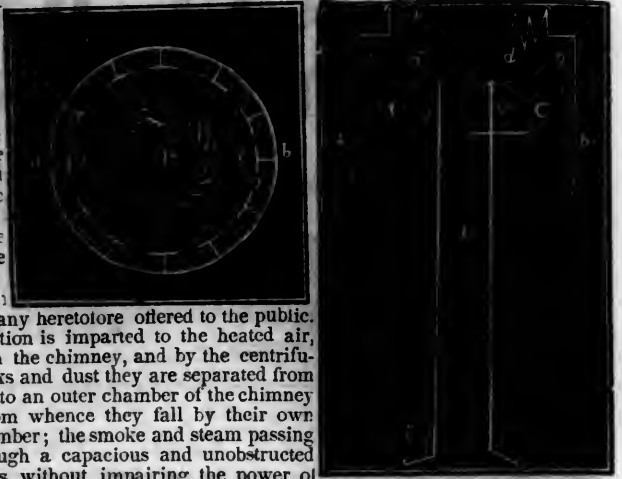
These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norris-town Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabeth-town and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

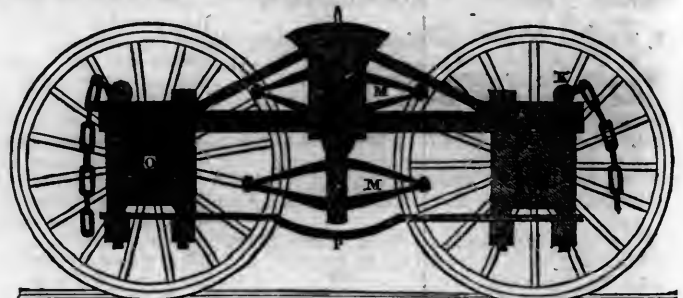
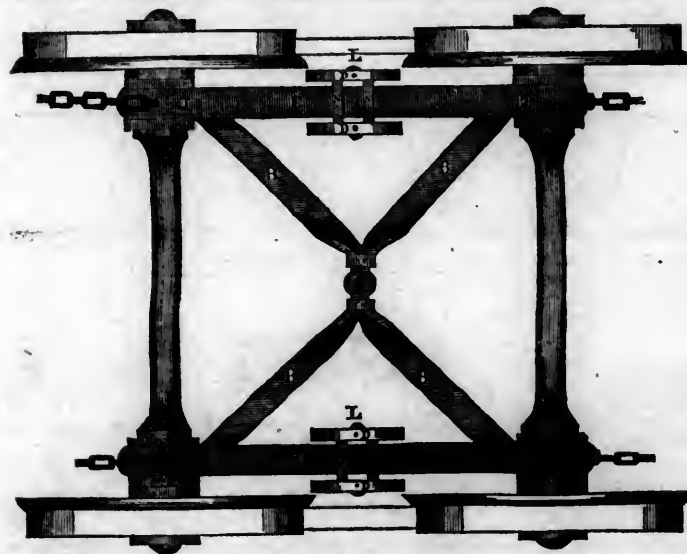
N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45



**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

**DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.**



**DAVENPORT & BRIDGES' IMPROVED PATENT IRON TRUCK FOR RAILROAD CARS,** is presented above, and the attention of Railroad Companies is respectfully invited to the following description of their justly-celebrated invention.

These Trucks are adapted as well for eight-wheeled passenger cars as for baggage and freight cars, giving to each a more agreeable and easy motion than any other Truck heretofore constructed or in use. They are simple in their construction, combining strength and great durability, although weighing at least twelve hundred pounds less than the common Trucks. Besides these excellences, by reason of the elasticity of the braces, B, B, B, B, as seen in the drawing, and the other peculiarities of construction, made for inside or outside bearing, the weight is equalized upon all the wheels, and yet any one may be raised so as to pass any inequality on the rails without lifting either of the other wheels from the track, thus rendering it almost impossible to run a car off. Being bound, and having as it were but four joinings, they are protected from injury by lateral strains, and in case of damage are easily repaired.

These excellences have been fully tested by use, for a long time, on the Eastern, the Fitchburg and Long Island railroads; and for proof of the above stated superiority of these Trucks over all others, we refer to the experience of those who have used and run them.

CAMBRIDGEPORT, April 1, 1845.

DAVENPORT & BRIDGES.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

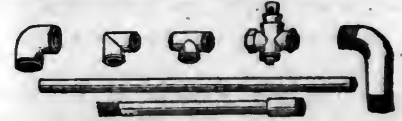
**W. Mc. C. CUSHMAN,** Civil Engineer,  
Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

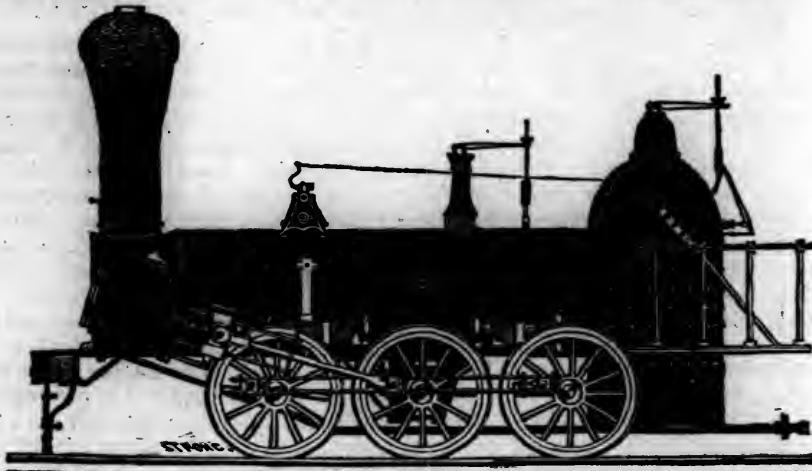
From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T. L. and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**

*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches Diameter of Cylinder,	× 20 inches Stroke.
" 2,	14 " " " "	× 24 " "
" 3,	14 1/2 " " " "	× 20 " "
" 4,	12 1/2 " " " "	× 20 " "
" 5,	11 1/2 " " " "	× 20 " "
" 6,	10 1/2 " " " "	× 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland,  
**WILLIAM YOUNG,**  
President.

**TWO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Biluminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years; the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McLartyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY,** Civil Engineer,

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS,** 48 State st., or to **CURTIS, LEAVENS & CO.,** 106 State st., Boston, or to **A. & G. RALSTON & Co.,** Philadelphia. ja45

**CYRUS ALGER & CO.,** South Boston Iron Company.]

**IMPROVED LOCOMOTIVE.**—We find in the Journal of the Franklin Institute for August, a concise description of the claim of Mr. Edwin F. Johnson to improvements upon the locomotive engine, which we give herewith. This engine we understand is to have eight wheels, all drivers; and the cylinders are played one under each end of the engine instead of at the sides as usual.

*For improvements in locomotive steam engines; Edwin F. Johnson, Middletown, Middlesex county, Ct., December 31, 1844.*

The improvements claimed, and for which letters patent are desired, are the following: 1st. The vibrating cross-head, and mode of attaching the two connecting rods thereto, so as to permit the drawing of driving wheels, to conform to the curvature of the road, without interfering with the movement of the steam-pistons. 2d. The mode of maintaining or preserving the relative motion of the two sets of drawing or driving wheels, by the combination of the horizontal slide rod, the arms, the crank bars, and the cranks, on the axles of said wheels. 3d. The mode of communicating the motion from the cross-heads to the crank bars, by attaching the connecting rods to the crank bars between the crank pins; also, the mode described and represented of retaining the frustums of cones in their proper position, by means of the vertical bars and horizontal bars. 4th. The mode of giving steadiness and support to the vibrating cross-heads, by combining with them the eccentric cog wheels and rods, as described, and the attaching of one pair of said wheels firmly to the same shaft. 5th. The use and application of the rods and lever, on the two sides of the machine, to conform the drawing or driving wheels to the curvature of the road.

It will be evident to the reader of the above claim, that, without drawings, it would require a very lengthy description to point out clearly the improvements covered by this patent; but the claim is sufficient to enable the engineer to understand the general plan of the inventor.

**AMERICAN RAILROADS.**—We find the following remarks in the Baltimore American, copied from the "Pennsylvanian," in relation to the list of American railroads, published in the Journal. If the editor had examined the table on the previous page headed 'state works,' he would have found both the Columbia and Portage railroad given, not complete however, and we are therefore obliged to him for enabling us to correct them, as we shall be still more so if he will examine that table and see the other Pennsylvania works are given correctly.

"The following list of railroads completed and in progress in the United States, with their length and original cost, we find in a late number of the "American Railroad Journal," and republish as a matter of general interest. It will be seen that the list embraces only the company railroads, and it is

believed to be nearly correct. The aggregate number of miles is 3,787, and the aggregate cost \$113,208,467. To these should be added the Columbia (Pa.) railroad, 82½ miles, cost \$4,204,969; and the Alleghany portage, 36½ miles, \$1,828,461—making a total of 3,906 miles of railroad in use or nearly completed, the aggregate cost of which amounts to \$119,241,897. There are now in the United States, in operation and nearly completed, over 2,000 miles of canal, and if we add to these the railroads recently projected, we shall have an aggregate of more than eight thousand miles of internal improvements."

**Railroad Cars—English and American.** The improvement in these vehicles is now so perceptible on our railroads that it is manifest to even the casual traveller. Every year has called out something new which adds to the comfort or safety of the passengers. It is well known that all of the recently built passenger cars are of great length and run upon eight wheels with a vibrating iron truck. Formerly the cars were short and had only four wheels. The advantage of the eight wheeled car is that it not only gives more room, and therefore greater comfort to the passengers, but also insures greater safety. These long cars turn curves better and cling better on account of having more purchase, to any unevenness or inequalities in the road-way. Hence their introduction may be considered a most desirable improvement in railroad travelling.

Yet it will scarcely be believed (though we are so assured by an eminent engineer) that the four wheeled car is still tenaciously adhered to even on the best railways in England. Nay, that the eight wheeled cars, are not yet introduced upon a single railway in England. This is an American invention and John Bull is rather slow to learn of Jonathan. On the contrary, our people at once adopt the latest improvements in England.—This gives us a great advantage in the working of railways.

We perceive likewise that the eight wheeled freight car is being preferred on our railways. They are more spacious and better adapted to the reception of freight. On the Reading and Philadelphia road iron freight cars are used, which are found to be just the thing for the transportation of coal.

Though the last five years have witnessed great and desirable improvements in the construction of cars and locomotives, yet we anticipate during the next five years changes for the better. At this moment, the mind and capital of the nation is setting very strongly towards every thing connected with railroads, and under this impetus we may reasonably anticipate that American ingenuity will not repose upon its past laurels, but remember the noble maxim of true science, that what has been done, is to be used as the momentum of future progress.—[Albany Argus.]

**Opening of a Railroad.**—We regret we did not form one of a party, who, on Saturday last, travelled over the new railroad, just

completed to the Clover Hill coal mines.—The road connects with the Petersburg road, 17 miles from this city, and the distance from Richmond is 29 miles to the mines. The coal is of the finest quality brought to this city, and will, we trust, form a source of wealth to the enterprising proprietors. It is found mostly on the surface, and we understand can be put on board a vessel, either at Rockett's, below this city, or at Port Walthal on the Appomatox, for six cents a bushel, all expenses paid.—[Richmond Enquirer.]

**Vermont Central Railroad.**—We learn from the Bunker Hill Aurora, that Mr. Felton was to proceed on Monday morning with an efficient corps of engineers, to lay out this road for work. The whole route, says the Aurora, will probably be surveyed in a few weeks, and a report made to the directors.—[Windsor Vermont Journal.]

**The Railroad.**—By the Cambria, letters have been received in this town from the agent of the St. Lawrence and Atlantic railroad, now in England, which gives the most flattering assurance of the speedy success of this important enterprise. We have been kindly permitted to take an extract from one of these letters, which will be found below. It is all the most sanguine friend of the enterprise could hope for. Present indications are, that contracts will be let this fall.

"The railway prospers bravely, and I have now no doubt, that within a fortnight or three weeks we shall have £4 per share sterling paid on 10,000 shares. The prospectus was only issued on Friday last, and on Tuesday were several thousand shares applied for, besides those coming through the brokers, and I was then assured by those who ought to know, that I might make my mind easy as respects the capital. I am, however, as a measure of precaution, getting stock taken in Leeds, Manchester, Liverpool, Glasgow, and Edinburgh, more with a view of thus extending their interest in our portion of Canada, than from any idea that it is necessary on account of the capital. I hope to return on the 19th, of August with the business done—purchases of iron made for commencement in the spring, and locomotives ordered!"

We take the following from the correspondence of the United States Gazette, dated  
ANTWERP, July 29.

The railroad mania continues throughout Europe with unabated vigor. But while the English and the French get up stocks, the Germans are quietly at work in connecting the Mediterranean with the Baltic and the North Sea. In the course of three years, a tour from Hamburg to Trieste will be accomplished in two or three days, and the commerce of Europe take a very different direction. England will lose much of her coasting trade by the facility with which her own coal is now forwarded on railroads from one of her ports to the other, but a far greater amount of her trade to the Levant and the Mediterranean generally will be shared by the nations of the continent.

**Malleable Glass.**—The Segusian Mercury



states that a most marvellous discovery has been made at St. Etienne, of rendering glass as malleable when cold as when first drawn from the pot. This substance, which is called silicon, combines with various substances producing the most brilliant colours, and can also be obtained opaque or transparent as crystal; its specific gravity is 2.85, water being 1.00; it is very ductile and malleable, and neither air nor acids act upon it. The idea of discovering malleable glass is only ranked second to that of the philosopher's stone among alchemists, and the latter will doubtless be the next discovery made, for the one is as probable as the other.

**Railroad Disasters.**

**Railroad Accident.**—We intend hereafter to note the accidents on railroads.—We learn says the Salem Register, from the Traveller, that the freight and gravel trains, on the Portsmouth, Saco and Portland railroad, ran into each other yesterday morning, near Wells. One of the large cars was smashed to pieces, but no person was injured.

There has been a perfect glut of railway accidents—on many railways, and sometimes more than one on each.

On the Birmingham railway, two. A train going, in a mist, at the rate of thirty miles an hour, was driven into another; one person's leg was smashed, and several were bruised. An engine driver's leg was crushed while he was looking at an engine that was out of order.

On the Dover railway, one. In consequence of some mistake about lights, one train ran into another: a person's leg was broken, a second suffered dislocation of the jaw, a third injury to the spine, and more were bruised.

On the Eastern Counties, one. Two engines, one at each end, were employed to propel a train; there was a concussion, and several persons were badly hurt.

On the Midland railway, two. A porter was killed by the swinging round of a truck on a turn table. A stoker's leg was smashed by the collision of two mineral trains.

On the Great Western, two. A guard was knocked off a platform while asleep.—A laborer, waked up from sleeping in a dangerous place, was frightened, ran in the way of a train, and was killed.

On the Edinburgh and Glasgow railway, one. A drunken porter was jammed between two carriages, and killed.

Of these nine bad "accidents" on six railways, there is but one—the last, if that can be accounted an exception—that was not the result of gross carelessness—but one which the smallest forethought and system might have prevented.—[London Spectator.]

**Striking Coincidence.**—Mr. Pease, the manager of the greatest coal railroad in England, in his testimony before a committee of the house of commons, relative to the cost of carrying coal on the newly projected railroad from York to London, says, that 1-4 of a penny per ton per mile will cover all the expenses of transportation, including the

maintenance of the road. This is equal to 1-2 cent per ton per mile; applied to the 94 miles of Reading road, would make the cost of transportation on this road, per ton 47 cts.

But Mr. Pease estimates the expense of maintenance of road at 6-100 of a penny per ton per mile, which, for 94 miles, will amount to 11 cents, leaving 36 cents for the total cost of transportation only.

The Reading road is working at present, in coal alone, 35 engines, 15 of the largest size, at a cost, all expenses included, of \$32 daily, each, 480

20 of smaller size, do. \$25 daily each, 500—980

These deliver daily 4,100 tons of coal, and return the empty cars, equal to per ton, 24 cents for motive power.

Wear and tear of cars as follows: 1600 wooden cars and 1500 iron cars, average cost \$236. Total cost, \$731,600. Average load 4 tons each.

According to Lowell rates for wooden cars, 12 for use, \$7,792.

Delivering 4,100 tons daily, for 240 days the probable work of the season, 984,000 tons per annum, making for wear and tear, say per ton 9 cents.

Conductors and brakemen, 34 trains daily at \$4½ per day, 4,100 tons, \$144 50 3 5

Grease, do. last years experience, 1 5

Per ton 38 cents

Mr. Pease estimates for the London and York, 36 cents per ton.—Ledger.

**Railways and Canals.**—In the appendix and statement issued on behalf of the Grand canal company of Ireland, in the matter of the proposed railway to Cashel, there are given some curious details as to the effect of railway on canal property. Thus the Grand Junction canal, which forms the first ninety miles of water communication between London and Birmingham, had, in three years immediately preceding the opening of the railway, an annual revenue from tolls, ranging from £174,722 to £198,000 regularly increasing. Since the railway has been fully in operation, this revenue has varied from £121,139 to £113,012. The Rochdale canal is 33 miles long, and throughout the entire distance the Manchester and Leeds railway runs parallel to it. In three years previous to the opening of the railway the tolls ranged from £62,069 to £59,259; In the last three years they have varied from £31,533 to £27,165. The Kennet and Avon canal, are both affected by the Great Western railroad, and the tolls of the former have fallen since the railway was opened from £46,703 to £32,045, and of the latter, from £18,328 to £8,476.—The Fourth and Clyde Navigation has gone down from £62,516 to £42,218; and the Union canal, which connects Edinburgh with the Fourth and Clyde canal has had its net profit reduced by railway from £12,000 to £4,284. The market price of canal stock, has, of course suffered in proportion. Thus, shares in the Grand Junction have fallen from £330 to £180; Worcester and Bir-

mingham, from, £84 to £55; Kennet and Avon, from £25 to £9; and Rochdale, from £150 to £61 1-2 while Coventry canal shares, which were at one time as high as £1,200 have fallen as low as £315.—[Herpath's Journal.]

**The English Iron Trade.**

**"The Iron Trade.**—The usual quarterly meeting of the iron masters have been held in the several localities during the week—at Walsall on Tuesday, Wolverhampton on Wednesday, Birmingham on Thursday, and Stourbridge yesterday—the meeting at Dudley this day, for the settlement of prices, is looked forward to with much interest. Every description of manufactured iron having been reduced in price in the last thirteen weeks from 20 to 25 per cent, the great hope of the trade now is, that it will not be any lower, if it should not rise, though many begin to be thoroughly aware that too sanguine ideas were entertained of the great demand for railway iron, which would arise from the numerous speculations afloat; a very great number of these will not be carried out at all, and the consumption of iron of those which are, will be spread over a much longer period than was anticipated. The price of bar iron is now nominally 10½ per ton at the works, though many sales have been effected for considerably less; the demand is still dull, and it is evident stocks are accumulating.

"The business in iron, says a correspondent of the Mining Journal, has been very limited this week, in consequence of the near approach of the quarterly meetings of Staffordshire masters, at which a reduction was generally expected; at the Birmingham meeting, yesterday, a fall of 40 shillings was declared on Staffordshire iron, and it is thought likely that Welch will give way a few shillings per ton. In Scotch pig very little has been done—60 shillings being the highest at which buyers to any extent can be found. Russian and Swedish are not in request.

"English iron continues very flat; Staffordshire prices again reduced 2½ per ton, making the present selling price for bars 8½ per ton at the works. In Welsh no alteration. Scotch pig iron has been sold at lower rates, and may now be quoted at 60s. buyers, and 62s. 6d. sellers. The demand for English lead continues at quotations. Tin plates dull of sale. In spelter the market is not so good; considerable sales reported in the early part of the week at 24½, but it is now to be bought on easier terms."

Thus it will be seen that the prices of iron are coming down again to reasonable rates.

We have letters dated London July 16th, from which we learn that railway iron could then be got for £9 per ton—less 5 per cent. for cash. It is thought by well-informed persons that it will not go lower, as there will be at least 25000 miles of railway authorized by parliament this session, which using rails of 70 to 75 lbs, will require large amounts of iron.





AMERICAN RAILROADS.												SALES.		
RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on here.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	Week ending Aug. 23.	
						Gross.	Nett.		Gross.	Nett.			Shares.	Price
Me. 1	Portland, Saco and Portsmouth	50	1,200,000				89,997	47,166	7	131,404	62,172	6	101½	
N. H. 2	Concord	35	750,000									12	65	
Mass. 3	Boston and Maine	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	114½	20 113
" 4	Boston and Maine extension	17 1-4	455,703	unfin.										
" 5	Boston and Lowell	26	1,863,746				277,315	144,000	8	316,909	147,615	8	108	25 116½
" 6	Boston and Providence	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	112½	
" 7	Boston and Worcester	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	116½	39 116½
" 8	Berkshire	21	250,000	not stated				17,500	7	17,737				
" 9	Charlestown branch		280,260						13	34,654	13,971	5½	80	
" 10	Eastern	54	2,388,631				279,563	140,595	6	337,238	227,920	8	108½	
" 11	Fitchburg	50	1,150,000	just op'n'd						42,759	26,835		124	
" 12	Nashua and Lowell	14 1-2	380,000				84,079		8	94,588	34,944	10	123	
" 13	New Bedford and Taunton	20	430,962				50,671	24,000	6	64,998	24,000	6		
" 14	Northampton and Springfield		172,883	unfin.										
" 15	Norwich and Worcester	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	67	2,803 68½
" 16	Old Colony		87,820	unfin.									105	
" 17	Stoughton branch	4	63,075	unfin.										
" 18	Taunton branch	11	250,000					20,000	8	96,687	20,000	8	118	
" 19	Vermont and Massachusetts													
" 20	West Stockbridge	3	41,516	200		100						4		
" 21	Western, (117 miles in Mass.)	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	97½	164 96½
" 22	Worcester branch to Milbury		8,431	506										
" 23	Housatonic, (10 months)	74	1,244,123							150,000			26	10 26
Con 24	Hartford and New Haven	38	1,100,000	100,000	10,000	100						6	93	
" 25	Hartford and Springfield	25 1-2	600,000	400,000	2,000	100								
" 26	Stonington, (year ending 1st Sept.)	43	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29	50 29½
N. Y. 27	Attica and Buffalo	31	336,211				45,896	7,522		73,248	48,033	0		
" 28	Auburn and Rochester	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109	
" 29	Auburn and Syracuse	26	766,657			133½	86,291	27,334		96,738	52,544	6	116	
" 30	Buffalo and Niagara	22	200,000		1,500								100	
" 31	Erie, (446 miles)		5,000,000										26½	125 27½
" 32	Erie, opened	53						48,000		126,020	59,075			
" 33	Harlem	26	1,206,231							140,685	62,399		60½	210 61
" 34	Hudson and Berkshire	31	575,613			50				35,029	1,789	0	11½	
" 35	Long Island	96	1,610,221	392,340	29,846					153,456	58,996	0	61½	11,492 64
" 36	Mohawk and Hudson	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	56½	189 57
" 37	Saratoga and Schenectady	22	303,658				42,242	3,000	1	34,666	8,455	0		
" 38	Schenectady and Troy	20 1-2	640,800				28,043			32,646	6,365	0		
" 39	Syracuse and Utica	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117	
" 40	Tonnawanda	43	727,332				76,227			114,177	75,865	5		
" 41	Troy and Greenbush	6	180,000										89	
" 42	Troy and Saratoga	25	475,801				44,325	21,000		38,502	9,971	2½		
" 43	Utica and Schenectady	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132	
N. J. 44	Camden and Amboy	61	3,200,000				682,832	383,880		784,191	404,956		112	
" 45	Elizabethtown and Somerville	26	500,000											
" 46	New Jersey	34	2,000,000										95½	
" 47	Paterson	16	500,000										6	88½
Pa. 48	Beaver Meadow	26	1,000,000											
" 49	Cumberland Valley	46	1,250,000											
" 50	Harrisburg and Lancaster	36	860,000										30	
" 51	Hazleton branch	10	120,000											
" 52	Little Schuylkill	29	900,000											
" 53	Blossburg and Corning	40	600,000											
" 54	Manch Chunk	9	100,000											
" 55	Minehill and Schuylkill Haven	19 1-2	396,117	25,000	7,019	50			12			12	80	
" 56	Norristown	20	800,000										6½	
" 57	Philadelphia and Trenton	30	400,000										104	
" 58	Pottsville and Danville	29 1-2	1,500,000											
" 59	Reading	94	9,457,570	7,447,570	40,200	50				597,613	343,511		25	6,600 25
" 60	Schuylkill valley	10	1,000,000											
" 61	Williamsport and Elmira	25	400,000				20,000							
" 62	Philadelphia and Baltimore	93	4,400,000				43,043	200,000			210,000		15½	7,392 14½
Del. 63	Frenchtown	16	600,000											
Md. 64	Baltimore and Ohio, (1st Oct.)	188	7,623,600				575,235	279,402		658,620	346,946		48½	
" 65	Baltimore and Susquehanna	58	3,000,000										2½	
" 66	Baltimore and Washington	38	1,800,000				177,227	71,691		212,129	104,529		84	
Va. 67	Greensville and Roanoke	18	284,433	37,544	2,000	100				25,368	6,074		28	
" 68	Petersburg	63	969,880	63,000	7,690	100				122,871	72,898	3	77	
" 69	Portsmouth and Roanoke	78 1-2	1,454,171											
" 70	Richmond, Fredericksb'g and Potomac	76	800,000							185,243	85,688	6		
" 71	Richmond and Petersburg	22 1-2	700,000											
" 72	Winchester and Potomac	32	500,000											
N. C. 73	Raleigh and Gaston	84 1-2	1,360,000											
" 74	Wilmington and Raleigh	161	1,800,000											
S. C. 75	South Carolina	136								532,871	140,196	5		
" 76	Columbia	66	5,671,452		34,410	75	201,464	77,456		328,425	180,704			
Ga. 77	Central	190	2,581,723				227,532	93,190						
" 78	Georgia	147 1-2	2,650,000				248,026	158,207		248,096	147,523			
" 79	Montgomery and West Point	89	500,000	170,000		100				35,000	15,000			
Ky. 80	Lexington and Ohio	40	450,000											
Ohio 81	Little Miami	40	400,000											
" 82	Mad river	40	152,000											
Ind. 83	Madison and Indianapolis	56	212,000											
Can. 84	Champlain and St. Lawrence	15						12,000		58,000	24,000		110	

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.

Thursday, September 4, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 22,799 tons, and by canal 9,795 15, making 32,594 03 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total.....	233,467
From Schuylkill Haven—total.....	247,753
From Port Clinton—total.....	12,251

Total by railroad.....492,503

BY CANAL.

From Pottsville and Port Carbon—total.....	88,275
From Schuylkill Haven—total tons.....	23,566
From Port Clinton.....	30,211

Total by canal.....143,054

Total by railroad and canal.....635,557

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines, -	118,391
Room run do., -	44,517—162,908
Beaver Meadow railroad and coal co.,	62,097
From Penn Haven—Hazleton coal co.,	43,340
From Rock Port—Buck Mountain coal co.,	12,911

271,256

WYOMING COAL TRADE—total.....	96,326
PINE GROVE COAL TRADE—total.....	39,741
MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....	271,162
MOUNT CARBON RAILROAD—total tons.....	165,154
MILL CREEK RAILROAD—total.....	43,490

[Miners' Journal.]

RAILROAD RECEIPTS.—The receipts for week ending August 16th, over the Western railroad were:

	1845.	1844.
Passengers.....	\$11,517	12,930
Freight, etc.....	7,536	8,508

Total.....\$19,053 \$21,438

Including the above the receipts thus far this season as compared with last, have been:

	Passengers.	Freight, etc.	Total
1845.....	219,988	222,598	442,586
1844.....	209,800	197,827	407,627

Excess in 1835. \$10,188 \$24,771 \$34,959

New York and Erie Railroad.

In our number for 10th July, we announced the appointment of James Harper to the presidency of New-York and Erie railroad company, and congratulated the community upon the event, believing as we did, that he might be eminently instrumental in accomplishing that important work; we soon learned however, much to our regret, that his acceptance was merely temporary, or only until some other suitable person could be selected to fill the station.

The appointment of Mr. Harper was looked upon, we have reason to believe, as an excellent one; and many of the friends of the road, who had become disheartened, were again cheered with the hope of an early commencement, and vigorous prosecution, of the work, only to be again disappointed when they learned that he declined the post. We were of the number who thought he ought not to decline, but rather to step boldly forward, assume the helm, and set an example to the merchants, and capitalists of this city, by subscribing at least one hundred thousand dollars to the stock of the company. He however thought, and acted differently; and therefore the directors have made choice of Mr. BENJAMIN LODER—late a merchant of this city, but now retired from business with an ample fortune—to be the president of the company. We have but a slight acquaintance with Mr. Loder, but understand that he is a thorough, systematic business man, who has been eminently successful in his own business; that he has entire confidence in the early completion of the work, and the value of its stock as an investment, as is evinced by his subscription, which is larger than that of any other person; and that he will devote his best energies to the vigorous and economical prosecution of the enterprise. If Mr. Loder is the man we have represented him to be—and we have good reason to believe that he is—he will command the confidence of the capitalists, and business men of New-York; and, with the million of dollars already subscribed by a few individuals, who will doubt that the remaining two millions will be subscribed by the thirty thousand capitalists, merchants, and business men of this city within the next sixty days, if the subject is properly brought before them by the directors and the press? We do not—and therefore look forward, with entire confidence to an early commencement of work again upon the line, and to its energetic prosecution until opened to lake Erie.

We shall refer again soon and often, to the subject and annexed we give the proceedings of the board at its last meeting, and a list of the directors and officers.

Office of the New York and Erie R. R. Co. }  
 August 30, 1845. }

At a meeting of the directors of the New-York and Erie railroad company held this day, the Hon. JAS. HARPER, after expressing his regret that his extensive private business put it out of his power to discharge the duties of acting president, tendered his resignation.

Benjamin Loder, Esq., was thereupon duly elected president of the company.

Shepherd Knapp, Esq., and Samuel Marsh, Esq., were chosen to fill vacancies in the board.

The board now consists of the following members:

- |                   |                    |
|-------------------|--------------------|
| Benjamin Loder,   | Jacob Little,      |
| James Harper,     | Henry Sheldon,     |
| Silas Brown,      | Henry Suydam, Jun. |
| Daniel S. Miller, | A. S. Diven,       |
| Henry L. Pierson, | John Wood,         |
| Robert L. Crooke, | William E. Dodge,  |
| Stewart C. Marsh, | Shepherd Knapp,    |
|                   | Samuel Marsh.      |

By order of the board,  
 T. S. BROWN, acting secretary.

CORRECTION OF ERRORS.—In our efforts to correct those errors into which we have inadvertently fallen, it sometimes occurs that we are led into others less pardonable. This appears to be the case in attempting to correct the figures, in our table of American railroads, opposite the Petersburg and Roanoke, or "Petersburg," railroad. We took the liberty to publish in the Journal of 26th June, an extract from a private letter, written by a friend at our

repeated solicitation through the Journal, to enable us to correct any errors in the tables of railroads and canals which might be discovered. By referring to that number of the Journal it will be seen that other important errors were pointed out in the extract referred to beside those in the "Petersburg and Roanoke railroad," from which it will, we are sure, be inferred that the writer had no design to do injustice to his neighbors by the statement given. He knew that we desired to give the facts—the simple truth in these tables; and he is also aware, and we wish others to know, that we are always ready to publish any proper statement from the parties interested in explanation of those facts. It is however exceedingly unpleasant to be either inadvertently or otherwise, made the instrument of casting unjust imputations upon any one, but more especially upon those who have endeavored to aid us in giving correct information; and we feel that injustice has been done, unintentionally we presume, to us as well as to our correspondent, in the letter of H. D. Bird, Esq., president of the Petersburg railroad company—published in the hurry of business without comparing it with the original, in the Journal of the 31st July—and republished Aug. 21st, to correct several typographical errors—in not giving entire that part of the letter of our correspondent from which his quotations were made—and especially the last line of it. Mr. Bird must be aware that in giving the statements of a writer, justice requires that his whole statement, in the connection, be given without mutilation, unless the quotation is so made as to show that something is omitted; and on reflection we are convinced that he will perceive that the omission of the last line of the extract given by us from our correspondent's letter, which was an essential one, furnishes the only foundation for the insinuation conveyed in his letter.

It has been our misfortune in a few instances, to publish statements, from those in whom we had entire confidence—and therefore without the proper scrutiny—bearing upon others to which, could we have seen all the bearings, we should have applied the knife—or rejected them altogether—yet it has been, as it will ever be our aim to avoid personalities, and we have a right to expect that our correspondents will omit all private, or personal matters in their communications to the Railroad Journal—a work designed to aid the cause, not to injure its friends.

Railroad Convention at Poughkeepsie.

There is to be a railroad convention at Poughkeepsie, on the 16th of the present month, in relation to a railroad from New-York to Albany. It is to be hoped that the friends of this important work will show their interest in it by their attendance, and that measures will be taken which will ensure its early construction, upon that route which will accommodate the greatest number of people and amount of business. We shall probably refer to it again in our next number.

Kennebec and Androscoggin Railroad.

We find in the last Portland Advertiser, a statement that Mr. Hall has made an exploration of a route for another railroad in Maine. It is designed to open a communication from Waterville, or some other town on the Kennebec river with the Portland and Montreal railroad. It will be about 50 miles in length and is estimated to cost \$961,520 when equipped ready for use. Maine is in a fair way to become thoroughly aroused to the importance of railroads, and the motto of her young men, "one share more," will do the work.

**The Railroads of Belgium.**

With a notice of the other modes of Internal Communication—translated and abridged from "La Belgique et les Belges," by Major G. T. Poussin, formerly of the U.S.E.

BY G. C. SCHAEFFER, C. E.

For the American Railroad Journal.

ENGINES, CARS, ETC.—On the first of January, 1845, the number was as follows, including those in repair or in construction.

Locomotives.....	146
Tenders.....	145
Passenger cars.....	631
Wagons for merchandize, cattle, carriages, etc..	1908
Average number of locomotives per myriametre, (5 1-5 miles) of road.	
In England.....	4
France.....	4
Belgium.....	3
Germany.....	2
United States, less than.....	2

The greater part of these has been furnished by the Belgian shops—so famous for machinery of all kinds. The model selected was that of Stephenson with the latest improvements. These locomotives cost 38 to 40,000 francs each.

The government has also decided upon the construction of twelve new locomotives after the model of those furnished by the celebrated manufacturer, Wm. Norris, of Philadelphia. These are intended for the section of the Vesdre—the most unfavorable portion of the line both for grades and curves.

The cars are very well built, about 10 feet wide, with wrought iron wheels, and furnished with spring bumpers, and brakes; most of the passenger cars are covered.

MOVEMENT OF 1844; EXPENSE OF WORKING.—The movement of 1844 was over 347 miles; 143 locomotives, which together ran 2,485,305 kilometres, divided as follows.

1,632,155 kilometres by the passage trains,  
853,150 " " burden trains,  
the passenger trains constituting 65½ per cent. of the entire movement.

Of the 143 locomotives it was necessary to fire up each day 48, or one third the entire stock. Similar proportion holds in France and in England; the proportion of engines fired in the United States is much smaller. The average travel of each engine fired has been 95 kilometres.

The expenses of 1844, amounting to 5,765,430 fr. gives 14,313 fr. 64 c. per kilometre of road, or 2 fr. 32 c. per kilometre of the travel.

Detail of expense of working.

	Per kil. of road.	Per kil. travelled.	
	fr. c.	fr. c.	fr. c.
Road and stations.....	2,504 42	57	} 1 18
Transportation.....	2,075 35	47	
General administration.....	650 27	14	
Locomotive expenses.....	5,083 60	1 14	
Total.....	10,313 64	2 32	

Thus the expense of locomotion was exactly equal to the other expenses and half of the whole cost of working.

COST OF LOCOMOTION per kilometre (6214 of a mile).

	fr. c.	pr. ct.	entire cost of working.
Belgium, 1 14 or 49 28-100			
France... 1 10 or 55			
England. 0 86 or 33			
U. States. 96			

FUEL.—The fuel consumed per kilometre travelled, was about 26 lbs., costing 27 centimes, or one fourth the cost of locomotion and one-eighth the entire cost of working.

Quantity of fuel per engine per kilometre and cost per quintal.

	Pounds.	fr. c.
In Belgium.....	269	2 36
England.....	216	2 60
France.....	239	3 93

Proportion between cost of fuel and cost of working or of locomotives.

	Of cost of locomotion.	per cent.	Of entire cost working.	per cent.
In Belgium.....	23	12-23		
England.....	30	13		
France.....	43-40	21-50		
Germany.....	46	23		
United States.....	35	15		

MEAN VELOCITY OF TRAINS.

	miles per hour
In Belgium.....	15-5
England.....	20-5
France.....	17-4
Germany.....	15-5
United States.....	15-8

PASSENGERS. NUMBER. RECEIPTS.—The whole number of passengers 3,331,529 divided as follows.

First class.... "diligences"....	362,234
Second ".... "chars a bancs"....	928,606
Third ".... "wagons"....	2,070,022
Military transports and extras....	20,667
Total.....	3,331,529

	francs.	fr. c.
Receipts—1st class 1,591,134 or 4 39 per passenger		
2d " 2,218,545 2 39 "		
3d " 2,321,313 1 12 "		

The average number of cars in each train is over 11 carrying 120 passengers and 75 tons goods. The passengers and baggage paid 53½ per cent. of the whole receipts.

	francs.	fr. c.
Average number of passengers per kilometre.		
In Belgium.....	6-179	
England.....	6-000	
Germany.....	2-055	
France.....	4-200	
United States.....		

	c.
Fare—1st class passengers..	7-8 per kilometre
2d " " " " " "	5-8 " "
3d " " " " " "	3-8 " "
Average.....	5-8 " "

or 19 cents per mile.

	fr. c.
Average fare per mile in different countries.	
In Belgium.....	19 cents per mile
England.....	3-8 " "
France.....	2-4 " "
Germany.....	1-5 " "
United States.....	1-4 " "
(To be continued.)	

**ATLANTIC AND ST. LAWRENCE RAILROAD.**

A meeting was recently held at Portland for the purpose of arousing still more, the people of Portland, in relation to this road, and they must be aroused, they cannot now do without the road and rather than not to have it each owner of real estate had better give one-third of it, and never receive a penny in return, as dividend or otherwise, than not to have it. The balance with the road will be worth more than the whole without; he must therefore subscribe freely, he cannot afford to do otherwise for two reasons; first, because on the completion of the road the real estate of Portland will be worth double what it now is, and second, because no other part of his

property will give him as good returns as that which he puts into the stock of this road, when the road shall have been two years in use through.

**MONROE RAILROAD AND BANKING CO.—**

We perceive by the last Macon Messenger, that Andrew R. Moore and others, are about to contest the legality of the sale of this railroad and caution the purchasers not to take title.

**BOSTON, CONCORD AND MONTREAL RAILROAD.—**

We have the report of the engineer, Wm. P. Crocker, Esq., of the survey from Concord to Haverhill N. H., passing through several important manufacturing villages and the romantic region of the Winnipissioege lake in its way. This road is designed to open an easy communication between Boston, Lowell, Nashua, Concord and Haverhill, together with the upper valley of the Connecticut river, and also to reach Montreal if possible.—We had entertained the opinion that the upper valley of this river would be reached by a railroad from Concord to Lebanon, and thence up the valley of the river, but it appears that the good people of Hanover, Lyme and other towns on the river are something like the citizens of New-York, waiting on providence to make railroads for them, while the people of the inland manufacturing villages are more like the BOSTONIANS "up and at 'em"—and thus make their own railroads, and we like them for it, therefore they will, if they "go ahead" receive the hearty cooperation of this Journal.

From the report and the statistics which accompany it, we are led to entertain favorable views in relation to the route. The distance from Concord to Haverhill is 81 miles; and the estimated cost, including machinery and every thing ready for business \$2,090,546 66.

According to the statistics of travel and transportation which must fall upon this road, it will be a good investment. The investigation gives 68,000 tons freight, at an average of \$3,00, and 46,000 passengers at £2,00, making the gross receipts \$296,000, and the expenses of working are put at \$84,000 leaving \$212,000 to be divided. The report gives very minute details and at considerable length, but we merely give the recapitulation and table of gradients.

The people on the line of the road appear to be in earnest, and they will doubtless receive important aid from those interested in the line from Concord to Boston and also from the citizens of Boston who have a deep interest in a direct line to Canada, as this will be if carried through.

RECAPITULATION.

Cost of the first division 27 miles....	486,007 09
" " " Second " 23 do.....	613,289 99
" " " Third " 30 do.....	891,249 88
<b>Total .....</b>	<b>\$1,990,546 66</b>

ROAD FURNITURE.

6 Locomotive engines and tenders...	39,000 00
4 Large passenger cars.....	7,200 00
4 Small ".....	3,200 00
4 Baggage cars.....	2,000 00
60 Freight ".....	30,000 00
60 ".....	18,000 00
2 Snow ploughs.....	600 00

Total cost of road.....\$2,090,546 66  
Average cost per mile \$25,809 21.

In the foregoing estimate for the superstructure the undersigned has adopted the present most approved rail, weighing 56 lbs. to the yard, with chairs of cast iron, spikes, longitudinal sills, sleepers, etc., such as are used upon the best constructed railroads.—The price of the rails he has computed at what is supposed to be their present cost, \$75 per ton. A difference of ten dollars per ton in the price of iron, would change the cost of construction \$880 per mile, and in that proportion for a greater or less variation.

In the estimate for grading, the amount of excavation is computed for a road bed twenty feet wide cuts, and fifteen feet wide on embankments, with the usual slope of one and a half to one—and with a slope of an inch and a half to the foot, in rock cutting. The prices, as will be seen, are such as will readily secure the services of the best and most efficient contractors.

In conclusion the undersigned would remark that all his estimates having been made a very careful and minute survey; and in making them he has not been governed by a desire to present the cheapest possible rate at which a railroad can be constructed over this route; and he has endeavored to avoid the too frequent error of under-estimating the cost of projected works of this kind. He has been governed throughout by the supposition that the road, in all its parts, is to be of the best materials, made in the best manner, upon the most approved plan for a permanent, economical & thoroughly built railroad. And feels great confidence in saying that the construction of such a road with all its furniture and fixtures will not exceed the estimates here exhibited. Respectfully submitted,

WILLIAM P. CROCKER.

August 1845. *Civil Engineer.*

TABLE OF GRADIENTS.

No. of Planes.	Inclination per 100 feet.	Inclination per mile.	Aggregate Leng.h.
30.....Level.....			13 ms. 2260 ft.
1.....0.25 feet.....	13.2 feet.....	0 "	3300 "
2.....0.30 ".....	15.84 ".....	1 "	1620 "
2.....0.40 ".....	21.12 ".....	1 "	1520 "
16.....0.50 ".....	26.40 ".....	6 "	1820 "
3.....0.65 ".....	34.32 ".....	1 "	3270 "
37.....0.75 ".....	39.60 ".....	19 "	4580 "
8.....0.85 ".....	44.88 ".....	19 "	4160 "
1.....0.95 ".....	50.16 ".....	2 "	890 "
1.....1.00 ".....	52.80 ".....	3 "	4160 "
101.....101 vertical curves.....		10 "	4100 "

81 miles.

ALTON AND SPRINGFIELD (ILL.) RAILROAD.

We are pleased to see the people of Illinois—or rather the editor of the Alton Telegraph

—moving in relation to railroads. There must be a railroad from Chicago to St. Louis, or rather to Alton passing through Springfield; and it is quite time the people were moving on the subject.

NIAGARA AND DETROIT RAILROAD.—We find in the Detroit Free Press, the following prospectus of this road. It comprises much in small compass; places the enterprise fairly before the public—and will, we think, command attention.

PROSPECTUS.

The Niagara and Detroit rivers railroad is designed to connect Buffalo with Detroit, and extend the great western railroad in one continuous line from Boston to the head of lake Michigan, and ultimately to St. Louis.

Cost of construction.—In direction, elevation, and economy, it is unrivalled by any road for a similar distance. It will be nearly in a straight line, having only two gentle curves in a distance of 222 miles. The grade is in no place over 15 feet for short distances, and averages less than two feet in the mile. The estimated cost from actual survey in 1838, is one and a half million of dollars; but if the road be constructed of the heavy H rail, in the most perfect manner, the cost may extend to two and one half millions.

Income.—One thousand people are supposed to pass through Buffalo daily, during the travelling season—from whence there is but one means of communication to the west, namely by lake Erie. The communication eastward is by the falls of Niagara, Canada, lake Ontario, the Erie canal, and the Buffalo and Attica railroad. Notwithstanding these numerous channels, the latter is selected as the basis on which a safe, durable, and profitable investment is anticipated.

It appears from the statistical returns furnished by the Secretary of State for New York, in March 1845, that during the year 1844, from December to April, five months, 63 persons, including way-passengers, passed each way, daily, over the Buffalo and Attica road.—although lake Erie was not, during this period, navigable—130 days X 136 passengers=17,680 at \$5=88,400. In May, October and November, the travelling increased to 126 each way. During this period the navigation of the lake is considered hazardous—78 days X 252=19,968, at \$5=99,840. From June to September, four months travelling increased to 182 each way, 104 days X 364=37,856. An active competition from lake steamers, may at this season be looked for, during which the fare should be reduced to \$3=\$113,563—making in all for the three periods, \$301,804—which would yield an interest of ten per cent. on the capital, and leave a rest of \$51,308 per year.

Way fare through Canada.—This part of the line is left to balance the repairs of the road and the expenses of management. Although no remuneration is estimated, the route intersects the Welland canal, grand river navigation, port Dover and London

plank roads, and various other communications leading from numerous villages, and a dense agricultural population in the interior, the travel and freight from which, in addition to what will pass from point to point, is likely to yield the same returns as other lines for the like distance.

Future Prospects.—Having no population or travel, to create, to insure an immediate revenue—any additional calculation may be considered superfluous—but when we see the travelling over Buffalo road increase from 136 passengers per day—when the western country is excluded—to 256, when the navigation of lake Erie is considered hazardous, and to 364 when fairly opened, notwithstanding the competition east of Buffalo—it cannot be considered unreasonable to double those numbers, when a perfect and better communication is opened to the eastern terminus of the western road, which may be passed in 8 or 10 hours. Neither can it be considered visionary to look for an early extension of the same line to the confluence of the Mississippi river at St. Louis, and a rapid increase of travel each succeeding year, so long as emigration continues to flow to the west—a proportion of the southern population to make their annual tour to the north—and the falls of Niagara continues to be the great point of attraction.

Proposed plan of Proceeding.—The capital authorized by the existing act of incorporation is two millions, which it is proposed to increase to two and one half millions of dollars—half a million of which is to be offered in the United States, half a million in Canada, and the residue in London. It is desirable no time should be lost in obtaining subscriptions for the capital, that the work may be early commenced, with a view of completing the same the ensuing year. In behalf of the shareholders.

W. HAMILTON MERRITT.

Williamsport and Elmira Railroad, and the Tloga Navigation and Railroad Company.

It will be recollected by our readers that we sometime since published the report made by Mr. Trautwine of his survey of a route for a railroad from Ralston to Blossburg, Pa., by which the two roads named above would be connected, thus opening an easy communication between the interior of Pennsylvania, her coal and iron region, with the state of New-York, her canals and railroads.

Mr. Trautwine was limited by other engagements in time, and therefore examined only one route, on which he found grades of one hundred feet per mile—but by a more thorough examination it is found that the connection between the two roads can be made with grades not exceeding 70 feet to the mile—as will be seen by the following statement furnished by a gentleman who was one of the party who made the recent examination.

The importance of this connection between the works of these two great states is not

generally appreciated. There are but few who fully understand the advantages and conveniences which would result from the completion of this link, and the construction of the road from Corning to Canandaigua, on the line of the Great Western railroad from *Portland to Buffalo*. By referring to the map it will be seen that a road from Baltimore, via. York, Columbia, Harrisburg, Danville, Williamsport, Ralston and Blossburg in Pa., and Corning to *Canandaigua* in N. Y., varies but a little from a direct line.—The distance between these two points, as the crow flies or by an air line does not exceed 285 miles, while by the way of Philadelphia, New York and Albany it is over 550 miles, and one of the peculiar features of the inland route is that it connects *five* great thoroughfares from the Atlantic south and west, viz. from Baltimore south & west; from Philadelphia to Pittsburg and west; from New-York westward by the New-York and Erie railroad and from New-York and all New-England westward by the northern, and *longest in the world*, line of railroad from Portland to Buffalo. The country through which this line will be constructed cannot be surpassed in this country for its fertility as an agricultural region, for its rich deposits of iron and coal, for its unrivaled water power, and its facilities for intercommunication are unequalled anywhere; and to complete this line of railroad there must be constructed 69 miles from Canandaigua to Corning; 30 miles from Blossburg to Ralston, the road referred to in the following article, and the remaining link from Wrightsville to Harrisburgh, and perhaps a short link between Harrisburgh and Williamsburg to straighten the line, the distance we do not know but less probably than one hundred miles! Who will deny the importance of the early construction, and the value of the stock as an investment of this road?

It has been much desired, since the railroad from Blossburg, in Tioga county, Pa., to Corning in the county of Steuben, New-York, has been finished and in operation, and the Williamsport and Elmira railroad, has been made from Williamsport to Ralston, in Lycoming county, Pennsylvania, that a connection by railway could be effected between those roads, from the present terminus of the one, and the beginning of the other; that is, from Ralston to Blossburg.

In prosecution of this laudable desire, a survey and exploration of the intervening country, was made in the summer of 1844, by John C. Trautwine, Esq., an engineer of very competent knowledge and experience. He carried his survey and levels, up one of the streams that flows into the Tioga, near Blossburg, on the south side of the river.—This stream is called Taylor's creek. It ri-

ses on the north side of the Elkridge, and near its summit. Thence he descended into the eastern part of the valley of the Block House and crossing it southwardly, descended to Lycoming creek, by the valley of the Roaring Branch. Mr. Trautwine, reported the route thus explored and levelled by him as practicable for a railway for the proposed connection.

The time in which Mr. Trautwine, made his examination, was not sufficient to enable him to survey other routes for the same purpose, nor had he the advantage of a previous knowledge of the country. The route examined and reported by him, was at an average elevation, from the Elkridge summit, each way, of 100 feet to the mile.

Since his examination, it had been asserted by some persons who were familiarly acquainted with the country, that a more eligible route could be obtained for the proposed connection, further eastward than that of Mr. Trautwine's.

A correspondence sometime since, had been held with the president and other members of the boards of direction, of both companies, in support of these views. Both companies determined, that a further exploration and survey should be made, in order to test the accuracy of these supposed facts, and the consequent opinions.

In the early part of this month, Robert Faries, Esq., the president and engineer of the Williamsport and Elmira railroad, and Ashbel G. Ralston, Esq., the president of the Tioga Navigation and railroad company, in company with a gentleman who had taken part in the above representations, met on the ground, for the purpose of the proposed survey and examination. A pathway had been previously cut through the woods to facilitate the execution of the work.

The levels were made by Mr. Faries, aided by some very respectable settlers of the neighborhood, as his assistants. The levels were began at a beach on the line of the Williamsport and Elmira railroad, eastward and near the mouth of Sugar Work Run, a stream which rising near the summit of the Elkridge, on the south side of it, crosses the valley (which is the eastern end of the Block House valley, and is here called the Elkvalley) and is discharged into the Lycoming creek, about five miles above Ralston.

Thence from the point of commencement, the level was carried up the first ascent, or creek hill next the Lycoming creek; and thence crossing the Elkvalley to the summit of the Elkridge, at an average elevation of 70 feet to the mile, the entire distance being about five miles. Here at the summit of the Elkridge, near the dwelling house of Michael Winn, it is connected to a survey made some time since by Mr. Matthews, an engineer employed by the Blossburg and Corning railroad company. The levels of Mr. Matthews; were brought up the valley of the Tioga river from Blossburg to the mouth of a stream, called South creek, and thence up South creek, to the point where the survey just spoken of was ended, on the summit of the Elkridge.

The sources of the two streams, South creek, going into the Tioga river, and so being one of the head tributaries of the north branch of the Susquehanna, and of Sugar Work Run, going into the Lycoming creek, a tributary on the west branch of the Susquehanna, are within a very short distance of each other. From the head of South creek by the valley of the Tioga, a railroad would pass over one of the best mineral parts of northern Pennsylvania, abounding in bituminous coal and iron. Both believed to be of excellent quality and deposited in inexhaustible quantities, and by the way of a soft wide valley.

From Elkridge summit, descending to the Lycoming creek, we pass over the Elkvalley, by any curvatures which may be desired to lengthen the line of the road and to depress the level to any lower maximum than that already mentioned; for the entire descent across the Elkvalley and of the Creek hill, is over a country comparatively free from rocks, or stones injurious to such a work.—The entire route, abounds in the finest timber and other materials for the construction of a railroad.

That part of the route from Ralston to the mouth of the Sugar Work Run, whether five or six miles, would pass along the valley of the Lycoming creek now already demonstrated by the use of the railroad from Ralston to Williamsport, to be of great advantage and utility on account of its varied productions, water powers, timber, coal and iron.

In conclusion it is intended by this hasty and imperfect notice, to communicate to all who may be interested in the completion of this railroad connection, the important fact, that such a connection can be made by a railroad at a grade not greater than 70 feet to the mile over a country presenting in the first place every facility for the execution of the work, and when completed, offering all the rich products of labor from mines of coal and iron, from splendid forests of timber and from agricultural wealth, that could be desired, as guaranties of its future prosperity.

The writer leaves untouched, the subject of that commerce in iron, salt, plaster or gypsum and the products of agriculture and manufactures which would inevitably press itself upon the entire line of about 90 miles, of a continuous railroad from Corning to Williamsport, nor will he touch upon the kindred subjects of the perfect line of travel that would be established between our Atlantic cities and the cities and lakes of the north.

But, hoping on conclusion that the survey of Mr. Matthews, and that recently made by Robert Faries, Esq., may before long be published for the full information of all interested in this great work; and who are those that are not? the writer pauses with this tempting inquiry, and will leave to abler hands the continuation of the notice now made by him.

A. B.

July 19, 1845.

ANOTHER RAILROAD ROUTE.—A writer in the Albany Argus suggests still another route, for a railway to connect lake Ontario with Boston and New-York. It is to take



the present railroad at Saratoga Springs, and from thence reach the High Falls on Black river, in the town of Grey, Lewis county opposite the town of Turin; and then follow the valley of Black river to Sackett's Harbor, branching off to Kingston in Canada, by way of cape Vincent.

A thousand new routes for railroads might be suggested, which, if built, would promote the interest of *individuals*, and *certain places*, and accommodate a large number of people—yet the shareholders would not derive adequate return nor would the *general* benefits resulting to community in the increased value of property be sufficient to warrant the expenditure, and of this class, we imagine the one indicated by the writer in the Argus to belong. There are two classes of railroads which ought to be built,—the first is where great public interest will be promoted; where an easy, rapid and cheap communication will be opened between two important points—and thereby benefit communities, these should be built even at the public expense if individual enterprize is not equal to the task. *These* should be built even if the *immediate* returns will not meet the interest of the outlay. The other class is where many interests will be promoted, and the returns are sure to be ample, or remunerative to those who invest.—Wherever this is sure, there railroads ought to be allowed under *general* laws, without a special charter.

**BENTLY'S IMPROVED TUBULAR BOILER.—**

We desire to call attention to the advertisement of Messrs. *Force, Green and Co.*, manufacturers of this valuable article for private families, hotels and manufactories, etc., etc.—For all purposes where *hot* water is required in considerable quantities—for *cooking, washing, bathing, or heating dwellings* and factories, prisons etc., etc.; or for driving machinery requiring one to *ten* horse power, they will be found it is *believed* the cheapest, both in the *first cost*, and in the *quantity of fuel required*, and the most *convenient* of any boiler now in use. They are complete in themselves, and ready for use on making the necessary connections, without any brick work, and can be moved from place to place with as little trouble as a *stove* of equal weight, by disconnecting the water pipes. They have been in use it seems in Baltimore and Philadelphia, for two or three years as will be seen by the accompanying statements; and are also used extensively in and about Boston. It is only recently, however, that the manufacture has been commenced in this city—where as we understand they may now be had of various sizes, from 20 to 300 square feet of fire surface.

The following statements will show the estimation in which they are held by those who have used them for hot water and cooking purposes.

*National Hotel, City of Washington, 20th of March, 1843.*

Messrs. Bently, Randall and Co., Gentlemen,—Eor several years past, I have had in the wash-house of this establishment two large pots, set up in the usual way in brick, with furnaces below, for burning wood. The washing of the house is very large, and occupies the whole time of four or five women, and requiring a great deal of hot water, I found the two kettles quite incompetent to supply my wants, although they consumed an incredible amount of wood. After much persuasion, I consented that one of your Generators might be put up on trial in my washing department, but as we are so often humbugged by those new inventions, I determined not to interrupt my former plans, or remove any of my old fixtures, as I was quite incredulous of the advantageous result of the experiment. Your Generator has now been in operation in my washing-rooms for several weeks past, all the old kettles and furnaces have been removed, and the new arrangement is much more satisfactory and complete than I could have expected. Instead of the enormous quantity of wood formerly used in the old furnaces, I boil five times as much water now in half the time, and keep it boiling day and night, with about half a bushel of refuse coal, which I have heretofore paid for having removed from my premises. The cost of fuel now is nothing. The work is done in an expeditious, safe and superior manner, and if I could not immediately procure another of your Generators, I would do myself great injustice by parting with it for five times its cost.

I am respectfully,  
W. GADSBY.

*Copy of a report of a Committee to the House of Refuge, Philadelphia.*

The undersigned committee, appointed on the subject of Bently, Randall and Co.'s Steam Generator, report, they have had one of said Generators, with the necessary Boilers put into operation at the house of Refuge, which has been in use for several weeks, and from the experiments already made, the information received from the officers of the house that have had it in charge, the committee are decidedly of the opinion it obtains many advantages over the former plan for cooking and washing by steam, both as respects economy in time as well as in money. Under the former arrangement, there was consumed about nine barrels of anthracite coal per week for cooking and washing, and under the present one but three barrels are required in the same time, making a saving in fuel of about two-thirds: which saving would, in one year, nearly pay the entire expense of the new establishment. Your committee, for the reasons given, think there can be no doubt as to the propriety of purchasing for the use of the house of Refuge the aforesaid steam Generator, with the necessary fix-

tures for the cooking and washing at said institution. They therefore recommend that an order be drawn for \$161 30, in favor of Morris D. C. Marsh, Agent for Bentley, Randall and Co., being in full for the accompanying bill, all of which is respectfully submitted.

THOMAS EARP,  
THOMAS TELL,  
M. L. D. ANSON,  
PHILIP GARRETT, } Committee.

May 11, 1843.

**New Iron Works.**—The largest and finest rolling mill in this country. "The Montour Mill," at Danville, in this state, has gone into operation this week. The machinery, from the works of Haywood and Snyder, of Pottsville, is said to be a proud triumph of American art.

This mill is intended for the manufacture of railroad iron. It deserves the hearty good wishes of every American for its efforts to free us from another heavy link in the chain of our dependence upon British labor.—[*Reading Gazette.*]

**ST. HELEN'S CANAL AND RAILWAY.**—Mr. Pringle reported from the committee on Group (VV), that the object of the bill was merely to authorize the amalgamation of the Sankey Brook navigation with the St. Helen's and Runcorn Gap Railway, that they had examined the allegations of the bill, and found the same to be true, and had gone through the bill and made several amendments thereunto.—*Herapath.*

✍ We call the attention of our readers who are interested in railroad contracting, to the following notice of the Cheshire, N. H., railroad company; and at the same time, would say to the president of the company, send your notices earlier next time, that contractors at a distance may have a chance.

**TO RAILROAD CONTRACTORS.** PROPOSALS will be received at Keene, N. H., until the 10th September, for the Grading, Masonry and Bridging, upon the First Division of the Cheshire railroad, extending from the State Line of Massachusetts, in Winchendon, to Keene, N. H.

Bids will be received for the same in sub-divisions, separately, until said time, the Board of Directors reserving until 13th of said September to make known their decision.

For Plans and Specifications reference may be had after the 25th instant to T. M. Edwards, Keene, W. S. Whitwell, Walpole, and L. Tilton, Fitzwilliam, N. H.

It is expected that the work shall be commenced as soon as may be after the contracts are closed.

THOMAS M. EDWARDS,  
President, Cheshire Railroad Company.  
W. S. WHITWELL,  
LUCIUS TILTON, } Engineers.

36 It

**LAWRENCE'S ROSENDALE HYDRAULIC Cement.** This Cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floors and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE,  
142 Front street, New York.

✍ Orders for the above will be received and promptly attended to at this office. 32


**KEARNY FIRE BRICK.** F. W. BRINLEY, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to James P. Allaire, Peter Cooper, Murdock, Leavitt & Co. } New York.  
J. Triplett & Son, Richmond, Va.  
J. R. Anderson, Tredegar Iron Works, Richmond, Va.  
J. Patton, Jr. } Philadelphia, Pa.  
Colwell & Co. }  
J. M. L. & W. H. Scovill, Waterbury, Con.  
N. E. Screw Co. } Providence, R. I.  
Eagle Screw Co. }  
New Jersey Malleable Iron Co., Newark, N. J.  
Gardiner, Harrison & Co. Newark, N. J.  
25,000 to 30,000 made weekly. 35 1m


**TO IRON MANUFACTURERS.** THE SUBSCRIBERS, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.  
A. & G. RALSTON & CO.,  
ja45 No. 4 Sout Fronth st., Philadelphia, Pa.

**SPRING STEEL FOR LOCOMOTIVES.** Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address  
JOAN F. WINSLOW, Agent,  
j5a3 Albany Iron and Nail Works, Troy, N. Y.

**SAMUEL NOTT, CIVIL ENGINEER,** Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES —  
Boston, { Col. James F. Baldwin, Civil Engineer.  
Col. J. M. Fessenden, "  
Wm. Parker, Esq., Engineer and Superintendent  
Boston and Worcester railroad. ja45

**LEXINGTON**   
and **OHIO RAILROAD.**  
Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m. Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1.25.  
On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.  
The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort. other hours as above. 1y35

**PASSENGER LINES FROM BOSTON.**  
 **Eastern Railroad**—Boston to Portland, via Salem Newburyport, Portsmouth and Saco. Trains leave daily, except Sundays. Boston for Portland 7 1/2 a.m. and 2 1/2 p.m.; Newburyport and Portsmouth 7 1/2 a.m., 2 1-2, 5 1-2 p.m.; Salem 7 1/2, 9 a.m., 12 1/2, 2 1-2, 3 1-2, 5 1-2, 6 1/2 and 8 p.m.; Salem for Marblehead 8 1/2, 9 1/2 10 1/2 a.m.; 1, 3 1/2, 4 1/2, 6 1/2, 8 1/2 p.m. 32

**Boston and Maine railroad—Upper route.** Boston to Portland, via Charlestown, Wilmington, Andover, North Andover, Haverhill, Exeter, Dover, Somersworth, Berwick, Kennebunk, Saco, and Scarborough. Passenger trains will run daily, Sundays excepted, as follows, viz: Leave Boston for Portland at 7 1/2 a.m. and 2 1/2 p.m.; for Great Falls at 7 1/2 a.m., 2 1/2, 4 1/2 p.m.; for Haverhill at 7 1/2 a.m., 2 1/2, 4 1/2 and 6 1/2 p.m.; leave Portland for Boston at 7 1/2 a.m. and 3 p.m.

A special train will leave Boston for Andover at 12 m., and Andover for Boston at 4 1/2 p.m.  
The depot in Boston is at the corner of Canal and Traverse streets.  
CHARLES MINOT,  
32 Superintendent.

**Norwich and Worcester railroad.**—Accommodation trains, daily, except Sunday. Leave Norwich at 6 a.m. and 4 1/2 p.m.; leave Worcester at 10 a.m. and 4 1/2 p.m. The morning train from Norwich, and the morning and evening train from Worcester, connect with the Boston, Western and Hartford and Springfield railroads. New York train, via steamboat, leaves Norwich for Worcester and Boston, except Monday, upon the arrival of the boat from New York, about 2 o'clock; leave Worcester for Norwich and New York at 5 1/2 p.m. daily, except Sundays. New York train, via Long Island railroad, leaves Norwich about 3 1/2 p.m. for Worcester and Boston daily, except Sunday; leaves Worcester for Norwich and New York at 7 1/2 a.m. daily, except Sunday, and arrives at Norwich at 9 1/2.

Fares are less when paid for tickets than when paid in the cars. EMERSON FOOTE,  
32 Superintendent.

**Boston and Lowell Railroad, Summer Arrangement.**—The passenger trains will run as follows: Leave Boston at 7 and 11 a.m., 2 1-2 and 5 1-2, p.m.; leave Lowell at 7 1/2 and 11 a.m., 2 and 5 1/2 p.m. Fare 75 cents. 32

**Nashua and Lowell Railroad.**—Passenger trains will run as follows: Leave Boston at 7 a.m., 11 a.m. and 5 p.m.; leave Nashua at 6 1-2 a.m., 1 1/2 p.m. and 4 1/2 p.m. 32

**Concord and Nashua Railroad.**—Passenger trains run daily, Sundays excepted, in connection with the Boston and Lowell, and Nashua and Lowell railroads, as follows: Leave Boston at 7 a.m., 11 a.m. and 5 1-2 p.m.; leave Concord at 4 1/2 a.m., 11 1/2 a.m. and 3 1/2 p.m. The second train arrives in Boston in season for passengers to take the railroad train to New York. Stages, on the arrival of the first train at Concord, leave by various routes for the different parts of the state, Vermont and Canada. On the second day from Boston Stages reach Royalton, Middlebury, Montpelier and Burlington, connecting there with the steamboat line to Montreal. Stages also run from Haverhill to Stanstead and Montreal. 32

**Woburn Branch Railroad.**—Special trains will run as follows: Leave Boston at 8 and 11 1/2 a.m., and 3 and 6 1-2 p.m.; leave Woburn Centre at 7 and 9 a.m., and 1 1-2 and 5 1/2 p.m. These trains will stop for way passengers anywhere between Woburn Centre and Boston. 32

WALDO HIGGINSON,  
Agent B. & L. Railroad Co.

**Fitchburg Railroad.**—Leave Charlestown at 7 and 11 a.m. and 5 p.m.; leave Fitchburg at 6 1-2 and 11 a.m. and 4 1-2 p.m. Special trains will be run to Waltham and Concord as follows: Leave Concord for Charlestown at 7 a.m.; leave Waltham for Charlestown at 7 1-2 and 10 1-2 a.m., 4 1/2 p.m.; leave Charlestown for Waltham at 9 1-2 a.m., 3 and 6 p.m.; leave Charlestown for Concord at 6 p.m. On the arrival of the two morning trains at Fitchburg stages will leave for all the principal towns in western Massachusetts, New Hampshire and Vermont. S. M. FELTON,  
32 Eng. and Sup't.

**Boston and Worcester Railroad.**—Summer arrangement.—For Worcester and way stations at 7 1-2 a.m., 1 3-4 and 5 p.m.; for Milbury at 7 1-2 a.m. and 5 p.m.; for New York, by Norwich and steamer, 4 p.m.; day line, for New York, by Long Island railroad, at 6 a.m.; for Boston and way stations at 7 and 10 a.m., 4 1-2 p.m. Newton trains, daily, except Sunday, from Boston at 9 1-2 a.m., 3, 5 1/2 and 7 p.m.; from Newton at 7 1/2 and 10 1/2 a.m., 4 and 6 p.m.

Fares are less at the ticket offices than in the cars. WM. PARKER, Sup't.

**Boston and Providence Railroad.**—Passenger trains run as follows: For New York, night line, via Stonington; leave Boston every day, Sundays excepted, at 5 o'clock p.m.; accommodation trains leave Boston at 7 1-2 a.m. and 4 p.m., and Providence at 8 a.m. and 4 p.m.; Dedham trains leave Boston at 8 1/2, a.m., 12 1-2, 3 1-2 and 6 1-2 p.m.; Leave Dedham at 7 and 10 a.m., 2 1/2 and 5 1/2 p.m.; Stoughton trains leave Boston at 12 m. and 5 20 p.m.; leave Stoughton at 7 1-2 a.m. and 3 p.m. 32 WM. RAYMOND LEE, Sup't.

**Western Railroad.**—Summer arrangement—Passenger trains leave daily, Sundays excepted, as follows: Boston 7 12 a.m. and 4 p.m. for Albany; Albany 6 3-4 a.m. and 2 1-2 p.m. for Boston; Springfield 7 a.m. and 1 p.m. for Albany; Springfield 7 a.m. and 1 1-2 p.m. for Boston. For Albany and Buffalo—Leave Boston at 7 1-2 a.m., arrive at Albany at 6 p.m.; leave Albany at 8 p.m. for Buffalo, or at 7 1-2 o'clock next morning. For Montreal—Passengers proceed from Albany to Troy, thence by railroad and canal to Whitehall, and thence by the commodious steamers of lake Champlain (stopping at Burlington) to St. Johns, thence by railroad to La Prairie, and thence by steam to Montreal. New York, via Hartford and New Haven; day route—Leave Boston at 4 p.m., lodge at Springfield or Hartford; leave Springfield at 9 1/2 a.m., and arrive in New York at 6 p.m. Passengers may also leave Boston at 7 1-2 a.m., proceed at 1 or 4 1-2 p.m. from Springfield to New Haven; leave New Haven at 10 p.m. and arrive in New York at 6 o'clock next morning.

For further information apply to Charles A. Read, agent, 27 State street, Boston.  
JAMES BARNES,  
Superintendent and Engineer.

**Taunton Branch and New Bedford and Taunton Railroads.**—Trains leave Boston for Taunton and New Bedford at 7 1-2 o'clock a.m. and 4 p.m.; leave Providence for Taunton and New Bedford at 8 o'clock a.m. and 4 p.m.; leave New Bedford for Boston and Providence at 7 1/2 o'clock a.m. and 3 1/2 p.m.; leave Taunton for Boston and Providence at 8 1/2 o'clock a.m. and 4 1/2 p.m.; leave Taunton for New Bedford at 9 o'clock a.m. and 5 1-2 p.m. Afternoon trains connect with Stonington cars and steamers for New York. Morning cars connect with the Long Island train on Monday, Wednesday and Friday. W. A. CROCKER,  
32 General Superintendent.

**Fall river Branch Railroad.**—Trains leave Boston for Fall River daily, Sundays excepted, at 7 1-2 a.m. and 4 p.m.; trains leave Fall River for Taunton, Boston and Providence at 7 a.m. and 3 p.m.; trains leave Fall River for Neeb p ford at 7 1/2 and 9 a.m., and 5 1-2 p.m.

For Newport.—Passengers from Boston to Newport will find stages in readiness on the arrival of the morning cars at Fall River to take them onward. Fare through \$2. Tickets for the stage will be furnished by the conductor on the Fall River Branch Road.

Stages also leave Fall River at 1 o'clock p.m., for Tiverton, Four Corners, Adamsville and Little Compton. SAM'L H. P. LEE, Jr.,  
32 Superintendent

**TO RAILROAD COMPANIES AND MANUFACTURERS** of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.



When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,  
ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**FOR SALE, AT A SACRIFICE—A LOCOMOTIVE ENGINE,** 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine.  
2 8-horse "  
1 Upright Hydraulic Press.  
All of which will be sold low, on application to  
T. W. & R. C. SMITH,  
Founders and Machinists,  
May 12th Alexandria, D. C.

**FROM PHILADELPHIA.**  
**PASSENGER LINES NORTH AND EAST.**

 **Camden and Amboy Line.**— By Railroad and Steamboat from Amboy. Leave foot of Walnut street daily, Sundays excepted, at 5 1/4 a.m. Fare \$3. Forward deck \$2 25. Also for New York, by way of Trenton, Princeton, New Brunswick, Elizabethtown and Newark, N.J., daily from foot of Walnut street, at 9 a.m., and 5 p.m.—Fare \$4. 31

**For Reading and Pottsville.** By **Reading Railroad.** Daily, Sundays excepted, from the Depot, corner of Broad and Cherry streets at 8 a.m. Fare, \$3 50. Second class, \$3. To Reading \$2 25. Second class \$1 90. 31

**For Mauch Chunk and Wilkesbarre.**—**By Express and Reliance Line.** Daily, from the corner of Broad and Cherry streets, at 9 a.m. 31  
PETERS, MILTIMORE & CO.

**For Easton and Bethlehem.** By **Post Coaches.** Leave the Office, next door to the White Swan, Race street, daily, at 4 a.m. 31  
PETERS, HAMMIT & CO.

**For Baltimore.** By **Railroad.** Fare \$2. Via Chester, Wilmington, Elkton, Havre de Grace. Leave Philadelphia, Depot, 11th and Market street, daily, Sundays excepted, at 8 a.m., 4 p.m. Leave Baltimore, Depot, Pratt street, daily, Sundays excepted, at 9 a.m., 8 p.m. Tickets through to Wheeling and Pittsburg can be procured at the Depot.



Wilmington Accommodation Line, leaves the Depot, 11th and Market sts. daily, except Sunday, at 10 a.m. and 4 p.m. Leaves Wilmington at 7 a.m. and 4 1/2 p.m. G H HUDDLELL, Agent. 31

**For Baltimore.** By **Newcastle & Frenchtown Railroad and Steamboat Line.** Fare \$1. The Steamboat Robert Morris, Capt. J. M. Douglass, leaves Dock street wharf daily, except Sunday, at 3 o'clock. Passengers by this line will reach Baltimore at about 10 p.m. Tickets through to Wheeling or Pittsburg can be procured on board the boat. G H HUDDLE, Agent. 31

**For Baltimore, via Lancaster, Columbia and York.** By the **Susquehanna Railroad,** daily, Sunday excepted, leave the Depot 274 Market st., at 7 1/4 a.m., and 12 at night, for Columbia, and leave Columbia at 2 p.m. for Baltimore. Dine at York and arrive in Baltimore in time for early tea; passing through the most highly cultivated and beautiful part of Pennsylvania, and romantic part of Maryland. 31

**For Pittsburg, via Columbia and Lancaster Railroads.** Leave the Depot 274 Market st. daily, at 7 1/4 a.m. The Night Line will leave as usual at 12, midnight. At Harrisburg this line connects with the Railroad and Stage Line for Carlisle, Chambersburg and Pittsburg, with the Packet boats for Lewistown, Huntingdon, Hollidaysburg and Pittsburg; also with the Susquehanna Packet boats to Northumberland, Milton, Muncy, Williamsport, etc. Through tickets for any for any of the above places can be secured at the depot, where every information relative to the above lines will be given. Passengers for York and Gettysburg will leave in the 7 1/4 line. JACOB PETERS & CO. 31



**For Pittsburg.** By the **Pioneer and Express Packet Line.** Leave the Depot, 274 Market st. above 8th, at 7 1/4 a.m. By this route travellers may be assured of a safe and comfortable passage, every arrangement having been made for their accommodation. Office N. E. 4th and Chestnut sts. Seats may also be procured at the Depot, and at 13 South 3d st. A CUMMINGS, Agent. 31

 **Susquehanna Line of Railroad Cars and Post Coaches.** 

This line leaves the depot, corner of Broad and Cherry streets, daily, [Sundays excepted] at 8 o'clock, a.m., via Reading and Pottsville railroad, for Sunbury, Danville, Cattawissa, Northumberland, Milton, Muncy, Williamsport, Towanda, Bellefonte, Jersey Shore, Lockhaven, Ralston and Elmira. For seats apply at the stage office, 104 Race street, under the White Swan Hotel. 34

S. STILES, Agent.


**FROM BALTIMORE.**  
**PASSENGER LINES SOUTH AND WEST.**

 **Baltimore and Ohio Railroad.**  For Cumberland, Hancock, Martinsburg, Harper's Ferry, Winchester, Frederick, Ellicott's Mills, and intermediate depots by the regular train, daily, at 7 1/4 o'clock, a.m. For Frederick and intermediate stations, by extra train, daily, except Sunday, at 4 p.m.

Fare in either direction between Baltimore and Cumberland \$7, and for intermediate distances at the uniform rate of 4 cts. per mile. Through tickets are issued between Baltimore and Wheeling respectively, \$11. Between Baltimore and Pittsburg, \$10. Between Philadelphia and Wheeling \$13. 31  
D. J. FOLEY, Agent.

**For Washington.** From **Baltimore** at 9 o'clock, a.m.; 5, p.m.; and 11 1/2, p.m. By order, 31  
D. J. FOLEY, Agent.

**SUMMER ARRANGEMENT—FARE REDUCED.**

 By the **Great Southern Mail Line,** via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

**Direct to New Orleans,** and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great **Southern Mail Line,** and the only one that issues a **through ticket South.** Those who patronize it will save their money and time. **Through Tickets** from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

**Fast Mail Line.**—Leave New York at 9 a.m. and arrive in Philadelphia at 3 1/2 p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12 1/2 to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.

Passengers by the above line will arrive at Richmond by 11 1/2 o'clock p.m. and Petersburg, Va. by 2 1/2 o'clock p.m., through to the former city in *twelve hours*, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

**Way Mail Schedule.**—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p. m.; arrive in Baltimore at 2 1/2 p.m.; arrive in Washington at 7 p.m. **From Philadelphia by steamboat.**—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and **through tickets** apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore. 31  
STOCKTON & FALLS.

**For Norfolk and the South, by steamboat** through the Chesapeake bay to Norfolk, and then by railroad to Weldon, Wilmington or Raleigh, etc. Leaves Baltimore daily [except Sundays] from Spears' wharf, at 4 p.m., and arrives at Norfolk next morning at 7 o'clock; fare \$6. Leaves Norfolk at 8 a.m. and arrive at Wilmington next day at 12 m. and Charleston next morning at 7. Fare through \$21.

**For Philadelphia (Union Line,) via Chesapeake and Delaware Bay, and Newcastle and Frenchtown Railroad.**—The well known steamboat Constitution, Capt. Chaytor, has commenced her regular trips for the season, leaving Bowly's wharf, foot of South street, at 8 o'clock, p.m. daily [except Sundays] for Philadelphia. Through in 8 hours. Fare \$3. 31

 **Morning Train for Philadelphia.** 

The morning train leaves the depot, Pratt street, daily [except Sundays] at 9 o'clock, a.m. Passengers arrive at Philadelphia in full time to continue on by the mail train for New York. Fare \$3. Sunday evening Mail Train—the only line that departs from Baltimore on Sundays for Philadelphia, is the mail train which leaves Pratt street depot, at 8 p.m. Fare \$3. 31

**For Philadelphia, via York, Columbia and Lancaster,** by the Baltimore and Susquehanna railroad. Cars leave from their office, 63 North street, daily [Sundays excepted] at 9 o'clock, a.m. Fare \$3 50. 31

**GEORGE VAIL & CO., SPEEDWELL IRON Works,** Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/2 in. to 2 1/2 in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wrot. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wrot. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions. 1 ja45ly

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design. It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable. Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, Reading, Pa. ja45

**MACHINE WORKS OF ROGERS, KETCHUM & Grosvenor,** Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

**Railroad Work.** Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

**RAILROAD IRON AND FIXTURES. THE** Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO., ja45 21 Broad st., N. York.

FROM NEW YORK.

**New York and Harlem Railroad Company.**

Leave City Hall for Yorkville, Harlem and Morrisania at 5.30, 7, 8, 9, 10, a.m.; 1, 2, 3, 3.30, 4, 5, 5.30, 6, p.m. For Fordham and Williams' Bridge at 5.30, 7, 10, a.m.; 2, 3.30, 5, 6, p.m. For White Plains at 7 and 10 a.m.; 2 and 5 p.m. Leave Morrisania and Harlem for City Hall at 6.20, 8, 9, 10, 11, a.m.; 2, 3, 4, 2, 5.20, 6, 6.30, 7.45 p.m. Williams' Bridge for City Hall at 7, 7.40, 10.40 a.m.; 2.40, 5, 5.40, 7.20 p.m. White Plains for City Hall at 7.10 and 40.10 a.m.; 2.10 and 5.10 p.m. 31

**New York and Erie Railroad Line.**

For Middletown, Goshen, and intermediate places. Daily times each way, as follows:—For passengers.—The new, fast and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7½ o'clock, A.M., and 4 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4½, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets, 31

H. C. SEYMOUR, Superintendent.

Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc. 31

**PASSENGER LINES FOR THE NORTH AND WEST.**

**Morning Line, at 7 o'clock.**—For Albany, Troy, and intermediate landings.—The steamboat Troy, Capt. A. Gorham, will leave New York, foot of Barclay street, at 7 o'clock, A.M., every Tuesday, Thursday, and Saturday. The steamboat Niagara, Capt. DeGroot, leaves New York at 7 o'clock, A.M. Monday, Wednesday, and Friday. 31

**Afternoon, or 5 and 7 o'clock Line.**—At 5 o'clock, P.M., landing at intermediate places, from the foot of Barclay street.—The steamboat New Jersey, Capt. H. H. Fury, will leave on Monday, Wednesday, Friday, and Sunday. The steamboat South America, Capt. M. H. Trussell, will leave on Tuesday, Thursday, and Saturday. For passage or freight apply on board, or to 31

P. C. SCHULTZ, At the office on the wharf.

**Evening, or 7 o'clock Line.**—Line steamboats for Albany.—Daily, Sundays excepted.—Through direct at 7 o'clock P.M. from pier between Courtlandt and Liberty streets.—Steamboat Rochester, Capt. R. G. Crittenden, will leave on Monday, Wednesday, and Friday. Steamboat Knickerbocker, Captain A. Houghton, will leave on Tuesday, Thursday, and Saturday. 31

For Albany and Troy, direct, at 7 o'clock, P.M., from the steamboat pier, foot of Courtlandt street. The Empire, Capt. R. B. Macy, Tuesday, Thursday and Saturday. The Columbia, Capt. Wm. H. Peck, Monday, Wednesday, and Friday. 31

**Troy and Greenbush Railroad.**

Leave Troy, at 6 o'clock, A. M., to Boston and Albany; 8½, do., do., do.; 10½, do., do., do.; 2, P.M., to Boston and Albany; 4, do., do., do. Leave Albany at 7½ o'clock, A.M.; 9½, do., do.; 12, M., or on arrival of the Boston train; 3, P.M.; 6, P.M., or on arrival of the Boston train.—Fare, 12½ cents. 31

Passengers at Albany should procure tickets at the Boston railroad office, foot of Maiden lane. 31 L. R. SARGENT, Superintendent.

**Schenectady and Troy railroad cars** leave as follows:—From Troy, 7½ o'clock, A.M., daily; 1, P.M., daily, except Sundays; 7½ do., daily. From Schenectady, 3 o'clock, A.M., daily; 9, do., do., except Sundays; 3, do., daily. 31

Persons going to Saratoga and north should take the 7½, A.M., train; and passengers going west of Schenectady, the 7½, A.M., or 7½, P.M., trains. 31 L. R. SARGENT, Superintendent.

**Troy, Ballston, and Saratoga Railroad.**—The cars of this road will run as follows:—Leave Troy at 8 o'clock, A.M., daily; do., do., 3½, P.M., except Sundays; leave Saratoga at 9, A.M., except Sundays; do., do., 3½, P. M., daily. 31 L. R. SARGENT, Superintendent.

**Lake Champlain Steamboats.**—From Whitehall to Burlington and St. John's.—Morning Line on Lake Champlain, making intermediate landings.—Passage 2, breakfast on board.—The Francis Saltus, Capt. H. G. Tisdale, leaves Whitehall, Tuesdays, Thursdays, and Saturdays, at 6 o'clock, a.m., and St. John's Mondays, Wednesdays, and Fridays, at 6 o'clock, a.m. For freight or passage apply to the captain on board. H. D. FILKINS, Agent, Troy. 31

Passengers leaving Troy, Mondays, Wednesdays, and Fridays, at half-past 3 o'clock, p.m., by railroad and packet, will arrive at Whitehall in time for the above boat next morning. 31

**PASSENGER LINE EASTWARD.**

**Long Island Railroad Company.**—Trains run from 31

Brooklyn depot.—Boston train, 8½, a.m., daily, stopping at Farmingdale and St. George's Manor; accommodation train, 9½, a.m., and 5 p.m., for Farmingdale and intermediate places, daily; accommodation train, 3, p.m., for Greenport, daily, stopping at Jamaica, Branch, Hempstead, and Hicksville, and all the stopping places between Hicksville and Greenport. From Greenport depot: Boston train, daily, at 12½ o'clock, m., or on the arrival of steamers from Norwich. Accommodation train at 5, a.m., daily, for Brooklyn and intermediate places. From Farmingdale depot: Accommodation train at 6½, a.m., and 2½, p.m., daily, for Brooklyn and intermediate places. 31

The steamboat Statesman leaves Greenport for Sag Harbor twice each day, on arrival of the trains from Brooklyn. 31

Baggage crates will be in readiness, at the foot of Whitehall street, to receive baggage for the several trains, 30 minutes before the hour of starting from the Brooklyn side. 31

**Regular Mail Line between New York and Boston, via Stonington, Providence, and Newport,** composed of the following steamers, running in connection with the Stonington and Providence railroads, and the Boston and Providence railroad: Massachusetts, Capt. Comstock; Mohegan, Capt. —; Narragansett, Capt. Manchester; Rhode Island, Capt. Thayer. Via Stonington, daily, [except Sundays,] at 6 o'clock, p.m., from New York, and from Stonington on the arrival of the mail train, which leaves Boston at 5, p.m., and Providence 6½, p.m. The Rhode Island on Mondays, Wednesdays, and Fridays; the Narragansett on Tuesdays, Thursdays, and Saturdays. Via Newport, the Massachusetts leaves New York for Newport and Providence, direct, on Tuesdays, Thursdays, and Saturdays, at 5 o'clock, p.m. 31

**New York and Boston Railroad Line,** via Norwich and Worcester, daily, from pier No. 1, North river, at 6 o'clock, p.m. The Worcester, Captain Bacon, on Tuesdays, Thursdays, and Saturdays. The Cleopatra, Capt. Dustan, on Mondays, Wednesdays, and Fridays. 31

Passengers, on the arrival of the steamers at Allen's Point, will be immediately forwarded in the splendid and commodious cars of the railroad to Boston, without change of cars or baggage. 31

For Newport and Providence, on Monday, Wednesday, and Friday. This line leaves at 8 o'clock, in the morning, from the foot of Whitehall street, South ferry. 31

**U. S. Mail Line for New Haven, Hartford, and Springfield,** from Peck Slip, East river, daily, at 6½, a.m., by steamboat New Champion, Captain Joel Stone, connecting with the cars at New Haven, for Hartford and Springfield. Night line for New Haven: The steamboat Hero, Capt. Richard Peck, leaves on Tuesdays, Thursdays, and Saturdays, at 4, p.m. For Hartford, direct, daily, [Sundays excepted,] at 4, p.m.—The steamboat Kosciusko, Capt. Le Fevre, every Tuesday, Thursday, and Saturday, and the Globe, Capt. E. D. Roach, will leave every Monday, Wednesday, and Friday. 31

**Hoosatic Railroad; Bridgeport and New York.**—The steamboat Mutual Safety, Capt. J. B. Lober, leaves New York, from the foot of Market street, every morning, [Sundays excepted,] at 6 o'clock, arriving in Bridgeport at 11 o'clock. Returning, leave Bridgeport at 1½, p.m., on the arrival of the cars, arriving in New York at 5½ o'clock. The Nimrod, Capt. J. Brooks, Jr., leaves New York daily, at 2, p.m., and Bridgeport 7 a.m. There are no train of cars running in connection with any boat except the Mutual Safety until further notice. 31

Tickets, if not purchased at the offices on the line of the road, or on board of the boat, will be charged at advanced prices. Dated tickets positively taken only on the day specified. R. B. MASON, Superintendent. 31

**PASSENGER LINES, SOUTH AND SOUTHWEST.**

**New York and Philadelphia Railroad Line—Direct.**

Leaves New York daily, from the foot of Liberty street. Morning Line, 9 o'clock, A.M. Mail Pilot Line, 4½ o'clock, P.M. Fare in first class cars, \$4. Second class cars, 2. Passengers will procure their tickets at the office foot of Liberty street. Philadelphia Baggage Crates are conveyed from city to city without being opened by the way. Each train is provided with a car, in which are apartments and dressing rooms expressly for the Ladies' use. 31

**Camden and Amboy Railroad Line.**

For Philadelphia and intermediate places. Leaves Pier No. 2, North River, foot of Battery Place, by Steamboat to South Amboy, daily, Sundays excepted, at 5½ o'clock A.M. Passengers will take the cars at South Amboy. Fare to Philadelphia, 2. Forward deck passengers, 25. To Freehold and Monmouth, via, stages from Hightstown, 1 50. To Spotswood and West 75 cents. To South Amboy, 25 cents. To Perth Amboy, Tattens, Rossville and Tufts, 12½ cents. 31

The steamboat Independence will land at each of the above named places going and returning, leaving Perth Amboy at 5 o'clock P.M. 31

**New Jersey Railroad and Transportation Company.**

For Newark. Fare 25 cents. Leave New York at 8, 9, and 11 o'clock A.M., and 12½, 2, 3, 4½, 6½, and 8 o'clock P.M. Leave Newark at 7, 7½, 8, 9, 10½, A.M., and 1½, 4, 5½, 7½, 9½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave Newark at 11½ A.M., and 9½ P.M. 31

For Elizabethtown. Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Elizabethtown at 7, 7½, 8, 10½ A.M., 3½, 6½, 9½, P.M. 31

For Rahway. Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Rahway at 5½, 7½, 11½, A.M., 3, 6½, 9, P.M. 31

For New Brunswick. Fare 50 cents. Leave New York at 9 A.M., 4, 4½ P.M. Leave New Brunswick at 5½, 7½, 11, A.M., 8½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave New Brunswick at 12 M., and 8½ P.M. 31

The commutation fare between New York and New Brunswick and intermediate places, including the ferry, 65 per annum. 31

**Paterson Railroad.**

Leave New York, 9½ A.M., 12½, 5½ P.M. Leave Paterson, 8, 11½, A.M., 4 P.M. On Sundays, leave New York 9½ A.M., 5½ P.M. Leave Paterson, 8½ A.M., 4½ P.M. Passengers are advised to be at the ferry a few minutes before the stated hours of departure. Office 75 Courtland street. 31

**Morris and Essex Railroad.**

Leave New York, 8 a.m., 4½ p.m. Leave Newark, 9 a.m., 5½ p.m. Leave Morristown, 7 a.m. 3½ p.m. Passengers by the morning train to Morristown, will arrive there at 10½ o'clock, where stages will be in readiness to convey them to Schooley's Mountain, Washington, Belvidere and Easton, daily; to Succasunna, Stanhope, Newtown, Milford and Owego on Mondays, Wednesdays and Fridays; and to Rockaway, Dover, Sparta and Newton on Tuesdays, Thursdays and Saturdays. Passengers from Morristown will arrive in Newark in time to take the morning and afternoon trains from Trenton and Philadelphia. 31

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.

ESTABLISHED 1831.

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THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM. PLAN

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.  
Wilmington, Del., Sept. 26, 1840.

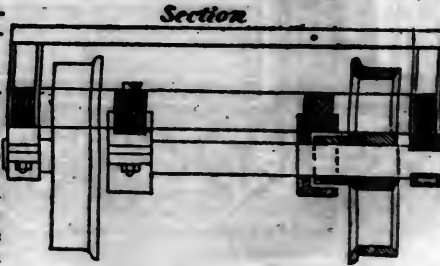
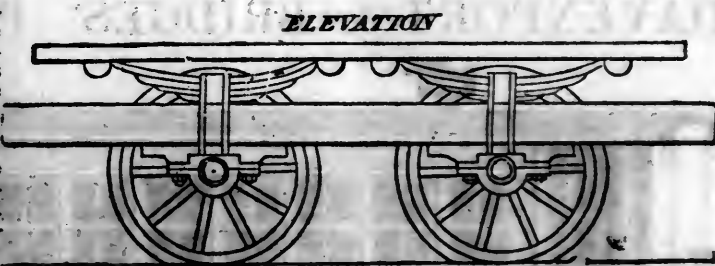
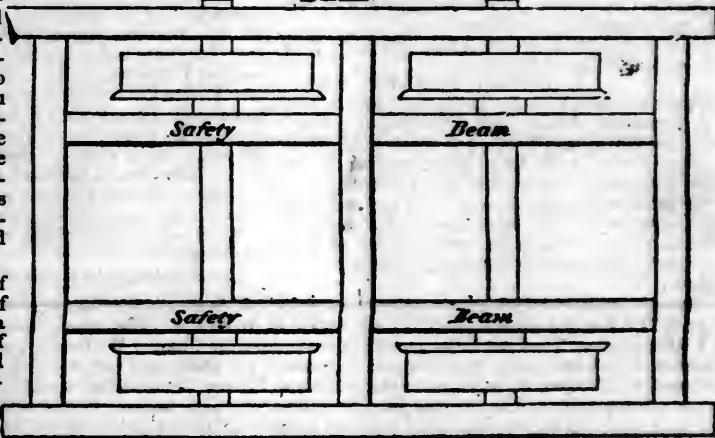
The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. **JOHN F. WINSLOW, Agent.**

Albany Iron and Nail Works, Troy, N. Y.  
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co. Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

**HENRY BURDEN, Agent.**  
Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

### FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\*\*\* The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45



**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

## DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
A. & G. RALSTON  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
ANDREW C. GRAY,  
President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having to use flat bar rails are particularly interested, as such are permanently available by the plan.

W. Mc. C. CUSHMAN, *Civil Engineer,*  
Albany, N. Y.

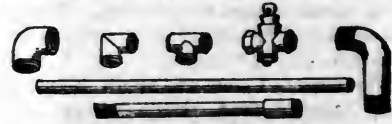
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

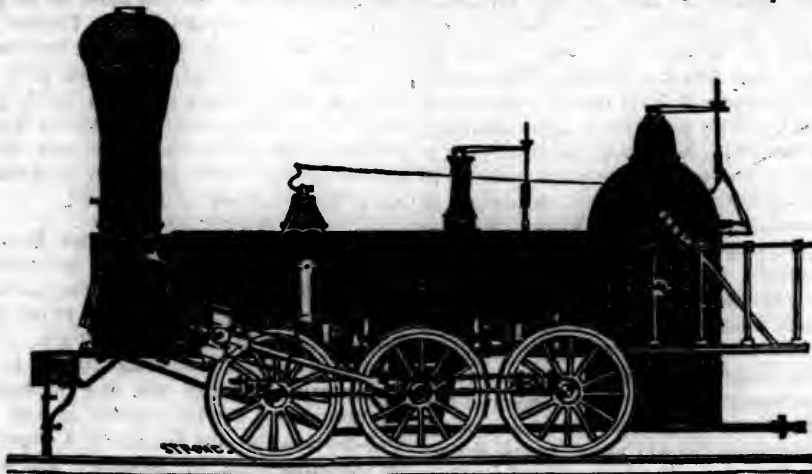
From 4 inches to 4 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
PHILADELPHIA.

**NORRIS' LOCOMOTIVE WORKS.**

BUSH HILL, PHILADELPHIA, Pennsylvania.]



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
"	2,	14	"	"	×	24	" "
"	3,	14½	"	"	×	20	" "
"	4,	12½	"	"	×	20	" "
"	5,	11½	"	"	×	20	" "
"	6,	10½	"	"	×	18	" "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.

WILLIAM YOUNG,  
President.

fy451m

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

W. R. CASEY, *Civil Engineer,*

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia. ja45

**CYRUS ALGER & CO.,** South Boston Iron Company.]

The growth of American Cities.

THE COMMERCIAL INFLUENCE OF THE WEST.

We have been both instructed and amused in reading recently Burke's "European Settlements in America," written in 1757—eighty-eight years ago. The relative wealth and population of American cities have changed wonderfully since then, while their progress seems almost miraculous. Nothing in the annals of the world will compare with their advance in population.

Burke says "There are in all the provinces of New-England, large towns which drive a considerable trade. Boston, the capital of Massachusetts Bay, is the first city of New-England and of all North America; it contains at least 20,000 inhabitants.

This old reminiscence naturally invites reflection. Boston is no longer the first city in America. New-York has become the commercial emporium of America. Boston has prospered and more than quintupled its population. Yet the commanding situation of New-York, backed by the enormous trade of the West, has built up a city of 375,000 inhabitants, (not to include rapidly growing Brooklyn, with its 40,000,) where in 1757 there were not 20,000. Philadelphia likewise has run ahead of Boston, while New-Orleans, in forty-five years, under the swelling tide of the valley of the Mississippi, has already grown into a mightier city than Boston.

To what may this change be attributed? Is it not clearly to the influence of the western trade, which seems to be a mine of wealth and power and population almost beyond human calculation. In the days of Edmund Burke, the west was but little known. It was referred to only as a vast wilderness. America was then bounded by the Alleghenies. Even in such speculative minds as Burke's, the settlement and future glory of the valley of the Mississippi were scarcely alluded to. To their minds, there seemed land enough on this side of the Alleghenies for a hundred years to come. No monarchist could fully appreciate the progressive power and enterprize of the Anglo-Saxon race, perhaps we may rather say, of Anglo-Saxon freemen. A hundred years have not elapsed, and our people have already crossed the Alleghenies, and advanced their settlements a thousand miles beyond that mountain barrier. No fancy was so wild as to imagine such a progress in 1757, but that very expansion has built up the great cities of America. The settlement of western New-York and Ohio forced the construction of the Erie canal, which literally united the waters of the western seas with the Atlantic ocean. For only twenty years, the wealth of the teeming west has poured down that avenue, and already it has placed New-York on an eminence as the commercial emporium of America. Philadelphia and Baltimore have advanced under the same impetus, while New-Orleans has marched with a railway rapidity to commercial greatness. Cincinnati in that once wilderness valley, after the lapse of forty-five years, contains a thriving population of 75,000 inhabitants.—

Even St. Louis, a thousand miles west of the Alleghenies, is already rivaling Cincinnati. And Pittsburgh, the iron city of the west is becoming a second Birmingham. In our vicinity, Albany, Troy, Utica, Syracuse, Rochester and Buffalo, look to the west as the great fulcrum of their future advance in prosperity and population. Such is the remarkable and overshadowing influence of the west upon the cities of America, in only fifty years after the first breaking up of its soil. Who can estimate its influence a hundred years hence?

It will be remarked as among the extraordinary influences of western emigration, that there is not a city on the seaboard but what looks to the west as the only resource of its future growth. To secure the western trade, is regarded of far more importance than the mines of Mexico and Brazil.—Moved by this unerring conviction, we see Portland, in Maine, by means of the St. Lawrence and Atlantic railway, Portsmouth in New-Hampshire, by a railway connecting with the Concord and Burlington railroad, and Boston, with its iron arms, stretching to lake Erie and lake Champlain, striving in an honorable rivalry, to divert a portion of the western trade from New-York. Farther south, we perceive Baltimore struggling for the western trade with Philadelphia, by means of railways and canals—and Savannah with Charleston. In Virginia, Richmond is making a giant struggle to pierce the Blue-Ridge with a canal or railway, in order to reach the rills of that western current, which moves on like the waters of the Nile, enriching the soil upon which it overflows. Boston is already reaping the advantage of its Herculean labors, to reach the heart of the west. It is but three years since the opening of the Western railway to Albany, and yet its influence upon that city has been not less remarkable than the opening of the Erie canal was on New-York.

The following tables of facts will confirm this position. In December, 1841, the Western railway was opened for travel. Since that epoch, a little more than three years have elapsed, and look at the change in Boston valuation:

1841.....	Boston.	
Real Estate.....	62,063,000	
Personal.....	36,043,606	98,106,606
1842.....		
Real.....	65,509,500	
Personal.....	41,223,800	106,733,300
1844.....		
Real.....	72,048,000	
Personal.....	46,402,300	118,450,300

An increase of \$20,250,000 in only three years, which is the more enormous, as it is an advance of one-fifth (20 per cent.) on the whole valuation. Now let us turn to New-York, after the opening of the Erie canal. That great work was opened in 1825, and let us compare the valuation of that year with the third year thereafter:

1825, valuation, real and personal,	\$101,160,046
1826, " " "	107,447,781
1827, " " "	112,211,926
1828, " " "	114,019,533

An increase of near \$13,000,000, or 12½ per cent, in the same time as Boston increased its valuation \$20,000,000. These figures

are an irresistible illustration of the influence of the Western trade, whether obtained by canals or railways, in adding to the wealth of the Atlantic cities.

New-York, if she wills, can still hold her present command over the western trade. But this will require immediate efforts, such as will test the energies of her merchants. He is blind who does not see that at the present time she is menaced by a spirit of competition on the part of wealthy, enterprising and powerful cities, such as never before occurred in her past history. But with an effort she holds the game in her own hands. The western trade is a prize worthy of those who would struggle for the colossal commercial power of America. A city sustained by that trade, can never languish, for the increase of production of the western states is almost boundless. Its city must be far greater than even Alexandria or Thebes. So long as New-York remains at the head of the western trade, where our state pride and her own commanding position justly place her, it must irresistibly advance in wealth, influence and population, until she will be known not only as the great city of America, but as the great city of the world.

ORIGIN AND PROGRESS OF THE RAILWAY SYSTEM.—

The details of the invention of steam vessels are pretty well known, but the communication by railroad has never yet in this country been traced to its origin. Now, it happened that a few weeks since, a very satisfactory account of this new medium of communication has been given in two German periodicals—the *Gazette of Cologne* and the *Sonntagsblatt* or *Sunday's Journal*.—The latter is a weekly paper for general information and entertainment, forming a supplement to the *Weser Zeitung* or *Weser Gazette*, which is published daily at Bremen, the Tanse town on the Weser river. The reporter of the facts relating to the invention of railroads is a barrister living at Osterode, a Hanoverian town on the Hercynian mountain; his only object was to establish a fact, but he is otherwise in no way interested in the matter, and he claims no reward, for the original inventor who indeed, died several years ago. The subject being one of considerable interest to this country, I drew up the present paper embodying the substance of the barrister's German report; the letter is dated Osterode, the 20th March, 1845, and is inserted in No. 60 of the *Sonntagsblatt*, of April 6th. 1845.

It appears that the original inventor of the railroad system was the late principle engineer Mr. Frederichs (Frederics,) son of a miner in that part of the Hercynian district which belongs to Hanover. His talent for mechanics was soon perceived by an influential gentleman, the director of the mines, who solicited the Hanoverian government to furnish him with the means for increasing his practical knowledge in mechanics and generally cultivating his mind by a tour through Europe. The request was granted, and young Frederics set out on a tour of several years. Two of them he spent in the salt mines of Galicia, and it was there that the



thought occurred to him of constructing a new machine for the easier conveyance of heavy loads; no experiments, however, were then made, and it was not until after his return home, that he matured his plan, when necessity compelled him further to consider it.—At that time, before the French invasion of Hanover, the leading silver mine of the Hercynian mountain was the "Dorothy;" but the road from it to the "Pucherich," where the ore is refined, and from that place to the silver melting house (*Siberhuetle*), was very inconvenient and caused considerable expenses. The "Dorothy" being situated on a moderate declivity, and the "Pucherich" at a distance of three quarters of an hour, being placed in a valley, the road from the first place to the latter goes downwards; as to the minerals, they were carried in carts drawn by horses, but on account of their heaviness and the nearly impassable road, only small quantities could be at a time transported.—These circumstances compelled Frederics further to consider and to perfect his plan of a new conveyance, and he finally invented iron rails, exactly as they still are in use, a locomotive engine, and a cart to run from the pit to the "Pucherich," and thence to the silver melting house. The cart is a four wheeled one, and on its frame is placed a wooden chest, which may be filled up with minerals to the weight of from sixty to eighty cwt.—The guide sits before the chest, just as the coachman sits on the driving box; by pressure he is enabled to direct the cart, and also to arrest it at any time, however fast it may run. The arrangement is so certain and safe, that to the present day no accident has happened. The locomotive engine is all of iron, but instead of a detailed description of it, which would not suit the taste of promiscuous readers of a German journal for general information and entertainment, the reporting barrister cites a fact from which its efficiency appears; and refers, in support of his statement, to witnesses still living.—When, in the summer of 1811, the King and the Queen of Westphalia visited the Hercynian district, the director of the mines, M. von Meding, caused a carriage of the invention of M. Frederics to be fitted up for an excursion from the pit to the "Pucherich." The barrister alluded to was present, saw the King, attended by ten gentlemen of his court, mounting the first vehicle; and the Queen, attended by the ladies of her suite stepping into the second carriage, which closely followed the first. They started at the same time, and the walking distance of 45 minutes was accomplished in five minutes. Witnesses still living are:—M. von Meding, minister of state and of the cabinet; M. Albert, principal counsellor of mines (*Oberbergath*); M. Muehlenfeldt, principal engineer (*Maschinen director*); and Dr. Jordan, assayer of the mint (*Muengwardein*), at Elansthal, a Hanoverian town of the Hercynian district. Several years afterwards, when M. Frederics, then in an advanced age, was taken ill, he sent to the barrister to frame his last will.—The latter did so, and next waited on him, whom he found engaged in executing a draw-

ing. "This is," said M. Frederics, "intended for an English gentleman, who wishes to run my new cart in his own country as I do here. He admires it; and I take great care in executing my work, in order to prove that we here are not a set of blockheads."

Thus this invention was transferred to England, where Mr. Thomas Gray, of Exeter, advocated it zealously. He led the way in introducing and establishing it in this country; he pointed out to the most influential public men of the day the advantage of direct lines over circuitous ones, the economy which by the construction of railroads upon the direct principle would be effected in horses, carriages, and time; he explained his system in memorials illustrated by maps, which with the petitions of meetings he forwarded to government; and finally he brought his plan in a printed form before the public, all which could not be done without personal sacrifices. Others came to his assistance, supported and recommended the new invention, but his exertions were more prominent and longer continued. The efficiency of steam in propelling vessels having been ascertained, this new invention was (it is not precisely known by whom first) combined with that of Mr. Frederics, and the new medium of communication rendered more valuable.

The account of the origin of the railroad system, given by the German barrister, certainly contains details not known before; but the simple fact of M. Frederics having invented the railroad system, and communicated his invention to an English gentleman, was all along known among the inhabitants of the Hercynian district and the adjacent country. The late poet Thomas Campbell, in speaking of Germany in one of his much admired poems, says, the world was indebted to her for three most important inventions, etc., those of powder, printing, and clockmaking. M. Frederics added to them the fourth, which is now very generally acted upon throughout Europe.—*University, London.*

JOHN VON HORN, D. D.

NEW RAILWAYS SANCTIONED BY THE LATE PARLIAMENT IN ENGLAND.—We find the following statement in relation to new lines of railway in England in the last number, Aug. 16th, of Herapath's Railway Journal. It exceeds the estimate furnished sometime since, by our intelligent London correspondent, by more than 300 miles. Notwithstanding this immense extension of the railways of the kingdom, which will require, it is estimated, at least 2,250,000 tons of pig iron for the track alone, it will be seen from our extracts from the Mining Journal that there is nothing like excitement in the iron market—prices ranging from £7 10s. to £8, per ton for bar—and Scotch pig 65 to 70s. though quoted much higher. This looks favorable for the railway cause. We shall probably be able to give a list of the new projects on the arrival of the next steamer.

"By an official parliamentary return, it appears that 112 of the projected railways have been passed during the last session. The capital authorized to be raised for these amounts to £43,658,900, independent of lines to the extent of £14,794,000; together forming a total capital of £58,452,900. These 112 new railways comprize a length of 2,860 miles—a greater length than the whole of the lines now in operation in the kingdom.—The average cost per mile is therefore £15,262, without taking into account the loans; if they be included as a part of the capital, the mileage cost is then equal to £20,438.

During the previous session of 1844, 31 bills for new railways were passed, the authorized capital for which was £11,761,717; loans, £3,920,570; together, £15,682,287.—The total length of these railways were 819 miles. The average cost, therefore, per mile was £14,361, not including loans, being an estimate of cost per mile of £901 below that for the lines of this session; but including the loans the average cost was £19,148, or £1,290 less than that item for the railways just sanctioned. The projectors of late railways, therefore, seem to have been more liberally inclined in their provisions for the construction of their lines than heretofore; and though we are willing to concede that lines of the present day are capable of being made for much less than what they cost years ago, we believe projectors have done wisely in making some advance on the estimates of 1844.

We have in course of compilation a table, giving the information contained in the parliamentary return, with additions of our own, which we trust will be found interesting and acceptable to our readers, and which we intend to present to them next week."

"A new method of enabling locomotive engines and railway carriages to ascend inclined planes with greater ease." By Daniel Erskine. A well constructed working model in German silver was exhibited in action. The principle on which it acts is, that when the locomotive engine arrives at the foot of the inclined plane, the common wheels on which it travels cease to touch the rails, there being another set of wheels keyed on the same axles, but of only one-fifth of the diameter. A raised rail is used on the incline to suit the smaller diameter of the wheels which now come into play, and the large wheels being lifted off the rail, act as fly-wheels to the smaller ones. The engine is thus enabled to ascend an incline which it could not do with wheels of the usual diameter; and this was shown to be the case by Mr. Erskine's model, which easily ascended an incline of 1 in 16, with the small wheels, whereas, with the common wheels it stood still.—(Not new, ed. C. E. and A. Journal.)

The editor of the Civil Engineer and Architects Journal is certainly correct in saying that there is nothing new in the above plan of Mr. Erskine. A similar model was exhibited and we believe a patent was taken out for the plan, several years ago in this country.





AMERICAN RAILROADS.													SALES.	
RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	Week ending Sept. 7.	
						Gross.	Nett.		Gross.	Nett.			Shares.	Price
Me. 1	Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	101½	50 101
N. H. 2	Concord.....	35	750,000								12	65		
Mass. 3	Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	113	
4	Boston and Maine extension.....	17 1-4	455,703	unfin.										
5	Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	108	16 117½
6	Boston and Providence.....		1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	112½	
7	Boston and Worcester.....	14	2,914,078				40,141	162,000	6	428,437	195,163	7½	116½	14 116½
8	Berkshire.....	21	250,000	not stated				17,500	7	17,737				
9	Charlestown branch.....		280,260						13	34,654	13,971	5½	80	
10	Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	108½	24 107½
11	Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,535		124	
12	Nashua and Lowell.....	14 1-4	380,000				84,079		8	94,588	34,944	10	123	
13	New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6		
14	Northampton and Springfield.....			unfin.										
15	Norwich and Worcester.....	59	1,170,300	90 0.	16,535	100	162,336	24,871		230,674	99,464	3	67	102 69
16	Old Colony.....		87,825	unfin.									105	
17	Stoughton branch.....	4	63,075	unfin.										
18	Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	118	
19	Vermont and Massachusetts.....													
20	West Stockbridge.....	3	1 6	200		100						4		
21	Western, (117 miles in Mass.,).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	98½	463 94
22	Worcester branch to Milbury.....		8,431	506										
23	Housatonic, (10 months,).....	74	1,244,123							150,000			26	10 33
24	Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	93	
25	Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100								
26	Stonington, (year ending 1st Sept.,).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29	1,225 29½
N. Y. 27	Utica and Buffalo.....	31	330,211				45,896	7,522		73,248	48,033	0		
28	Auburn and Rochester.....	78	1,796,340	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109	20 103
29	Auburn and Syracuse.....	26	766,650			133½	86,291	27,334		96,738	52,544	6	116	
30	Buffalo and Niagara.....	22	200,000		1,500								100	
31	Erie, (446 miles,).....		5,000,000										27½	1,870 31
32	Erie, opened.....	53						48,000		126,020	59,075			
33	Harlem.....	26	1,206,231							140,685	62,399		61	525 63
34	Hudson and Berkshire.....	31	5			50				35,029	1,789	0	11½	
35	Long Island.....	96	1 6	392,340	29,846					153,456	58,996	0	61½	9,700 64
36	Mohawk and Hudson.....	17	1,317,897	400,000	10,000	100	69,948	58,780		79,804	45,763	0	56½	189 57
37	Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0		
38	Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0		
39	Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117	
40	Tonnawanda.....	43	727,332				76,227			114,177	75,865	5		
41	Troy and Greenbush.....	6	180,000										89	
42	Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½		
43	Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132	
N. J. 44	Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		112	
45	Elizabethtown and Somerville.....	26	500,000											
46	New Jersey.....	34	2,000,000										95½	
47	Paterson.....	16	500,000									6	88½	
Pa. 48	Beaver Meadow.....	26	1,000,000											
49	Cumberland Valley.....	46	1,250,000											
50	Harrisburg and Lancaster.....	36	860,000										30	
51	Hazleton branch.....	10	120,000											
52	Little Schuylkill.....	29	900,000											
53	Blossburg and Corning.....	40	600,000											
54	Mauch Chunk.....	9	100,000											
55	Minehill and Schuylkill Haven.....	19 1-2	396,117	25,000	7,019	50			12			12	80	
56	Norristown.....	20	800,000										6½	
57	Philadelphia and Trenton.....	30	400,000										104	
58	Pottsville and Danville.....	29 1-2	1,500,000											
59	Reading.....	94	9,457,570	7,447,570	40,200	50	277,164	180,000		597,613	343,511		25	3,544 24½
60	Schuylkill valley.....	10	1,000,000											
61	WilliamSPORT and Elmira.....	25	400,000				20,000							
62	Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		15½	5,780 14½
Del. 63	Frenchtown.....	16	600,000											
Md. 64	Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		658,620	346,946		46½	
65	Baltimore and Susquehanna.....	58	3,000,000										2½	
66	Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84	
Va. 67	Greensville and Roanoke.....	18	284,433	37,544	2,000	100				25,368	6,074		28	
68	Petersburg.....	63	969,880	63,000	7,690	100				122,871	72,898	3	77	
69	Portsmouth and Roanoke.....	78 1-2	1,454,171											
70	Richmond, Fredericks'g and Potomac.....	76	800,000							185,243	85,688	6		
71	Richmond and Petersburg.....	22 1-2	700,000											
72	Winchester and Potomac.....	32	500,000											
N. C. 73	Raleigh and Gaston.....	84 1-2	1,360,000											
74	Wilmington and Raleigh.....	161	1,800,000											
S. C. 75	South Carolina.....	136	5,671,452		34,410	75				532,871	140,196	5		
76	Columbia.....	66					201,464	77,456		328,425	180,704			
Ga. 77	Central.....	190	2,581,723				227,532	93,190						
78	Georgia.....	147 1-2	2,650,000				248,026	158,207		248,096	147,523			
79	Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000			
Ky. 80	Lexington and Ohio.....	40	450,000											
Ohio 81	Little Miami.....	40	400,000											
82	Mad river.....	40	152,000											
Ind. 83	Madison and Indianapolis.....	56	212,000											
Can. 84	Champlain and St. Lawrence.....	15						12,000		58,000	24,000		110	

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.  
 Thursday, September 11, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 22,948 tons, and by canal 8,181 08, making 31,129 07 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total.....	243,786
From Schuylkill Haven—total.....	258,441
From Port Clinton—total.....	13,228
<b>Total by railroad.....</b>	<b>515,452</b>

BY CANAL.

From Pottsville and Port Carbon—total.....	93,686
From Schuylkill Haven—total tons.....	25,768
From Port Clinton.....	31,580
<b>Total by canal.....</b>	<b>151,235</b>

**Total by railroad and canal.....696,687**

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.	
Summit mines, -	118,391
Room run do., -	44,517—162,908
Beaver Meadow railroad and coal co.,	62,097
From Penn Haven—Hazleton coal co.,	43,340
From Rock Port—Buck Mountain coal co.,	12,911

WYOMING COAL TRADE—total.....	108,351
PINE GROVE COAL TRADE—total.....	38,126
MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....	263,256
MOUNT CARBON RAILROAD—total tons.....	172,271
MILL CREEK RAILROAD—total.....	47,488

[Miners' Journal.]

WESTERN RAILROAD.

Receipts for the week ending August 30.	
	1845. 1844.
Passengers.....	\$10,719 \$11,652
Freight, etc.....	7,187 9,383
<b>Total.....</b>	<b>\$17,906 \$21,035</b>
Falling off this week.....	\$3,129
Nett gain previously since Jan. 1845.....	33,039
<b>Total gain.....</b>	<b>\$29,910</b>

The increase thus for this year over last year, is only \$29,910. Reduce your fare gentlemen, if you would increase your receipts—make it for the interest of people to travel on your road—then you will show different results.

Astonishing increase in the value of Railway Shares.

The following statement was prepared from our English Railway Journals some weeks since, with the view of showing our citizens by comparison what will be the character of railroad investments in those important roads terminating in this city.

Here we see an actual increase, of over 40 per cent. in the average value of the shares in thirty different railways between the 30th of November 1844 and 20th July 1845, a period of less than eight

months, but including two semi-annual dividends, 1st January and July. This increase is not ideal, but based upon a steady yet regular increase of business and dividends.

NAME OF ROAD.	Paid on share.	Value 1st Dec.	Value July 19.
	£ s.	£ s.	£ s.
Bristol and Gloucester.....	30	36	59
Chester and Birkenhead.....	50	32	60
Dublin and Drogheda.....	60	72	115
Dublin and Kingston.....	100	166	251
Dundee and Arbroath.....	25	29	36
Durham and Sunderland.....	50	20	25 15
Edinburgh and Glasgow.....	50	57	78
Edinburgh, Paisly and Ayr.....	50	60	72 10
Glasgow Paisly and Greenock.....	25	12	21 5
Grand Junction.....	100	210	239
Great North of England.....	100	119	230
Great Western.....	80	138	215
Liverpool and Manchester.....	100	203	214
London and Birmingham.....	100	218	245
London and Brighton.....	50	47	77
London and South Western.....	50	73	82
Manchester and Birmingham.....	40	48	62
Manchester, Leades and Hull.....	73	88	170
Manchester Bolton and Bury.....	93	110	169
Newcastle and Darlington.....	24	49	56
Newcastle and North Shields.....	50	37	69 5
N. Union Bolton and Preston.....	100	104	176
Preston and Wyre.....	50	18	32 10
Sheffield and Manchester.....	87 10	93	135 5
Taff Vale.....	100	55	104 10
Yarmouth and Norwich.....	20	25	29 15
Ulster.....	32	37	52 5
York and North Midland.....	50	100	115
Paris and Orleans.....	20	39	45 10
Paris and Rouen.....	20	38	40 10

The average amount paid on the shares of these thirty roads, is £59 6s.; average value 1st Dec. 1844, £77 15s.; average value July 19, 1845, £109 5s.

NEW YORK AND ERIE RAILROAD.—We give on another page the businesslike address of the new president of this company, and we ask for it the candid attention of our citizens. The time has now arrived when we must all act in this matter. It will not do for us to say to our neighbor go and subscribe—let us rather say *come with us*, and take as many shares as you can pay for in three years—it will be the best investment you can make. Six per cent. is to be allowed on the amount paid in, until a single track is completed to lake Erie—after which it will, we doubt not, be seven, eight, nine and ten per cent., as the business finds its way over it, during the first four years, after its completion. But that is not all, we shall be able to live better and cheaper than we do now—and those who work at day labor, or who drive a cart, or work at mechanical pursuits, will be benefitted by the increase of business—and those who sell goods, or own houses and stores, will be benefitted by the increased demand. Come then one and all, let us go and subscribe—two millions only are required—\$1,000,000 being already secured by a few. Let therefore one hundred men take \$10,000 each—and one hundred take \$5,000, and two hundred take \$1,000, and three hundred take \$500, and five hundred take \$100, and five hundred take each \$100—and the whole amount will be taken by seven-teen hundred persons taking from 1 to 100 shares each. Where is the business man in this city, whose face would not crimson with shame, in all time to come, at the mention of the *New York and Erie railroad* should the efforts of the present able board of directors fail of success! That it may not fail, let all who have any regard for the city of their residence—any regard for their own self respect hereafter, go and put their name to the books.

CARTHAGENA CANAL.—We are pleased to hear from our friend Mr. J. C. Trautwine now at Carthagena, New Grenada, with Mr. George M. Totten,

who has charge under the government of constructing a canal from Carthagena to the river Magdalena, about 100 miles. The route of this canal we understand to be most of the way in a natural water course, some part of which has a sufficient depth of water, while other parts require to be deepened, which is to be done by the steam excavating machine placed in a boat; and a portion of the line will be excavated through solid ground, from one point to another on the natural channel, and this materially shorten the distance.

Mr. Totten employs the natives mainly to perform the hand labor, but his assistants and superintendents cannot claim that privilege. It is cheering to know that light is dawning upon those fertile regions, and equally gratifying that their public works are to be constructed and managed by our own engineers and enterprising citizens.

RAILROAD CONVENTION.—The convention called at Poughkeepsie for the 16th inst. in relation to the New York and Albany railroad is near at hand and we hope all the friends of that important work will be there, and that the proceedings of the convention will show that the great object in view, is to construct a railroad from this city to Albany. Let the route of the road be an *after consideration*, to be decided by the instruments, and the amount of business and travel, to be ascertained by competent and disinterested men, but let those who assemble at Poughkeepsie, resolve to furnish the capital and have the road built.

TO RAILROAD CONTRACTORS.—The attention of our numerous readers, interested in the letting of contracts on railroads, is called to the notice of the Harlem railroad, in another page. This company now advertize to put under contract twenty one miles, extending from the present terminus at White Plains to near the north line of the county. We hope they will not only put it under contract, but also complete it in the shortest possible period—and then go on with the work without delay, until they open a first rate road to Albany—if they intend to do it at all. We mean to hold you to your contract gentlemen—and see that the \$500,000, is properly appropriated and expended—and you have no more time to do it in than is necessary—therefore look to it.

TO OUR SUBSCRIBERS.—We desire to say one word. To express our thanks to those who have, by promptly paying for the Journal to the close of the current year, enabled us to make it what it is. To those who have not yet paid for the present volume we would say *please remit by return mail*, and thus enable us to carry it through the year with increased spirit and usefulness. To those who are indebted for past years—some two, three, some five, or more years! *What shall we say? What would you say to us, if our relative positions were changed? Will you please inform us in a letter, containing the amount due, according to a statement which we send you? We rely fully upon a prompt, and favorable, response to this appeal—shall we be disappointed!*

ATMOSPHERIC RAILWAY.—It is stated in Herapath's Journal that some experiments have been made to exhaust the two lengths of tube, 5 miles in length together, by the engines at one end. The result was that, in 5 minutes 12 inches vacuum were obtained out of 29.8, and that eventually they got it up to 27.4 inches and maintained it there for hours. The vacuum was nearly the same at both ends. This certainly looks well.

By the arrival of the steam ship Caledonia at Boston, we have full files of the English Railway and Mining Journals to the latest dates, which contain much of interest in relation to railways—the iron trade, mines, etc., etc.

Parliament was prorogued by the queen in person, on the 16th inst., after an unusually laborious session, at least so far as the railway interest is concerned.

One hundred and twelve new railways have been sanctioned, the length of which is 2860 miles, a greater length than is now in use in the Kingdom! the capital authorized to be raised for their construction is £58,452,900,—which allows £15,262, per mile, without including the amount authorised to be raised by loan, if that is included they have allowed £20,438, or over one hundred thousand dollars per mile! At the previous session 819 miles were granted, making nearly six thousand miles of railroad in Great Britain, a territory not three times as large as the state of New York! and this is only the commencement of the system there!! Who can predict the end—and the results?

The late half yearly reports are showing a steady and certain increase of business on most of the English railroads; the natural and certain result of reduced charges.

The "Great Western," or London and Bristol road, 118 miles long with 102 miles of branches, has recently made its twentieth semi-annual report, from which we gather some interesting facts.

It appears that they have carried, within the six months, 963,337 passengers or about 60,000 more than for the corresponding period last year, or 5,235 per day, an average of 36 miles each. The receipts during the same period were £432,325, and the expenses £158,367, or 35.4 per cent. of the whole receipts. After paying all expenses, interest, and the lease of some of their branches, they divide 4 per cent. for six months. Its stock is quoted at £230, for 100 paid.

The expenses of working the road during the last three years, have been for each half year as follows, viz. from 30th June to 31st Dec. 1842, 36 per cent. of the receipts, the next six months to 30th June 1843, 37.7—to Dec. 31 1843, 34.4—to June 1844, 34.4—to Dec. 1844, 32.6 and from Dec. 31st, 1844 to June 30th, 1845—35.4 per cent. or an average of 35.2 per cent.

This company is about to issue new shares of £25 each to the amount of £2,325,000, for the purpose of carrying out their plans of extension by new lines & branches. These shares are to be distributed pro rata among the present holders of their shares, thus se-

curing to them a large profit in the excess of their market, over the par value.

We give the following general abstract of expenditure on this work to show the enormous cost of parliamentary, legal, engineering, and right of way or land expenses. All these, except the engineering and even those look to us as *excessite*; yet we are decidedly in favor of making the most thorough examinations—liberal expenditures in this department, if made by competent and diligent and discreet men, may economize largely, not only in the *first outlay*, but also which is of far more consequence in the *working* of the line for all time to come.

GENERAL ABSTRACT OF EXPENDITURE.

	£	s.	d.
Expenses before the act.....	89,436	13	3
Land and compensation.....	747,841	9	5
Contracts for works.....	3,800,641	17	4
Permanent way, timber, rails, and all other materials.....	1,121,815	16	10
Locomotive engines, carriages, etc. deducting £75,000 received for depreciation.....	547,078	12	0
Engine, house machinery, tools, etc.	27,846	15	3
Engineering, surveyors, etc.....	155,203	6	8
Advertisements, printing, etc.....	3,865	2	10
Travelling expenses.....	4,427	4	11
Land valuers, purchasing land....	20,003	18	10
Law charges, conveyancing, and cost of title.....	82,443	15	11
Stamps for debentures.....	14,935	7	9
Parliamentary expenses.....	27,043	19	10
Maps, plans, etc.....	1,661	12	2
Office expenses, salaries, direction, postages, etc.....	42,679	7	0
Experiments of Mr. Wood and Mr. Hawkshaw.....	3,201	11	9
Reconstruction of portion of permanent way between London and Maidenhead.....	56,407	3	3
	£6,746,533,	15	0

There appears to be a disposition in some of the principal English railway companies to reward liberally their faithful and persevering officers, as will be seen by the testimonial of the Great Western company to their secretary Mr. Saunders—at the close of the meeting

The chairman said—it then became his grateful duty to bring before them a subject, which he thought could not be better timed than on that day. It was a testimony of gratitude, respect, and affection to one with whom they had long associated—Mr. Saunders—a testimony that had been long due. In the month of February in the present year a resolution was carried—that thanks be given to their secretary, Mr. Saunders, for his services; and that the directors be requested to take into consideration the best means of marking their sense, by a testimonial, of his valuable services. To recite those services would be to recite every incident, however large or trivial, which had occurred in the whole history of the Great Western railway. That he would not attempt to do, but he would remind them that many of those services were beyond what belonged to his important situation of secretary and superintendent of the line, that seems never to occur to him. It was sufficient for him to know

that those services were for the benefit of the Great Western railway. In every department, of their negotiations with bodies or individuals, in our late difficult discussions with the various government departments, in their financial operations, in their parliamentary, and even in their legal proceedings, Mr. Saunders had always been ready, in season and out of season, by day and by night, at the expense of his social enjoyments, and even of his domestic comforts, to give the company the advantages of his assiduity, his talent, his knowledge, and his great experience of our large and complicated affairs. For such services it was not too much to present him a testimonial of their respect, as thanks and gratitude were scarcely sufficient. The only question then that remained for the directors to consider was the way in which that testimonial should be offered. The testimonial presented to Mr. Saunders in August last was incomplete, inasmuch as it could only be regarded as the testimonial of the subscribers, and not of the company at large. It had occurred to the directors that the most gratifying form in which to render that testimonial would be to give him an interest in that property, the prosperity of which he had so highly promoted. Their first intention was to present him a portion of the reserved fifth shares, but a legal difficulty having arisen as to how that would effect their capital, it occurred to them to adopt a similar mode of proceeding, by presenting to him such a number of those fifth shares at par, the premiums on which would amount to the same sum as was proposed if they had given him the number of shares originally intended. That was the proposition he was directed to make to the proprietors, and he did not think that they could satisfactorily separate to pass their summer with their families and friends if they did not do an act of justice to their old, well-tryed, and meritorious servant, and carry with them the reflection that they had done that which would be conducive to his comfort, and gratifying to the feelings of his family. The hon. gentleman, who was deeply affected through a great part of his address, concluded by moving—

"That to carry into effect the resolution of the proprietors, of the 11th February, 1845, three hundred of the reserved fifth shares of the Great Western railway be transferred at par into the name of Mr. Saunders to testify their deep sense of the long and eminent service he has rendered to the company."

Mr. Cross seconded the resolution, and trusted that Mr. Saunders might long be blessed with health to enjoy the testimonial of their regard, and add to the benefits he had already conferred on the company.

The motion was then put, and carried by acclamation.

Mr. Saunders returned thanks in language which only a true man has at command, the language of the heart; of a man whose every action in his daily walk and intercourse is governed by an honest purpose; such are the men who deserve to be sought by all companies, and cherished when found.

The remarks of the editor of the Railway Chronicle, are so appropriate and so thoroughly in accordance with our own views that we will give them in our next number, they should be read by every railway director and stockholder in this country, let them employ able, honest, industrious, and indomitable men to discharge the duties of every station; pay them well and make them responsible for their doings, then, and not till then, will their affairs be well, but not over managed.

We might give several other equally interesting reports but will omit them in this number, and refer our readers to a tabular statement in another column of thirty different European railroads, showing the amount paid on each share, together with their market value on 1st December 1844 and 19th July 1845, from which a better opinion may be obtained of the general condition of the railway interest there, than from individual cases. In this statement we have given the principal roads in Herapath's list, which contains 41 in all: and from it we desire our readers to see and feel that investments in lines of railroads judiciously located, properly constructed, and well managed, are not only calculated to reduce the expenses of business, and increase the value of real estate, but are also among the most certainly profitable investments that can be made. When once well made the expense of management will decrease, and the amount of income constantly increase. Will they not then come promptly forward and subscribe the amount necessary to insure the immediate construction of the New York and Erie Railroad, in accordance with the terms just offered by the directors? We feel that it would be unjust to the people of this city to doubt for a moment, when so much good would result from so little effort, yet we call upon every citizen who has the means to take shares. It will be an honor to any man to have his name enrolled on the list of shareholders who carry this work through, and more creditable to the officers who shall direct its affairs to a successful issue, than was the victory of Waterloo, or any other victory ever achieved, except in defence of human liberty, to those who directed the campaign.

We take the following article from the Evening Gazette—a paper by the by which ought to and will have a wide circulation—in relation to the Rome and Cape Vincent, or Kingston railroad. If the people generally interested in that work, could see it in its true

\* See the address of the directors, page 586.

light, as we think the writer of this article does, they would go neither to New York, nor Boston for aid, but each man would put his hand in his pocket, and pay for one, two, ten or one hundred shares as his ability would allow him—and thus keep the stock among themselves—and be doubly benefitted by the road—first by its facilities, and secondly, by the large and increasing dividends upon its stock.

Since writing the above we have received the circular of the committee, which was appointed to make inquiry along the line in relation to the present transportation and travel which would fall upon the road if built. The report is exceedingly favorable—yet it does not state the whole truth—the reality when the road is completed will far exceed the estimate now if it is fairly made. We give a few extracts from it—by way of sustaining the views of the editor of the Evening Gazette.

ROME AND CAPE VINCENT RAILROAD.—This road—to which we made a brief allusion yesterday—is designed as a principal avenue between lake Ontario, the great receiving basin of the western states and Canada west, and the city of New York. It must be evident to those who look at the matter uninfluenced by local interests or prejudices, that lake Ontario is hereafter to become the receptacle of a large portion of the western business. The Welland canal will enable the "propellers"—in which the business of the upper lakes is mainly to be done—to pass into lake Ontario, at a rate so cheap that it amounts to almost the same thing as though lake Erie terminated at Oswego or Ogdensburgh; consequently their freight will be deposited at a point nearest to, or from which it can be taken to its place of destination in the cheapest and speediest manner. At present that point is Oswego a place destined to occupy, at no distant day, a conspicuous station among the inland cities of this country—but Oswego will have a powerful rival in her more northern neighbor, Ogdensburgh, which will most surely be taken by the hand by our rival and more enterprising sister, Boston. With Boston capital, and enterprize to develop her great natural resources, in connection with a first rate railroad to lake Champlain, and thence to every important city and town in New England—with equal advantages from the western and Canadian trade—Ogdensburgh will take a station among the important towns or cities of this state, little anticipated by even her own citizens.

The great object of Boston is, unquestionably, to divert the western and Canadian trade to her own capacious and rapidly increasing warehouses; and if she can bring it to Ogdensburgh at about the same cost as to Oswego, and then offer equal inducements with New York, a large portion of it will be likely to take that course. When at Ogdensburgh it is beyond the natural route to New

York, if the facilities are equal—it therefore becomes a matter of importance to the business men of this city to adopt measures which will still secure the advantages which nature and art has given them. They should move in time to prevent a turn of the current of trade too far to the north—and to us it appears that the Rome and Cape Vincent railroad will, in a great measure, accomplish that object.

Cape Vincent, it will be observed, is situated at the lower extremity of the lake, and opposite the important town of Kingston, in Canada; and about ninety miles from Rome, on the Erie canal, and the great western line of railroad. The route is mainly through a region of country rich, not only in agricultural, but also in mineral productions—and inhabited by an enterprising population. The route, it has been ascertained, is a favorable one; having no difficult grades or curves, and the road may be constructed, in the best manner, within the average of the cost of American railroads. And it is believed that the local traffic and travel of the region traversed by this road will be as great as that of almost any other section of the state, of equal extent, especially as there is little probability of a rival route nearer than Oswego on the one side and Ogdensburgh on the other. During nearly one-half of the year it will command the entire business of Canada west, from a point nearly opposite Ogdensburgh to the head of the lake, and a fair proportion at all seasons; and also of the great north western travel through Michigan, when a railroad shall have been—as it surely will be—constructed from Kingston to Toronto and Hamilton, to connect with the "Great Western Canada railroad" to Port Sarnia, or some other port on the Huron river. In addition to these sources of business it will, of course, share with Oswego and Ogdensburgh in the immense business of lake Ontario; thus insuring to it an amount of travel and transportation which will yield large returns upon its cost, and at the same time open another important avenue for the trade of this city—too important, it seems to us, to be lost sight of.

The distance from Cape Vincent to Rome is about ninety miles, and from Rome to New York two hundred and sixty miles—or from lake Ontario to this city three hundred and fifty miles; & from the same point to Boston it does not vary much from four hundred miles—but from Ogdensburgh the distance is about equal. Is it not important then that this road should be speedily built, that our own citizens in Jefferson and St. Lawrence counties, and our Canadian neighbors may still continue their business relations with us, instead of being diverted to other markets, and to other associations?

☞ *The Cincinnati Gazette*.—Can any of our friends inform us if that excellent paper—above named—has gone to Texas? We received it regularly until recently, but we have neither heard the "whistle" nor seen the smoke, of its locomotive for several weeks and therefore have to look to other papers for

information in relation to the railroads growing in its vicinity. The following is from the Baltimore American.

The Cincinnati papers announce the speedy opening of the whole line of railroad from that city to Sandusky on lake Erie. The Gazette of the 20th inst. says that a train of cars started from Cincinnati the day before for Xenia, the track having been opened for trains to the latter point. In sixteen days goods may be conveyed from New York to Cincinnati by the lake route. The completion of the railroad to Sandusky will shorten the time. Yet we shall have nothing to fear from this competition if our road to the Ohio were finished and that great river made navigable at all seasons. We shall command the great central route, and Baltimore will be restored to her controlling position as the emporium of the trade of the heart of the Mississippi valley.

THAT'S IT.—The Reading railroad company, says the Baltimore American, are transporting to the seaboard about one hundred thousand tons of coal per month, notwithstanding which the supply at the mines is daily increasing. To this date last season the Reading railroad and the Schuylkill canal transported about an equal quantity; this season the railroad has transported 354,738 tons more than the canal. The transportation of coal on the canal has decreased this season 139,476 tons, while on the railroad there has been an increase of 207,181 tons. These two companies—the Reading railroad, and the Schuylkill Navigation company—are carrying on an extensive competition. The agents of the railroad company do nearly all the coal business in the section of the country traversed by the line, and the agents or engineers of the canal company do all the talking through the papers.

The Baltimore and Ohio Railroad to Pittsburgh.—The citizens of Pittsburgh, says the Baltimore American, are giving intimations of a decided movement to be made at the next session of the Pennsylvania legislature for the purpose of securing the right of way for the Baltimore and Ohio railroad to the Ohio at Pittsburgh. That enterprising city, starting with unexampled energy from her late disaster, is displaying an unconquerable spirit which must in the end bring success to her steady and determined efforts.

We honor the Pittsburghers for their energy and sagacity. They will not rest satisfied, nor should they, until they have an easy and speedy communication by railroad with Baltimore and Philadelphia.

FIRE BRICK.—Those who require this article will do well to look at the advertisement of Mr Brinley of Perth Amboy, N. J., in this Journal, as the reputation of his brick stands

high with those who have used from different manufacturers, as may be seen from the annexed statements.

Waterbury, Feb. 19, 1844.

This may certify that we have used the Kearney Fire Brick, and consider them at least equal to any others, not excepting the Stourbridge. J. M. L & W. H. SCOVILL.

Having used and tested the Kearney Fire Brick, manufactured at South Amboy, I have no hesitation in recommending them to others, having found them in all respects equal to those of any other make. J. P. ALLAIRE.

Philadelphia, July 16, 1844.

I have been agent for the sale of the English Stourbridge Brick for 15 years and upwards, and for the sale of Watson's Perth Amboy for some 8 or 10 years, and for the "Kearney Fire Brick" some 2 years; and am impressed with the belief that the Kearney Fire Brick are fully equal if not superior to any I have been selling; and as a proof of which my sales to our principal iron foundries have been more extensive of the Kearney Fire Brick than of any other; and those who have used them before uniformly call for the "Kearney" brick again.

J. PATTON, JR.

OFFICE OF THE NEW YORK AND ERIE RAILROAD COMPANY. No. 50 Wall st. New York. September 3, 1845.

Notice is hereby given, that the books of subscription for \$3,000,000 to the capital stock of this company will be opened at the office of the company, No 50 Wall-st. on Monday, the 8th of Sept., inst.

By order of the board of directors.

T. S. Brown, acting Sec'y.

The conditions of subscription adopted by the board of directors are as follows:—

"We, whose names are hereunto annexed respectively subscribe for the number of shares of the capital stock of the New York and Erie Railroad Company, of one hundred dollars each, set opposite our names, and agree to pay to the said company an instalment of five dollars per share, on such subscriptions, as soon as the same shall be required by the board of directors of said company, after the sum of three millions of dollars shall have been subscribed; upon the following conditions:

"1.—That interest at the rate of six per cent. per annum shall be paid semi-annually, on the first days of January and July, on all the instalments on the stock so subscribed from the date of the respective payments, until a single track of the road shall be completed and put in use from the Hudson to lake Erie, and also a branch to Newburgh.

"2.—That no instalments upon such subscriptions shall be called in, nor any certificates of stock issued thereon, until thirty thousand shares of \$100 each shall be subscribed and accepted by the board of directors of said company as bonafide subscriptions.

"3.—That instalments amounting to not more than \$25 per share, shall be required within twelve months after subscriptions for three millions shall have been obtained, and not more than \$30 per share during the second year, and \$45 during the third year.

"4.—That every subscriber to the said stock who shall after having paid \$25 per share on his subscription, become the purchaser of any bond or bonds issued pursuant to the act of 14th May, 1845, shall be entitled at any time before the maturing of such bond, or bonds, to exchange the same to an amount equal to his said subscription for stock to this company at par."

TO THE PUBLIC.

In making the above announcement of the opening of the books of the company, the directors deem it proper to present a few remarks in reference to this important work. The New York and Erie railroad has too long, for the credit of our city, remained in an unfinished state. Without expressing any opinion in reference to its past history, the present board of directors are fully determined to leave nothing undone, which they can do, to carry forward this great enterprise to an early completion.

In coming before the public to solicit their subscriptions, it is presumed that almost every individual is fully acquainted with the value and importance of this channel of communication, with a large portion of our own state, and the great and rapidly increasing west. Unless our citizens come forward promptly and contribute their means and influence to this great work, it will still remain a standing memorial of our want of public spirit, and of our indifference to the best interests of New York.

The systematic efforts making by neighboring cities to obtain a large share of the trade of the great West, imposes upon our business men and capitalists the necessity of adopting immediate measures to retain such portion of the trade as we are entitled to by our position and great natural advantages—great it must be admitted, but not sufficient to maintain the proud preeminence against the onward march of railroad communication, of the advantages of which our neighbors are fast availing themselves, while New York has remained comparatively indifferent to this formidable rivalry.—What the Erie canal has been, in its consequences, to the city and state of New York, the Erie railroad, we believe, will be, when once opened from the Hudson river to lake Erie.

Who can estimate the importance of a communication at all seasons of the year with a portion of our country embracing an area of more than 12,000,000 of acres, equal in extent to the whole of New England and which, by its position, will be tributary to, and naturally dependent upon this road for ready communication with the Atlantic.—In addition to which, at its termination, it opens upon our great inland seas, the trade of which is rapidly approximating in value to that of all our foreign commerce although yet but in its infancy. If our Atlantic commerce should be exposed to the dangers incident to foreign invasion, how vastly would such an internal communication increase in importance and magnitude. Through this avenue can be reached most expeditiously the Western and South-Western cities, Cincinnati, St. Louis and New-Orleans, and a large portion of the travel and merchandize would, almost of necessity, find its way through this route to the valley of the Mississippi.

To complete a single tract to lake Erie, six millions of dollars are required. The cost of the work to the stockholders will then be \$7,350,000; and adding a liberal amount to provide for cars and engines for the commencement of business, the road, with a heavy [T] rail, estimated at \$65 per ton, will be brought into use for less than \$20,000 per mile. The actual cost of the road will be over \$28,000 per mile, but the liberality of the State, and the surrender of half the stock of the present holders, reduces it to this very low rate.

In reference to the estimates, it may be proper to state that responsible contractors have offered to take the whole work, at prices nine per cent. less than those assumed in the calculations on which they were based.

With regard to the productiveness of the investment, the Board is of the opinion that the result cannot fail to be in the highest degree satisfactory. In whatever light the subject is viewed, such must



be the conclusion arrived at by any careful and intelligent inquirer. There is not space in an address of this character to go into an elaborate argument on this point, and it is the less necessary as the impression seems now to have become very general, if not universal, that if the road can be completed it must pay large dividends. The results obtained on the section already in use prove this. The great length of the work, the productiveness of the country through which it passes and to which it leads, the absence of all danger of injurious competition from rival routes, the numerous branches already existing or in contemplation exceeding in the aggregate the length of the main trunk, the immense market which this city will afford, for agricultural products of every description, and the boundless country whose inhabitants must be supplied with merchandise to be sent in exchange, appear to us to leave no reasonable doubt on this most important question.

To these considerations must be added the great improvements in motive power which have recently been made, and which have demonstrated fully that railroads can, and do, compete successfully in the transportation of articles of heavy merchandise with any other mode of conveyance. While the completion of this road will thus stimulate every department of business and add millions to the value of the property within the reach of its influence, it cannot fail in dispensing these blessings to the public, to enrich in a still greater proportion the holders of its stock.

With regard to the indebtedness of the Company, the amount of which is about 600,000, the board is happy to be able to state that, owing to the liberality manifested by the principal creditors, the time of payment for most of it has been extended on satisfactory terms. The sum of \$486,839 37, is in the shape of 6 and 7 per cent. certificates, payable on the 1st of January, 1849. The holders of about one-half the remainder have agreed to settle by taking certificates of the same character, and the residue, including an amount due for work recently done on the Shawangunk summit, is in course of settlement, as the means of the Company will permit.

As an inducement for capitalists to subscribe, interest as will be seen above, will be paid upon the instalments, until the road is completed. This the Company will be able to do from the surplus earnings of the 53 miles of road already in operation, and such additional portions as may successively be brought into use. Should the requisite amount be at once subscribed, the whole road may be completed within three years from next spring—more than half of the work necessary to prepare the entire line for the rails having been done, and the surveys completed.

The directors cannot doubt that if the subject of the New York and Erie Railroad were now for the first time presented to our citizens, without any collateral advantages and based upon its own intrinsic merits, it would commend itself forcibly to their favorable consideration; but added to the other inducements are those of the release by the state of the \$3,000,000 loan, and the reduction of the old stock from \$1,500,000 to \$750,000, making altogether a bonus of \$3,750,000 to the new stockholders.—Thus the whole work on which about \$5,000,000, has been expended will be represented by stock, and debts to the amount only of \$1,350,000.

It may be proper here to state, that of the \$3,000,000 required to be raised by subscription, more than one million of dollars have been pledged in large sums by a very few friends of the road, leaving less than two millions to be raised by additional subscriptions to secure the full benefit of the recent act of the Legislature.

In view of the advantages of this important work, and the great inducements to subscribe to the stock of the company, the board earnestly commends it to the favorable consideration of the citizens of New-York, every one of whom, be he poor or rich, every business man, no less than the holder of real estate, has a deep interest in its early completion.

In conclusion, the directors ask the aid of their fellow citizens to this the greatest public work of our country, in the advantages of which more than one million of the inhabitants of this city and state will participate. There is no other work in which they have so deep an interest; and in view of its para-

mount importance, they will not, they cannot doubt of success. By order of the board.

BENJAMIN LODER, President.

New York, September 2, 1845. 37 11

**NIAGARA AND DETROIT RIVERS RAILROAD. PROSPECTUS.**

The Niagara and Detroit rivers railroad is designed to connect Buffalo with Detroit, and extend the great western railroad in one continuous line from Boston to the head of lake Michigan, and ultimately to St. Louis.

*Cost of construction*—In direction, elevation, and economy, it is unrivalled by any road for a similar distance. It will be nearly in a straight line, having only two gentle curves in a distance of 222 miles. The grade is in no place over 15 feet for short distances, and averages less than two feet in the mile. The estimated cost from actual survey in 1838, is one and a half million of dollars; but if the road be constructed of the heavy H rail, in the most perfect manner, the cost may extend to two and one half millions.

*Income*—One thousand people are supposed to pass through Buffalo daily, during the travelling season—from whence there is but one means of communication to the west, namely by lake Erie. The communication eastward is by the falls of Niagara, Canada, lake Ontario, the Erie canal, and the Buffalo and Attica railroad. Notwithstanding these numerous channels, the latter is selected as the basis on which a safe, durable, and profitable investment is anticipated.

It appears from the statistical returns furnished by the Secretary of State for New York, in March 1845, that during the year 1844, from December to April, five months, 63 persons, including way-passengers, passed each way, daily, over the Buffalo and Attica road.—although lake Erie was not, during this period, navigable—130 days X 136 passengers—17,680 at \$5=88,400. In May, October and November, the travelling increased to 126 each way. During this period the navigation of the lake is considered hazardous—78 days X 252=19,968, at \$5=990,840. From June to September, four months travelling increased to 182 each way, 104 days X 364=37,856. An active competition from lake steamers, may at this season be looked for, during which the fare should be reduced to \$3=\$113,563—making in all for the three periods, \$301,804—which would yield an interest of 10 per ct. on the capital, & leave a rest of \$51,308 per year.

*Way fare through Canada*—This part of the line is left to balance the repairs of the road and the expenses of management. Although no remuneration is estimated, the route intersects the Welland canal, grand river navigation, port Dover and London plank roads, and various other communications leading from numerous villages, and a dense agricultural population in the interior, the travel and freight from which, in addition to what will pass from point to point, is likely to yield the same returns as other lines for the like distance.

*Future Prospects*—Having no population or travel, to create, to insure an immediate revenue—any additional calculation may be considered superfluous—but when we see the travelling over Buffalo road increase from

136 passengers per day—when the western country is excluded—to 256, when the navigation of lake Erie is considered hazardous, and to 364 when fairly opened, notwithstanding the competition east of Buffalo—it cannot be considered unreasonable to double those numbers, when a perfect and better communication is opened to the eastern terminus of the western road, which may be passed in 8 or 10 hours. Neither can it be considered visionary to look for an early extension of the same line to the confluence of the Mississippi river at St. Louis, and a rapid increase of travel each succeeding year, so long as emigration continues to flow to the west—a proportion of the southern population to make their annual tour to the north—and the falls of Niagara continues to be the great point of attraction.

*Proposed plan of Proceeding*—The capital authorized by the existing act of incorporation is two millions, which it is proposed to increase to two and one half millions of dollars—half a million of which is to be offered in the United States, half a million in Canada, and the residue in London. It is desirable no time should be lost in obtaining subscriptions for the capital, that the work may be early commenced, with a view of completing the same the ensuing year. In behalf of the shareholders.

W. HAMILTON MERRITT.

**NOTICE TO RAILROAD CONTRACTORS.**

SEALED PROPOSALS will be received at the Office of the New York and Harlem Railroad Company, in the village of White Plains, Westchester county, until the 20th day of September, for the grading, masonry and bridging of about 21 miles of said railroad, extending from the present terminus at White Plains, to a point near the north line of Westchester county.

Plans, profiles and specifications will be ready for the inspection of contractors on the 15th of September, when the engineers will be in attendance, to render all requisite information.

Contractors not known to the company or engineer, will be expected to produce testimonials of their capacity, ability and experience; and the best security will be required.

The work must be commenced immediately after contracts are closed, vigorously prosecuted, and completed by the first day of May next. By order of the Extension Committee.

37 21 ALLAN CAMPBELL, Chief Eng'r.

**NOTICE TO RAILROAD CONTRACTORS.**

SEALED PROPOSALS will be received at the Office of the Connecticut River Railroad Company, at Northampton, until the 15th of September proximo, for the graduation, masonry, and bridging, of that part of the Connecticut River Railroad between Northampton and Greenfield.

Plans, profiles and the ground will be ready for examination on and after September 6th, and explanations given at the office aforesaid.

JOHN CHILDE, Eng'r.

Northampton, Aug. 29, 1845. 37 11

**LAWRENCE'S ROSENDALE HYDRAULIC Cement.** This Cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floors and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE, 142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 32

**KEARNY FIRE BRICK.** F. W. BRINLEY, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

- James P. Allaire, } New York.
  - Peter Cooper, } New York.
  - Murdoch, Leavirt & Co. } New York.
  - J. Triplett & Son, Richmond, Va.
  - J. R. Anderson, Tredegar Iron Works, Richmond, Va.
  - J. Patton, Jr. } Philadelphia, Pa.
  - Colwell & Co. } Philadelphia, Pa.
  - J. M. L. & W. H. Scovill, Waterbury, Con.
  - N. E. Screw Co. } Providence, R. I.
  - Eagle Screw Co. } Providence, R. I.
  - New Jersey Malleable Iron Co., Newark, N. J.
  - Gardiner, Harrison & Co. Newark, N. J.
- 25,000 to 30,000 made weekly. 35 1m

**TO IRON MANUFACTURERS.** THE SUBSCRIBERS, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late R. v. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO.,  
ja45 No. 4 Sout Front st., Philadelphia, Pa.

**SPRING STEEL FOR LOCOMOTIVES,** Tendlers and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,  
j5a3 Albany Iron and Nail Works, Troy, N. Y.

**SAMUEL NOTT, CIVIL ENGINEER,** Surveyor and General Agent, Bangor, Me. Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

— REFERENCES —  
Boston, { Col. James F. Baldwin, Civil Engineer.  
          { Col. J. M. Fessenden, " "  
Wm. Parker, Esq., Engineer and Superintendent  
Boston and Worcester railroad. ja45

**LEXINGTON and OHIO RAILROAD.**

Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m. Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1.25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort. other hours as above. 1y35

**PASSENGER LINES FROM BOSTON.**

**Eastern Railroad**—Boston to Portland, via Salem Newburyport, Portsmouth and Saco. Trains leave daily, except Sundays. Boston for Portland 7 1/2 a.m. and 2 1/2 p.m.; Newburyport and Portsmouth 7 1/2 a.m., 2 1-2, 5 1-2 p.m.; Salem 7 1/2, 9, a.m., 12 1/2, 2 1-2, 3 1-2, 5 1-2, 6 1/2 and 8 p.m.; Salem for Marblehead 8 1/2, 9 1/2 10 1/2 a.m.; 1, 3 1/2, 4 1/2, 6 1/2, 8 1/2 p.m. 32

**Boston and Maine railroad—Upper route.** Boston to Portland, via Charlestown, Wilmington, Andover, North Andover, Haverhill, Exeter, Dover, Somersworth, Berwick, Kennebunk, Saco, and Scarborough. Passenger trains will run daily, Sundays excepted, as follows, viz: Leave Boston for Portland at 7 1/2 a.m. and 2 1/2 p.m.; for Great Falls at 7 1/2 a.m., 2 1/2, 4 1/2 p.m.; for Haverhill at 7 1/2 a.m., 2 1/2, 4 1/2 and 6 1/2 p.m.; leave Portland for Boston at 7 1/2 a.m. and 3 p.m.

A special train will leave Boston for Andover at 12 m., and Andover for Boston at 4 1/2 p.m.

The depot in Boston is at the corner of Canal and Traverse streets. CHARLES MINOT, Superintendent. 32

**Norwich and Worcester railroad.**—Accommodation trains, daily, except Sunday. Leave Norwich at 6 a.m. and 4 1/2 p.m., leave Worcester at 10 a.m. and 4 1/2 p.m. The morning train from Norwich, and the morning and evening train from Worcester, connect with the Boston, Western and Hartford and Springfield railroads. New York train, via steambot, leaves Norwich for Worcester and Boston, except Monday, upon the arrival of the boat from New York, about 2 o'clock; leave Worcester for Norwich and New York at 5 1/2 p.m. daily, except Sundays. New York train, via Long Island railroad, leaves Norwich about 3 1/2 p.m. for Worcester and Boston daily, except Sunday; leaves Worcester for Norwich and New York at 7 1/2 a.m. daily, except Sunday, and arrives at Norwich at 9 1/2.

Fares are less when paid for tickets than when paid in the cars. EMERSON FOOTE, Superintendent. 32

**Boston and Lowell Railroad, Summer Arrangement.**—The passenger trains will run as follows: Leave Boston at 7 and 11 a.m., 2 1-2 and 5 1-2, p.m.; leave Lowell at 7 1/2 and 11 a.m., 2 and 5 1/2 p.m. Fare 75 cents. 32

**Nashua and Lowell Railroad.**—Passenger trains will run as follows: Leave Boston at 7 a.m., 11 a.m. and 5 p.m.; leave Nashua at 6 1-2 a.m., 1 1/2 p.m. and 4 1/2 p.m. 32

**Concord and Nashua Railroad.**—Passenger trains run daily, Sundays excepted, in connection with the Boston and Lowell, and Nashua and Lowell railroads, as follows: Leave Boston at 7 a.m., 11 a.m. and 5 1-2 p.m.; leave Concord at 4 1/2 a.m., 11 1/2 a.m. and 3 1/2 p.m. The second train arrives in Boston in season for passengers to take the railroad train to New York. Stages, on the arrival of the first train at Concord, leave by various routes for the different parts of the state, Vermont and Canada. On the second day from Boston Stages reach Royalton, Middlebury, Montpelier and Burlington, connecting there with the steamboat line to Montreal. Stages also run from Haverhill to Stanstead and Montreal. 32

**Woburn Branch Railroad.**—Special trains will run as follows: Leave Boston at 8 and 11 1/2 a.m., and 3 and 6 1-2 p.m.; leave Woburn Centre at 7 and 9 a.m., and 1 1-2 and 5 1/2 p.m. These trains will stop for way passengers anywhere between Woburn Centre and Boston. 32

WALDO HIGGINSON, Agent B. & L. Railroad Co.

**Fitchburg Railroad.**—Leave Charlestown at 7 and 11 a.m. and 5 p.m.; leave Fitchburg at 6 1-2 and 11 a.m. and 4 1-2 p.m. Special trains will be run to Waltham and Concord as follows: Leave Concord for Charlestown at 7 a.m.; leave Waltham for Charlestown at 7 1-2 and 10 1-2 a.m., 4 1/2 p.m.; leave Charlestown for Waltham at 9 1-2 a.m., 3 and 6 p.m.; leave Charlestown for Concord at 6 p.m. On the arrival of the two morning trains at Fitchburg stages will leave for all the principal towns in western Massachusetts, New Hampshire and Vermont. S. M. FELTON, Eng. and Supt. 32

**Boston and Worcester Railroad.**—Summer arrangement.—For Worcester and way stations at 7 1-2 a.m., 1 3-4 and 5 p.m.; for Milbury at 7 1-2 a.m. and 5 p.m.; for New York, by Norwich and steamer, 4 p.m.; day line for New York, by Long Island railroad, at 6 a.m.; for Boston and way stations at 7 and 10 a.m., 4 1-2 p.m. Newton trains, daily, except Sunday, from Boston at 9 1-2 a.m., 3, 5 1/2 and 7 p.m.; from Newton at 7 1/2 and 10 1/2 a.m., 4 and 6 p.m.

Fares are less at the ticket offices than in the cars. WM. PARKER, Supt. 32

**Boston and Providence Railroad.**—Passenger trains run as follows: For New York, night line, via Stonington; leave Boston every day, Sundays excepted, at 5 o'clock p.m.; accommodation trains leave Boston at 7 1-2 a.m. and 4 p.m., and Providence at 8 a.m. and 4 p.m.; Dedham trains leave Boston at 8 1/2 a.m., 12 1-2, 3 1-2 and 6 1-2 p.m.; Leave Dedham at 7 and 10 a.m., 2 1/2 and 5 1/2 p.m.; Stoughton trains leave Boston at 12 m. and 5 20 p.m.; leave Stoughton at 7 1-2 a.m. and 3 p.m. WM. RAYMOND LEE, Supt. 32

**Western Railroad.**—Summer arrangement.—Passenger trains leave daily, Sundays excepted, as follows: Boston 7 1/2 a.m. and 4 p.m. for Albany; Albany 6 3-4 a.m. and 2 1-2 p.m. for Boston; Springfield 7 a.m. and 1 p.m. for Albany; Springfield 7 a.m. and 1 1-2 p.m. for Boston. For Albany and Buffalo—Leave Boston at 7 1-2 a.m., arrive at Albany at 6 p.m.; leave Albany at 8 p.m. for Buffalo, or at 7 1-2 o'clock next morning. For Montreal—Passengers proceed from Albany to Troy, thence by railroad and canal to Whitehall, and thence by the commodious steamers of lake Champlain (stopping at Burlington) to St. Johns, thence by railroad to La Prairie, and thence by steam to Montreal. New York, via Hartford and New Haven; day route—Leave Boston at 4 p.m., lodge at Springfield or Hartford; leave Springfield at 9 1/2 a.m., and arrive in New York at 6 p.m. Passengers may also leave Boston at 7 1-2 a.m., proceed at 1 or 4 1-2 p.m. from Springfield to New Haven; leave New Haven at 10 p.m. and arrive in New York at 6 o'clock next morning.

For further information apply to Charles A. Read, agent, 27 State street, Boston.

JAMES BARNES, Superintendent and Engineer. 32

**Taunton Branch and New Bedford Taunton Railroads.**—Trains leave Boston for Taunton and New Bedford at 7 1-2 o'clock a.m. and 4 p.m.; leave Providence for Taunton and New Bedford at 8 o'clock a.m. and 4 p.m.; leave New Bedford for Boston and Providence at 7 1/2 o'clock a.m. and 3 1/2 p.m.; leave Taunton for Boston and Providence at 8 1/2 o'clock a.m. and 4 1/2 p.m.; leave Taunton for New Bedford at 9 o'clock a.m. and 5 1-2 p.m. Afternoon trains connect with Stonington cars and steamers for New York. Morning cars connect with the Long Island train on Monday, Wednesday and Friday. W. A. CROCKER, General Superintendent. 32

**Fall river Branch Railroad.**—Trains leave Boston for Fall River daily, Sundays excepted, at 7 1-2 a.m. and 4 p.m.; trains leave Fall River for Taunton, Boston and Providence at 7 1/2 a.m. and 3 p.m.; trains leave Fall River for Neeb p - ford at 7 1/2 and 9 a.m., and 5 1-2 p.m.

For Newport.—Passengers from Boston to Newport will find stages in readiness on the arrival of the morning cars at Fall River to take them onward. Fare through \$2. Tickets for the stage will be furnished by the conductor on the Fall River Branch Road.

Stages also leave Fall River at 1 o'clock p.m., for Tiverton, Four Corners, Adamsville and Little Compton. SAM'L H. P. LEE, Jr., Superintendent 32

**TO RAILROAD COMPANIES AND MANUFACTURERS** of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**FOR SALE, AT A SACRIFICE**—A Locomotive Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine. 2 8-horse " " " "

1 Upright Hydraulic Press.

All of which will be sold low, on application to

T. W. & R. C. SMITH, Founders and Machinists, Alexandria, D. C. May 12th

**FROM PHILADELPHIA.**  
**PASSENGER LINES NORTH AND EAST.**

**Camden and Amboy Line.**—By Railroad and Steamboat from Amboy. Leave foot of Walnut street daily, Sundays excepted, at 5 1/2 a.m. Fare \$3, Forward deck \$2 25. Also for New York, by way of Trenton, Princeton, New Brunswick, Elizabethtown and Newark, N.J., daily from foot of Walnut street, at 9 a.m., and 5 p.m.—Fare \$4. 31

**For Reading and Pottsville.** By Reading Railroad. Daily, Sundays excepted, from the Depot, corner of Broad and Cherry streets at 8 a.m. Fare, \$3 50. Second class, \$3. To Reading \$2 25. Second class \$1 90. 31

**For Mauch Chunk and Wilkesbarre.**—By Express and Reliance Line. Daily, from the corner of Broad and Cherry streets, at 9 a.m. PETERS, MILTIMORE & CO. 31

**For Easton and Bethlehem.** By Post Coaches. Leave the Office, next door to the White Swan, Race street, daily, at 4 a.m. PETERS, HAMMIT & CO. 31

**For Baltimore.** By Railroad. Fare \$2. Via Chester, Wilmington, Elkton, Havre de Grace. Leave Philadelphia, Depot, 11th and Market street, daily, Sundays excepted, at 8 a.m., 4 p.m. Leave Baltimore, Depot, Pratt street, daily, Sundays excepted, at 9 a.m., 8 p.m. Tickets through to Wheeling and Pittsburg can be procured at the Depot.

Wilmington Accommodation Line, leaves the Depot, 11th and Market sts. daily, except Sunday, at 10 a.m. and 4 p.m. Leaves Wilmington at 7 a.m. and 4 1/2 p.m. G H HUDDLELL, Agent. 31

**For Baltimore.** By Newcastle & Frenchtown Railroad and Steamboat Line. Fare \$1. The Steamboat Robert Morris, Capt. J. M. Douglass, leaves Dock street wharf daily, except Sunday, at 3 o'clock. Passengers by this line will reach Baltimore at about 10 p.m. Tickets through to Wheeling or Pittsburg can be procured on board the boat. G H HUDDLELL, Agent. 31

**For Baltimore, via Lancaster, Columbia and York.** By the Susquehanna Railroad, daily, Sunday excepted, leave the Depot 274 Market st., at 7 1/2 a.m., and 12 at night, for Columbia, and leave Columbia at 2 p.m. for Baltimore. Dine at York and arrive in Baltimore in time for early tea; passing through the most highly cultivated and beautiful part of Pennsylvania, and romantic part of Maryland. 31

**For Pittsburg, via Columbia and Lancaster Railroads.** Leave the Depot 274 Market st. daily, at 7 1/2 a.m. The Night Line will leave as usual at 12, midnight. At Harrisburg this line connects with the Railroad and Stage Line for Carlisle, Chambersburg and Pittsburg, with the Packet boats for Lewistown, Huntingdon, Hollidaysburg and Pittsburg; also with the Susquehanna Packet boats to Northumberland, Milton, Muncy, Williamsport, etc. Through tickets for any for any of the above places can be secured at the depot, where every information relative to the above lines will be given. Passengers for York and Gettysburg will leave in the 7 1/2 line. JACOB PETERS & CO. 31

**For Pittsburg.** By the Pioneer and Express Packet Line. Leave the Depot, 274 Market st. above 8th, at 7 1/2 a.m. By this route travellers may be assured of a safe and comfortable passage, every arrangement having been made for their accommodation. Office N. E. 4th and Chestnut sts. Seats may also be procured at the Depot, and at 13 South 3d st. A CUMMINGS, Agent. 31

**Susquehanna Line of Railroad Cars and Post Coaches.**

This line leaves the depot, corner of Broad and Cherry streets, daily, [Sundays excepted] at 8 o'clock, a.m., via Reading and Pottsville railroad, for Sunbury, Danville, Catawissa, Northumberland, Milton, Muncy, Williamsport, Towanda, Belfonte, Jersey Shore, Lockhaven, Ralston and Elmira. For seats apply at the stage office, 104 Race street, under the White Swan Hotel. S. STILES, Agent. 31

**FROM BALTIMORE.**  
**PASSENGER LINES SOUTH AND WEST.**

**Baltimore and Ohio Railroad.**—For Cumberland, Hancock, Martinsburg, Harper's Ferry, Winchester, Frederick, Ellicott's Mills, and intermediate depots by the regular train, daily, at 7 1/2 o'clock, a.m. For Frederick and intermediate stations, by extra train, daily, except Sunday, at 4 p.m.

Fare in either direction between Baltimore and Cumberland \$7, and for intermediate distances at the uniform rate of 4 cts. per mile. Through tickets are issued between Baltimore and Wheeling respectively, \$11. Between Baltimore and Pittsburg, \$10. Between Philadelphia and Wheeling \$13. D. J. FOLEY, Agent. 31

**For Washington.** From Baltimore at 9 o'clock, a.m.; 5, p.m.; and 11 1/2, p.m. By order, D. J. FOLEY, Agent. 31

**SUMMER ARRANGEMENT—FARE REDUCED.**

By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

**Direct to New Orleans,** and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great Southern Mail Line, and the only one that issues a through ticket South. Those who patronize it will save their money and time. Through Tickets from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

**Fast Mail Line.**—Leave New York at 9 a.m. and arrive in Philadelphia at 3 1/2 p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12 1/2 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.

Passengers by the above line will arrive at Richmond by 11 1/2 o'clock p.m. and Petersburg, Va. by 2 1/2 o'clock p.m., through to the former city in twelve hours, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

**Way Mail Schedule.**—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p.m.; arrive in Baltimore at 2 1/2 p.m.; arrive in Washington at 7 p.m. From Philadelphia by steamboat.—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore. STOCKTON & FALLS. 31

**For Norfolk and the South, by steamboat** through the Chesapeake bay to Norfolk, and then by railroad to Weldon, Wilmington or Raleigh, etc. Leaves Baltimore daily [except Sundays] from Spears' wharf, at 4 p.m., and arrives at Norfolk next morning at 7 o'clock; fare \$6. Leaves Norfolk at 8 a.m. and arrive at Wilmington next day at 12 m. and Charleston next morning at 7. Fare through \$21.

**For Philadelphia (Union Line,) via Chesapeake and Delaware Bay, and Newcastle and Frenchtown Railroad.**—The well known steamboat Constitution, Capt. Chaytor, has commenced her regular trips for the season, leaving Bowly's wharf, foot of South street, at 8 o'clock, p.m. daily [except Sundays] for Philadelphia. Through in 8 hours. Fare \$3. 31

**Morning Train for Philadelphia.**

The morning train leaves the depot, Pratt street, daily [except Sundays] at 9 o'clock, a.m. Passengers arrive at Philadelphia in full time to continue on by the mail train for New York. Fare \$3. Sunday evening Mail Train—the only line that departs from Baltimore on Sundays for Philadelphia, is the mail train which leaves Pratt street depot, at 8 p.m. Fare \$3. 31

**For Philadelphia, via York, Columbia and Lancaster,** by the Baltimore and Susquehanna railroad. Cars leave from their office, 63 North street, daily [Sundays excepted] at 9 o'clock, a.m. Fare \$3 50. 31

**GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.**—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/2 in. to 2 1/2 in thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions. ja45ly

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design. It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, Reading, Pa. ja45

**MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, Patterson, N. J.** The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch. Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, Paterson, N. J., or 60 Wall street, N. York. a45

**RAILROAD IRON AND FIXTURES. THE** Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO., 21 Broad st., N. York. ja45

FROM NEW YORK.

New York and Harlem Railroad Company.

Leave City Hall for Yorkville, Harlem and Morrisania at 5.30, 7, 8, 9, 10, a.m.; 1, 2, 3, 3.30, 4, 5, 5.30, 6, p.m. For Fordham and Williams' Bridge at 5.30, 7, 10, a.m.; 2, 3.30, 5, 6, p.m. For White Plains at 7 and 10 a.m.; 2 and 5 p.m. Leave Morrisania and Harlem for City Hall at 6.20, 8, 9, 10, 11, a.m.; 2, 3, 4, 2, 5.20, 6, 6.30, 7.45 p.m. Williams' Bridge for City Hall at 7, 7.40, 10.40 a.m.; 2.40, 5, 5.40, 7.20 p.m. White Plains for City Hall at 7.10 and 40.10 a.m.; 2.10 and 5.10 p.m. 31

New York and Erie Railroad Line.

For Middletown, Goshen, and intermediate places. Two daily lines each way, as follows: For passengers—The new, fast and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7 1/2 o'clock, A.M., and 4 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4 1/2, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets.

H. C. SEYMOUR, Superintendent.

Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale, Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc., etc. 31

PASSENGER LINES FOR THE NORTH AND WEST.

Morning Line, at 7 o'clock—For Albany, Troy, and intermediate landings.—The steamboat Troy, Capt. A. Gorham, will leave New York, foot of Barclay street, at 7 o'clock, A.M., every Tuesday, Thursday, and Saturday. The steamboat Niagara, Capt. DeGroot, leaves New York at 7 o'clock, A.M. Monday, Wednesday, and Friday. 31

Afternoon, or 5 and 7 o'clock Line.—At 5 o'clock, P.M., landing at intermediate places, from the foot of Barclay street.—The steamboat New Jersey, Capt. H. H. Fury, will leave on Monday, Wednesday, Friday, and Sunday. The steamboat South America, Capt. M. H. Truesdell, will leave on Tuesday, Thursday, and Saturday. For passage or freight apply on board, or to P. C. SCHULTZ, 31

At the office on the wharf.

Evening, or 7 o'clock Line.—Line steamboats for Albany—Daily, Sundays excepted.—Through direct at 7 o'clock P.M. from pier between Courtlandt and Liberty streets.—Steamboat Rochester, Capt. R. G. Crittenden, will leave on Monday, Wednesday, and Friday. Steamboat Knickerbocker, Captain A. Houghton, will leave on Tuesday, Thursday, and Saturday. 31

For Albany and Troy, direct, at 7 o'clock, P.M., from the steamboat pier, foot of Courtlandt street. The Empire, Capt. R. B. Macy, Tuesday, Thursday and Saturday. The Columbia, Capt. Wm. H. Peck, Monday, Wednesday, and Friday. 31

Troy and Greenbush Railroad.

Leave Troy, at 6 o'clock, A. M., to Saratoga and Albany; 8 1/2, do., do., do.; 10 1/2, do., do., do.; 2, P.M., to Boston and Albany; 4, do., do., do. Leave Albany at 7 1/2 o'clock, A.M.; 9 1/2, do., do., do.; 12, M., or on arrival of the Boston train; 3, P.M.; 6, P.M., or on arrival of the Boston train.—Fare, 12 1/2 cents.

Passengers at Albany should procure tickets at the Boston railroad office, foot of Maiden lane. 31

L. R. SARGENT, Superintendent.

Schenectady and Troy railroad cars leave as follows:—From Troy, 7 1/2 o'clock, A.M., daily; 1, P.M., daily, except Sundays; 7 1/2, do., daily. From Schenectady, 3 o'clock, A.M., daily; 9, do., do., except Sundays; 3, do., daily.

Persons going to Saratoga and north should take the 7 1/2, A.M., train; and passengers going west of Schenectady, the 7 1/2, A.M., or 7 1/2, P.M., trains. 31

L. R. SARGENT, Superintendent.

Troy, Ballston, and Saratoga Railroad.—The cars of this road will run as follows:—Leave Troy at 8 o'clock, A.M., daily; do., do., 3 1/2, P.M., except Sundays; leave Saratoga at 9, A.M., except Sundays; do., do., 3 1/2, P. M., daily. L. R. SARGENT, Superintendent. 31

Lake Champlain Steamboats.—From Whitehall to Burlington and St. John's—Morning Line on Lake Champlain, making intermediate landings.—Passage 2, breakfast on board.—The Francis Saltus, Capt. H. G. Tisdale, leaves Whitehall, Tuesdays, Thursdays, and Saturdays, at 6 o'clock, a.m., and St. John's Mondays, Wednesdays, and Fridays, at 6 o'clock, a.m. For freight or passage apply to the captain on board. H. D. FILKINS, Agent, Troy. 31

Passengers leaving Troy, Mondays, Wednesdays, and Fridays, at half-past 3 o'clock, p.m., by railroad and packet, will arrive at Whitehall in time for the above boat next morning. 31

PASSENGER LINE EASTWARD.

Long Island Railroad Company.—Trains run from Brooklyn depot.—Boston train, 8 1/2, a.m., daily, stopping at Farmingdale and St. George's Manor; accommodation train, 9 1/2, a.m., and 5 p.m., for Farmingdale and intermediate places, daily; accommodation train, 3, p.m., for Greenport, daily, stopping at Jamaica, Branch, Hempstead, and Hicksville, and all the stopping places between Hicksville and Greenport. From Greenport depot: Boston train, daily, at 12 1/2 o'clock, m., or on the arrival of steamers from Norwich. Accommodation train at 5, a.m., daily, for Brooklyn and intermediate places. From Farmingdale depot: Accommodation train at 6 1/2, a.m., and 2 1/2, p.m., daily, for Brooklyn and intermediate places. 31

The steamboat Statesman leaves Greenport for Sag Harbor twice each day, on arrival of the trains from Brooklyn. 31

Baggage crates will be in readiness, at the foot of Whitehall street, to receive baggage for the several trains, 30 minutes before the hour of starting from the Brooklyn side. 31

Regular Mail Line between New York and Boston, via Stonington, Providence, and Newport, composed of the following steamers, running in connection with the Stonington and Providence railroads, and the Boston and Providence railroad: Massachusetts, Capt. Comstock; Mohegan, Capt. —; Narragansett, Capt. Manchester; Rhode Island, Capt. Thayer. Via Stonington, daily, [except Sundays,] at 6 o'clock, p.m., from New York, and from Stonington on the arrival of the mail train, which leaves Boston at 5, p.m., and Providence 6 1/2, p.m. The Rhode Island on Mondays, Wednesdays, and Fridays; the Narragansett on Tuesdays, Thursdays, and Saturdays. Via Newport, the Massachusetts leaves New York for Newport and Providence, direct, on Tuesdays, Thursdays, and Saturdays, at 5 o'clock, p.m. 31

New York and Boston Railroad Line, via Norwich and Worcester, daily, from pier No. 1, North river, at 6 o'clock, p.m. The Worcester, Captain Bacon, on Tuesdays, Thursdays, and Saturdays. The Cleopatra, Capt. Dustan, on Mondays, Wednesdays, and Fridays. 31

Passengers, on the arrival of the steamers at Allen's Point, will be immediately forwarded in the splendid and commodious cars of the railroad to Boston, without change of cars or baggage. 31

For Newport and Providence, on Monday, Wednesday, and Friday. This line leaves at 8 o'clock, in the morning, from the foot of Whitehall street, South ferry. 31

U. S. Mail Line for New Haven, Hartford, and Springfield, from Peck Slip, East river, daily, at 6 1/2, a.m., by steamboat New Champion, Captain Joel Stone, connecting with the cars at New Haven, for Hartford and Springfield. Night line for New Haven: The steamboat Hero, Capt. Richard Peck, leaves on Tuesdays, Thursdays, and Saturdays, at 4, p.m. For Hartford, direct, daily, [Sundays excepted,] at 4, p.m.—The steamboat Kosciusko, Capt. Le Fevre, every Tuesday, Thursday, and Saturday, and the Globe, Capt. E. D. Roach, will leave every Monday, Wednesday, and Friday. 31

Hoosonic Railroad; Bridgeport and New York.—The steamboat Mutual Safety, Capt. J. B. Lober, leaves New York, from the foot of Market street, every morning, [Sundays excepted,] at 6 o'clock, arriving in Bridgeport at 11 o'clock. Returning, leave Bridgeport at 1 1/2, p.m., on the arrival of the cars, arriving in New York at 5 1/2 o'clock. The Nimrod, Capt. J. Brooks, Jr., leaves New York daily, at 2, p.m., and Bridgeport 7, a.m. There are no train of cars running in connection with any boat except the Mutual Safety until further notice. Tickets, if not purchased at the offices on the line of the road, or on board of the boat, will be charged at advanced prices. Dated tickets positively taken only on the day specified. R. B. MASON, Superintendent. 31

Camden and Amboy Railroad Line.—For Philadelphia and intermediate places. Leaves Pier No. 2, North River, foot of Battery Place, by Steamboat to South Amboy, daily, Sundays excepted, at 5 1/2 o'clock A.M. Passengers will take the cars at South Amboy. Fare to Philadelphia, 3. Forward deck passengers, 2 25. To Freehold and Monmouth, via stages from Hightstown, 1 50. To Spotswood and West 75 cents. To South Amboy, 25 cents. To Perth Amboy, Tattens, Rossville and Tufts, 12 1/2 cents. The steamboat Independence will land at each of the above named places going and returning, leaving Perth Amboy at 5 o'clock P.M. 31

New Jersey Railroad and Transportation Company.—For Newark. Fare 25 cents. Leave New York at 8, 9, and 11 o'clock A.M., and 12 1/2, 2, 3, 4, 6, and 8 o'clock P.M. Leave Newark at 7, 7 1/2, 8, 9, 10 1/2, A.M., and 1 1/2, 4, 5 1/2, 7, 9 1/2, P.M. On Sundays, leave New York at 9 A.M., and 4 1/2 P.M. Leave Newark at 11 1/2 A.M., and 9 1/2 P.M. For Elizabethton. Fare 3 1/2 cents. Leave New York at 9 A.M., 12 1/2, 2, 4, 6 1/2, P.M. Leave Elizabethton at 7, 7 1/2, 8, 10 1/2 A.M., 3 1/2, 6 1/2, 9 1/2, P.M. For Rahway. Fare 3 1/2 cents. Leave New York at 9 A.M., 12 1/2, 2, 4, 6 1/2 P.M. Leave Rahway at 5 1/2, 7 1/2, 11 1/2, A.M., 3, 6 1/2, 9, P.M. For New Brunswick. Fare 50 cents. Leave New York at 9 A.M., 4, 4 1/2 P.M. Leave New Brunswick at 5 1/2, 7 1/2, 11, A.M., 8 1/2, P.M. On Sundays, leave New York at 9 A.M., and 4 1/2 P.M. Leave New Brunswick at 12 M., and 8 1/2 P.M. The commutation fare between New York and New Brunswick and intermediate places, including the ferry, \$65 per annum. 31

PASSENGER LINES, SOUTH AND SOUTHWEST.

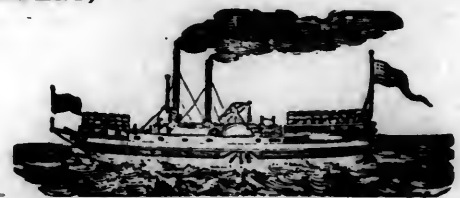
New York and Philadelphia Railroad Line.—Direct. Leaves New York daily, from the foot of Liberty street. Morning Line, 9 o'clock, A.M. Mail Pilot Line, 4 1/2 o'clock, P.M. Fare in first class cars, \$4. Second class cars, 3. Passengers will procure their tickets at the office foot of Liberty street. Philadelphia Baggage Crates are conveyed from city to city without being opened by the way. Each train is provided with a car, in which are apartments and dressing rooms expressly for the Ladies' use. 31

Paterson Railroad. Leave New York, 9 1/2, A.M., 12 1/2, 5 1/2 P.M. Leave Paterson, 8, 11 1/2, A.M., 4 P.M. On Sundays, leave New York 9 1/2 A.M., 5 1/2 P.M. Leave Paterson, 8 1/2 A.M., 4 1/2 P.M. Passengers are advised to be at the ferry a few minutes before the stated hours of departure. Office 75 Courtland street. 31

Morris and Essex Railroad. Leave New York, 8 a.m., 4 1/2 p.m. Leave Newark, 9 a.m., 5 1/2 p.m. Leave Morristown, 7 a.m. 3 1/2 p.m. Passengers by the morning train to Morristown, will arrive there at 10 1/2 o'clock, where stages will be in readiness to convey them to Schooley's Mountain, Washington, Belvidere and Easton, daily; to Succasunna, Stanhope, Newtown, Milford and Owego on Mondays, Wednesdays and Fridays; and to Rockaway, Dover, Sparta and Newton on Tuesdays, Thursdays and Saturdays. Passengers from Morristown will arrive in Newark in time to take the morning and afternoon trains from Trenton and Philadelphia. 31

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 38.]

THURSDAY, SEPTEMBER 18, 1845.

[WHOLE No. 481, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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### ENGINEERS and MACHINISTS.

- J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)  
 TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)  
 ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
 S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
 NORRIS, BROTHERS, Philadelphia, Pa.  
 KITE'S Patent Safety Beam. (See Adv.)  
 FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)  
 NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)  
 ROSS WINANS, Baltimore, Md.  
 CYRUS ALGER & Co., South Boston Iron Company.  
 SETH ADAMS, Engineer, South Boston, Mass.  
 STILLMAN, ALLEN & Co., N. Y.  
 JAS. P. ALLAIRE, N. Y.  
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 WEST POINT FOUNDRY, N. Y.  
 PHENIX FOUNDRY, N. Y.  
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 HINCKLEY & DRURY, Boston.  
 C. C. ALGER, Stockbridge Iron Works, Stockbridge, Mass.  
 BALDWIN & WHITNEY, Philadelphia, Pa.

### IRON MERCHANTS and IMPORTERS.

- DAVIS, BROOKS & Co., N. Y. (See Adv.)  
 A. & G. RALSTON & Co., Philadelphia, Penn. (See Adv.)  
 THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

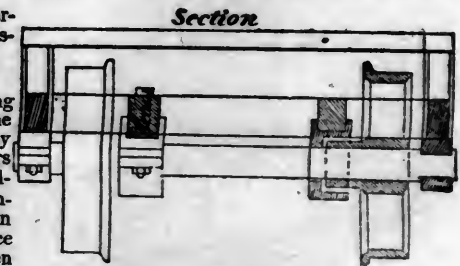
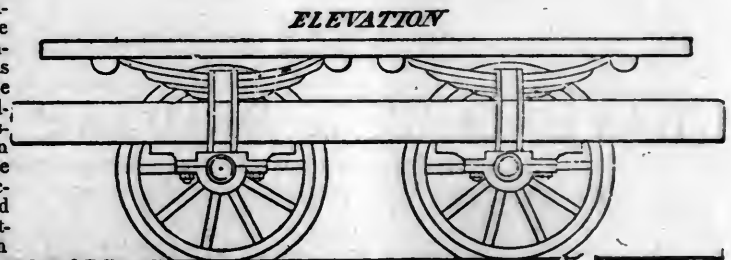
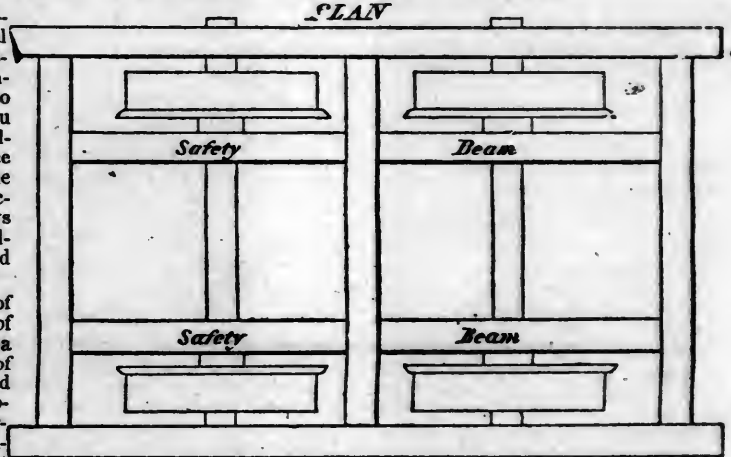
The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
 GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
 W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. **JOHN F. WINSLOW, Agent.**

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co. Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

**HENRY BURDEN, Agent.** Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. L. Bower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

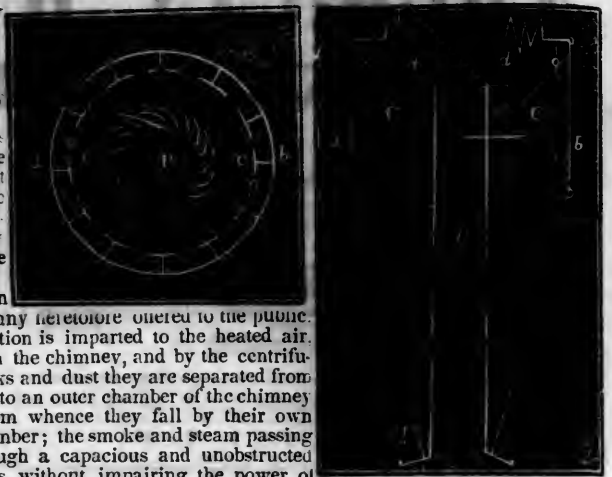
These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. Philadelphia, Pa., April 6, 1844.

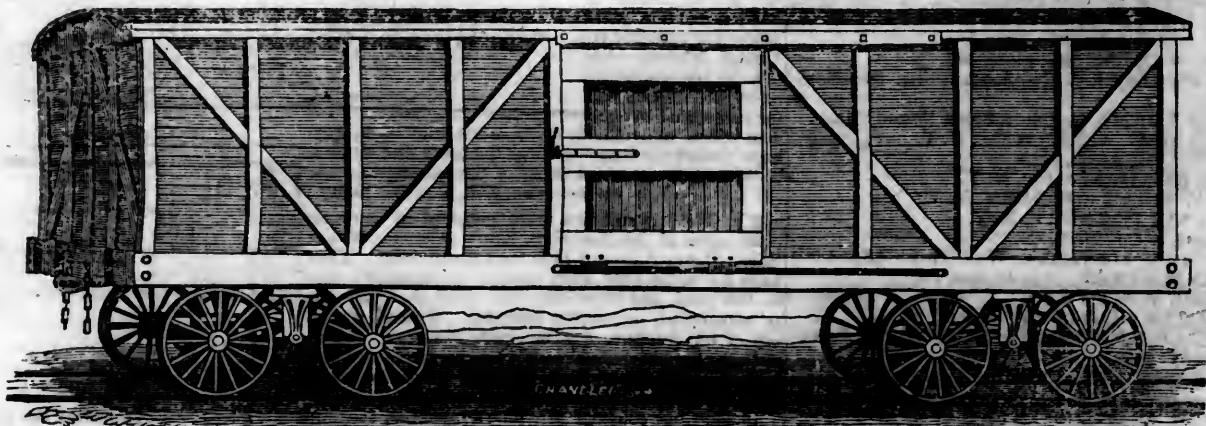
\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45



**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

The article is complete in itself, occupies but little space, is perfectly portable, and requires no brick work, not even to stand upon. It is valuable, not only in the saving of time and labor, but in the economy of fuel, as it has been ascertained by accurate measurement, that the saving in that article is fully two-thirds over other methods heretofore in use. They are now for the first time introduced into New York and Boston by the subscriber, who has the exclusive right for the New England states, New York and New Jersey, and are manufactured by **CURTIS & RANDALL, Boston;** and by **FORCE, GREEN & CO, New York.**

**DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.**



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

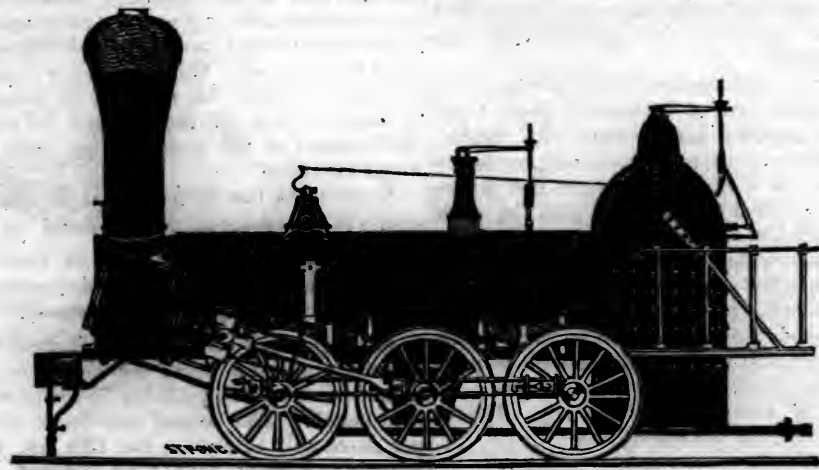
From 4 inches to 12 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**

*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
" 2,	14	"	"	×	21	" "
" 3,	14½	"	"	×	20	" "
" 4,	12½	"	"	×	20	" "
" 5,	11½	"	"	×	20	" "
" 6,	10½	"	"	×	18	" "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.  
**WILLIAM YOUNG,**  
President.

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lycoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 51x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6900 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48 State st.,** or to **CURTIS, LEAVENS & CO., 106 State st., Boston,** or to **A. & G. RALSTON & Co., Philadelphia.**

**CYRUS ALGER & CO., South Boston Iron Company.**

**Boston and the Western Lakes.**

We take the following article from the Boston courier of 4th inst., to show, not only the sagacity of the veteran editor, but also to express our regret that the fate usual to those who are in *advance of the age* in which they live, has fallen to his lot. It certainly does not follow, though many people cannot understand how it can be otherwise, that he who advocates a particular improvement has a direct personal interest in its success; and we can well see why it has been, and is, that the editor of the Boston Courier advocates particular measures—though it may not increase the value of his house or his store. To him it is enough that it will benefit *Boston*, and promote the interest of his fellow citizens, and therefore it is that we the more regret to learn that he has not houses and stores and shares of corporate property to be benefited by the accomplishment of these enterprizes, the importance of which he foresaw so many years ago, when many others, who claim much credit for their sagacity and efforts, *doubted*.

**OGDENSBURG RAILROAD.**—Is it important to the advancing prosperity of Boston, that there should be an avenue between the city and the great western lakes? No person who looks at the map, and considers the advantages that are offered by the immense regions which border on those lakes, will hesitate for a moment to answer this question in the affirmative. The question is presented to our citizens almost daily, and is met with a decided, yes. Then comes another question—What direction shall that avenue take, and at what point shall it touch one of those lakes, or the stream which connects them with the Atlantic ocean? And the answer to this interrogation is hardly less decided and uniform—Ogdensburg. Let us then take hold, and make no more ado about it.

The editor of this paper was one of a small number of gentlemen, who held a series of meetings near twenty years ago, at a private room in State street, to deliberate upon the advantages that might be derived from a railroad communication between Ogdensburg and Boston, and to talk over the expediency of calling a public meeting to take the matter into consideration. Subsequently a meeting—not a very large one—was held, and the subject was discussed. But the public mind had not then received the impetus, which has since moved the people to engage in this species of internal improvement, and to construct railroads, diverging in almost every direction from the capital of this state, till Boston has become a rival to the proud "Commercial Emporium" of the country. We believed then, that the project was practicable, and promised advantages that no other scheme of prosperity presented. We have never changed our opinion, and we entertain the same views *now*.

We have no personal interest in the construction of a railroad in any direction, separ-

ate from the interest of the city. We are not so fortunate as to be the owner of a single share in any corporate property, and what is still more unfortunate, our whole available property would not be sufficient to purchase one. But we have an interest in the prosperity of the city where we earn our daily bread. We have a desire that the Commonwealth, of which we are a citizen, should avail itself of all honorable means to increase the wealth of the people:—and it seems to us, that this project of a railroad to Ogdensburg is one of the most important, in view of the immense internal commerce which it assuredly would bring to Boston, that has yet been presented. It is one, which seems to stand by itself, and appeals to the good sense and judgement of our fellow-citizens, without reference to any other existing or contemplated railroad. It comes in competition with no other road, and opens an avenue, with which no other mode of intercommunication can ever interfere.

We say nothing now of the advantages to the northern part of the state of New York, by this proposed connection with Boston, nor of the increase of business which it would bring to us from that region. But let us have a railroad to connect us with the great western lakes—a road of our own—an avenue over which Massachusetts and Boston may have the control. To this there can be no reasonable objection on the part of other cities—and there ought to be no jealous fears that there will not be trade enough between the western and Atlantic states to satisfy the wishes of every commercial city. Let us have a railroad to Ogdensburg!

**Housatonic Railroad.**

The following statement from the Bridgeport Standard, seems to show a determination to make the necessary improvements in this road.

This is right, and we shall be highly gratified to see the improvement made, as there is no place in the country more entitled to credit for extraordinary exertions to accomplish a laudable object, or for good resolution to persevere under sad disappointment, than Bridgeport. We hope they may succeed and be fully compensated for all their losses incurred, in consequence of their generous efforts in the cause of public improvement.

**STOCK ALL TAKEN.**—It will surprise some of our readers, says the Editor of the Standard, to learn the new stock of the Housatonic railroad company, amounting (with the surplus and forfeited stock,) to more than 11,000 shares, has been disposed of. In this city, on the line of the road and in New York, about 5,500 shares were subscribed for, and it is understood that the balance has been taken by Boston capitalists. These gentlemen, it seems, were ready to take a much larger amount; and now that the matter is settled, it is highly probable that a few shares might be sold in this vicinity. Since the books were closed, the stock has been quoted here at a handsome premium, and

since the Boston people have looked into the business, the stock is regarded as an excellent investment. The first instalment of twenty dollars per share, is payable on the 10th of October. Arrangements will be made to pay off the certificate debt at an early day, and the other obligations of the company will be met without unnecessary delay. It is probable that a part of the road (say 10 or 15 miles) will be relaid with a heavy rail during the present autumn, if iron can be obtained at a reasonable rate. The remainder of the route will be renewed early in the next season.

**The Northern Railroad Extension.**—The St. Johnsbury Vt. Caledonian of the 9th inst. says—"A railroad meeting was held at Bradford last Thursday, another at this place on Friday, and one at Barton on Saturday. At the two former meetings considerable progress was made in procuring subscriptions to the stock of the Connecticut and Passumpsic rivers railroad. Our paper goes to press too early to report the result of the meeting at Barton. It is just the time now for every well wisher of the project to put forth his mightiest efforts."

So we think that the *present* is the time to secure the construction up the valley of the Connecticut from Lebanon, in as much as the "Central" company decline the overtures of the Concord and Lebanon company.

**Saratoga and Washington Railroad.**—We are gratified to learn that the construction of this road will probably be commenced next month. The second instalment of \$5 per share will be due on the 15th inst. and as soon as it shall have been received, the whole line will be put under contract for grading, bridging, etc. It is thought the road may be ready for the rails by next June.—The length of the route, as surveyed, is 41 miles; capital stock \$600,000.—*Troy Whig*.

Professor Twining is engaged in surveying a road from New Haven, via Derby and Humphreysville, to Waterbury.

Mr. Broadhead is surveying on the route from Hartford to New York via Danbury.

Should both these roads be constructed, the former will connect with the latter at or near Waterbury.

The surveys of the Northampton and Greenfield (Mass.) railroad have been commenced, under the superintendence of Capt. Child. The first instalment of \$10 a share has been called for, and generally paid.

The Greenfield Gazette states that a corps of engineers commenced surveying last week, between Athol Factory village and South Orange, (Mass.) on the Vermont and Massachusetts road.

**THE KENNEBEC AND PORTLAND RAILROAD.**—Very active movements, it is well known, have now been going on, for several weeks, in reference to the construction of a railroad from this city, through Freeport, Brunswick, etc., to Gardiner and Augusta.

The above is from the Portland Advertiser. It shows that one enterprize gives rise to another; we doubt not that the success of



the Atlantic and St. Lawrence railroad will give rise to others, and that Maine will eventually have her full share of railroads, by which she can bring her rich forrests of lumber of various kinds to market.

**Hartford and New Haven Railroad.**—The annual meeting was held at Hartford on Wednesday. The following gentlemen compose the new directors, viz:

Chas. F. Pond, David Watkinson, Hartford; Elisha Peck, Jas. Boorman, Henry Young, New York; Fred. R. Griffing, Guilford; Jas. S. Brooks, Meriden; Chester W. Chapin, Springfield; Jas. Brewster, New Haven;

At a subsequent meeting of the directors, Chas. F. Pond was unanimously re-elected President; Horatio Fitch, Secretary; and Jas. H. Wells, Treasurer.

**A Saving in Fuel on Railways.**—We understand that two eminent French engineers and ship builders of Havre-de-Grace have come over to London for the express purpose of taking out a patent for the saving of fuel in the propelling of locomotives on railways, and also for steam vessels. The saving is by a concentrated heat power, when less than a quarter of the regular quantity of coal or coke is required, whilst it will have a much larger force than at present, and unattended with the fear of an accident. The invention has been patronized by the Minister of Marine, and the leading directors of the different railways throughout France, where a patent is also being taken out.—[*Mining Journal*.]

#### Rochester.

"Shall it become a manufacturing city," seems now to be a question commanding the attention of many of her prominent citizens as we learn from the "Democrat" of the 2nd inst. At a meeting on 29th ult., a committee appointed at a previous meeting, reported that they had obtained subscriptions of \$20,000, and promises for \$16,000 more, towards the establishment of new manufactures, and after a free discussion the following resolution was offered and unanimously adopted.

"Resolved, That in the opinion of this meeting, every person owning property in this city is deeply interested in the establishment of such new manufacturing business as shall serve to employ the water power of the city to greater advantage, and at the same time to furnish employment for the industry and enterprize of our citizens.

An additional committee of twenty-two gentlemen were appointed to circulate subscriptions for stock, and take such other measures as they may deem proper to forward the work. The following are their names: S. C. Jones, L. Brooks, J. Field, E. Peck, Wm. Pitkin, E. Moore, Wm. McKnight, L. Selye, A. Hubbell, J. W. Sawyer, D. Perrin, W. Brewster, J. Haywood, G. H. Mumford, N. Osborn, E. Lyon, Wm. Kidd, F. Starr, G. Cobb, D. and L. Graves, and J. Graves.

The following gentlemen were appointed a committee to collect facts and statistics con-

cerning the water power of Rochester, and its manufacturing resources:

W. C. Bloss, Alex. Mann, Dr. Strong, R. Benedict and E. Gilbert.

The meeting adjourned to meet again next Friday evening.

The wonder to us is, that Rochester has not before adopted this course, it is not even now too late—and we therefore look forward to the period when she will not only employ all the water power now unoccupied, but also introduce the use of steam power for the same purpose. Rochester will ultimately become as famous for her *cotton* and *woollen* mills as for her *flouring* mills. Let there be a fair beginning and we doubt not the result.

#### Projected Railroads in Canada.

We find the following remarks in relation to the Canadian railroads, in the St. Louis New Era of 27th August. We agree fully with the editor—a friend of *other* years, in his remarks that "they should be carefully observed by our government, and proper steps taken to counteract them" by the construction of *other* roads that we may be able to meet them on equal terms.

"The projected railroads in Canada, says the editor, will have an important effect on that region. The railroad from lake Ontario to lake Huron will be very important for commercial purposes, and also a very great engine of power in case of war. These Canadian roads should be carefully observed by our government, and proper steps taken to counteract them. Roads should be made so as to enable our government to concentrate a powerful military force upon any part of our frontier in the shortest possible period of time. Railroads as means of national defence now become indispensable, on account of the canals, railroads and steamships of Great Britain."

We admire the enterprize of our Canadian neighbors, and also the liberality of the home government—more indeed than their judgment in some of their expenditures—and we hope to see them press forward their contemplated railroads in Canada West, as *that if nothing else*, will insure the construction of similar works so much needed in the western states. Let them complete their railroads between lake Ontario and Huron, or Detroit, and we shall then have, not only a railroad from the termination of the New York and Erie—indeed from *Buffalo*, thro' Pennsylvania and Ohio to Detroit in Michigan, to *Chicago* in Illinois and to *St. Louis* in Missouri! but also a connection between it and the present *great* lines from *Baltimore*, *Charleston* and *Savannah* through Ohio, Tennessee, Kentucky, Indiana and Illinois! and thus be able to concentrate any desirable force, either at any given point on the lakes,

or on the seaboard, in a few hours. *This we must do in self defence*—less than this would be inexcusable in our people when our powerful neighbor is opening an easy communication from the Atlantic ocean to, and *between* the great lakes.

The period is not distant, we desire our friend of the New Era to bear in mind, when the important lines we have mentioned will each be able to run a train of cars with a *thousand passengers* to that immense depot which is to be built for their accommodation in his own growing yet now *infant* city, *St. Louis*. Who is there *now* living that can read its destiny? who can foretell its splendor when it becomes the *central* city, and *capital* of this great nation? Whoever he may be that *can*—he hardly *dare* do it, as it would inevitably subject him to the ridicule of his *wiser*? neighbors who see it not, and, therefore *they* will not believe that it can occur.

We hope to have leisure soon to call attention to the importance of early action in relation to the extension of the southern road to the Mississippi. South Carolina and Georgia have accomplished much under the circumstances. They have together constructed over six hundred and fifty miles of railroad, and it is now the duty of the adjoining states of Tennessee and Alabama, to extend those lines into their fertile regions, by which their own people will be greatly benefited and the enterprize of the people of Georgia<sup>d</sup> and South Carolina will be more justly rewarded. We shall call upon Tennessee to move first—and soon, now is the favorable moment.

**The Iron Trade.**—The following remarks in relation to the iron trade are from the last London Mining Journal, of the 2nd August. The closing remarks of the editor are exceedingly appropriate and just, and we hope they may have their proper influence upon the iron masters of Great Britain.

The consideration of the circumstances affecting that staple commodity of so large a portion of the kingdom—*iron*—is always of immense importance, and becomes particularly more so at the present time, when its useful application in the arts is daily being vastly extended. In addition to the immense demand for sheet-iron for the purposes of ship-building all round our coasts, its application to smaller articles of commerce for domestic and agricultural uses consumes a vast quantity, but the greatest increase in the future demand for iron will be for railways, both here and on the continent. In this country alone, the numerous gigantic undertakings which have already received the royal assent, are estimated at 1800 miles, and it is probable before the approaching prorogation, legal powers will have been given for the construction of *two thousand three hundred miles of railway*, the majority of which being double lines, we may take in round numbers at 8000 miles of rails, to which must be added chains, bolts, sleeper iron, extra lines and machinery at stations, besides what is required for the working stock, which will, of course, be put

in hand to be ready on the completion of the lines, creating at least a demand for railway iron, amounting to 1,200,000 tons, which will be required in the next two years, without reckoning a single pound for foreign demand—while, notwithstanding the extension of the number of furnaces in Belgium, France, and other parts of Europe, or the "go-ahead" style in producing iron, which the Americans are attempting, it is certain that a large demand for iron in England will arise from the foreign railway schemes, many of which have already broke ground, and all are anxious to begin. For the last three or four months the iron trade has been in a desponding state, declining prices and increasing stocks have continually harassed the manufacturers, and occasional strikes of the men, when an unavoidable decrease in wages was announced, added to the gloom; there is, however, now a prospect of steady demand for iron for many years, the continuance of which much depends on the masters themselves.—

A regular demand of 12,000 tons per week would employ all the furnaces at present in make, and double their produce. The weekly make of South and North Wales, Staffordshire, Yorkshire, Lancashire, the north of England, and in Scotland, is estimated at 6700 tons per week, and as more furnaces will continually be blown in, and in each session fresh railway schemes will be ready to be proceeded with, a continual and regular weekly make of iron may be depended upon from this source alone for years to come. The question now arises—will this apparently prosperous state of things be of that stable benefit to all concerned in the iron trade, as from the nature of things it ought? We trust it will—it is true, on other occasions of unexpected prosperity, prices have run up to a most unhealthy figure, large fortunes have been made in an incredible short time, only to be lost again on a sudden withdrawal: in the excitement of the receipt of extensive orders, and the securing high prices, additions

even as high as 70 to 80 per cent. were made on the workmen's wages, but no sooner was the bubble burst, than an attempt at an equivalent reduction caused strikes and outbreaks, dissipation, and complete idleness. Having thus seriously felt the evils of wide fluctuations in the market, it is to be hoped the masters—and it rests with themselves—will prevent unusual excitement in the trade—let them as a body be content with a good profit, and not attempt to grasp a fortune in a day, because that profit is good—let them secure to the workmen a fair, nay, even a liberal, return for his toil and danger; and instead of those ruinous changes in price which make trade a game of chance, and which defies calculation, they will secure a very large, and, what is better, a long-foreseen steady return for their capital; it is only under such circumstances the trade can really flourish, and, with a steady determination to pursue such a course under the approaching demand, it must flourish, and that for years to come.

TRAVELLERS' RAILROAD AND STEAM NAVIGATION GUIDE, ON THE CONTINENT.

List of Railroads Now Open on the Continent, and the Fares.

The Fares are in the Coins of each Country, and reduced into English Currency: the thalers and silbergros; g. guilders, krentzers and cents; fr. francs and centimes.

FROM	MILES	DESTINATION.	FIRST CLASS.		SECOND CLASS.	
			s. d.	s. d.	s. d.	s. d.
Aix-la-Chapelle	43	Cologne . . . . . th.	2	6	1	15
Amsterdam	25	Utrecht . . . . . g.	1	80	3	0
Amsterdam	25	Arnhem . . . . . g.	3	25	2	7
Antwerp	28	Brussels . . . . . fr.	3	25	2	7
Antwerp	150	Cologne . . . . . fr.	21	16	10	16
Antwerp	96	Lille . . . . . fr.	13	50	10	10
Antwerp	107	Aix-la-Chapelle. fr.	13	50	10	10
Augsburg	39	Munich . . . . . g.	3	6	0	2
Basel	86	Strassburg . . . . . fr.	13	95	11	2
Berlin	200	Dresden . . . . . th.	2	10	7	0
Berlin	53	Frankfort on O. th.	2	10	7	0
Berlin	140	Leipzig . . . . . th.	5	15	16	6
Berlin	128	Magdeburg . . . . . th.	4	20	14	0
Berlin	18	Potsdam . . . . . th.	2	20	2	0
Berlin	90	Stettin . . . . . th.	2	20	2	0
Bonn	16	Cologne . . . . . th.	1	15	1	6
Breslau	53	Oppeln . . . . . th.	2	16	7	8
Brunswick	44	Hanover . . . . . th.	2	20	2	0
Brussels	142	Cologne . . . . . fr.	20	50	16	5
Brussels	59	Valenciennes . . . . . fr.	6	4	10	4
Budweis	64	Lintz . . . . . g.	3	5	0	2
Carlsruhe	21	Baden . . . . . g.	1	30	2	6
Carlsruhe	48	Offenbourg . . . . . g.	3	18	5	6
Dresden	60	Leipzig . . . . . th.	2	8	6	10
Dresden	134	Magdeburg . . . . . th.	2	8	6	10
Dusseldorf	18	Elberfeld . . . . . th.	2	25	2	6
Frankfort O.M.	21	Mainz . . . . . g.	2	6	3	6
Frankfort O.M.	26	Wiesbaden . . . . . g.	2	42	4	6
Hague	47	Amsterdam . . . . . g.	3	65	6	1
Hiedelberg	14	Mannheim . . . . . g.	5	1	5	30
Leipzig	33	Altenburg . . . . . th.	1	12	4	3
Mannheim	73	Baden . . . . . g.	5	6	8	7
Mannheim	52	Carlsruhe . . . . . g.	3	18	5	6
Mannheim	93	Kehl . . . . . g.	6	45	11	3
Mannheim	100	Offenbourg . . . . . g.	6	33	10	11
Ostend	92	Antwerp . . . . . fr.	9	25	7	5
Ostend	89	Brussels . . . . . fr.	9	25	7	5
Ostend	169	Aix-la-Chapelle. fr.	19	50	15	7
Ostend	212	Cologne . . . . . fr.	27	21	7	20
Paris	18	Corbeil . . . . . fr.	3	2	5	2
Paris	75	Orleans . . . . . fr.	15	12	0	12
Paris	84	Rouen . . . . . fr.	16	12	10	13
Paris	5	St. Cloud . . . . . fr.	80	0	8	60
Paris	12	St. Germain . . . . . fr.	2	1	7	1
Paris	12	Verailles . . . . . fr.	2	1	7	1
Rouen	84	Paris . . . . . fr.	16	12	10	13
Vienna	40	Graznitz . . . . . g.	3	29	6	8
Vienna	120	Glatt . . . . . g.	7	14	0	7
Vienna	132	Ollmutz . . . . . g.	11	12	23	5

An Alphabetical list of the Distances, in English miles, of the Principal Towns from London, to which are added, those between some of the Continental Towns.

Abbeville . . . . .	190	Frankfort O.M. . . . .	544	Moscow . . . . .	1396
Aix-la-Chapelle . . . . .	330	Frieberg . . . . .	739	Naples . . . . .	1450
Amsterdam . . . . .	248	Gand . . . . .	177	Neurenburg, from	
Arnhem . . . . .	270	Geneva . . . . .	1080	Frankfort O.M. . . . .	126
Baden-Baden . . . . .	650	Gratz, fm. Vienna . . . . .	120	Neurenbg, f. Leipzig	159
Basel . . . . .	780	Hague . . . . .	212	Offenbourg . . . . .	698
Berlin . . . . .	644	Havre, by Brighton. 137		Prague, fm. Vienna . . . . .	196
Berlin fm. Hamburg 175		" by Southampton 198		Prague, fm. Frank-	
Bern . . . . .	830	Heidelberg . . . . .	589	fort O.M. . . . .	290
Bieberich . . . . .	510	Kehl . . . . .	684	Prague, fm. Dresden. 94	
Bonn . . . . .	420	Leghorn . . . . .	1240	Paris, by Brighton. 241	
Bordeaux, fm. Paris. 346		Leipzig, fm. Frank-		Paris, by Southamp. 340	
Breslau, fm. Berlin. 202		fort O.M. . . . .	210	Rome . . . . .	1380
Breslau, fm. Dresden 154		Liege . . . . .	300	Rouen, by Southamp. 256	
Brussels . . . . .	250	Lyons, fm. Paris. . . . .	290	Stuttgart. . . . .	678
Carlsruhe . . . . .	625	Mainz . . . . .	517	Schaffhausen . . . . .	790
Caub . . . . .	485	Mannheim . . . . .	571	St. Petersburg, f. Berlin. 1060	
Coblenz . . . . .	458	Milan . . . . .	942	Strasbourg, fm. Paris 285	
Cologne . . . . .	400	Milan, fm. Venice. 200		Trieste, fm. Venice. 319	
Constance . . . . .	820	Magdeburg f. Hambg. 157		Utrecht . . . . .	230
Dijon, fm. Paris. . . . . 318		Magdeburg f. Leipzg. 74		Vienna, from Frank-	
Dresden, fm. Prague. 94		Magdeburg f. Dresden. 134		fort O.M. . . . .	437
Dusseldorf . . . . .	368	Marseilles, fm. Paris 500		Vienna fm. Trieste. 319	
Elberfeld . . . . .	358	Munich, fm. Frank-		Venice, fm. Milan. 200	
Emmerich . . . . .	300	fort, O.M. . . . .	214	Wiesbaden . . . . .	520
Florence . . . . .	1160	Munich, fm. Vienna. 276		Zurich . . . . .	830

The direct Fares from London are at the following reduced rates.

From LONDON.	Via ROTTERDAM.		Via ANTWERP & from COLOGNE.		Via OSTEND & from COLOGNE.	
	Out, or Single Journey.		Out, or Single Journey, Exclusive of Railroad Fares.		Out, or Single Journey, Exclusive of Railroad Fares.	
	Chief cabin	Fore cabin	Chief cabin	Fore cabin	Chief cabin	Fore cabin
Dusseldorf	£ s. d. 2 16 6	£ s. d. 1 18 11	£ s. d. 2 3 3	£ s. d. 1 13 3	£ s. d. 1 11 5	£ s. d. 1 5 8
Cologne	2 18 6	1 19 10	2 8 1	1 15 2	1 16 2	1 7 6
Bonn	2 19 9	2 0 6	2 9 0	1 15 6	1 17 0	1 8 0
Neuweid	3 3 11	2 2 4	2 9 0	1 15 6	1 17 0	1 8 0
Coblenz	3 4 11	2 2 10	2 9 0	1 15 6	1 17 0	1 8 0
Bingen	3 10 1	2 5 2	2 13 9	1 17 9	2 1 9	1 10 3
Bieberich	3 11 1	2 5 9	2 15 3	1 18 5	2 3 2	1 10 11
Wiesbaden	3 11 9	2 6 4	2 16 0	1 19 0	2 3 9	1 11 6
Mayence	3 11 4	2 5 10	2 15 5	1 18 6	2 3 5	1 11 0
Mannheim	3 15 6	2 8 8	2 19 6	2 1 4	2 7 6	1 13 10

Children under 10 years of age, half price; for dogs, half the price of fore cabin is charged; on carriages, and horses booked in London direct for the Rhine, a considerable reduction is also made.

Agents--General Steam Navigation Company.  
 Rotterdam, W. Smith, and Mr. P. A. Van Es.  
 Cologne, J. Simonis.  
 Aix-la-Chapelle, J. A. Mayer.  
 Spa, Dommartin.  
 Antwerp, C. Breugnoty.  
 Ostend, St. Amour.  
 Gand, I. Van Aken.  
 Brussels, W. Middleton.  
 Paris, F. Spiers.  
 Havre, P. Albrecht.  
 Rouen, Company's Office.  
 Dieppe, D. L. Chapman.  
 Boulogne, W. Hughes, Dellatre.  
 Calais, A. Spiers.  
 Hamburg, G. Delaval.



AMERICAN RAILROADS.													SALES.		
RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on hare	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices	SALES.		
						Gross.	Nett.		Gross.	Nett.			Week ending Sept. 15.	Last Sales	
Me. 1	Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	101½	100½	
N. H. 2	Concord.....	35	750,000									12	65		
Mass. 3	Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	111		
" 4	Boston and Maine extension.....	17 1-4	455,703	unfin.											
" 5	Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	118	117½	
" 6	Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	111		
" 7	Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	116½	116½	
" 8	Berkshire.....	21	250,000	not stated				17,500	7	17,737					
" 9	Charlestown branch.....		280,260						13	34,654	13,971	5½	80		
" 10	Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	107½	107½	
" 11	Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,835		119		
" 12	Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	126		
" 13	New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6	102		
" 14	Northampton and Springfield.....		172,883	unfin.											
" 15	Norwich and Worcester.....	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	67	69½	
" 16	Old Colony.....		57,820	unfin.									105		
" 17	Stoughton branch.....	4	63,075	unfin.											
" 18	Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	120		
" 19	Vermont and Massachusetts.....														
" 20	West Stockbridge.....	3	41,516	200		100						4			
" 21	Western, (117 miles in Mass.,).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	98½	97½	
" 22	Worcester branch to Milbury.....		8,431	506											
" 23	Housatonic, (10 months,).....	74	1,244,123							150,000			26	33	
Con 24	Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	93		
" 25	Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
" 26	Stonington, (year ending 1st Sept.,).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29	32	
N. Y. 27	Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0			
" 28	Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109	103	
" 29	Auburn and Syracuse.....	26	766,657				133½	86,291	27,334		96,738	52,544	6	116	
" 30	Buffalo and Niagara.....	22	200,000		1,500								100		
" 31	Erie, (446 miles,).....		5,000,000										27½	31½	
" 32	Erie, opened.....	53						48,000		126,020	59,075				
" 33	Harlem.....	26	2,250,000	750,000	30,000					140,685	62,399		61	62½	
" 34	Hudson and Berkshire.....	31	575,613		50					35,029	1,789	0	11½		
" 35	Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	61½	65½	
" 36	Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	56½	57	
" 37	Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
" 38	Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
" 39	Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117		
" 40	Tonnawanda.....	43	727,332				76,227			114,177	75,865	5			
" 41	Troy and Greenbush.....	6	180,000										90		
" 42	Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
" 43	Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132		
N. J. 44	Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		112		
" 45	Elizabethtown and Somerville.....	26	500,000												
" 46	New Jersey.....	34	2,000,000										95½		
" 47	Paterson.....	16	500,000									6	88½		
Pa. 48	Beaver Meadow.....	26	1,000,000												
" 49	Cumberland Valley.....	46	1,250,000												
" 50	Harrisburg and Lancaster.....	36	860,000										30		
" 51	Hazleton branch.....	10	120,000												
" 52	Little Schuylkill.....	29	900,000												
" 53	Blossburg and Corning.....	40	600,000												
" 54	Mauch Chunk.....	9	100,000												
" 55	Minehill and Schuylkill Haven.....	19 1-2	396,117	25,000	7,019	50			12			12	80		
" 56	Norristown.....	20	800,000										6½		
" 57	Philadelphia and Trenton.....	30	400,000										104		
" 58	Pottsville and Danville.....	29 1-2	1,500,000												
" 59	Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		25	24½	
" 60	Schuylkill valley.....	10	1,000,000												
" 61	Williamsport and Elmira.....	25	400,000				20,000								
" 62	Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		15½	15½	
Del. 63	Frenchtown.....	16	600,000												
Md. 64	Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		658,620	346,946		46½		
" 65	Baltimore and Susquehanna.....	58	3,000,000										21		
" 66	Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va. 67	Greensville and Roanoke.....	18	284,433	37,544	2,000	100				25,368	6,074		28		
" 68	Petersburg.....	63	969,880	63,000	7,690	100				122,871	72,898	3	77		
" 69	Portsmouth and Roanoke.....	78 1-2	1,454,171												
" 70	Richmond, Fredericks'g and Potomac.....	76	800,000							185,243	85,688	6			
" 71	Richmond and Petersburg.....	22 1-2	700,000												
" 72	Winchester and Potomac.....	32	500,000												
N. C. 73	Raleigh and Gaston.....	84 1-2	1,360,000												
" 74	Wilmington and Raleigh.....	161	1,800,000												
S. C. 75	South Carolina.....	136													
" 76	Columbia.....	66	5,671,452		34,410	75	201,464	77,456		532,871	140,196	5			
Ga. 77	Central.....	190	2,581,723				227,532	93,190		328,425	180,704				
" 78	Georgia.....	147 1-2	2,650,000				248,026	158,207		248,096	147,523				
" 79	Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Ky. 80	Lexington and Ohio.....	40	450,000												
Ohio 81	Little Miami.....	40	400,000												
" 82	Mad river.....	40	152,000												
Ind. 83	Madison and Indianapolis.....	56	212,000												
Can. 84	Champlain and St. Lawrence.....	15						12,000		58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.

Thursday, September 18, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 22,948 tons, and by canal 8,181 08, making 31,129 07 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total.....	254,984
From Schuylkill Haven—total.....	268,171
From Port Clinton—total.....	14,369

Total by railroad.....536,481

BY CANAL.

From Pottsville and Port Carbon—total.....	99,575
From Schuylkill Haven—total tons.....	28,067
From Port Clinton.....	33,339

Total by canal.....160,892

Total by railroad and canal.....697,273

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.	
Summit mines, -	124,931
Room run do., -	47,144—172,075
Beaver Meadow railroad and coal co.,	64,537
From Penn Haven—Hazleton coal co.,	44,608
From Rock Port—Buck Mountain coal co.,	13,152

WYOMING COAL TRADE—total.....	284,372
PINE GROVE COAL TRADE—total.....	108,351
MINERHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....	38,126
MOUNT CARBON RAILROAD—total tons.....	295,467
MILL CREEK RAILROAD—total.....	179,133
	51,027

[Miners' Journal.]

WESTERN RAILROAD.—Receipts for week ending

Sept. 6	1845	1844
Passengers.....	\$11,365	\$11,109
Freight, etc.....	8,361	7,829

Total.....\$19,726 \$19,058

MOHAWK AND HUDSON.—The receipts from Jan.

1st to Sept. 1st were as follows:—	
1844.....	46,089
1845.....	60,907
Increase.....	14,818

The business of the Philadelphia and Reading railroad, for the week ending August 30th, 1845, as compared with the corresponding week in last year, was annexed: 1844. 1845. Increase.

Passengers, } \$17,635 04	\$28,022 52	\$10,387 43
Tolls, Fret }		
Coal, tons.	13,119	22,792 9,673

There is scarcely a railroad in this country the business of which increases faster than this to Reading, and yet the price of its shares gradually decline, and the credit of its loans is with difficulty maintained at about 65 per cent. Why is it? Railroads at the east, doing anything like the amount of business done by the Reading road, are all at much higher prices.

Railroad receipts generally continue favorable, presenting a steady increase over last year. On the Central road of Georgia the receipts have been,

	1843	1844	1845
April.....	\$7,486 88	17,676 87	32,686 94
May.....	10,107 07	50,092 59	33,213 23
June.....	7,707 43	10,808 04	13,902 49
July.....	8,080 77	12,103 64	23,520 08

Total...\$33,332 15 60,681 14 103,430 74  
 Showing a gain of \$43,749 in four months of this year over the same period of last year, and more than seventy thousand over that of 1843.

PHILADELPHIA AND READING RAILROAD.—A comparative statement of the business on the Philadelphia and Reading railroad for the month ending August 31:

	1843.	1844.	1845.
Business....	\$52,219 35	\$76,997 60	\$127,113 33
Coal, tons....	31,018	55,412	102,921

Useful Information.

Americans who contemplate an excursion to Europe, and especially to the continent, by the way of London, will find the tabular statement of railroads, steam-packets, distances and fares—given in this number, exceedingly convenient. A stranger in London, having to make a tour on the continent, will be much relieved by having before him a list of the various steam packets to, and railroads on the continent, with the rates of fare by each. We are preparing and shall soon give a similar list of the principal English railroads.

New York and Erie Railroad.

It affords us much pleasure to be able to say that two millions of dollars have been subscribed to the stock of this company, up to last night. The directors seem to have resolved themselves into a committee of working men, and have done the people of this city great service, and themselves much credit, by their efforts; and we feel assured that their success thus far will stimulate them to renewed exertions which will be crowned with entire success; and that within thirty days the books for subscription will be closed—when many will be left to regret that they did not "find time to call at the office and take a few shares," or "to renew their former subscriptions," which they must do, or they will not be entitled to participate in the pleasure, and the credit, and the advantage, of being of the few who will in reality build the New York and Erie railroad.

BRANCHES AND FEEDERS TO THE NEW YORK AND ERIE RAILROAD.—We have more than once spoken of the branches and feeders to the New York and Erie railroad, and have said that they will exceed in length the main stem. We now say that, including the canals, they will, within seven years from this date, exceed twice the length of the main stem.

The Railroads of Belgium.

With a notice of the other modes of Internal Communication—translated and abridged from "La Belgique et les Belges," by Major G. T. Poussin, formerly of the U.S.E.

BY G. C. SCHAEFFER, C. E.

(Concluded.)

For the American Railroad Journal.

FREIGHT.

The whole movement for 1844 was 560,000 tons, the receipts for which were 4,338,050 francs.

Proportion of the receipts for transportation of freight to total receipts.

In Belgium.....	37½ per cent.
England.....	23 "
France.....	20 "
Germany.....	22 "
United States.....	28 "

The freight is divided into three classes with the following prices.

1st class, about 2½ cents per ton per mile.
2d " " 4 " " "
3d " " 5½ " " "

The goods are sent home or not as may be desired, for this service an extra charge is made.

A discount of 10 per cent. is made for 1st class goods on a full car load, and for 2d and 3d class on any 4 to 4½ tons. Another reduction of 20 per cent. is made on certain articles for exportation, foreign goods in transit, etc.

Average fare per ton per mile in various countries.

In Belgium 2½ cents per ton per mile.
England 6½ " " "
France 3½ 5 " " "
Germany
U. States 4½ 5½ " " "

RAILROAD POLICE.

The police of the Belgian roads seems to be admirably arranged and well managed. No one is permitted to plant trees, open sand pits or quarries, make thatch or any combustible roof or deposit any combustible matters within 22 yards of the outer boundary of the roads. Infringements against these or any other provisions for the safety of travel, are punished by six months to two years imprisonment and a fine of 50 to 200 francs; when personal injury results, the offender is subject to the usual penalties of the penal code.

When an accident is the result of negligence or misconduct of officers or employees of the road, the offender is subject to a fine of 16 to 200 francs, and according to the injury to passengers, the amount is varied from 50 to 200, 500 or 1000 francs.

The administration of the police of the road is given to overseers of the road, inspectors and inspectors-general—these are sworn officers and are ordered to report all infringements of the laws.—The inspectors-general are clothed with judicial powers.

All carriages and omnibusses running to the railroad stations are likewise under the supervision of the police.

ADMINISTRATION.

The working of the railroads belongs to a special department with a director-general, under the immediate orders of the minister of public works.—There are four branches of service; 1st general administration; 2d car department; 3d locomotive department; 4th transportation department. Each of these has a responsible chief with officers, etc., the whole amounting in number to 945, under a regularly arranged discipline; with promotion only according to actual practical knowledge.

Every officer receives his appointment from the king, on the nomination of the minister of public works, and can be neither nominated nor promoted except after examination. The minister acts with the advice of the director-general.

The highest salaries under the director are 6,300 francs for second class inspectors; the engineers, architects, etc., receive 3,300 francs; chief of bureau 2,800 francs, chief of station 2,700 francs; 1st class clerks 2,000 francs; conductors 2,400 fr. chief of shop 2,500 fr.; machinists 2,000 fr.; firemen 1,500 fr.; breakmen 900 francs.

A twentieth of the net product is divided among those officers who have it in their power to exercise any influence upon the profits of the road.

PENSION AND RELIEF FUNDS.

The pension fund is instituted for the widows and orphans of all officers of the railroads and public works, not connected with the engineer, army, navy or other department of government.

The relief fund is for the benefit of the workmen.

The pension fund is founded on a deduction from the salary of every officer, married or single, of 3 per cent. on 5,000 francs and over, to 2 per cent. on all below 2,500 francs. If the wife dies first, this contribution is refunded. The widow receives 16 to 20 per cent. of her husband's salary at the time of his death, the amount proportioned to the number of children under age—when more than five, 3 per cent. in addition is given for each minor.

In case of the death of both parents, the guardian receives for each child, one-third of the pension to which the widow would have been entitled, and when there are more than three, each additional one draws as above 3 per cent., etc.

Within three days of the death of an officer or employee, his widow or relatives are entitled to 5 per cent. of his salary for funeral expenses, etc.

The funds of the widows and orphans are managed gratuitously by a commission of six officers of the railroad and one of the public works.

#### RELIEF FUND.

This fund is based upon a deduction of 1 per cent. on the salaries of the workmen. Appropriations from this are made,

1st To workmen temporarily wounded or otherwise disabled in the service of the railroad.

2nd To workmen permanently disabled, by wounds or otherwise.

3d To the widows and families of workmen losing their lives in the service.

Those who are dismissed or voluntarily leave the service lose all right to the fund and cannot withdraw the deduction.

In concluding this notice of the Belgian railroad system, we may remark that the author has with much sagacity, pointed out many things in detail which as examples or otherwise are matters of peculiar interest. We have with hardly any exception followed him in all these, convinced that many valuable lessons may be learned from them, even where circumstances prevent an exact imitation.

We would particularly ask attention to the system of pensions and relief which in their details are evidently arranged upon the most benevolent principle.

The subject is worthy of the serious consideration of companies. No man ever performs his duty more faithfully than when he feels that he is secure in a good place for life, with a prospect of promotion, according to his merits and with the comfortable reflection that his wife and family are secure from want after his death. It is perhaps not possible to follow out this plan in all its details in our own country; but we are convinced that the company following it most closely, will be best served and at the cheapest rate. If motives of benevolence will not suffice, we are quite certain that mere dollar and cent considerations, (heaven help the souls of those creatures who are moved by no other) would dictate some such course of proceeding.

We have in our eye a case strongly illustrating our argument. An excellent and able employee of a company was cut down in wages, and obliged to give up his situation; various attempts were made to fill his place cheaply. At last a memorial in his favor was presented to the company, signed by hundreds of the regular travellers on the road, and he was again employed at his former salary—but not until the company had lost more than the difference for which they had higgled would have amounted to in a year. We mention no names—qui capite ille facit.

#### Foreign Correspondence.

We are again indebted to our esteemed friend, Mr. Gerard Ralston, of London, for a long and interesting letter. Mr. Ralston's position, as an eminent merchant in London, and his connection with this country, enables him to survey the whole field of the consumption of iron, and to form opinions in relation to that branch of business especially, which must be useful to the readers of the Journal, as well as to our iron manufacturers and dealers generally—who ought to be, but are not its readers—we therefore give such extracts from it as may be useful and interesting to those who are in any way to be affected by the immediate unparalleled demand for iron in Europe, in consequence of the extraordinary extent, 2860 miles, of railways authorized by the late session of parliament—which is nearly as much as had been previously authorized in Great Britain since the introduction of the system. It should be borne in mind that the extension of the railway system is by no means confined to Great Britain; but that it pervades all Europe, and is to be introduced into the British possessions in India and the West India islands. Indeed, a gentleman, a civil officer under the government in the island of Jamaica, Mr. McGeachy, is now in this country for the purpose of examining our railroads, in order that he may avail himself of any suggestions which may present themselves to his mind, on comparing our cheap mode of construction with the very expensive mode adopted in England.

With such a prospective demand for iron, we hope the advice of our correspondent, to "our countrymen of Pennsylvania, Maryland, New Jersey and New York, to push the iron trade with all their vigor," will be followed, until the American demand shall be supplied from American mines and furnaces.

(Foreign Correspondence of the American Railroad Journal.)

21 TOKEN HOUSE YARD }  
London, August 22, 1845. }

Dear Sir:—I shall be happy to write to you occasionally, for you say what I communicate may be useful to the railway cause, in which I feel the deepest interest; for by no other means can the disadvantages we labor under in our immensely extended empire be counteracted so efficiently as by rapid and cheap means of conveyance of intelligence, passengers, and merchandize, by those astonishing improvements of modern times—the Electro-Magnetic Telegraph and the railway system, both of which I rejoice to learn are extending in our country.

I recently visited the Atmospheric railway and Coryden line, not yet in operation, but will be in the course of six or seven weeks. You will, I am sure, be very much pleased with the drawings and plans in the two numbers of the Pictorial Times, of Aug. 2nd and 9th, I send you, herewith. If you will read the description with the drawings before you, there will be no difficulty in understanding this most philosophical and beautiful system of railway, which I think will probably compete successfully with the locomotive system. In the course of eight months we shall have the "North Devon" of fifty

miles partially in operation, which, together with the Dublin and Kingston in Ireland and the Coryden near London, and several lines are forming in France on this principle, will give some most interesting practical results, from which I augur a great extension of the system. Our countryman Pinkus, of Philadelphia exhibited this beautiful principle in a model, so long ago as 1835 or 36 I think, to a number of Americans in London, who were delighted with it. This ingenious man, like many other inventors, has been interfered with and set aside; and will never, I fear, profit by the invention which bids fair to come into very general use. You know it is intended to extend the Coryden Atmospheric on to Portsmouth 75 miles, and the act of Parliament passed the House of Commons but was not reached by the House of Lords for the want of time. It will however be taken up the first thing at the commencement of the next session of the upper House. It is also thought that it will be adopted on the great London and York line, about 200 miles, which will also get its charter early at the next session of Parliament. You will see by the Railway Chronicle, I sent you by the last steamer on the 19th inst., that Parliament has just sanctioned 112 railways to the extent of very near 2,900 miles, which, at 500 tons per mile of double track, for plant as well as for motive power, will require a good quantity of iron (1,450,000 tons,) which must be forthcoming in the years '46 and '47; so that there is no prospect of much reduction in the price of iron for some years to come, particularly if the Atmospheric becomes the favorite system, as this requires at least 20 per cent more of iron for the plant, though not for the propelling power, which being stationary will not be subjected to such frightful wear and tear as the locomotive power. I therefore hope our countrymen of Pennsylvania, Maryland New Jersey and New York etc., will push the iron trade with all the vigor and enterprize in their power—they need not fear low prices—for the consumption, so long as the world is blessed with peace, must go on increasing in a much greater ratio than ever before; and my only fear is that high prices will check consumption of this invaluable metal. There is no article whose use is so much stimulated by low prices as iron, and there is none which is sooner checked, as regards consumption, by high prices than iron. After the fearful fires of Pittsburg, Quebec, and New York, we ought all to be advocates for low priced iron, so that in rebuilding those unfortunate towns this invaluable fire-proof material may be abundantly em-

ployed. Our railway friends in America certainly labor under serious discouragement in being obliged to pay 25\* dollars more per ton for their iron than their brethren in Great Britain; and I fear there is no prospect of this great impediment, to the extension of the invaluable railway system in our country, being ever removed.

The novelties in the railway world here are, first, the completion of a double line of Railway, of 92 miles in length, in 12 months and 3 days. This was performed by one house—Grissel and Peto, who contracted with the Northern and Eastern counties railway company to extend this line through Cambridge and Ely to Norwich, which was done by this enterprising house, in the best possible manner—they purchasing the land, iron, locomotives, and all other materials, as well as doing the road formations, constructing stations etc., etc. For this energy they were rewarded by a bonus of £25,000, and if they had failed in performing their contract they would have been mulcted in a heavy penalty. If a railway company had undertaken to make this road, they would have been a longer time in getting the concessions of the land than this enterprising house were in completing the whole road. I will only mention to you one more remarkable circumstance. News was brought by railway from Sunderland to London, 303 miles, in 7 hours and 27 minutes, or 40½ miles per hour. The object of this dispatch was to communicate the result of the election at Sunderland, for which purpose the "Times" had an express train. George Hudson was elected over the anti-corn law league candidate, Col. Thompson. On some parts of the road the speed was astonishing; from Darlington to York, 45 miles, the distance was done in 52 minutes; and occasionally the rate was a mile in 48 seconds, or at the velocity of 75 miles per hour; and if this had been kept up all the way to London, the whole distance would have been performed in little more than four hours; but much time was lost on the London and Birmingham railway, between Rugby and London, owing to the inefficiency of the engine power (where they have Berry's old fashioned four wheeled engine,) and the absence of the chief superintendent of the line. All the distance from Sunderland to Rugby was made on roads under the direction of Mr. Hudson, and every thing under his management is perfectly well done. How will this performance compare with what is done on our metropolitan railway! the Camden and Amboy!! between the great

\* Or rather \$30 per ton more, if you include freight and insurance as well as duty.

cities of New York and Philadelphia? Oh that you had a Hudson in New York to complete your great New York and Erie road. It is rather disparaging to the metropolitan city of America, that no man of sufficient energy, judgment, talent and good will, and possessing the confidence of his fellow citizens, can be found among its 400,000 souls, to come forward and carry through that vastly important work. If George Hudson had it under his charge, he would, without fail, complete it in three or four years. How would it do to import Mr. Hudson for this purpose? I was in hopes that your late mayor, Mr. Harper, would have been willing to undertake and able to carry through, this great work, which really ought to be completed with as little delay as possible, particularly after the great liberality of the New York legislature to the company.

P. S. I have just received your Railroad Journal of the 24th July, containing my letter of the 4th July, which I am pleased to learn meets your views, as well as those of Mr. Casey.

We agree fully with our correspondent as to the importance of the early construction of the NEW YORK AND ERIE RAILROAD; and have deeply regretted that for so long a period, there was no one in this community, possessing the necessary qualifications—the *pecuniary ability*, the *confidence of the business community*, and the *disposition to take the laboring oar* in this great work—who was willing, or could be induced, to come forward and devote himself to the enterprize, until he had accomplished what will yet be esteemed one of the most important works of the age; and thus render to his fellow citizens the greatest possible benefit, and acquire for himself a name among those who are esteemed as benefactors of their race; but we will regret no longer, nor will we, at present, consent even to the importation of Mr. Hudson, "the railway king" of England, as we have found, we fully believe, one as good as he; from the same walk of life too—the *merchants of our city* for a helmsman; who, with his associate directors, mainly from the same class also—enterprising, high-minded and wealthy merchants—will, from this time, move onward steadily, but surely, as he has already done in his own affairs, to the accomplishment of the great object in view, *ample and entire success*. The president, or leading officer of such a work as this, must be a man of mind, industry, character and wealth—all of which he must be willing to bring to the aid, and to risk on the success of the enterprize. Such a man—and we speak not unadvisedly when we say it—we take Mr. LODER to be; and that he is willing to risk all, and determined to accomplish the great object in view, we may well believe, when we see him head the subscription list with *two hundred thousand dollars*, or 1-15th of the whole amount required, and then take his station at the wheel, resolved to carry the noble ship into port, or sink with his colors nailed to the mast; and we are willing to risk our reputation as a prophet upon their success, if he and his associates will work harmoniously together, and adopt the plan of completing, and bringing into use, and thus rendering available, section after section of the road, until it is completed.

#### Connecticut River Railroad.

The extension of this road from Northampton to Greenfield, says the Hampshire Gazette, is advertised for contract. "This portion of the road can be easily constructed, and we see no reason why it may not be completed and the cars running, by the 4th of July next.

The road between Northampton and Cabotville is progressing rapidly, and it is now expected that it will be ready for the 'iron horse' about the first of November. The bridge across the Manhan river has been completed some days, and that across the Mill river is nearly done. Both are fine structures. The masonry of them are noble specimens of that kind of work."

Thus we see link after link of important roads commenced and completed with scarcely an effort, in New England, and simply because the people have the sagacity to see that by the expenditure of a portion of their property in the construction of railroads they render the remaining part more valuable than the whole was before, like the farmer, who gave a third of his farm to one daughter as a marriage portion, and found after a time that what remained, yielded him more net profit than the whole did before—and so on the marriage of his second daughter he divided his farm again, and still found that his profits from his one-third were greater than when he occupied the whole. The secret lay in the fact that he applied the same labor to the part, as he had before to the whole, and obtained greater crops. So will it be with the people who judiciously invest a part of their property in railroads; what remains will yield greater profits, because better markets are furnished and the expense of reaching them greatly reduced, but here the comparison ends, it is not like the farmer who gave away two-thirds, and only derived the profits from what remained. In this case that which is invested in railroads will yield him better returns even than what he retains with its improved cultivation, and thus he will be doubly benefitted.

We give in another column the notice to contractors, and would suggest to the engineer of this and other companies, that their interest will be much more promoted than ours, by the early insertion of all such notices in the Railroad Journal, to which contractors naturally look for them.

#### Morris and Essex Railroad Extension.

We are informed that recent surveys have been made by Major Beach, for the extension of this road to Dover, ten miles from Morristown. Two routes have been examined, a part of the way one passing near Franklin Forge and the other through Rockaway; the length of which is 1½ miles greater than the other.

The grades are considered very favorable, and there is none that exceeds 50 feet to the mile, and no curve probably of less radius 2,000 feet. This extension which ought to be made without delay, will be of great importance to that part of the road now in use, as well as to Morristown itself, even though it will take from it its present termination of the road—yet it will insure to Morristown the passage of the travel and business of the interior of New Jersey—whereas if not soon brought into use, there will surely be a railroad built along the valley of the Rockaway river to Paterson, and then Morristown will be left one side.

Such are the conveniences and advantages of railroads; that those residing in the interior of New Jersey are not to be confined to post coaches, pleasure wagons, and ordinary wagons for freight, whilst the people of Morristown and other towns enjoy railroad conveniences; therefore it becomes the people of Morristown to secure this extension while they may, or they will have a rival route, and a more favorable one, we should imagine, than from Newark to Morristown.

The estimated cost of the direct route is \$126,675 39, and of the Rockaway route, \$149,601 23.

This notice was prepared and should have been inserted several weeks since, but it was accidentally mislaid. We give it even at this late day, as we desire to see the extension here spoken of, progressing.

#### Atlantic and St. Lawrence Railroad.

We find in the last Portland Advertiser, the call of a meeting of subscribers to the stock of this company, for the 25th inst., for the purpose of organization. Of course the terms of the act of incorporation have been complied with, as we also learn from the Advertiser, which says:

"We announce with most hearty gratification, that the subscription of the first million of the capital of the Atlantic and St. Lawrence railroad company is completed!

The corporators have accordingly issued the call for the first meeting of the subscribers, which is fixed for the 25th of September."

This certainly evinces both enterprize and energy in the people of Portland, who have been the principal movers in this important matter. It is only another evidence, however, among the many which we have already had presented to our mind, that the road will be constructed, and that too, with all possible dispatch. It shows what a few intelligent, enterprizing men can do among intelligent people, when they have a good cause, and resolve to succeed. There is much yet to be done before the great object is accomplish-

ed, notwithstanding they have fairly broken the ice—and therefore let the shareholders select the right sort of men for *directors, officers* and *engineers*. It is not uncommon to see the most important enterprizes ruined by selecting incompetent, or dishonest agents.—To carry through triumphantly a work of the magnitude of this road requires ability, integrity, and great and untiring energy, as well in its managing directors, and officers, as in its engineers. True economy consists in employing the most competent men, and in paying them well, that their whole mind and energy may be directed to *the one point*, and then make them responsible for all their doings. It is highly important that the head officer be a man of *mind*, capable of judging between different lines when they have been thoroughly examined and reported upon by *competent* professional ability—which after all, is the cheapest that can be employed, and in selecting professional services it is important to obtain men of experience and observation—men who can see and avoid errors in other works, and who are willing to admit their own errors when pointed out to them, and who would sooner sacrifice their interest, by abandoning their situation, than yield their own opinion *when correct*—to conform to the wishes of others who might desire to promote their *individual* interest at the expense of the public.

There is at this time a wide field for selection in the profession—as many able men have been out of employ for a long time, but we predict that they will not be so long, as there has seldom been a period when as many important lines of road were about to be commenced as at the present; and we certainly were never as well prepared as now to press these works vigorously. We have ample experience both in the construction, and in the certain profits when completed; therefore there need be no delay, as heretofore, to learn by experience. We give the call below, and say to the subscribers, select good directors; and to the directors, appoint able, honest and persevering officers and engineers, and we will then guarantee the success of your enterprize.

"Whereas it appears that the capital stock of said corporation as prescribed and established by their act of incorporation has been duly subscribed for and taken up agreeably to the provisions of said act—public notice therefore is hereby given that the *first meeting* of said corporation will be held at the *City Hall* in Portland in the state of Maine, on Thursday the twenty fifth day of September next at three o'clock in the afternoon, for the purpose of organizing said corporation, and to that end

1st. To choose a chairman to preside at said meeting.

2d. To choose a clerk to record the doings of said meeting.

3d. To make, ordain and establish a code of by laws and regulations for the government of said corporation and the due and orderly conducting of their affairs and the management of their property

4th. To choose a board of directors agreeably to the provisions of their charter.

5th. To act on any other matter or thing which may legally come before them.

Given under our hands at Portland this thirtieth day of August in the year of our Lord eighteen hundred and forty five.

Wm. P. Preble; Josiah S. Little; John Mussey; John Anderson; Charles E. Barret; J. B. Brown; St. J. Smith; Abner Shaw; Charles Q. Clapp; Thomas Hammond; Charles Cobb; John Neal; George Turner; Eliphalet Case; Woodbury Storer; James L. Farmer; Franklin Tinkham; William Kimball; Eliphalet Greeley."

#### Vermont Central Railroad.

We are not a little surprized to learn that the directors of the Central Vermont railroad company, have declined to connect with the Concord and Lebanon, New Hampshire, road at the mouth of White river. There may be justice, propriety, and profit in this course, yet we discover *neither*, and therefore we beg of some gentleman who comprehends their policy to enlighten us, that we may be as wise as others. Possibly something like the following may have had its influence—viz. "if we can induce the 'Fitchburg' to unite with us, instead of with the *Rutland* line, we may thus defeat our rival on the west side of the mountain, and secure the whole Boston-wise travel and freight"—if so, they will find that this knife cuts *both* ways, as the Lebanon line will be sure to become a rival on the *north* of them, and the Rutland on the south, notwithstanding their efforts to prevent it. There are some things which *may*, and others which *must* be done; and we believe it to be the interest of the community, and consequently of the *shareholders*, to allow railroads to connect wherever it can be done with facility, and there can surely be no more natural connection of two important roads than at the mouth of White river, between Boston and Burlington, and it will surely be done too, whatever may be the decision of the *present* board of directors. There is now to be three principal lines of railroad through Vermont, in a north-westerly direction from Boston to lake Champlain and Canada, and the gentlemen of the central route may as well "give it up" now as hereafter. It is useless for *local interest*, if that is the cause of this decision, and we can imagine no other; to undertake to resist



the onward progress of the system of railroads in a country like New England, where every tract of country thirty miles wide will furnish way business enough to support a railroad without relying upon a large through traffic. We ask for the reasons—will any one furnish them? in return for our giving the annexed proceedings of the board of directors.

"In board of directors, Boston, Aug. 29, 1845, the following resolves were adopted by an unanimous vote:

Resolved, That the board of directors adhere in good faith to the arrangement made by the committee for the Central railroad company with the Fitchburg railroad company, and in accordance with the terms of subscription, viz., "That said railroad be so located as to extend from some point on the eastern shore of lake Champlain to a point on Connecticut river where it shall connect with the Cheshire railroad, so as to receive said railroad, and make a continuous route from the lake, via, Montpelier, Keene and Fitchburg to Boston; and that the portion of the proposed railroad lying on Connecticut river, and connecting on the Cheshire railroad, shall be commenced and finished as soon as any part of said road."

Resolved, That the president, Mr. Foster, and the engineer be a committee to arrange and settle with the Cheshire railroad company as to the point of connection with said road, at the earliest day which is practicable.

Resolved, That a copy of the above votes be forwarded to the president of the Cheshire railroad company and the president of the Fitchburg railroad company.

A true copy from the records.

Attest, S. H. WALLEY, Jr.  
Clerk pro tem.

**Hartford and New Haven Railroad.**—In explanation of the receipts of the year which we gave yesterday, it should be stated that the extension road was put in operation on the 9th December last, and the receipts (\$178,000) embrace the earnings of the entire road for less than 9 months. The average increase since the new road was opened has been 110 per cent. over the corresponding period of the previous year. The ordinary expenses of the road the past year have been about \$62,000.

A large portion of the track on the old road has been relaid with new timber the past year, and large sums have been expended for permanent improvements of depots, etc., but the earnings have been sufficient to defray the expenditures, and enable the company to make a semi-annual dividend of 3 per cent. [payable 1st October.]—*Hartford Courant.*

**NIAGARA AND DETROIT RIVERS RAILROAD. PROSPECTUS.**

The Niagara and Detroit rivers railroad is designed to connect Buffalo with Detroit, and extend the great western railroad in one continuous line from Boston to the head of lake Michigan, and ultimately to St. Louis.

**Cost of construction.**—In direction, elevation, and economy, it is unrivalled by any road for a similar distance. It will be nearly in a straight line, having only two gentle curves in a distance of 222 miles. The grade is in no place over 15 feet for short distances, and averages less than two feet in the mile. The estimated cost from actual survey in 1838, is one and a half million of dollars; but if the road be constructed of the heavy H rail, in the most perfect manner, the cost may extend to two and one half millions.

**Income.**—One thousand people are supposed to pass through Buffalo daily, during the travelling season—from whence there is but one means of communication to the west, namely by lake Erie. The communication eastward is by the falls of Niagara, Canada, lake Ontario, the Erie canal, and the Buffalo and Attica railroad. Notwithstanding these numerous channels, the latter is selected as the basis on which a safe, durable, and profitable investment is anticipated.

It appears from the statistical returns furnished by the Secretary of State for New York, in March 1845, that during the year 1844, from December to April, five months, 63 persons, including way-passengers, passed each way, daily, over the Buffalo and Attica road.—although lake Erie was not, during this period, navigable—130 days X 136 passengers=17,680 at \$5=88,400. In May, October and November, the travelling increased to 126 each way. During this period the navigation of the lake is considered hazardous—78 days X 252=19,968, at \$5=990,840. From June to September, four months travelling increased to 182 each way, 104 days X 364=37,856. An active competition from lake steamers, may at this season be looked for, during which the fare should be reduced to \$3=\$113,563—making in all for the three periods, \$301,804—which would yield an interest of 10 per cent. on the capital, & leave a rest of \$51,308 per year.

**Way fare through Canada.**—This part of the line is left to balance the repairs of the road and the expenses of management. Although no remuneration is estimated, the route intersects the Welland canal, grand river navigation, port Dover and London plank roads, and various other communications leading from numerous villages, and a dense agricultural population in the interior, the travel and freight from which, in addition to what will pass from point to point, is likely to yield the same returns as other lines for the like distance.

**Future Prospects.**—Having no population or travel, to create, to insure an immediate revenue—any additional calculation may be considered superfluous—but when we see the travelling over Buffalo road increase from 136 passengers per day—when the western country is excluded—to 256, when the navigation of lake Erie is considered hazardous, and to 364 when fairly opened, notwithstanding the competition east of Buffalo—it cannot be considered unreasonable to double those numbers, when a perfect and better communication is opened to the eastern terminus of the western road, which may be

passed in 8 or 10 hours. Neither can it be considered visionary to look for an early extension of the same line to the confluence of the Mississippi river at St. Louis, and a rapid increase of travel each succeeding year, so long as emigration continues to flow to the west—a proportion of the southern population to make their annual tour to the north—and the falls of Niagara continues to be the great point of attraction.

**Proposed plan of Proceeding.**—The capital authorized by the existing act of incorporation is two millions, which it is proposed to increase to two and one half millions of dollars—half a million of which is to be offered in the United States, half a million in Canada, and the residue in London. It is desirable no time should be lost in obtaining subscriptions for the capital, that the work may be early commenced, with a view of completing the same the ensuing year. In behalf of the shareholders.

W. HAMILTON MERRITT.

**NOTICE TO RAILROAD CONTRACTORS.**

SEALED PROPOSALS will be received at the Office of the New York and Harlem Railroad Company, in the village of White Plains, Westchester county, until the 20th day of September, for the grading, masonry and bridging of about 21 miles of said railroad, extending from the present terminus at White Plains, to a point near the north line of Westchester county.

Plans, profiles and specifications will be ready for the inspection of contractors on the 15th of September, when the engineers will be in attendance, to render all requisite information.

Contractors not known to the company or engineer, will be expected to produce testimonials of their capacity, ability and experience; and the best security will be required.

The work must be commenced immediately after contracts are closed, vigorously prosecuted, and completed by the first day of May next. By order of the Extension Committee.

372t ALLAN CAMPBELL, Chief Eng'r.

**NOTICE TO RAILROAD CONTRACTORS.**

SEALED PROPOSALS will be received at the office of the Connecticut River Railroad Company, at Northampton, until the 15th of September proximo, for the graduation, masonry, and bridging, of that part of the Connecticut River Railroad between Northampton and Greenfield.

Plans, profiles and the ground will be ready for examination on and after September 6th, and explanations given at the office aforesaid.

JOHN CHILDE, Eng'r.  
Northampton, Aug. 29, 1845. 371t

**LAWRENCE'S ROSENDALE HYDRAULIC Cement.** This Cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floors and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE, 142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 32

**SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars.** The Subscriber is engaged in manufacturing Spring Steel from 1½ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,  
53 Albany Iron and Nail Works, Troy, N. Y.

**KEARNY FIRE BRICK.** F. W. BRINLEY, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to  
 James P. Allaire, }  
 Peter Cooper, } New York.  
 Murdock, Leavitt & Co. }  
 J. Triplett & Son, Richmond, Va.  
 J. R. Anderson, Tredegar Iron Works, Richmond, Va. }  
 J. Patton, Jr. } Philadelphia, Pa.  
 Colwell & Co. }  
 J. M. L. & W. H. Scovill, Waterbury, Con.  
 N. E. Screw Co. } Providence, R. I.  
 Eagle Screw Co. }  
 William Parker, Supt. Bost. and Worc. R. R.  
 New Jersey Malleable Iron Co., Newark, N. J.  
 Gardiner, Harrison & Co. Newark, N. J.  
 25,000 to 30,000 made weekly. 35 1m

**BALTIMORE AND OHIO RAILROAD—MAIN STEM.**

**THE TRAIN CARRYING THE GREAT** Western Mail leaves Baltimore every morning at 7½ and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with the Washington trains at the Relay house seven miles from Baltimore, with the Winchester trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pitsburgh. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pitsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pitsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

**WASHINGTON BRANCH.**

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5½ P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1.60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13 1y

**LEXINGTON and OHIO RAILROAD.**

Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m. Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1.25.  
 On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.  
 The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above. 1y35

**PASSENGER LINES FROM BOSTON.**

**Eastern Railroad**—Boston to Portland, via Salem Newburyport, Portsmouth and Saco. Trains leave daily, except Sundays. Boston for Portland 7½ a.m. and 2½ p.m.; Newburyport and Portsmouth 7½ a.m., 2 1-2, 5 1-2 p.m.; Salem 7½, 9, a.m., 12½, 2 1-2, 3 1-2, 5 1-2, 6½ and 8 p.m.; Salem for Marblehead 8½, 9½ 10½ a.m.; 1, 3½, 4½, 6½, 8½ p.m. 32

**Boston and Maine railroad—Upper route.** Boston to Portland, via Charlestown, Wilmington, Andover, North Andover, Haverhill, Exeter, Dover, Somersworth, Berwick, Kennebunk, Saco, and Scarborough. Passenger trains will run daily, Sundays excepted, as follows, viz: Leave Boston for Portland at 7½ a.m. and 2½ p.m.; for Great Falls at 7½ a.m., 2½, 4½ p.m.; for Haverhill at 7½ a.m., 2½, 4½ and 6½ p.m.; leave Portland for Boston at 7½ a.m. and 3 p.m.

A special train will leave Boston for Andover at 12 m., and Andover for Boston at 4½ p.m.  
 The depot in Boston is at the corner of Canal and Traverse streets. CHARLES MINOT, Superintendent. 32

**Norwich and Worcester railroad.**—Accommodation trains, daily, except Sunday. Leave Norwich at 6 a.m. and 4½ p.m., leave Worcester at 10 a.m. and 4½ p.m. The morning train from Norwich, and the morning and evening train from Worcester, connect with the Boston, Western and Hartford and Springfield railroads. New York train, via steamboat, leaves Norwich for Worcester and Boston, except Monday, upon the arrival of the boat from New York, about 2 o'clock; leave Worcester for Norwich and New York at 5½ p.m. daily, except Sundays. New York train, via Long Island railroad, leaves Norwich about 3½ p.m. for Worcester and Boston daily, except Sunday; leaves Worcester for Norwich and New York at 7½ a.m. daily, except Sunday, and arrives at Norwich at 9½.

Fares are less when paid for tickets than when paid in the cars. EMERSON FOOTE, Superintendent. 32

**Boston and Lowell Railroad, Summer Arrangement.**—The passenger trains will run as follows: Leave Boston at 7 and 11 a.m., 2 1-2 and 5 1-2, p.m.; leave Lowell at 7½ and 11 a.m., 2 and 5½ p.m. Fare 75 cents. 32

**Nashua and Lowell Railroad.**—Passenger trains will run as follows: Leave Boston at 7 a.m., 11 a.m. and 5 p.m.; leave Nashua at 6 1-2 a.m., 1½ p.m. and 4½ p.m. 32

**Concord and Nashua Railroad.**—Passenger trains run daily, Sundays excepted, in connection with the Boston and Lowell, and Nashua and Lowell railroads, as follows: Leave Boston at 7 a.m., 11 a.m. and 5 1-2 p.m.; leave Concord at 4½ a.m., 11½ a.m. and 3½ p.m. The second train arrives in Boston in season for passengers to take the railroad train to New York. Stages, on the arrival of the first train at Concord, leave by various routes for the different parts of the state, Vermont and Canada. On the second day from Boston Stages reach Royalton, Middlebury, Montpelier and Burlington, connecting there with the steamboat line to Montreal. Stages also run from Haverhill to Stanstead and Montreal. 32

**Woburn Branch Railroad.**—Special trains will run as follows: Leave Boston at 8 and 11½ a.m., and 3 and 6 1-2 p.m.; leave Woburn Centre at 7 and 9 a.m., and 1 1-2 and 5½ p.m. These trains will stop for way passengers anywhere between Woburn Centre and Boston. WALDO HIGGINSON, Agent B. & L. Railroad Co. 32

**Fitchburg Railroad.**—Leave Charlestown at 7 and 11 a.m. and 5 p.m.; leave Fitchburg at 6 1-2 and 11 a.m. and 4 1-2 p.m. Special trains will be run to Waltham and Concord as follows: Leave Concord for Charlestown at 7 a.m.; leave Waltham for Charlestown at 7 1-2 and 10 1-2 a.m., 4½ p.m.; leave Charlestown for Waltham at 9 1-2 a.m., 3 and 6 p.m.; leave Charlestown for Concord at 6 p.m. On the arrival of the two morning trains at Fitchburg stages will leave for all the principal towns in western Massachusetts, New Hampshire and Vermont. S. M. FELTON, Eng. and Supt. 32

**Boston and Worcester Railroad.**—Summer arrangement.—For Worcester and way stations at 7 1-2 a.m., 1 3-4 and 5 p.m.; for Milbury at 7 1-2 a.m. and 5 p.m.; for New York, by Norwich and steamer, 4 p.m.; day line for New York, by Long Island railroad, at 6 a.m.; for Boston and way stations at 7 and 10 a.m., 4 1-2 p.m. Newton trains, daily, except Sunday, from Boston at 9 1-2 a.m., 3, 5½ and 7 p.m.; from Newton at 7½ and 10½ a.m., 4 and 6 p.m.

Fares are less at the ticket offices than in the cars. WM. PARKER, Supt. 32

**Boston and Providence Railroad.**—Passenger trains run as follows: For New York, night line, via Stonington; leave Boston every day, Sundays excepted, at 5 o'clock p.m.; accommodation trains leave Boston at 7 1-2 a.m. and 4 p.m., and Providence at 8 a.m. and 4 p.m.; Dedham trains leave Boston at 8½ a.m., 12 1-2, 3 1-2 and 6 1-2 p.m.; Leave Dedham at 7 and 10 a.m., 2½ and 5½ p.m.; Stoughton trains leave Boston at 12 m. and 5 20 p.m.; leave Stoughton at 7 1-2 a.m. and 3 p.m. WM. RAYMOND LEE, Supt. 32

**Western Railroad.**—Summer arrangement.—Passenger trains leave daily, Sundays excepted, as follows: Boston 7 12 a.m. and 4 p.m. for Albany; Albany 6 3-4 a.m. and 2 1-2 p.m. for Boston; Springfield 7 a.m. and 1 p.m. for Albany; Springfield 7 a.m. and 1 1-2 p.m. for Boston. For Albany and Buffalo—Leave Boston at 7 1-2 a.m., arrive at Albany at 6 p.m.; leave Albany at 8 p.m. for Buffalo, or at 7 1-2 o'clock next morning. For Montreal—Passengers proceed from Albany to Troy, thence by railroad and canal to Whitehall, and thence by the commodious steamers of lake Champlain (stopping at Burlington) to St. Johns, thence by railroad to La Prairie, and thence by steam to Montreal. New York, via Hartford and New Haven; day route—Leave Boston at 4 p.m., lodge at Springfield or Hartford; leave Springfield at 9½ a.m., and arrive in New York at 6 p.m. Passengers may also leave Boston at 7 1-2 a.m., proceed at 1 or 4 1-2 p.m. from Springfield to New Haven; leave New Haven at 10 p.m. and arrive in New York at 6 o'clock next morning.

For further information apply to Charles A. Read, agent, 27 State street, Boston.

JAMES BARNES, Superintendent and Engineer. 32

**Taunton Branch and New Bedford and Taunton Railroads.**—Trains leave Boston for Taunton and New Bedford at 7 1-2 o'clock a.m. and 4 p.m.; leave Providence for Taunton and New Bedford at 8 o'clock a.m. and 4 p.m.; leave New Bedford for Boston and Providence at 7½ o'clock a.m. and 3½ p.m.; leave Taunton for Boston and Providence at 8½ o'clock a.m. and 4½ p.m.; leave Taunton for New Bedford at 9 o'clock a.m. and 5 1-2 p.m. Afternoon trains connect with Stonington cars and steamers for New York. Morning cars connect with the Long Island train on Monday, Wednesday and Friday. W. A. CROCKER, General Superintendent. 32

**Fall river Branch Railroad.**—Trains leave Boston for Fall River daily, Sundays excepted, at 7 1-2 a.m. and 4 p.m.; trains leave Fall River for Taunton, Boston and Providence at 7½ a.m. and 3 p.m.; trains leave Fall River for Neeb pford at 7½ and 9 a.m., and 5 1-2 p.m.

For Newport.—Passengers from Boston to Newport will find stages in readiness on the arrival of the morning cars at Fall River to take them onward. Fare through \$2. Tickets for the stage will be furnished by the conductor on the Fall River Branch Road.

Stages also leave Fall River at 1 o'clock p.m., for Tiverton, Four Corners, Adamsville and Little Compton. SAM'L H. P. LEE, Jr., Superintendent 32

**TWO RAILROAD COMPANIES AND MANUFACTURERS** of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**FOR SALE, AT A SACRIFICE**—A Locomotive Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine. 2 8-horse " " " " 1 Upright Hydraulic Press. All of which will be sold low, on application to T. W. & R. C. SMITH, Founders and Machinists, Alexandria, D. C. May 12th

**FROM PHILADELPHIA. PASSENGER LINES NORTH AND EAST.**

**Camden and Amboy Line.**—By Railroad and Steamboat from Amboy. Leave foot of Walnut street daily, Sundays excepted, at 5½ a.m. Fare \$3. Forward deck \$2.25. Also for New York, by way of Trenton, Princeton, New Brunswick, Elizabethtown and Newark, N.J., daily from foot of Walnut street, at 9 a.m., and 5 p.m.—Fare \$4. 31

**For Reading and Pottsville.** By Reading Railroad. Daily, Sundays excepted, from the Depot, corner of Broad and Cherry streets at 8 a.m. Fare, \$3 50. Second class, \$3. To Reading \$2 25. Second class \$1 90. 31

**For Mauch Chunk and Wilkesbarre.**—By Express and Reliance Line. Daily, from the corner of Broad and Cherry streets, at 9 a.m. 31 PETERS, MILTIMORE & CO.

**For Easton and Bethlehem.** By Post Coaches. Leave the Office, next door to the White Swan, Race street, daily, at 4 a.m. 31 PETERS, HAMMIT & CO.

**For Baltimore. By Railroad.** Fare \$2. Via Chester, Wilmington, Elkton, Havre de Grace. Leave Philadelphia, Depot, 11th and Market street, daily, Sundays excepted, at 8 a.m., 4 p.m. Leave Baltimore, Depot, Pratt street, daily, Sundays excepted, at 9 a.m., 8 p.m. Tickets through to Wheeling and Pittsburg can be procured at the Depot.

Wilmington Accommodation Line, leaves the Depot, 11th and Market sts. daily, except Sunday, at 10 a.m. and 4 p.m. Leaves Wilmington at 7 a.m. and 4½ p.m. G H HUDDLELL, Agent. 31

**For Baltimore. By Newcastle & Frenchtown Railroad and Steamboat Line.** Fare \$1. The Steamboat Robert Morris, Capt. J. M. Douglass, leaves Dock street wharf daily, except Sunday, at 3 o'clock. Passengers by this line will reach Baltimore at about 10 p.m. Tickets through to Wheeling or Pittsburg can be procured on board the boat. G H HUDDLELL, Agent. 31

**For Baltimore, via Lancaster, Columbia and York.** By the Susquehanna Railroad, daily, Sunday excepted, leave the Depot 274 Market st., at 7½ a.m., and 12 at night, for Columbia, and leave Columbia at 2 p.m. for Baltimore. Dine at York and arrive in Baltimore in time for early tea; passing through the most highly cultivated and beautiful part of Pennsylvania, and romantic part of Maryland. 31

**For Pittsburg, via Columbia and Lancaster Railroads.** Leave the Depot 274 Market st. daily, at 7½ a.m. The Night Line will leave as usual at 12, midnight. At Harrisburg this line connects with the Railroad and Stage Line for Carlisle, Chambersburg and Pittsburg, with the Packet boats for Lewistown, Huntingdon, Hollidaysburg and Pittsburg; also with the Susquehanna Packet boats to Northumberland, Milton, Muncy, Williamsport, etc. Through tickets for any for any of the above places can be secured at the depot, where every information relative to the above lines will be given. Passengers for York and Gettysburg will leave in the 7½ line. JACOB PETERS & CO. 31

**For Pittsburg. By the Pioneer and Express Packet Line.** Leave the Depot, 274 Market st. above 8th, at 7½ a.m. By this route travellers may be assured of a safe and comfortable passage, every arrangement having been made for their accommodation. Office N. E. 4th and Chestnut sts. Seats may also be procured at the Depot, and at 13 South 3d st. A CUMMINGS, Agent. 31

**Susquehanna Line of Railroad Cars and Post Coaches.**

This line leaves the depot, corner of Broad and Cherry streets, daily, [Sundays excepted] at 8 o'clock, a.m., via Reading and Pottsville railroad, for Sunbury, Danville, Cattawissa, Northumberland, Milton, Muncy, Williamsport, Towanda, Bellefonte, Jersey Shore, Lockhaven, Ralston and Elmira. For seats apply at the stage office, 104 Race street, under the White Swan Hotel. 34 S. STILES, Agent.

**FROM BALTIMORE. SUMMER ARRANGEMENT—FARE REDUCED.**

By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

Direct to New Orleans, and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21: whereby the traveller saves \$4 25. Bear in mind that this is the great Southern Mail Line, and the only one that issues a through ticket South. Those who patronize it will save their money and time. Through Tickets from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

**Fast Mail Line.**—Leave New York at 9 a.m. and arrive in Philadelphia at 3½ p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12½ to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.

Passengers by the above line will arrive at Richmond by 11½ o'clock p.m. and Petersburg, Va. by 2½ o'clock p.m., through to the former city in twelve hours, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

**Way Mail Schedule.**—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p.m.; arrive in Baltimore at 2½ p.m.; arrive in Washington at 7 p.m. From Philadelphia by steamboat.—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore. 31 STOCKTON & FALLS.

**For Norfolk and the South, by steamboat** through the Chesapeake bay to Norfolk, and then by railroad to Weldon, Wilmington or Raleigh, etc. Leaves Baltimore daily [except Sundays] from Spears' wharf, at 4 p.m., and arrives at Norfolk next morning at 7 o'clock; fare \$6. Leaves Norfolk at 8 a.m. and arrive at Wilmington next day at 12 m. and Charleston next morning at 7. Fare through \$21.

**For Philadelphia (Union Line), via Chesapeake and Delaware Bay, and Newcastle and Frenchtown Railroad.**—The well known steamboat Constitution, Capt. Chaytor, has commenced her regular trips for the season, leaving Bowly's wharf, foot of South street, at 8 o'clock, p.m. daily [except Sundays] for Philadelphia. Through in 8 hours. Fare \$3. 31

**Morning Train for Philadelphia.**

The morning train leaves the depot, Pratt street, daily [except Sundays] at 9 o'clock, a.m. Passengers arrive at Philadelphia in full time to continue on by the mail train for New York. Fare \$3. Sunday evening Mail Train—the only line that departs from Baltimore on Sundays for Philadelphia, is the mail train which leaves Pratt street depot, at 8 p.m. Fare \$3. 31

**For Philadelphia, via York, Columbia and Lancaster,** by the Baltimore and Susquehanna railroad. Cars leave from their office, 63 North street, daily [Sundays excepted] at 9 o'clock, a.m. Fare \$3 50. 31

**RAILROAD IRON AND FIXTURES.** THE Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

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**GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.**—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1½ in. to 2½ in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wrought Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wrought Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions. ja451y

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design. It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, Reading, Pa. ja45

**MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, PATTERSON, N. J.** The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch. Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

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**SAMUEL NOTT, CIVIL ENGINEER, SURVEYOR and General Agent, Bangor, Me.** Railroads, Common Roads, Canal, Factory and Mill Sites, Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed.

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**TO IRON MANUFACTURERS. THE SUBSCRIBERS, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late R. V. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.**

A. & G. RALSTON & CO., ja45 No. 4 South Front st., Philadelphia, Pa.

## FROM NEW YORK.

**New York and Harlem Railroad Company.**

Leave City Hall for Yorkville, Harlem and Morrisania at 5.30, 7, 8, 9, 10, a.m.; 1, 2, 3, 3.30, 4, 5, 5.30, 6, p.m. For Fordham and Williams' Bridge at 5.30, 7, 10, a.m.; 2, 3.30, 5, 6, p.m. For White Plains at 7 and 10 a.m.; 2 and 5 p.m. Leave Morrisania and Harlem for City Hall at 6.20, 8, 9, 10, 11, a.m.; 2, 3, 4, 2, 5.20, 6, 6.30, 7.45 p.m. Williams' Bridge for City Hall at 7, 7.40, 10.40 a.m.; 2.40, 5, 5.40, 7.20 p.m. White Plains for City Hall at 7.10 and 40.10 a.m.; 2.10 and 5.10 p.m. 31

**New York and Erie Railroad Line.**

For Middletown, Goshen, and intermediate places.—Two daily lines each way, as follows:—For passengers.—The new, fast and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7 o'clock, A.M., and 4 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4½, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets.

H. C. SEYMOUR, Superintendent.

Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale, Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc., etc. 31

**PASSENGER LINES FOR THE NORTH AND WEST.**

**Morning Line, at 7 o'clock**—For Albany, Troy, and intermediate landings.—The steamboat Troy, Capt. A. Gorham, will leave New York, foot of Barclay street, at 7 o'clock, A.M., every Tuesday, Thursday, and Saturday. The steamboat Niagara, Capt. DeGroot, leaves New York at 7 o'clock, A.M. Monday, Wednesday, and Friday. 31

**Afternoon, or 5 and 7 o'clock Line.**—At 5 o'clock, P.M., landing at intermediate places, from the foot of Barclay street.—The steamboat New Jersey, Capt. H. H. Fury, will leave on Monday, Wednesday, Friday, and Sunday. The steamboat South America, Capt. M. H. Truesdell, will leave on Tuesday, Thursday, and Saturday. For passage or freight apply on board, or to

P. C. SCHULTZ,

At the office on the wharf.

**Evening, or 7 o'clock Line.**—Line steamboats for Albany—Daily, Sundays excepted.—Through direct at 7 o'clock P.M. from pier between Courtlandt and Liberty streets.—Steamboat Rochester, Capt. R. G. Crittenden, will leave on Monday, Wednesday, and Friday. Steamboat Knickerbocker, Captain A. Houghton, will leave on Tuesday, Thursday, and Saturday. 31

For Albany and Troy, direct, at 7 o'clock, P.M., from the steamboat pier, foot of Courtlandt street. The Empire, Capt. R. B. Macy, Tuesday, Thursday and Saturday. The Columbia, Capt. Wm. H. Peck, Monday, Wednesday, and Friday. 31

**Troy and Greenbush Railroad.**

Leave Troy, at 6 o'clock, A.M., to Boston and Albany; 8½, do., do., do.; 10½, do., do., do.; 2, P.M., to Boston and Albany; 4, do., do., do. Leave Albany at 7½ o'clock, A.M.; 9½ do., do.; 12, M., on arrival of the Boston train; 3, P.M.; 6, P.M., on arrival of the Boston train.—Fare, 12½ cents.

Passengers at Albany should procure tickets at the Boston railroad office, foot of Maiden lane. 31

L. R. SARGENT, Superintendent.

**Schenectady and Troy railroad cars** leave as follows:—From Troy, 7½ o'clock, A.M., daily; 1, P.M., daily, except Sundays; 7½ do., daily. From Schenectady, 3 o'clock, A.M., daily; 9, do., do., except Sundays; 3, do., daily.

Persons going to Saratoga and north should take the 7½, A.M., train; and passengers going west of Schenectady, the 7½, A.M., or 7½, P.M., trains. 31

L. R. SARGENT, Superintendent.

**Troy, Ballston, and Saratoga Railroad.**—The cars of this road will run as follows:—Leave Troy at 8 o'clock, A.M., daily; do., do., 3½, P.M., except Sundays; leave Saratoga at 9, A.M., except Sundays; do., do., 3½, P. M., daily.

L. R. SARGENT, Superintendent.

**Lake Champlain Steamboats.**—From Whitehall to Burlington and St. John's—Morning Line on Lake Champlain, making intermediate landings.—Passage breakfast on board.—The Francis Saltus, Capt. H. G. Tisdale, leaves Whitehall, Tuesdays, Thursdays, and Saturdays, at 6 o'clock, a.m., and St. John's Mondays, Wednesdays, and Fridays, at 6 o'clock, a.m. For freight or passage apply to the captain on board. H. D. FILKINS, Agent, Troy.

Passengers leaving Troy, Mondays, Wednesdays, and Fridays, at half-past 3 o'clock, p.m., by railroad and packet, will arrive at Whitehall in time for the above boat next morning. 31

**PASSENGER LINE EASTWARD.**

**Long Island Railroad Company.**—Trains run from Brooklyn depot.—Boston train, 8½, a.m., daily, stopping at Farmingdale and St. George's Manor; accommodation train, 9½, a.m., and 5 p.m., for Farmingdale and intermediate places, daily; accommodation train, 3, p.m., for Greenport, daily, stopping at Jamaica, Branch, Hempstead, and Hicksville, and all the stopping places between Hicksville and Greenport. From Greenport depot: Boston train, daily, at 12½ o'clock, m., or on the arrival of steamers from Norwich. Accommodation train at 5, a.m., daily, for Brooklyn and intermediate places. From Farmingdale depot: Accommodation train at 6½, a.m., and 2½, p.m., daily, for Brooklyn and intermediate places.

The steamboat Statesman leaves Greenport for Sag Harbor twice each day, on arrival of the trains from Brooklyn.

Baggage crates will be in readiness, at the foot of Whitehall street, to receive baggage for the several trains, 30 minutes before the hour of starting from the Brooklyn side. 31

**Regular Mail Line between New York and Boston, via Stonington, Providence, and Newport,** composed of the following steamers, running in connection with the Stonington and Providence railroads, and the Boston and Providence railroad: Massachusetts, Capt. Comstock; Mohegan, Capt. —; Narragansett, Capt. Manchester; Rhode Island, Capt. Thayer. Via Stonington, daily, [except Sundays,] at 6 o'clock, p.m., from New York, and from Stonington on the arrival of the mail train, which leaves Boston at 5, p.m., and Providence 6½, p.m. The Rhode Island on Mondays, Wednesdays, and Fridays; the Narragansett on Tuesdays, Thursdays, and Saturdays. Via Newport, the Massachusetts leaves New York for Newport and Providence, direct, on Tuesdays, Thursdays, and Saturdays, at 5 o'clock, p.m. 31

**New York and Boston Railroad Line,** via Norwich and Worcester, daily, from pier No. 1, North river, at 6 o'clock, p.m. The Worcester, Captain Bacon, on Tuesdays, Thursdays, and Saturdays. The Cleopatra, Capt. Dustan, on Mondays, Wednesdays, and Fridays.

Passengers, on the arrival of the steamers at Allen's Point, will be immediately forwarded in the splendid and commodious cars of the railroad to Boston, without change of cars or baggage. 31

**For Newport and Providence,** on Monday, Wednesday, and Friday. This line leaves at 8 o'clock, in the morning, from the foot of Whitehall street, South ferry. 31

**U. S. Mail Line for New Haven, Hartford, and Springfield,** from Peck Slip, East river, daily, at 6½, a.m., by steamboat New Champion, Captain Joel Stone, connecting with the cars at New Haven, for Hartford and Springfield. Night line for New Haven: The steamboat Hero, Capt. Richard Peck, leaves on Tuesdays, Thursdays, and Saturdays, at 4, p.m. For Hartford, direct, daily, [Sundays excepted,] at 4, p.m.—The steamboat Kosciuszko, Capt. Le Fevre, every Tuesday, Thursday, and Saturday, and the Globe, Capt. E. D. Roach, will leave every Monday, Wednesday, and Friday. 31

**Hoosatic Railroad; Bridgeport and New York.**—The steamboat Mutual Safety, Capt. J. B. Lober, leaves New York, from the foot of Market street, every morning, [Sundays excepted,] at 6 o'clock, arriving in Bridgeport at 11 o'clock. Returning, leave Bridgeport at 1½, p.m., on the arrival of the cars, arriving in New York at 5½ o'clock. The Nimrod, Capt. J. Brooks, Jr., leaves New York daily, at 2, p.m., and Bridgeport 7, a.m. There are no train of cars running in connection with any boat except the Mutual Safety until further notice.

Tickets, if not purchased at the offices on the line of the road, or on board of the boat, will be charged at advanced prices. Dated tickets positively taken only on the day specified. R. B. MASON, Superintendent. 31

**PASSENGER LINES, SOUTH AND SOUTHWEST.**

**New York and Philadelphia Railroad Line—Direct.** Leaves New York daily, from the foot of Liberty street. Morning Line, 9 o'clock, A.M. Mail Pilot Line, 4½ o'clock, P.M. Fare in first class cars, \$4. Second class cars, 3.

Passengers will procure their tickets at the office foot of Liberty street. Philadelphia Baggage Crates are conveyed from city to city without being opened by the way. Each train is provided with a car, in which are apartments and dressing rooms expressly for the Ladies' use. 31

**Camden and Amboy Railroad Line.**

For Philadelphia and intermediate places. Leaves Pier No. 2, North River, foot of Battery Place, by Steamboat to South Amboy, daily, Sundays excepted, at 5½ o'clock A.M. Passengers will take the cars at South amboy. Fare to Philadelphia, 3. Forward deck passengers, 2 25. To Freehold and Monmouth, via stages from Hightstown, 1 50. To Spotswood and West 75 cents. To South Amboy, 25 cents. To Perth Amboy, Tattens, Rossville and Tufts, 12½ cents.

The steamboat Independence will land at each of the above named places going and returning, leaving Perth Amboy at 5 o'clock P.M. 31

**New Jersey Railroad and Transportation Company.**

For Newark. Fare 25 cents. Leave New York at 8, 9, and 11 o'clock A.M., and 12½, 2, 3, 4½, 6½, and 8 o'clock P.M. Leave Newark at 7, 7½, 8, 9, 10½, A.M., and 1½, 4, 5½, 7½, 9½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave Newark at 11½ A.M., and 9½ P.M.

**For Elizabethtown.** Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Elizabethtown at 7, 7½, 8, 10½ A.M., 3½, 6½, 9½, P.M.

**For Rahway.** Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Rahway at 5½, 7½, 11½, A.M., 3, 6½, 9, P.M.

**For New Brunswick.** Fare 50 cents. Leave New York at 9 A.M., 4, 4½ P.M. Leave New Brunswick at 5½, 7½, 11, A.M., 8½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave New Brunswick at 12 M., and 8½ P.M.

The commutation fare between New York and New Brunswick and intermediate places, including the ferry, 65 per annum. 31

**Paterson Railroad. Leave**

New York, 9½ A.M., 12½, 5½ P.M. Leave Paterson, 8, 11½, A.M., 4 P.M. On Sundays, leave New York 9½ A.M., 5½ P.M. Leave Paterson, 8½ A.M., 4½ P.M. Passengers are advised to be at the ferry a few minutes before the stated hours of departure. Office 75 Courtland street. 31

**Morris and Essex Railroad.**

Leave New York, 8 a.m., 4½ p.m. Leave Newark, 9 a.m., 5½ p.m. Leave Morristown, 7 a.m. 3½ p.m. Passengers by the morning train to Morristown, will arrive there at 10½ o'clock, where stages will be in readiness to convey them to Schooley's Mountain, Washington, Belvidere and Easton, daily; to Succasunna, Stanhope, Newtown, Milford and Owego on Mondays, Wednesdays and Fridays; and to Rockaway, Dover, Sparta and Newton on Tuesdays, Thursdays and Saturdays. Passengers from Morristown will arrive in Newark in time to take the morning and afternoon trains from Trenton and Philadelphia. 31

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.

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THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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 S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
 NORRIS, BROTHERS, Philadelphia, Pa. KITE'S Patent Safety Beam. (See Adv.)  
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W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

## KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 23, 1840.

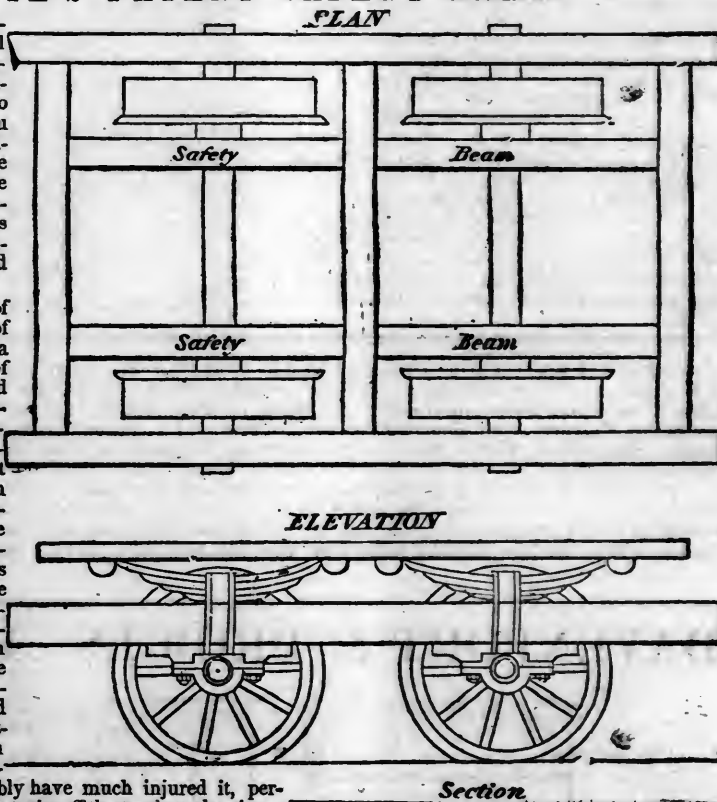
The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad-travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
 GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
 W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed.

JOHN F. WINSLOW, *Agent*.

Albany Iron and Nail Works, Troy, N. Y.  
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, *Agent*.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand.

ja45

### FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabeth-town and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\*\*\* The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45

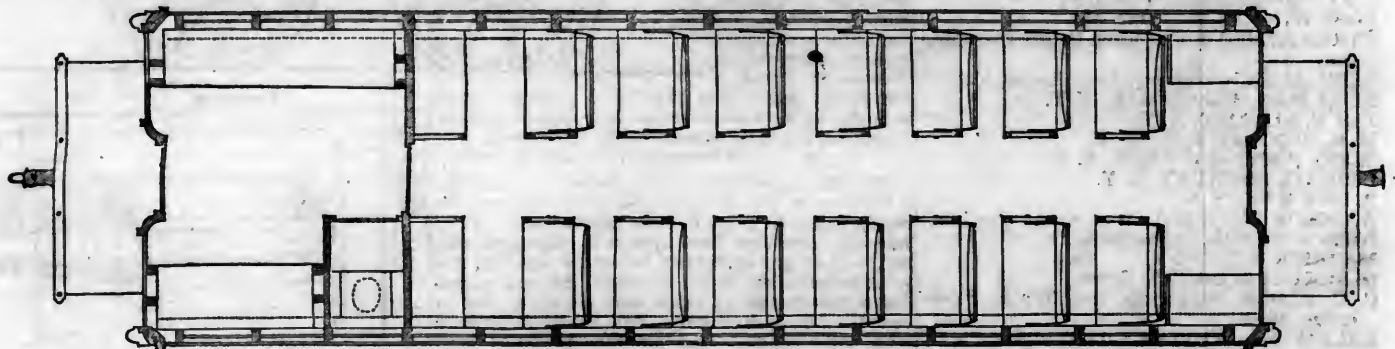


**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

The article is complete in itself, occupies but little space, is perfectly portable, and requires no brick work, not even to stand upon. It is valuable, not only in the saving of time and labor, but in the economy of fuel, as it has been ascertained by accurate measurement, that the saving in that article is fully two-thirds over other methods heretofore in use. They are now for the first time introduced into New York and Boston by the subscriber, who has the exclusive right for the New England states, New York and New Jersey, and are manufactured by

CURTIS & RANDALL, Boston; and by  
FORCE, GREEN & CO. New York.

## DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All orders punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**RAILROAD IRON AND LOCOMOTIVE**  
Types imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.  
The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.  
**W. Mc. C. CUSHMAN, Civil Engineer,**  
Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

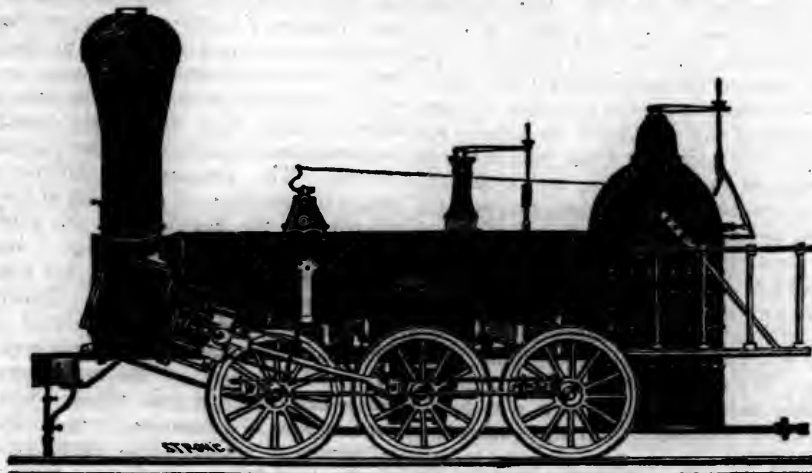
**WELDED WROUGHT IRON TUBES**

From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**  
*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches Diameter of Cylinder,	× 20 inches Stroke.
"	2,	14	" " × 24 " "
"	3,	14 1/2	" " × 20 " "
"	4,	12 1/2	" " × 20 " "
"	5,	11 1/2	" " × 20 " "
"	6,	10 1/2	" " × 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.  
**WILLIAM YOUNG,**  
President.  
jy451m

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.  
**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.  
Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.  
Pattern shop, 35x32 feet, with lathes, work benches, &c.  
Work shop, 86x35 feet, on the same floor with the pattern shop.  
Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.  
Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45x20 feet, containing a large air furnace, cupola, crane and corn oven.  
Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.  
Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.  
Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:  
Boiler house 50 feet long by 30 feet wide, two stories.  
Blacksmith shop, 49 feet long by 20 feet wide.  
For terms, apply to **HENRY ANDREWS, 48 State st.,** or to **CURTIS, LEAVENS & CO., 106 State st., Boston,** or to **A. & G. RALSTON & Co., Philadelphia.** ja45  
**CYRUS ALGER & CO., South Boston Iron Company,**

**Philadelphia and Pittsburg---Continuous Railroad.**

We have for some time noticed the workings, in the interior of Pennsylvania, of the right spirit on this, to Philadelphia, all-important subject, and we were surprized to find a Philadelphia paper raising objections to it, or advocating another route, by the construction of which the travel would mainly go round Pennsylvania.

To us it has been matter of surprize that so little has been said and done in favor of the exceedingly favorable route discovered and surveyed by Col. Schlatter, a report of which was published in the Railroad Journal in 1841. We shall have occasion to refer to that report soon and are gratified to see the people of interior Pennsylvania moving, as they will be sure to arouse the right spirit and action in Philadelphia and there is no people within our knowledge who more need to be aroused to a knowledge of their own true interest on a large scale.

The Harrisburg Argus is earnest in its advocacy of a direct line of railroad, from Philadelphia to Pittsburg, on "Pennsylvania grounds" and in reply to some arguments from other quarters, holds the following language:

Actual surveys by experienced engineers, show that the distance to Pittsburg, by way of Harrisburg and the valley of the Juniata is 100 miles shorter than by way of Baltimore! By the survey of Jonathan Knight, made in 1841, and 1842, the Baltimore and Ohio railway, when completed to Pittsburg will be 339 miles in length, 179 of which has been finished to Cumberland, and 160 miles, not yet begun. The maximum grade on the finished road, is 84 feet per mile, for several miles, on both sides of the Parr's Ridge, between the Patapsco and the Potomac. Such is the yeavy grade that the number of tons do not equal half the number per train which are taken over the Philadelphia and Columbia road. The trains averaged on the Baltimore and Ohio road in 1839, 24 tons, in 1840, 21.3 tons, in 1841, 19.2 tons, thus decreasing with the age of the road. The unfinished portion of 160 miles from Cumberland to Pittsburg has a grade over the Allegheny mountains for 30 miles of 57 to 66 feet per mile, 21 feet higher than the maximum grade through Pennsylvania. By the surveys of Col. Chas. Schlatter made in 1839, 1840 and 1841 by the authority of the state, the distance between Harrisburg and Pittsburg is only 229½ miles and the grade is in no place steeper than 45 feet per mile, the maximum on the Philadelphia and Columbia railroad. Col. Schlatter, was three years employed and with able assistants examined three different routes, giving preference to the one by way of Juniata which is only 229½ miles in length.

Let us then look at the distances, and show the effect of his opposition to a railway from Harrisburg to Pittsburg.

*Philadelphia to Pittsburg through Harrisburg.*

Philadelphia and Columbia and Harrisburg railroad.....	106½
Harrisburg and Pittsburg, by Juniata.....	229½

Maximum grade 45 feet per mile.....336  
*Philadelphia to Pittsburg through Baltimore.*

Philadelphia to Baltimore.....	97
Baltimore to Cumberland.....	179
Cumberland to Pittsburg.....	160

Maximum grade 84 feet per mile.....436  
*Philadelphia to Pittsburg through Baltimore.*

Philadelphia to Pittsburg through Baltimore.....	436
Philadelphia to Pittsburg through Harrisburg.....	336

Saving by Harrisburg route.....100

Thus it will be seen that a much better route through Pennsylvania, and using the state railway, can be had. We have said that we had the charity to suppose the writer ignorant of the route. We dislike to suspect the editor of a paper, guilty of being used by the stockholders of a railroad corporation, between Philadelphia and Baltimore, for the ignoble purpose of injuring his own state, and the city in which he lives. Extend the Baltimore and Ohio railroad from Cumberland to Pittsburg, before our own railroad reaches the Ohio river, and our Columbia railway will be deserted of travel, construct a railway from Harrisburg to Pittsburg by Col. Schlatter's Juniata route first, and then all the Baltimore projects, and New York projects will be harmless. We can reach Pittsburg from Philadelphia in 24 hours. We shall carry 500,000 passengers annually over the route, as it will be the nearest and best route from the seaboard to the Ohio, and also the nearest route to lake Erie.

But says the editor of the Native American, we can construct a branch from Chambersburg to the Baltimore and Ohio road.—In the first place, the state of Maryland will not permit us;—and in the next, if permission could be obtained, the distance by this route to Pittsburg would render it valueless. Let us see, the distance from Chambersburg to Hancock and from thence to Chambersburg, has not been surveyed, but, is about equal to that between Harper's Ferry and Cumberland. This is 97 miles and between 40 and 50 miles of branch road to make.

From Philadelphia to Harrisburg.....	106½
From Harrisburg to Chambersburg.....	51½
Chambersburg to Cumberland.....	97
Cumberland to Pittsburg.....	160

Deduct Pennsylvania route, by Juniata.....336

79

From this it will be seen that the route through Pennsylvania is about 80 miles nearer than by a branch into Maryland. This together with the fact, that Baltimore interest would control the company, and put discriminating tolls on freight and passengers passing through the Cumberland valley, would force every thing to Baltimore to the prejudice of Philadelphia. Under such circumstances, who would construct the branch from Chambersburg to Hancock, even if Maryland should grant the privilege?

A continuous railway through Pennsylvania from Philadelphia to Pittsburg is demanded by the best interest of the commonwealth, and the Philadelphian who opposes it, is an enemy to these interests, and if he does boast of being a Native American, he is no true son of Pennsylvania, native or adopted, and carries no Pennsylvania heart in his bosom.

**ON THE MANUFACTURE OF WIRE ROPES.**

By MR. CARPMAEL.—This manufacture has grown up within the last four or five years. Till the year 1839—40 there were no real wire ropes in this country, i. e. no manipulation of wire, first producing strands, and then combining these strands into a single rope. Mr. Carpmael briefly noticed the improvements which had been made in the manufacture of hempen cordage during the last fifty years. He laid great stress on Captain Huddart's contrivance for varying the length of the yarns, according to their distance from the centre of the rope, so that each, throughout its course, being kept at the same distance from the central strand, was subjected more nearly to the same amount of tension. The characteristic difference between the mechanical principles of the manufacture of the hempen and the wire rope was then inculcated. *Twisting is essential to the structure of the former, but would be destructive of the latter fabric.* This principle, long overlooked, was discovered by Mr. Newall, the patentee of the improved wire rope, and the object of his machinery is to carry that principle into effect. The wire rope consists of a hempen core, the horizontal section of which exhibits seven equal circles,—six round a central one; these, according to a known geometrical law, touch the central circle, and also each other. Round this central core are six strands, formed exactly in the same way, except that while the central core is of hemp, (as is the core of the rope,) it is surrounded by six wires,—the diameters of these wires being equal to those of the yarns of the core; so that a section of the rope exhibits forty-nine equal circles, (thirty-six wire and thirteen hemp,) arranged in a sort of hexagonal form, the lines joining the centres of the hempen cores of each strand, producing a regular hexagon. Having exhibited the machines by which Mr. Newall lays the wires in the strands, avoiding all twist, Mr. Carpmael stated some of the purposes to which this manufacture had been applied. He premised, that the greatest strength is obtained when wire made of hard iron is used. Ropes thus manufactured are stronger, lighter, and cheaper, than hempen cordage bearing equal weights; consequently, when materials are raised from a depth in mines, a heavier load may be lifted with equal power whenever the wire rope is used. For the same reason, this fabric is preferable in the fixed rigging of ships; and its value for railway purposes has been proved by decisive tests. As long as hempen ropes were used on the Blackwall railway, there were often two or three breakasge a-day. Since these have been superseded by the iron wire, there have not occurred more than 12



fractures in twelve months, and during six thousand journeys.—*Proceed. Royal Inst., May 9.*—[*Athenaum.*]

**The Manufacture of Steel.**—We have before referred says the London Mining Journal, to the exhibition of mineral productions at Berlin, as having attracted the attention of the chief miners and iron masters on the continent, from the important nature of the subjects introduced. In following up our notices, we this week translate the following paper on steel, with the different processes adopted in mixing ores and casting:

**Preparation of the Ore.**—The ores for the production of cast-steel are very fusible, possesses a large portion of manganeseferous qualities, but only a small quantity of lime. This ore is a mixture of hydropitadated iron and specular iron—the residues are of argillaceous schiste. After their extraction, they are washed and separated from the quartz; the ores are afterwards roasted, which is generally done in conical pans—and it is only after having left them for one or two years exposed to the air, that they are submitted to the following ordeals:—

**The Large Furnace.**—The mixtures are made as follows:—

- 20 per cent. of ore, not roasted or burnt;
- 74 per cent. of ditto—roasted;
- 6 per cent. manganese.

100, to which is added, 5 per cent. of calcareous stone.

The greater part of the high furnaces consume wood as a fuel, but lately they have made some trials, at Siegen, to employ coke, which has answered all the purposes of wood, if it were not that the casting afinery itself with less facility, but the quality is the same. The production of white shining metal is a proof of the superiority of the high furnace. It is this description that contains the greater portion of steel, but there are middling qualities of a grained white, which are also much esteemed. After the operation of the high furnace, comes the afinery, which is as follows.

**Afinery Fires.**—In these fires are afined all the productions of the high furnace—nearly similar to the afinery of iron—and the whole mass is drawn out in bars of eighteen lins square, which gives the rough steel, and which is worth 50f. to 55f. per 100 kilos (2l. to 5s. per 2cwts. Eng.)

**Rrefinery.**—The rough steel bars, in thin sheets, of two or three lines in thickness, and twenty to twenty-four lines in width, are drawn out; these sheets, or small blades, are tempered and broken in several pieces, to ascertain their quality. They are assorted according to the description of steel that is required; twelve to fifteen are placed one upon another which are held by pincers in the fire to solder them together; and, by cutting them and re-soldering them, according to the quality of steel wished to produce, they can refine it to any temperature; but if, during this refinery, iron is mixed with the steel, it produces an inferior article, but at the same time much cheaper. The manufacture of steel is, therefore, not a very simple process,

which varies greatly in different countries, particularly in Styria, where they avoid producing a shining metal, preferring the white or grained; it gives a quality of steel, much more pliable, but not so durable, and therefore is more adapted for springs than for making of blades, or other cutting instruments.

**PROCESS OF ANASTATIC PRINTING.** BY PROF. FARRADAY.—Anastatic printing is the (fresh raising up) of copies from a printed sheet of paper. This, by the process described, may be done to an indefinite extent.—The philosophy of this process and its practice were explained and exhibited. The philosophy of the Anastatic printing rests on a few known properties of the articles employed. Thus, *water attracts water, and oil, oil; though each mutually repels the other. Metals are much more easily wetted with oil than with water, but they will readily be moistened by a weak solution of gum;* and, finally, *this property, of their becoming wet by water, is greatly increased by phosphatic acid.* To these properties of oil, water, and the metals, may be added, as one of the principles of Anastatic printing, *the readiness with which part of the ink of any newly printed book or engraving can be transferred by pressure to any smooth surface beneath.* If, for example, a corner of a newspaper be fixed on a white sheet of paper, and then pressed, or rubbed with a paper-knife, the letters will be distinctly seen in reverse on the paper. This effect is known to book-binders, and our readers may have seen, especially in the case of books bound soon after publication, pages disfigured by the "setting off," or transfer of the ink on the opposite page. Such being the properties of the matters concerned in Anastatic printing, the process is simple. The printed paper, whether letter-press or engraving, is first moistened with dilute nitric acid, and then pressed with considerable force, by a roller, on a perfectly clean surface of zinc. By this means every part of the sheet of paper is brought into contact with the plate of zinc. The acid, with which the unprinted part of the paper, is saturated, *etches* the metal, and the printed portion *sets off* on it in the manner already described, so that the zinc surface presents a complete reverse-copy of the work. The principles before specified are now brought into operation. The zinc plate, thus prepared, is washed with a solution of gum in weak phosphatic acid. This liquid is attracted by the etched surface, which it freely wets, while it is repelled by the oil of the ink in which the writing or drawing on the plate is traced. A leathern roller, covered with ink, is then passed over the plate, when a converse effect ensues. The repulsion between the oily ink and the watery surface over which the roller passes, prevents any soiling of the *unfigured parts* of the zinc plate, while the attraction between oil and oil causes the ink to be distributed over the *printed portions*. In this condition the Anastatic plate is complete, and impressions are pulled from it in the common lithographic process. Mr. Farraday concluded his description by stating, that when it was

required to apply the Anastatic printing to very old originals which do not *set off* their ink on pressure, the following expedient was resorted to: The page, or print, is soaked in a solution, first of potass, then of tartaric acid. This produces a perfect diffusion of minute crystals of bi-tartrate of potass through the texture of the unprinted part of the paper. As this salt resists oil, the ink-roller may now be passed over the surface without transferring any of its contents, except to the printed parts. The tartrate is then washed out of the paper, and the operation proceeded with as before, commencing with the moistening by nitric acid. During the description of the process, a complete Anastatic copy of a page of a printed work, with wood cuts, was made by Mr. Woods, who had brought his press and workmen.—*Proceed. Royal Inst., April 25, 1845.*—[*Mech. Magazine.*]

**Central Railroad.**—We learn that the instalment of five dollars, due on the 1st inst., has been promptly met by the stockholders, and the directors are ready to proceed at once with the work. Mr. Cheesebrough is now engaged at this place making the necessary preliminary surveys for the final location of the road. It is the intention of the company to have it all under contract this fall.—[*Burlington Free Press.*]

✍ We would suggest to the engineer to send early notice of his lettings to the Railroad Journal.

**WILL WONDERS NEVER CEASE?**—We find a paragraph in the Railway Express which calls forth this inquiry. Of the wonderful "agency" spoken of, in the Rouen paper, we have not before heard, therefore we can throw no new light upon the subject.

**New Locomotive Agency.**—A letter from Philadelphia, published in the *Memorial de Rouen*, has the following:—"William Evans has resolved a problem, which must overturn our present system of railway and steamboat propulsion. By means of enormous compression, he has succeeded in liquefying atmospheric air; and then, a few drops only of some chemical composition, poured into it, suffice to make it resume its original volume with an elastic force quite prodigious. An experiment, on a large scale, has just been made. A train of twenty loaded wagons was transmitted a distance of sixty miles, in less than an hour and a quarter—the whole motive power being the liquid air inclosed in a vessel of two gallons and a half measure; into which fell, drop by drop, and from minute to minute, the chemical composition in question. Already, subscriptions are abundant, and a society is in course of formation. The inventor declares, that an ordinary packet-boat may make the passage from Philadelphia to Havre in eight days, carrying a ton of his liquid air. A steam engine, of six-horse power, will produce that quantity in 8 hours."

**Union of the Atlantic and Pacific Oceans.**

This important subject is again before the British public; and it would appear, from the following account taken from the Civil Engineer and Architect's Journal for June, under favorable circumstances—a grant of

territory thirty miles on each side of the canal *in fee*, and the entire receipts for tolls during fifty years after it is completed, with other privileges of great value—will, we should suppose, be ample inducement for capitalists in England to furnish the necessary means. The territory granted, nearly five millions of acres, is said to be of great value.

"As the Civil Engineer and Architect's Journal was the first scientific work to bring before the public Mr. Galloway's plan for constructing a railroad in the desert, and uniting Suez, Grand Cairo and Alexandria by a few hours journey, instead of many days, so it has now the means of calling attention to a much greater and more magnificent project for uniting the Atlantic and Pacific, saving to the vessels of Europe 8,000 miles, and to those of America 12,000 miles in voyaging to China and the East, opening a new world to the enterprise of the old one, connecting the mother country with her distant colonies—obviating the present difficult and dangerous passage by cape Horn, twice under the burning sun of the tropics, and contributing more than any discovery since that of the mariner's compass and those made by Columbus, to the vast objects of commerce and civilization, the enrichment of many and the enlightenment of more. To Don Jose de Garay, assisted by the Mexican government, is the honor of planning, surveying and demonstrating this magnificent project due, to Mr. alderman Vickers the credit of appreciating its consequences and capabilities, and adopting it and bringing it before the British public. The distance across the Isthmus is 120 miles, the length of the river with its winding which is navigable, is 40 miles, and 80 more can be dredged; the length of canal to be cut is 49 miles.

The following extracts from a circular just issued by alderman Vickers, will exhibit the progress of the undertaking.

Don Jose de Garay, who is now in London, conceived the execution of this grand project; and the Government of Mexico appreciating its vast importance granted to him the most ample concessions, in case he should succeed in carrying it out. Fortified with this concession, and the countenance of the government, the projector formed, under the direction of Don G. Moro (an Italian engineer), a scientific commission, the members of which, after an examination of the Isthmus for upwards of a year, made a report, in the most favorable terms, as to the practicability of the undertaking. The Mexican officers Don Manuel Robles and Don Jose Gonzales (whose services the government had placed at the projectors disposal), took part in this commission. The most important concessions made to Don Jose Garay by the Mexican government are: First—Power is granted that he is to fix such dues or tolls as he deems eligible, and to receive for fifty years (commencing from the day that communication shall have been effected between the two oceans), all tolls and dues accruing from transit, both by means of a canal and railroads, or either, with the condi-

tion that one-fourth of the dues (after expenses are paid), is to be advanced to the government during the said fifty years; for this advance the proprietors will be compensated by the payment of one-fourth of all dues received for fifty years after the project shall have passed into the hands of the government. Second—A guarantee is given that for sixty years no person or company shall have power to employ any steam vessel or steam carriage of any kind within the Isthmus of Tehuantepec, without leave or license from the said Don Jose de Garay or his assigns.—Third—The government cedes to Don Jose de Garay in fee simple the breadth of ten leagues (thirty miles) of land on each side of the communication. These lands are of the first quality, embracing numerous points favorable for the construction of harbors, towns, villages, etc., and amounts to nearly five millions of acres. Fourth—The valuable privilege to purchase lands, etc., of establishing colonies to the extent of 50 leagues (one hundred and fifty miles), on each side of the line in addition; with all rights and privileges in perfect equality with Mexican citizens, which is not granted to other settlers. The present government of Mexico has recognized the grants which form the basis of this object. The celebrated Arago has submitted it with his own commendation to the *Academie des Sciences* at Paris, and it has been mentioned most favorably in various learned associations of this country. By the adoption of this project all vessels that now double cape Horn from the United States would save upwards of twelve thousand miles of the distance, and those from Europe eight thousand in reaching the west coast of Mexico, proceeding from thence to China, etc., and all vessels bound to the Pacific would not only save time but also avoid the dangers of the present navigation. By his undertaking the Oregon territory, the Californias, Mexico, Peru and Chili, an extent of eight thousand miles from Nootka bay to cape Horn, will receive what may be termed a new existence. These countries can produce hides, fish, oil, whalebone, fine woods, cotton, indigo, coffee, sugar, cocoa, cloves and other spices, cochineal, ivory, furs, coral, ore of the precious metals, etc., and offer for colonization many advantages to capitalists.

#### WILLIAM VICKERS.

The following article, from the London Railway Chronicle, was in type two weeks since, but crowded out by a press of other matter.

The report presented by the directors of the Great Western is a song of triumph, and its notes were joyously taken up and re-echoed by the shareholders present at the General Meeting of Thursday. The list of victories rehearsed comprises the Berks and Hants, the Oxford and Rugby, the Monmouth and Hereford, the Oxford, Worcester and Wolverhampton, the Wilts, Somerset and Weymouth, and the South Wales; all of them fresh and powerful auxiliaries to the main line,—all fructifying feeders to its traffic. The meeting was a celebration of the victories of a campaign which deserves to be celebrated in the annals

of the Great Western as her year of perfect success. Her traffic greatly increased, her dividend 8 per cent., with a prospect of permanence, her capital increased, for sundry good and wise reasons, some of them obvious enough, and others only seen by those who can put *this* and *that* together, but in the circumstances, to our judgment, most sagacious and provident. There has been a traffic on the half-year of £433,396, and a balance of near £275,000, of which there is available for dividend £163,226. The new quarter shares are to be issued to each holder to half the amount of his original stock.

We are happy to find that the meeting did not separate without crowning a happy day by a gracious act. Who is there that does not know the secret of the Great Western railway success? It is a very simple one; it consists in having men of talent in their management, in appreciating that talent, in paying for it, and after getting good managers, leaving to them the entire responsibility of their duty. Dabbling directors are the bane of a railway; men who want to do every body's business, because they have none of their own, or do not occupy themselves with it. It is the fortune of the Great Western directors to have three good men—their chairman, their secretary, their engineer. They are in all opinion and council one; in division of labor only are they three. Wherever you went, into the thick of the fight last session, there you found that these three, all or one, had been before you. Events which came on others by surprise had been by their fore thought provided for. That they are clever men—that their talent is known—that their value is appreciated—that they are implicitly trusted and not interfered with—that they are left to do, and not to argue—this is the secret of success.

But then, in order to be able to trust such men, and abandon the railway entirely to them, you must first find them; and we believe that the talent of finding good men, while it is one of the most valued, is also one of the rarest of railway directors gifts and qualifications. Here, indeed, they have found one. We are satisfied, from all our means of judgment, that the chairman rather under-stated than over-stated the value of Mr. Saunders in his glowing eulogium. We are also satisfied, that while the shareholders did themselves credit by the generous gift they made him, they were only giving him a very small commission upon the enormous profits his exertions have been the means of realizing to themselves, the lucky owners of that now so valuable property. While we are satisfied that Mr. Saunders has well deserved all he has obtained, it is but justice to the shareholders and directors to acknowledge that there are not many who would have been so competent to appreciate, and so ready to acknowledge such valuable services. It is to this amity of co-operation and unity of management, that the *esprit du corps* which unites with the Great Western management so many powerful coadjutors, is chiefly to be attributed, and it also is a great element in their success.



AMERICAN RAILROADS.													SALES.		
Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on here.	1843. Income.		Div. per cent.	1844. Income.		Div. per cent.	Previous prices.	SALES.	
							Gross.	Nett.		Gross.	Nett.			Week ending Sept. 15.	Last Sales.
N. H.	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	101½	100½	
Mass.	2 Concord.....	35	750,000									12	65		
	3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	111		
	4 Boston and Maine extension.....	17 1-4	455,703	unfin.											
	5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	118	117½	
	6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	111		
	7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	116½	116½	
	8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
	9 Charlestown branch.....		280,260						13	34,654	13,971	5½	80		
	10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	107½	107½	
	11 Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,835		119		
	12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	126		
	13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6	102		
	14 Northampton and Springfield.....		172,883	unfin.											
	15 Norwich and Worcester.....	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	67	69½	
	16 Old Colony.....		87,820	unfin.									105		
	17 Stoughton branch.....	4	63,075	unfin.											
	18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	120		
	19 Vermont and Massachusetts.....														
	20 West Stockbridge.....	3	516	200		100						4			
	21 Western, (117 miles in Mass.,).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	98½	97½	
	22 Worcester branch to Milbury.....		8,431	506											
	23 Housatonic, (10 months,).....	74	1,244,123							150,000			26	33	
Con	24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	93		
	25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
	26 Stonington, (year ending 1st Sept.,).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29	32	
N. Y.	27 Attica and Buffalo.....	31	336,311				45,896	7,522		73,248	48,033	0			
	28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109	103	
	29 Auburn and Syracuse.....	5	766,657			133½	86,291	27,334		96,738	52,544	6	116		
	30 Buffalo and Niagara.....		200,000		1,500								100		
	31 Erie, (446 miles,).....		5,000,000										27½	31½	
	32 Erie, opened.....	53						48,000		126,020	59,075				
	33 Harlem.....	26	2,250,000	750,000	30,000					140,685	62,399		61	62½	
	34 Hudson and Berkshire.....	31				50				35,029	1,789	0	11½		
	35 Long Island.....	96		392,340	29,846					153,456	58,996	0	61½	65½	
	36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	56½	57	
	37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
	38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
	39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117		
	40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
	41 Troy and Greenbush.....	6	180,000										90		
	42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
	43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132		
N. J.	44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		112		
	45 Elizabethtown and Somerville.....	26	500,000												
	46 New Jersey.....	34	2,000,000										95½		
	47 Paterson.....	16	500,000									6	88½		
Pa.	48 Beaver Meadow.....	26	1,000,000												
	49 Cumberland Valley.....	46	1,250,000												
	50 Harrisburg and Lancaster.....	36	860,000										30		
	51 Hazleton branch.....	10	120,000												
	52 Little Schuylkill.....	29	900,000												
	53 Blossburg and Corning.....	40	600,000												
	54 Mauch Chunk.....	9	100,000												
	55 Minehill and Schuylkill Haven.....	19 1-2	396,117	25,000	7,019	50			12			12	80		
	56 Norristown.....	20	800,000										6½		
	57 Philadelphia and Trenton.....	30	400,000										104		
	58 Pottsville and Danville.....	29 1-2	1,500,000												
	59 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	313,511		25	24½	
	60 Schuylkill valley.....	10	1,000,000												
	61 Williamsport and Elmira.....	25	400,000				20,000								
	62 Philadelphia and Baltimore.....	93	4,400,000				43,043	300,000			210,000		15½	15½	
Del.	63 Frenchtown.....	16	600,000												
Md.	64 Baltimore and Ohio, (1st Oct.,).....	188	7,623,600				575,235	279,402		658,620	346,946		46½		
	65 Baltimore and Susquehanna.....	58	3,000,000										2½		
	66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	67 Greensville and Roanoke.....	18	284,433	37,544	2,000	100				25,368	6,074		28		
	68 Petersburg.....	63	969,880	63,000	7,690	100				122,871	72,898	3	77		
	69 Portsmouth and Roanoke.....	78 1-2	1,454,171												
	70 Richmond, Fredericksb'g and Potomac.....	76	800,000							185,243	85,688	6			
	71 Richmond and Petersburg.....	22 1-2	700,000												
	72 Winchester and Potomac.....	32	500,000												
N. C.	73 Raleigh and Gaston.....	84 1-2	1,360,000												
	74 Wilmington and Raleigh.....	161	1,800,000												
S. C.	75 South Carolina.....	136	5,671,452		34,410	75	201,464	77,456		532,871	140,196	5			
	76 Columbia.....	66								328,425	180,704				
Ga.	77 Central.....	190	2,581,723				227,532	93,190							
	78 Georgia.....	147 1-2	2,650,000				248,026	158,207		248,096	147,523				
	79 Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Ky.	80 Lexington and Ohio.....	40	450,000												
Ohio	81 Little Miami.....	40	400,000												
	82 Mad river.....	40	152,000												
Ind.	83 Madison and Indianapolis.....	56	212,000												
Can.	84 Champlain and St. Lawrence.....	15						12,000		58,000	24,000	110			

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.  
 Thursday, September 25, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 22,948 tons, and by canal 8,181 08, making 31,129 07 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total.....267,509  
 From Schuylkill Haven—total.....279,084  
 From Port Clinton—total.....14,249

Total by railroad.....560,844

BY CANAL.

From Pottsville and Port Carbon—total.....105,279  
 From Schuylkill Haven—total tons.....29,603  
 From Port Clinton.....35,234

Total by canal.....170,117

Total by railroad and canal.....730,961

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines, - 137,938  
 Room run do., - 51,930—189,868  
 Beaver Meadow railroad and coal co., 56,374  
 From Penn Haven—Hazleton coal co., 50,053  
 From Rock Port—Buck Mountain coal co., 15,177

314,472

WYOMING COAL TRADE—total.....117,551

PINE GROVE COAL TRADE—total.....38,126

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....308,030

MOUNT CARBON RAILROAD—total tons.....186,199

MILL CREEK RAILROAD—total.....51,027

[Miners' Journal.]

PHILADELPHIA AND READING RAILROAD.—A comparative statement of the business on the Philadelphia and Reading railroad for the second week in September, for three years:

	1843.	1844.	1845.
Business	\$9,075 77	\$16,767 77	\$30,081 65
Coal, tons	5,635	12,286	22,970

Baltimore and Ohio Railroad.

This company have reduced the fare on the Washington Branch, from \$2, to \$1 60, and to 4 cents per mile for way passengers. We are gratified with this movement, because we believe it will advance the interest of the company. It is possible that we may, in this instance, be mistaken in our views, but we feel great confidence in the opinion that it will be otherwise. There is now one other part of the line, between New York and Washington, where a reduction should be made. The charge between New York and Philadelphia, as compared with other railroads, is oppressive. There is not another line of railroad in the country, where, in our opinion, so favorable results would follow the reduction of fare as between this city and Philadelphia. At \$2, each, we have no doubt but that three, and probably five citizens of New York and Philadelphia, would pass over the road, where one now passes. It would give new life and energy to

business, and benefit all—but especially the railroad companies—and we have not a doubt but that means will be adopted before long, to carry passengers between the two cities at lower rates, unless the fare is reduced on the railroads.

New York and Erie Railroad.

We stated in our last, that the subscriptions to the stock of this road amounted to \$2,000,000. We are now able to say that it has been increased by over \$500,000, leaving less than \$500,000, to be obtained, which will now soon be accomplished, and then the books will be closed. The closing of the books of this company, upon subscription of three millions, insures the early completion of the work—but that, by itself, important as we consider it, will be trifling in comparison with those numerous branches, extensions, and connecting roads, which are sure to follow speedily upon its completion—to the extent of several times its length. Of these, however, we will speak more at length hereafter; and close this, by calling the attention of those holding the old stock, to the advertisement of the company, in this number of the Journal, in relation to its exchange for new. This is an important and an imperative measure and should not be delayed—therefore we shall refer to it again, soon.

We desire to call the attention of our readers to the article in this number, in relation to the rival routes for a railroad from this city to Albany. The time has arrived when we look for action, action, ACTION, on this important subject, and we ask the Poughkeepsie Telegraph and other papers along the river, to republish this article, that the whole matter may be fully understood.

THE POWER OF STEAM AND THE EXTENT OF ITS USE.—It is said in the Mining Journal, that the power of steam in Great Britain, is equal in its effects annually to the labor of 270,000,000 men, in a population of only 28,000,000.

Iron Trade.

There is a gradual advance in the price of iron. The quotations in the London Mining Journal of 23d August, are as follows:

London, August 22, 1845.

	ton	£	s.	£	s.	d.
Bar Wales.....	ton	0	0	7	10	0
" London.....		0	0	8	10	0
Nail rods.....		0	0	9	0	0
Hoop (Staf).....		0	0	10	5	0
Sheet.....		0	0	11	10	0
Bars.....		9	0	10	0	0
Scotch pig, Clyde.....		3	5	3	7	6
Russian, CCND.....		0	0	0	0	0
" PSI.....		0	0	0	0	0
" Gourieff.....		14	5	14	10	0
" Archangel.....		0	0	0	0	0
Swedish, for arriv.....		0	0	0	0	0
" on the spot.....		11	0	11	10	0
" Steel, fagt.....		16	10	16	15	0
" kegs.....		15	10	15	15	0

Welsh and Staffordshire is in moderate request at quotations. Scotch pigs have advanced; several parcels were sold yesterday at 67s. 6d. in the Clyde. English continues steady at quotations. In Scotch pig-iron business done at 65s. and 67s. 6d. cash; holders are now firm at 70s. Railway iron in demand at £9 10s., at which price several parcels have been contracted for this week for delivery next year. In Swedish iron and steel, nothing doing.

In the same excellent journal of 30th August, we find the following which shows a decided improvement in prices—and we have no doubt, from the indications, that there is to be a material advance in the price, which will be sustained for a considerable time, owing to the extraordinary demand to be created by the extension of the railway system in Great Britain.

A writer in the Mining Journal, who styles him-

self "a looker on," and who is evidently a shrewd and careful observer, gives the best exposition of the approaching demand for iron, and probable ability to supply it, that we have met with; which we shall give entire in our next, that our own capitalists may see clearly, the certainty of years of prosperity to this branch of business, if properly commenced and managed.

London, August 29, 1845.

	ton	£	s.	£	s.	d.
Bar Wales.....	ton	7	15	8	0	0
" London.....		0	0	8	15	0
Nail rods.....		0	0	9	10	0
Hoop.....		10	5	10	10	0
Sheet.....		11	10	11	15	0
Bars.....		0	0	10	0	0
Scotch pig, Clyde.....		3	12	6	3	15
Russian, CCND.....		0	0	0	0	0
" PSI.....		0	0	0	0	0
" Gourieff.....		14	5	14	10	0
" Archangel.....		0	0	0	0	0
Swedish, for arriv.....		0	0	0	0	0
" on the spot.....		11	0	11	10	0
" Steel, fagt.....		16	10	16	15	0
" kegs.....		15	10	15	15	0

Welsh more in demand, and price looking up.—In Staffordshire there is no alteration from the quotations as in the Mining Journal of last Saturday. Scotch Pigs have been sold yesterday and to-day at 72s. 6d. and 75s.—according to terms of delivery; there are buyers at 72s. 6d. but no sellers under 75s. At the meeting of the masters, on the 27th inst., it was agreed to continue their quotation at 65s., but they will not sell under 75s. to 80s. There is a partial strike among the men, and others have given notice. In foreign nothing fresh.

THE ARRIVAL OF THE BRITANIA, at Boston, has furnished us with the following English Journals and periodicals, viz: Herapaths Railway Journal, Railway Times, Chronicle, Record, and Express, the Mining Journal, Civil Engineer, and Architects Journal, Mechanics Magazine and the London Philosophical Magazine and Journal of Science, from each of which we shall endeavor to select something useful to our readers.

The present indications in the iron trade, are, that prices must advance, as will be seen in our article on that subject. The adjournment of parliament has by no means abated the growing spirit for new railways. It is well said by a writer in the Mining Journal, that "the impetus for railway making, has been given, and nothing will check it until every town in the kingdom is accessible by a railway"—of course the iron business must be greatly increased. It is estimated by the same writer that two thousand miles of railroad will be chartered by the next, and one thousand miles by the succeeding parliament, and that consequently there will be an increased demand, during the next three years, for 2,855,000 tons of iron or 950,000 tons per annum, for home consumption. Who can estimate the comforts which this new enterprise will give to the laboring community? It gives new life to business in ways innumerable. It is said that 1,233,000 tons of iron will be required in the year 1848 for railroads in England alone—to supply which will employ 100,000 laborers, and consume 13,000 tons of ore, and 20,000 tons of coal per day, during the year. Twice as many laborers and mechanics will be employed in the construction of the works, and machinery required on them when completed—besides those engaged in new enterprises, growing out of the construction of these railroads. It is difficult indeed, to define the limit of their influences upon the people and country. The results must be seen to be realized. Even the boldest speculator upon future events, hardly dare give utterance to—the truth, as it will become—his imagination, as it would now be considered.

**New York and Albany Railroad.**

We published a short time since a letter from John Childe, engineer on the Springfield and Northampton railroad, advocating the construction of a railroad from New York city to Albany, on what is called the river route. We give below, a statement made two or three years since, as to the relative merits of the interior and river routes by Edwin F. Johnson, civil engineer; in which the conclusions arrived at are very different from those contained in the letter of Mr. Childe. As the matter stands, it is incumbent upon Mr. Childe, having taken the offensive, to make good if he can do so, by reference to facts and by argument, the position he has assumed.

"Statement of Edwin F. Johnson, chief engineer of the New York and Albany railroad, submitted to the legislature of New York in 1843 pending the application for a charter for a railroad along the east margin of the Hudson river."

The route selected by the New York and Albany railroad company, for the location of their road between New York city and Dutchess county, passes from the Harlem river into the Croton valley, where it occupies the only suitable ground on which a railway can be constructed east of the Hudson river, within the limits of the state of New York.

Upon the northern portion, two or more routes or variations in the route, are considered practicable by which the line may be placed nearer to or farther from the river. On this portion, the line as surveyed and represented on the annexed map, and on which the estimates of cost are based, is the farthest practicable from the river.

The whole route on this line from New York city to Greenbush and Troy, is characterized by very favorable features. It lies in a continuous valley for more than 100 miles and for much of the remainder of the distance traverses the plains of Schodac and Kinderhook. Its distance from the Hudson river is from 15 to 20 miles, and it has one principal summit situated near the north line of Dutchess county.

From this summit the grade descends southerly, at an average of about 8 feet per mile, and northerly at the rate of 16 feet per mile, the maximum grade being 30 feet per mile. The total distance is 148 miles; 100 miles of which is straight, the remainder curved with large radii.

The privilege conferred by the charter, of building the road in sections, as fast as the company may obtain the means for so doing, has enabled them to commence the grading of the line in each of the counties of Westchester, Dutchess and Rensselaer.

The company have thus very plainly indicated their opinion of the proper route to be pursued, which upon examination will be found, it is believed, to secure more certainly than any other, the great object to be attained, of preserving the commercial supremacy of

New York city and protecting it as far as possible from the encroachment of ambitious rivals.

Prior to the construction of the railway from Albany to Boston, all those portions of Connecticut and Massachusetts within, and west of Connecticut river valley, had become tributary to New York. It was rightly deemed of great moment to so locate the New York and Albany road, as to reclaim as much of this trade now passing off to Boston as possible; an object second only in importance in its bearing upon the interests of New York city to that of preventing a diversion of the trade at Albany and Troy.

It was exceedingly fortunate that a route was ascertained to exist, lying wholly within the state of New York and near to its eastern boundary, deviating but little from a direct course, and distinguished for its very favorable grades, and cheapness of cost.

It was fortunate also, that the route was so situated as easily to connect with the upper division of the Housatonic railroad, thus securing *without expense to the company*, an important tributary from the east; and that about 50 miles of the portion of the main line nearest to New York city could be made to constitute a part of the continuous line leading from New York, inland, to Boston by the way of New Haven, Hartford, etc.

The company in the discharge of their duty, in the location of their road, could not of course be expected to comply with the wishes of those whose interests conflicted with the choice which they were compelled to make. The line selected as above described, passes near the east line of the state: between it and the Hudson river in Putnam county, physical obstacles of a most formidable character were found to exist, which entirely precluded the idea of a route in that direction. The possibility of obtaining a level or nearly level line situated directly upon either margin of the Hudson river, by docking or otherwise, was never doubted; but from the great expense and other considerations equally powerful and cogent, the idea of building a road in that position, if ever seriously entertained was soon abandoned.

Now that a decision has been made in favor of the eastern or interior route, those whose interests are adverse to the construction of a road on that route, are seeking to paralyze the efforts of the company through the medium of a rival charter, to be obtained if possible at the present session of the legislature, the claim for which is supported by what purports to be a survey and estimate of cost of a line running along or near the east margin of the Hudson river. This route it is asserted, can be passed in less time and operated at less expense than the one selected by the New York and Albany railroad company, and that its cost is no greater.

It is apparent from a cursory examination of the report and map of this survey that the

difficulties and expense have been greatly underrated. The portion through and south of the Highlands, is located, of necessity, for most of the distance, immediately on the margin of, or in the river, crossing several bays, where the average depth (whether at high or low water, is not stated) is represented to be seven feet.

Upon this line, from the description given, there are marshes to be crossed by piling or otherwise; heavy excavations in rock with several deep thorough cuts. The road is also to be protected from injury on the river side by walling or docking for much of the distance. In fine the work is generally of such a character as to render it exceedingly difficult, if not impossible, even under the most careful examination and measurement to make any other than an approximate estimate of the cost.

Those who are experienced in such matters understand fully the difficulties of making constructions in water, and with even a very limited knowledge of the general character of the route, can appreciate the claims to confidence of an estimate which places the cost of a roadbed for a double track from Harlem river to Rhinebeck, with a superstructure for a single track "similar to the one laid on the Boston and Albany Railroad" at the average cost of only 20,000 dollars per mile!

Those also who are experienced in such matters will readily comprehend the sufficiency of an estimate which allows for the right of way for a railroad between New York and Albany, on the proposed river line the sum of only \$120,000!

It is unnecessary, however, to dwell upon this point. Whatever may be the balance of cost in favor of the interior route, its superiority rests, as above stated, upon other and higher considerations, affecting deeply the commercial interests and prosperity of New York city.

The preservation of the ascendancy of New York, in her control, over the internal and external commerce of the country and the cheapening of provisions in her markets are considered as paramount objects. She is already *sure* of the trade of the region of country bordering upon the Hudson river, and hence nothing will be lost, while much may be gained by selecting a more easterly line.

The declaration that the river line can be passed in very much less time, and operated at much less expense than the interior route, will be found, on a careful examination to be widely at variance with the truth.

The difference in length of the two routes as appears by the published reports, is about 2 per cent. in favor of the river line, effected probably, in a great measure by the crossing of the bays already alluded to. This difference at the rate of motion contemplated, other things being equal, will make but 6 to 7 minutes difference in the time of passing both routes, a consideration practically of no importance.

The river line is also represented to have a maximum grade or inclination of 13 feet less

per mile. Assuming this statement to be correct, it does not by any means follow that any very material advantage is derived therefrom to the river line, either in the average velocity of movement, or in the cost of transportation.

Both routes have their termini upon the same level. If therefore, there is more ascent upon one line, it must also have an equal surplus of descent, so that the aid afforded by gravity in the latter case will be precisely equal to the resistance in the former.

For the purpose of illustration let it be supposed that the rate of ascent on the two lines for a given distance, to be equal to the maximum or both, inclination 30 feet per mile on the one, and 17 feet per mile on the other. If with a given power, a given load is conveyed up the latter at the rate assumed of 26 miles per hour, the same power will convey the same load up the former at the rate of 23 miles per hour nearly, (see New York assembly documents, No. 133 p. 11, 1839) making a difference in the speed on the ascent of three miles per hour. If these grades occupy half of the whole distance (they in fact occupy only one-sixth) and the journey between the two extremes is performed in 6 hours, the train which is on the lowest grade will commence its descent about 9 miles only in advance of the other, or 20 minutes sooner in time. To make up for this loss of time, on the remaining half of the distance, the train on the 30 feet grade has the benefit in its descent of the greater force of gravity on that slope, compared with the slope of 17 feet per mile, and hence the whole distance will be accomplished with the same expenditure of power, in the same, or very nearly the same time.

If the rate or degree of inclination of the grade line was so great in any part as to render it impossible from considerations of safety to derive the full benefit of the aid afforded by gravity on the descending portion, the result would be different, and a disadvantage might ensue; but such is not the case, to a degree to enhance materially the expense where the maximum inclination does not exceed the limit of 30 feet per mile, and in the case of the interior route the average is very much below that amount.

Admitting it however to be possible that some little difference may exist in favor of the lower grade on the river line, yet it cannot be denied that the interest upon the greater cost of that line, amounting to probably not less than \$50,000 per annum, will manifold more than cover the difference in expense of fuel, or whatever extra power of traction is needed to carry the same load with the same average speed over the interior route.

So far therefore as it regards the *through* trade and travel, the interior route will be found to be quite as efficient as the other.—This conclusion is in accordance with the experience on all the railways in operation of a similar character, having grades not exceeding 30 feet per mile.

I am aware that the opinion has been advanced (McNeil's report, South Carolina road) that a difference in the elevation of a

summit of from 17 to 25 feet per mile is equal, when equated to one mile of horizontal distance.

This rule, *arbitrarily assumed*, is not based upon any sound mechanical principles, and where the grades range below the limit of 30 feet per mile, and the average, as is the case on the interior route between New York and Albany, does not exceed half that amount, it is not in the least degree applicable.

With respect to the *voy* business, which if we may judge from the experience upon the New York and Erie and other roads, must constitute a considerable portion of the whole business of the New York and Albany road. The superior elevation of the ground on the interior route will be found an advantage, rather than otherwise. This is evident from the fact that the region of country which will furnish a surplus produce for market is elevated considerably above the line of the road. The road is therefore more accessible from the surrounding country from having this elevation, and will be more likely to obtain, in consequence, its fair share of business in competition with the river.

There is another and still greater advantage to be derived. The most elevated portion of the interior route is situated, as already stated, near the north line of Dutchess county. From that point to New York city, the grade has an average descent of 8 feet per mile for 100 miles, nearly all the way freight, forming possibly the greater portion of the freight conveyed in summer, will come to the road in this distance, and as the average descent is in the direction of the preponderance in the trade, being towards the city, more will be gained than lost in consequence in the expense of transportation.

As to the amount of any business to be furnished to the railroad, it must be remembered that the proposed river route can only draw to its support that which flows in on *one side*, which for 8 or 10 months in the year must be divided with the steamboats and other craft upon the river. The Erie canal between Schenectady and Syracuse 131 miles, conveys two-thirds of the passengers which pass between those two points, notwithstanding there is a line of railroad in its immediate vicinity, overcoming no greater elevation than the canal, and notwithstanding the speed upon the former is from 4 to 8 times greater than upon the latter. This fact is worth volumes of the crude notions of visionary projectors, and throws a very clear light upon the probable result of the competition between the splendid steamers of the Hudson and a railroad located upon or near its margin.

It should be borne in mind in considering the relative merits of the two routes, that the river line will not serve to cheapen the transportation of produce to the city from the eastern or river counties, neither does it in the least accommodate the rich marble and iron region which lies in and near the valley through which the interior route passes.—Mineral regions invariably contribute more than agricultural to the transportation on a railway or other similar improvement, and it

is a very great desideratum to have at command a trade like that of marble and iron to furnish lading for the cars at those times when there is a deficiency of other products, thus equalizing the transportation in a manner to economize greatly its cost.

For this advantage the river route presents no equivalent.

The interior route also passes through a region at present deprived of any convenient mode of communication with the city. The construction of the road on this route will, therefore, augment greatly, the value of property in its vicinity and add materially to the wealth and taxable capital of the state.

On the river line property has already, probably, attained a value as high as it will bear, from the superior facilities of communication afforded by the river.

The interior route will not, it is believed, prevent the villages upon the river from enjoying their due share of the business of the adjacent country. But should the river line by any strange fatuity be constructed, it will produce, of necessity, a very great change in the points of transacting business, causing a serious injury to such as have capital invested at the river landings, or in other places not convenient or suitable for stopping places on the railroad.

I believe I am correct in saying that the leading object with those friendly to the construction of a railroad between New York and Albany, is to preserve the trade and contribute to the future prosperity of the former city. It is true that those who have investigated the subject (and with reason) have the fullest confidence in the value of the stock as an investment, but this is not the consideration by which its friends are mainly influenced. It is moreover true, that the funds for constructing the road must be furnished principally by New York city. The work is one of too great magnitude for the capital & resources of that portion of the community, who are disposed to give it their aid, in the interior. In this view it is manifest that those entrusted by the legislature with the requisite corporate powers and by the subscribers in New York city with the funds to accomplish the work, would prove recreant to that trust, if they did not so locate their road as to secure as far as possible, the great object to be attained by its construction.

The present, it is well known, is not a time when capital can be obtained in any large amount, for any object of improvement however praiseworthy or necessary. By constructing 62 miles from Harlem river to Dover, in Dutchess co., on the interior route, at a cost a little exceeding one million of dollars, the means for which are now in part obtained, and the grading on 4 to 5 miles of which is accomplished, a connection may be formed with the upper part of the Housatonic railroad and thus secure, without much delay to the city, a continuous line of railroad to Albany. Inferior it is true, to the more direct line within the limits of the state, but serving the purpose until such time as means shall be obtained to complete the whole line on the best route!

By this course, also, a connection can be effected with the eastern railroads at New Haven, by a branch occupying an eligible position for developing the resources of the country, not exceeding about 40 miles in extent, the means for constructing 8 miles of which, will doubtless be forthcoming as soon as the New York and Albany railroad is completed up to the point of junction.

If this course is not pursued and the line along the margin of the Hudson river is adopted to Albany and another along the shores of Long Island sound to New Haven, the city of New York must, before she can derive any benefit from a connection by a continuous line of railroad with Albany and Boston, incur an expenditure of not less than six to seven millions of dollars, the productiveness of which, (supposing it to be possible to obtain that amount) from the powerful competition of the cheapest steam navigation in the world, on the Hudson river and Long Island sound, is to say the least problematical, and which cannot under any reasonable view be accomplished before the trade now rapidly passing to a rival city shall become so firmly established in its new channel as to be irretrievably lost, or if reclaimed at all, only with the greatest difficulty.

I might proceed to show how, if the application for a charter on the river line should be successful,\* and the construction of a road commenced on that route, the city of New York would probably lose the advantage now possessed of having exclusive access by railroad to the bridge over the Hudson river at Troy and to the point where the Erie and Champlain canals form their first junction with the Hudson river, but I cannot believe that such a charter will be granted in contravention of the best interests of the city and country, and in violation of a high moral obligation on the part of the constituted authorities to protect the rights of those who are and for some time have been, laboring faithfully to accomplish in the most judicious manner the trusts committed to their charge.

EDWIN F. JOHNSON,

Chief Eng. N. Y. & A. R. R. Co.  
Office of the New York and Albany R. R. }  
Co. January 24th, 1843. }

#### The Railway System and its Progress.

We have often called attention to the astonishing progress of the railway system.—Few even of the most observing among us, realize its rapid growth. Mr. Thomas Gray is the reputed projector of the use of railroads for travel and transportation, except for coal and mining purposes—in England, and he only dates the commencement of his efforts in relation to the system in 1820, or only twenty-five years ago! and now there are 77 railways completed and in progress, with an authorized capital of over £85,000,000; and 139 applications before parliament, during the past session involving a capital of

£96,245,650, of which 2,860 miles, with a capital of £58,452,900, were authorized. In addition to these, there were 196 other projected railways, not yet before parliament, involving a capital of £160,309,000, and the amount deposited in advance upon this, is £9,913,312, from which it would appear that the projectors are in earnest. Should all these proposed roads be constructed, in accordance with the plans of the projectors, there will have been £368,000,000, or \$1,840,000,000, invested in railways and railway property in Great Britain alone! It may however, with entire certainty be said that all of them will not be constructed, yet it is equally certain, or at least very probable, that many others not now agitated will be projected, and constructed within the next ten years—and we have not a doubt but that a larger amount of capital, than is here given, will be invested in railroads in Great Britain, prior to the year 1860—or within fifteen years, nor that £50,000,000, or \$200,000,000, of British capital will be invested in railroads out of the kingdom. This however is matter of opinion; it may, nevertheless, become true with much less effort than has been required to accomplish what has been already done.

If Great Britain can accomplish so much in her small territory, where the land is owned by a few, what may we not accomplish in this country, where every man almost is interested in the soil and is to be benefited by its increased value, arising from the extension of such improvements? We have already in this country, near 4,000 miles of railway in successful operation—the net earnings of which is now over six per cent. per annum in gross—which will increase to nine or ten per cent., in less than ten years—this dividend is however of less value, far less, in this country, than the increase in the value of real estate and property generally, from the development of the natural resources of the country.

We have been led to these remarks by reading the following article in the Railway Express—an excellent, and we believe the sixth candidate for the favor of the railway world, published in London. Its statements will appear to many, as the result of a mania, or of wild speculation—but not more so than did the projects of 1834 and 1835 to many persons who are now among the most devoted friends of railroads—as well in this country as in Europe.

From a very elaborate table, contained in "Burn's Commercial Glance" just published, we deduce the following statistics of the capital embarked in railways and railway projects. In 77 railways, completed or in pro-

gress, the amount of capital is £85,370,723, of which £53,090,893 is paid up, and £32,279,830 remaining to be called up. Of 139 railways before parliament this session, exclusive of small branches, deviations, connecting links, etc., the nominal capital for which the registered shareholders are liable is £96,245,650, of which, averaging a deposit at £2½ per share, £7,290,733 appears to be paid up, and, being lodged with the treasurer of the private bill office, is thus withdrawn from commercial circulation. We have also 196 railways projected, but not yet before parliament, of which the average deposits amount to £1½ per share. The total capital represented by these is £160,309,000, and the amount paid up and withdrawn from commercial circulation is £9,913,312. There are also a number of small branches and deviations, in progress and in prospect, involving a capital of £27,000,000, on which the deposits amount to £3,350,000. The total number of shares is 11,047,821, or nearly a share for every two of the population. The total capital represented by railways, paid up and to be paid up, is £368,000,000, or about £16 per head to the whole population; and the total paid up capital is £72,644,938, leaving £296,280,345 to be called up. Of course this calculation refers only to the amount required if the whole of the schemes projected should be carried out. Many of them, however are competing lines; some are rejected already; whilst others have been rendered unnecessary by the formation of branches, etc., from existing lines. Taking, however, only one half of the amount remaining to be called up for the new lines, as being as much as the legislature is likely to sanction, we have no less than £132,000,000 which the country will probably be called upon to furnish for new railways in the course of the next four or five years, in addition to £32,279,000 remaining unpaid upon the lines completed or in progress.

We may remark, however, that of the lines completed or in progress, representing a capital of £85,370,723, many are at a considerable premium, as are some of those at present before parliament and projected.—We may fairly add one-third to the capital represented by the first for premium; and we have then the following as the total capital already invested in railways and liable to be acted upon by speculation on our various stock exchanges:—

Paid up on lines completed or in progress	£ 53,090,893
Add one third for premium	17,996,964
Paid up on railways before parliament	7,290,733
Deposits on new schemes	9,913,312
Do. for branches, etc.	2,350,000

Total £90,341,442 already invested in this description of property, exclusive of our engagements in foreign railways. Of this amount no less than £19,554,045, the amount of deposits on new lines, may be said to have been furnished within the last twelve months, in addition to the amount, a large one, which has been absorbed in calls upon lines in progress. This last fact speaks volumes as to the elastic and expansive state of the country's resources.

\* The application failed by a very decided vote.



**Railroad Accidents.**

A serious accident occurred on the Boston and Maine railroad, between Andover and Haverhill, on the 12th instant. A locomotive and tender, passing without cars, came in contact with a horse and buggy, killed the horse and injured, probably fatally, a lady and partially the man who was driving, while a child escaped unhurt. It is said the man in charge of the engine saw the wagon approaching the railroad, yet had no reason to suppose that he would attempt to cross the track, therefore no blame attaches to him.—So it is often argued here, in this city, by the drivers of private carriages, hacks and omnibuses, when they see a pedestrian crossing the street, they "have no reason to suppose a foot passenger will allow himself to be run over, therefore the drivers, who generally appear to act in defiance of all law, take no precaution to prevent accident, but drives on and over the unfortunate—possibly deaf, or blind persons—who does not get out of their way; and then instead of evincing regret for, in many cases a wilful wrong, or accident, as it may sometimes be—they add insult to outrage, and drive off cursing the person whom they have injured, perhaps for life, because he was simple enough to suppose he had a right to cross the street in front of a gentleman holding the reins and carrying a whip. It has really become dangerous in this city for pedestrians to cross the streets because those who ride and drive allow them no rights, except to "get out of the way—D—m your eyes"—and we have often thought that the same feeling was becoming common with those gentlemen who drive the iron horse on our railroads—a feeling which should be checked in the early stages of its operations or "railroad accidents" will be of every day occurrence, if it is always given out that "no blame attaches to the driver," we do not excuse those careless, or fool-hardy persons, who risk their lives in crossing the track in front of a locomotive—by no means, on the contrary, they often deserve to be punished for their folly and for criminally exposing others—this however does not exonerate the engineman from blame when he sees, and by a little effort could avoid the danger—as we are of the opinion that a careful and experienced man can control a locomotive more readily than most people can manage a headstrong horse. We therefore insist upon it, that in all accidents from locomotives the matter should be investigated, and those in fault held to strict responsibility.

**Consuming Smoke.**—A French official committee on steam engines lately appointed the chief engineer of the mines to pursue experi-

ments for determining a mode of obviating or curing the smoke of boilers and engines. It is stated in the *Moniteur* that he has entirely succeeded. The operation was on Belgian coal, which emits the most smoke. The smoke is consumed (burnt) by means of the abundant introduction of air. Hereafter steam factories will not be uncomfortable neighbors; the black and thick smoke gives place to a light and whitish vapor. London may rejoice. The great boilers in the royal manufactories of tobacco are to be subjected to new experiments. The government, it is added, will soon publish a practical manual for the service of iron and other factories in which coal is used.—[*Ledger*.]

**Canals Cheaper than Railways.**—A Norwich paper says, that the railway company have been forwarding coals and iron from their own wharf to Norwich by water, as being cheaper to them than taking them on their own rail.

**DAVIS, BROOKS & CO., 30 WALL ST.**—Have now on hand and for sale, 200 tons 2½ x ½ inch Flat punched Rails, Bars 18 feet each. 100 tons Heavy Edge Rails, 90 tons per mile. 30 tons 2½ x ½ inch Flat Rails. Also—A STEAM PILE DRIVER, built by "Dunham & Co." which has never been used, and cost originally \$5000. s20 2m

**EVENING LINE FOR NEWPORT & PROVIDENCE,** over the LONG ISLAND RAILROAD. Fare 50 cents. Every Tuesday, Thursday and Saturday, from the foot of Whitehall street, at 4½ o'clock and from Brooklyn depot at 5, p.m. On the arrival of the train at Greenport, passengers will proceed immediately in the steamer "New Haven," direct. 2t 39

**BOSTON COURIER, DAILY, SEMI-WEEKLY** and weekly. The *Daily* edition of the *Courier*, presents to merchants and others, an extensive medium of advertising. The circulation of the *Semi-Weekly Courier* (published on Mondays and Thursdays) is believed to be more extensive than that of any other similar Boston Newspaper. This publication embraces all the reading matter of the *Daily*, the Foreign and Domestic Markets, Review of the Boston Market, Prices current, and Ship News, prepared with great accuracy. The *Weekly Courier* contains as much of the matter of the *Daily* as can be crowded into a sheet of the same size, without ship news, prices current or advertisements. Our extons to obtain and publish authentic information on all topics proper for the columns of a newspaper,—the state of trade, the prices of merchandise, the current news of the day, and the political movements in the various sections of the country—will not be abated. The marine department of the *Courier* has been inferior to none in copiousness or accuracy of detail, and it will be our endeavor to maintain its reputation in this respect.

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For the *Daily Courier*, for one year, in advance \$8.00  
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**SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars.** The Subscriber is engaged in manufacturing Spring Steel from 14 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address JOAN F. WINSLOW, Agent, 15a3 Albany Iron and Nail Works, Troy, N. Y.

**OFFICE OF THE NEW YORK AND ERIE RAILROAD COMPANY.** No. 50 Wall st. New York. September 13, 1845.

Notice is hereby given to the holders of stock of the New York and Erie Railroad company, that by the terms of the 8th section of the Act of the 14th May, 1845, it is provided that, if within 6 years from the passage of the law the company shall complete a single track from the Hudson river to lake Erie and a branch to Newburgh, in Orange county, then "the said company shall be released from all liability to pay to the state any demand which the state may have against them, with this exception only, that in case any holder or holders of the capital stock of said company heretofore issued and certified, or purporting to be paid in full, shall not within six months from the passage of this act, surrender to the company their stock certificates, and receive or offer to receive therefor, for every two shares of stock heretofore issued, one share of stock to be hereafter issued, then all such stock heretofore issued, and not so surrendered, shall not be subject to the provisions of this law; but the state shall retain the right to claim upon such outstanding stock, and the said company shall pay into the treasury of the state, upon the order of the comptroller, any and all dividends upon such outstanding stock, and the comptroller shall apply the same to the credit of said company, until the state shall receive in such dividends, so much of their said debt of three millions of dollars and the interest thereon, as would be the proportion of such outstanding stockholders to pay, provided the whole debt of three millions of dollars and interest thereon were collected ratably from all the stock of said company now outstanding."

By section 9th, of the same law, it is provided that, "it shall be the duty of the president and secretary of said company, within thirty days after the expiration of the six months mentioned in the last preceding section, to file with the comptroller of the state, a statement of all stocks that shall not have been exchanged in pursuance of the provisions of the last preceding section; and whenever any dividend upon the stock of the said company shall be made, it shall be the duty of the board of directors to notify the comptroller of such dividend, and upon payment of the dividend aforesaid into the treasury, the comptroller shall furnish to said company a receipt for the portion of such dividend belonging to any stock not surrendered and exchanged in pursuance of the last preceding section of this act, and said company shall surrender to the holders of such stock the receipt of said comptroller in lieu of said dividends."

It will be seen that on or before the 14th of November next, each and every holder of the stock of the company must decide whether he will avail himself of the provisions of this law by surrendering his stock and receiving one share for every two shares thus surrendered. With reference to holders who neglect to avail themselves of the provisions of the act, it is made the duty of the company, within thirty days from the 14th of November, "to file with the comptroller a statement of all stocks that shall not have been exchanged" agreeably to the provisions of this act, the dividends on which must be paid into the state treasury, rendering that class of stock practically of no value to the holder. The board of directors consider it their duty to protect the interests of the stockholders by giving all possible publicity to that portion of the law relating to the outstanding stock, that all may have an opportunity for an early compliance with the provisions of the act. By order of the board of directors. T. S. BROWN, Acting secretary.

**LAWRENCE'S ROSENDALE HYDRAULIC Cement.** This Cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floors and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE, 142 Front street, New York. Orders for the above will be received and promptly attended to at this office. 32

**KEARNY FIRE BRICK.** F. W. BRINLEY, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to  
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**BALTIMORE AND OHIO**

**RAILROAD—MAIN STEM.**

**THE TRAIN CARRYING THE GREAT** Western Mail leaves Baltimore every morning at 7½ and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburg and Hancock, connecting daily each way with—the Washington trains at the Relay house seven miles from Baltimore, with the Winchester trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

**WASHINGTON BRANCH.**

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5½ P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13 1y

**LEXINGTON**

**and OHIO RAILROAD.**

Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m. Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1 25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above. 1y35

**PASSENGER LINES FROM BOSTON.**

**Eastern Railroad**—Boston to Portland, via Salem Newburyport, Portsmouth and Saco. Trains leave daily, except Sundays. Boston for Portland 7½ a.m. and 2½ p.m.; Newburyport and Portsmouth 7½ a.m., 2 1-2, 5 1-2 p.m.; Salem 7½, 9, a.m., 12½, 2 1-2, 3 1-2, 5 1-2, 6½ and 8 p.m.; Salem for Marblehead 8½, 9½ 10½ a.m.; 1, 3½, 4½, 6½, 8½ p.m. 32

**Boston and Maine railroad—Upper route.** Boston to Portland, via Charlestown, Wilmington, Andover, North Andover, Haverhill, Exeter, Dover, Somersworth, Berwick, Kennebunk, Saco, and Scarborough. Passenger trains will run daily, Sundays excepted, as follows, viz: Leave Boston for Portland at 7½ a.m. and 2½ p.m.; for Great Falls at 7½ a.m., 2½, 4½ p.m.; for Haverhill at 7½ a.m., 2½, 4½ and 6½ p.m.; leave Portland for Boston at 7½ a.m. and 3 p.m.

A special train will leave Boston for Andover at 12 m., and Andover for Boston at 4½ p.m.

The depot in Boston is at the corner of Canal and Traverse streets. CHARLES MINOT, Superintendent. 32

**BOSTON AND PROVIDENCE RAILROAD.**

Passenger trains run as follows: For New York, night line, via Stonington; leave Boston every day, Sundays excepted, at 5 o'clock p.m.; accommodation trains leave Boston at 7 1-2 a.m. and 4 p.m., and Providence at 8 a.m. and 4 p.m.; Dedham trains leave Boston at 8½, a.m., 12 1-2, 3 1-2 and 6 1-2 p.m.; Leave Dedham at 7 and 10 a.m., 2½ and 5½ p.m.; Stoughton trains leave Boston at 12 m. and 5 20 p.m.; leave Stoughton at 7 1-2 a.m. and 3 p.m. 32 WM. RAYMOND LEE, Sup't

**Norwich and Worcester railroad.**—Accommodation trains, daily, except Sunday. Leave Norwich at 6 a.m. and 4½ p.m., leave Worcester at 10 a.m. and 4½ p.m. The morning train from Norwich, and the morning and evening train from Worcester, connect with the Boston, Western and Hartford and Springfield railroads. New York train, via steamboat, leaves Norwich for Worcester and Boston, except Monday, upon the arrival of the boat from New York, about 2 o'clock; leave Worcester for Norwich and New York at 5½ p.m. daily, except Sundays. New York train, via Long Island railroad, leaves Norwich about 3½ p.m. for Worcester and Boston daily, except Sunday; leaves Worcester for Norwich and New York at 7½ a.m. daily, except Sunday, and arrives at Norwich at 9½.

Fares are less when paid for tickets than when paid in the cars. EMERSON FOOTE, Superintendent. 32

**Boston and Lowell Railroad, Summer Arrangement.**—The passenger trains will run as follows: Leave Boston at 7 and 11 a.m., 2 1-2 and 5 1-2, p.m.; leave Lowell at 7½ and 11 a.m., 2 and 5½ p.m. Fare 75 cents. 32

**Nashua and Lowell Railroad.**—Passenger trains will run as follows: Leave Boston at 7 a.m., 11 a.m. and 5 p.m.; leave Nashua at 6 1-2 a.m., 1½ p.m. and 4½ p.m. 32

**Concord and Nashua Railroad.**—Passenger trains run daily, Sundays excepted, in connection with the Boston and Lowell, and Nashua and Lowell railroads, as follows: Leave Boston at 7 a.m., 11 a.m. and 5 1-2 p.m.; leave Concord at 4½ a.m., 11½ a.m. and 3½ p.m. The second train arrives in Boston in season for passengers to take the railroad train to New York. Stages, on the arrival of the first train at Concord, leave by various routes for the different parts of the state, Vermont and Canada. On the second day from Boston Stages reach Royalton, Middlebury, Montpelier and Burlington, connecting there with the steamboat line to Montreal. Stages also run from Haverhill to Stanstead and Montreal. 32

**Woburn Branch Railroad.**—Special trains will run as follows: Leave Boston at 8 and 11½ a.m., and 3 and 6 1-2 p.m.; leave Woburn Centre at 7 and 9 a.m., and 1 1-2 and 5½ p.m. These trains will stop for way passengers anywhere between Woburn Centre and Boston. 32

WALDO HIGGINSON, Agent B. & L. Railroad Co.

**Fitchburg Railroad.**—Leave Charlestown at 7 and 11 a.m. and 5 p.m.; leave Fitchburg at 6 1-2 and 11 a.m. and 4 1-2 p.m. Special trains will be run to Waltham and Concord as follows: Leave Concord for Charlestown at 7 a.m.; leave Waltham for Charlestown at 7 1-2 and 10 1-2 a.m., 4½ p.m. leave Charlestown for Waltham at 9 1-2 a.m., 3 and 6 p.m.; leave Charlestown for Concord at 6 p.m. On the arrival of the two morning trains at Fitchburg stages will leave for all the principal towns in western Massachusetts, New Hampshire and Vermont. S. M. FELTON, Eng. and Sup't. 32

**Boston and Worcester Railroad.**—Summer arrangement.—For Worcester and way stations at 7 1-2 a.m., 1 3-4 and 5 p.m.; for Milbury at 7 1-2 a.m. and 5 p.m.; for New York, by Norwich and steamer, 4 p.m.; day line for New York, by Long Island railroad, at 6 a.m.; for Boston and way stations at 7 and 10 a.m., 4 1-2 p.m. Newton trains, daily, except Sunday, from Boston at 9 1-2 a.m., 3, 5½ and 7 p.m.; from Newton at 7½ and 10½ a.m., 4 and 6 p.m.

Fares are less at the ticket offices than in the cars. WM. PARKER, Sup't. 32

**Western Railroad.**—Summer arrangement.—Passenger trains leave daily, Sundays excepted, as follows: Boston 7 12 a.m. and 4 p.m. for Albany; Albany 6 3-4 a.m. and 2 1-2 p.m. for Boston; Springfield 7 a.m. and 1 p.m. for Albany; Springfield 7 a.m. and 1 1-2 p.m. for Boston. For Albany and Buffalo—Leave Boston at 7 1-2 a.m., arrive at Albany at 6 p.m.; leave Albany at 8 p.m. for Buffalo, or at 7 1-2 o'clock next morning. For Montreal—Passengers proceed from Albany to Troy, thence by railroad and canal to Whitehall, and thence by the commodious steamers of lake Champlain (stopping at Burlington) to St. Johns, thence by railroad to La Prairie, and thence by steam to Montreal. New York, via Hartford and New Haven; day route—Leave Boston at 4 p.m., lodge at Springfield or Hartford; leave Springfield at 9½ a.m., and arrive in New York at 6 p.m. Passengers may also leave Boston at 7 1-2 a.m., proceed at 1 or 4 1-2 p.m. from Springfield to New Haven; leave New Haven at 10 p.m. and arrive in New York at 6 o'clock next morning.

For further information apply to Charles A. Read, agent, 27 State street, Boston.

JAMES BARNES, Superintendent and Engineer. 32

**Taunton Branch and New Bedford**

**Taunton Railroads.**—Trains leave Boston for Taunton and New Bedford at 7 1-2 o'clock a.m. and 4 p.m.; leave Providence for Taunton and New Bedford at 8 o'clock a.m. and 4 p.m.; leave New Bedford for Boston and Providence at 7½ o'clock a.m. and 3½ p.m.; leave Taunton for Boston and Providence at 8½ o'clock a.m. and 4½ p.m.; leave Taunton for New Bedford at 9 o'clock a.m. and 5 1-2 p.m. Afternoon trains connect with Stonington cars and steamers for New York. Morning cars connect with the Long Island train on Monday, Wednesday and Friday. W. A. CROCKER, General Superintendent. 32

**Fall river Branch Railroad.**

Trains leave Boston for Fall River daily, Sundays excepted, at 7 1-2 a.m. and 4 p.m.; trains leave Fall River for Taunton, Boston and Providence at 7½ a.m. and 3 p.m.; trains leave Fall River for New Bedford at 7½ and 9 a.m., and 5 1-2 p.m.

For Newport.—Passengers from Boston to Newport will find stages in readiness on the arrival of the morning cars at Fall River to take them onward. Fare through \$2. Tickets for the stage will be furnished by the conductor on the Fall River Branch Road.

Stages also leave Fall River at 1 o'clock p.m., for Tiverton, Four Corners, Adamsville and Little Compton. SAM'L H. P. LEE, Jr., Superintendent. 32

**TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY.**

The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.


When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out in-side. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**FOR SALE, AT A SACRIFICE—A LOCOMOTIVE ENGINE,** 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine, 2 8-horse " " " " 1 Upright Hydraulic Press.

All of which will be sold low, on application to T. W. & R. C. SMITH, Founders and Machinists, Alexandria, D. C. May 12th

**FROM PHILADELPHIA.**  
**PASSENGER LINES NORTH AND EAST.**

 *Camden and Amboy Line.*—Leave foot of Walnut street daily, Sundays excepted, at 5½ a.m. Fare \$3. Forward deck \$2 25. Also for New York, by way of Trenton, Princeton, New Brunswick, Elizabethtown and Newark, N.J., daily from foot of Walnut street, at 9 a.m., and 5 p.m.—Fare \$4. 31

*For Reading and Pottsville. By Reading Railroad.* Daily, Sundays excepted, from the Depot, corner of Broad and Cherry streets at 8 a.m. Fare, \$3 50. Second class, \$3. To Reading \$2 25. Second class \$1 90. 31

*For Mauch Chunk and Wilkesbarre.*—*By Express and Reliance Line.* Daily, from the corner of Broad and Cherry streets, at 9 a.m. 31  
PETERS, MILTIMORE & CO.

*For Easton and Bethlehem. By Post Coaches.* Leave the Office, next door to the White Swan, Race street, daily, at 4 a.m. 31  
PETERS, HAMMIT & CO.

*For Baltimore. By Railroad. Fare \$2.* Via Chester, Wilmington, Elkton, Havre de Grace. Leave Philadelphia, Depot, 11th and Market street, daily, Sundays excepted, at 8 a.m., 4 p.m. Leave Baltimore, Depot, Pratt street, daily, Sundays excepted, at 9 a.m., 8 p.m. Tickets through to Wheeling and Pittsburg can be procured at the Depot. 31

Wilmington Accommodation Line, leaves the Depot, 11th and Market sts. daily, except Sunday, at 10 a.m. and 4 p.m. Leaves Wilmington at 7 a.m. and 4½ p.m. G H HUDDLELL, Agent. 31

*For Baltimore. By Newcastle & Frenchtown Railroad and Steamboat Line.* Fare \$1. The Steamboat Robert Morris, Capt. J. M. Douglass, leaves Dock street wharf daily, except Sunday, at 3 o'clock. Passengers by this line will reach Baltimore at about 10 p.m. Tickets through to Wheeling or Pittsburg can be procured on board the boat. G H HUDDLELL, Agent. 31

*For Baltimore, via Lancaster, Columbia and York. By the Susquehanna Railroad,* daily, Sunday excepted, leave the Depot 274 Market st., at 7½ a.m., and 12 at night, for Columbia, and leave Columbia at 2 p.m. for Baltimore. Dine at York and arrive in Baltimore in time for early tea; passing through the most highly cultivated and beautiful part of Pennsylvania, and romantic part of Maryland. 31


*For Pittsburg, via Columbia and Lancaster Railroads.* Leave the Depot 274 Market st. daily, at 7½ a.m. The Night Line will leave as usual at 12, midnight. At Harrisburg this line connects with the Railroad and Stage Line for Carlisle, Chambersburg and Pittsburg, with the Packet boats for Lewistown, Huntingdon, Hollidaysburg and Pittsburg; also with the Susquehanna Packet boats to Northumberland, Milton, Muncy, Williamsport, etc. Through tickets for any for any of the above places can be secured at the depot, where every information relative to the above lines will be given. Passengers for York and Gettysburg will leave in the 7½ line. JACOB PETERS & CO. 31

*For Pittsburg. By the Pioneer and Express Packet Line.* Leave the Depot, 274 Market st. above 8th, at 7½ a.m. By this route travellers may be assured of a safe and comfortable passage, every arrangement having been made for their accommodation. Office N. E. 4th and Chestnut sts. Seats may also be procured at the Depot, and at 13 South 3d st. A CUMMINGS, Agent. 31

 **Susquehanna Line of Rail-  
road Cars and Post Coaches.**

This line leaves the depot, corner of Broad and Cherry streets, daily, [Sundays excepted] at 8 o'clock, a.m., via Reading and Pottsville railroad, for Sunbury, Danville, Catawissa, Northumberland, Milton, Muncy, Williamsport, Towanda, Bellefonte, Jersey Shore, Lockhaven, Ralston and Elmira. For seats apply at the stage office, 104 Race street, under the White Swan Hotel. 34  
S. STILES, Agent.

**FROM BALTIMORE.**  
**SUMMER ARRANGEMENT—FARE  
REDUCED.**

 *By the Great Southern Mail* Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C. 31

*Direct to New Orleans,* and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21: whereby the traveller saves \$4 25. Bear in mind that this is the great *Southern Mail Line*, and the only one that issues a *through ticket South.* Those who patronize it will save their money and time. *Through Tickets* from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7. 31

*Fast Mail Line.*—Leave New York at 9 a.m. and arrive in Philadelphia at 3½ p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12½ to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m. 31

Passengers by the above line will arrive at Richmond by 11½ o'clock p.m. and Petersburg, Va. by 2½ o'clock p.m., through to the former city in *twelve hours*, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route. 31

*Way Mail Schedule.*—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p. m.; arrive in Baltimore at 2½ p.m.; arrive in Washington at 7 p.m. *From Philadelphia by steamboat.*—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m. 31

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore. 31  
STOCKTON & FALLS.

*For Norfolk and the South, by steamboat* through the Chesapeake bay to Norfolk, and then by railroad to Weldon, Wilmington or Raleigh, etc. Leaves Baltimore daily [except Sundays] from Spears' wharf, at 4 p.m., and arrives at Norfolk next morning at 7 o'clock; fare \$6. Leaves Norfolk at 8 a.m. and arrive at Wilmington next day at 12 m. and Charleston next morning at 7. Fare through \$21. 31

*For Philadelphia (Union Line,) via Chesapeake and Delaware Bay, and Newcastle and Frenchtown Railroad.*—The well known steamboat Constitution, Capt. Chaytor, has commenced her regular trips for the season, leaving Bowly's wharf, foot of South street, at 8 o'clock, p.m. daily [except Sundays] for Philadelphia. Through in 8 hours. Fare \$3. 31

 **Morning Train for Phila-  
delphia.**

The morning train leaves the depot, Pratt street, daily [except Sundays] at 9 o'clock, a.m. Passengers arrive at Philadelphia in full time to continue on by the mail train for New York. Fare \$3. Sunday evening Mail Train—the only line that departs from Baltimore on Sundays for Philadelphia, is the mail train which leaves Pratt street depot, at 8 p.m. Fare \$3. 31

*For Philadelphia, via York, Columbia and Lancaster,* by the Baltimore and Susquehanna railroad. Cars leave from their office, 63 North street, daily [Sundays excepted] at 9 o'clock, a.m. Fare \$3 50. 31

**RAILROAD IRON AND FIXTURES. THE** R Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States. 31

DAVIS, BROOKS & CO.,  
21 Broad st., N. York. ja45

**GEORGE VAIL & CO., SPEEDWELL IRON** Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1½ in. to 2½ in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions. t ja45ly

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design. It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them. 31

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable. Working Models of the Safety Switch have been seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York. 31

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS,  
Reading, Pa. ja45

**MACHINE WORKS OF ROGERS, KETCHUM & GROSVENOR, PATTERSON, N. J.** The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch. 31  
Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars. 31

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship. 31

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions. 31

ROGERS, KETCHUM & GROSVENOR,  
a45 Paterson, N. J., or 60 Wall street, N. York.

**SAMUEL NOTT, CIVIL ENGINEER, SUR-  
veyor and General Agent, Bangor, Me.** Railroads, Common Roads, Canal, Factory and Mill Sites Towns, Farms, Wild Land, etc., surveyed. Plans and Estimates for Buildings, Bridges, etc., prepared, and all appertaining business executed. 31

— REFERENCES. —  
Boston, { Col. James F. Baldwin, Civil Engineer.  
          { Col. J. M. Fessenden, " "

Wm. Parker, Esq., Engineer and Superintendent Boston and Worcester railroad. ja45



**NO IRON MANUFACTURERS. THE SUB-  
scribers,** as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle. 31

A. & G. RALSTON & CO.,  
ja45 No. 4 Sout Fronth st., Philadelphia, Pa

## FROM NEW YORK.

 **New York and Harlem Railroad Company.** 

Leave City Hall for Yorkville, Harlem and Morrisania at 5.30, 7, 8, 9, 10, a.m.; 1, 2, 3, 3.30, 4, 5, 5.30, 6, p.m. For Fordham and Williams' Bridge at 5.30, 7, 10, a.m.; 2, 3.30, 5, 6, p.m. For White Plains at 7 and 10 a.m.; 2 and 5 p.m. Leave Morrisania and Harlem for City Hall at 6.20, 8, 9, 10, 11, a.m.; 2, 3, 4, 2, 5.20, 6, 6.30, 7.45 p.m. Williams' Bridge for City Hall at 7, 7.40, 10.40 a.m.; 2.40, 5, 5.40, 7.20 p.m. White Plains for City Hall at 7.10 and 40.10 a.m.; 2.10 and 5.10 p.m. 31

 **New York and Erie Railroad.** 

For Middletown, Goshen, and intermediate places. —Two daily lines each way, as follows:—For passengers.—The new, fast and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7½ o'clock, A.M., and 5 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4½, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets, 31

H. C. SEYMOUR, Superintendent.

Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale, Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc. etc. 31

**PASSENGER LINES FOR THE NORTH AND WEST.**

**Morning Line, at 7 o'clock.**—For Albany, Troy, and intermediate landings.—The steamboat Troy, Capt. A. Gorham, will leave New York, foot of Barclay street, at 7 o'clock, A.M., every Tuesday, Thursday, and Saturday. The steamboat Niagara, Capt. DeGroot, leaves New York at 7 o'clock, A.M. Monday, Wednesday, and Friday. 31



**Afternoon, or 5 and 7 o'clock Line.**—At 5 o'clock, P.M., landing at intermediate places, from the foot of Barclay street.—The steamboat New Jersey, Capt. H. H. Fury, will leave on Monday, Wednesday, Friday, and Sunday. The steamboat South America, Capt. M. H. Truesdell, will leave on Tuesday, Thursday, and Saturday. For passage or freight apply on board, or to 31

P. C. SCHULTZ,

At the office on the wharf.

**Evening, or 6 o'clock Line.**—Line steamboats for Albany.—Daily, Sundays excepted.—Through direct at 7 o'clock P.M. from pier between Courtlandt and Liberty streets.—Steamboat Rochester, Capt. R. G. Crittenden, will leave on Monday, Wednesday, and Friday. Steamboat Knickerbocker, Captain A. Houghton, will leave on Tuesday, Thursday, and Saturday. 31

For Albany and Troy, direct, at 6 o'clock, P.M., from the steamboat pier, foot of Courtlandt street. The Empire, Capt. R. B. Macy, Tuesday, Thursday and Saturday. The Columbia, Capt. Wm. H. Peck, Monday, Wednesday, and Friday. 31

 **Troy and Greenbush Railroad.** 

Leave Troy, at 6 o'clock, A.M. to Boston and Albany; 8½, do., do., do.; 10½, do., do., do.; 2, P.M., to Boston and Albany; 4, do., do., do. Leave Albany at 7½ o'clock, A.M.; 9½, do., do.; 12, M., or on arrival of the Boston train; 3, P.M.; 6, P.M., or on arrival of the Boston train.—Fare, 12½ cents. 31

Passengers at Albany should procure tickets at the Boston railroad office, foot of Maiden lane. L. R. SARGENT, Superintendent. 31

**Schenectady and Troy railroad cars** leave as follows:—From Troy, 7½ o'clock, A.M., daily; 1, P.M., daily, except Sundays; 7½, do., daily. From Schenectady, 3 o'clock, A.M., daily; 9, do., except Sundays; 3, do., daily.

Persons going to Saratoga and north should take the 7½, A.M., train; and passengers going west of Schenectady, the 7½, A.M., or 7½, P.M., trains. 31



L. R. SARGENT, Superintendent.

**Troy, Ballston, and Saratoga Railroad.**—The cars of this road will run as follows:—Leave Troy at 8 o'clock, A.M., daily; do., do., 3½, P.M., except Sundays; leave Saratoga at 9, A.M., except Sundays; do., do., 3½, P. M., daily. 31

L. R. SARGENT, Superintendent.

**Lake Champlain Steamboats.**—From Whitehall to Burlington and St. John's.—Morning Line on Lake Champlain, making intermediate landings.—Passage 2, breakfast on board.—The Francis Saitus, Capt. H. G. Tisdale, leaves Whitehall, Tuesdays, Thursdays, and Saturdays, at 6 o'clock, a.m., and St. John's Mondays, Wednesdays, and Fridays, at 6 o'clock, a.m. For freight or passage apply to the captain on board. H. D. FILKINS, Agent, Troy. 31

Passengers leaving Troy, Mondays, Wednesdays, and Fridays, at half-past 3 o'clock, p.m., by railroad and packet, will arrive at Whitehall in time for the above boat next morning. 31

**PASSENGER LINE EASTWARD.** **Long Island Railroad Company.** 

Trains run from Brooklyn depot.—Boston train, 8½, a.m., daily, stopping at Farmingdale and St. George's Manor; accommodation train, 9½, a.m., and 5 p.m., for Farmingdale and intermediate places, daily; accommodation train, 3, p.m., for Greenport, daily, stopping at Jamaica, Branch, Hempstead, and Hicksville, and all the stopping places between Hicksville and Greenport. From Greenport depot: Boston train, daily, at 12½ o'clock, m., or on the arrival of steamers from Norwich. Accommodation train at 5, a.m., daily, for Brooklyn and intermediate places. From Farmingdale depot: Accommodation train at 6½, a.m., and 2½, p.m., daily, for Brooklyn and intermediate places. 31

The steamboat Statesman leaves Greenport for Sag Harbor twice each day, on arrival of the trains from Brooklyn.

Baggage crates will be in readiness, at the foot of Whitehall street, to receive baggage for the several trains, 30 minutes before the hour of starting from the Brooklyn side. 31

**Regular Mail Line between New York and Boston, via Stonington, Providence, and Newport,** composed of the following steamers, running in connection with the Stonington and Providence railroads, and the Boston and Providence railroad: Massachusetts, Capt. Comstock; Mohegan, Capt. —; Narragansett, Capt. Manchester; Rhode Island, Capt. Thayer. Via Stonington, daily, [except Sundays,] at 6 o'clock, p.m., from New York, and from Stonington on the arrival of the mail train, which leaves Boston at 5, p.m., and Providence 6½, p.m. The Rhode Island on Mondays, Wednesdays, and Fridays; the Narragansett on Tuesdays, Thursdays, and Saturdays. Via Newport, the Massachusetts leaves New York for Newport and Providence, direct, on Tuesdays, Thursdays, and Saturdays, at 5 o'clock, p.m. 31

**New York and Boston Railroad Line,** via Norwich and Worcester, daily, from pier No. 1, North river, at 6 o'clock, p.m. The Worcester, Captain Bacon, on Tuesdays, Thursdays, and Saturdays. The Cleopatra, Capt. Dustan, on Mondays, Wednesdays, and Fridays. 31



Passengers, on the arrival of the steamers at Allen's Point, will be immediately forwarded in the splendid and commodious cars of the railroad to Boston, without change of cars or baggage. 31

**For Newport and Providence,** on Monday, Wednesday, and Friday. This line leaves at 8 o'clock, in the morning, from the foot of Whitehall street, South ferry. 31

**U. S. Mail Line for New Haven, Hartford, and Springfield,** from Peck Slip, East river, daily, at 6½, a.m., by steamboat New Champion, Captain Joel Stone, connecting with the cars at New Haven, for Hartford and Springfield. Night line for New Haven: The steamboat Hero, Capt. Richard Peck, leaves on Tuesdays, Thursdays, and Saturdays, at 4, p.m. For Hartford, direct, daily, [Sundays excepted,] at 4, p.m.,—The steamboat Kosciusko, Capt. Le Fevre, every Tuesday, Thursday, and Saturday, and the Globe, Capt. E. D. Roach, will leave every Monday, Wednesday, and Friday. 31



**Hoosatic Railroad; Bridgeport and New York.**—The steamboat Mutual Safety, Capt. J. B. Lober, leaves New York, from the foot of Market street, every morning, [Sundays excepted,] at 6 o'clock, arriving in Bridgeport at 11 o'clock. Returning, leave Bridgeport at 1½, p.m., on the arrival of the cars, arriving in New York at 5½ o'clock. The Nimrod, Capt. J. Brooks, Jr., leaves New York daily, at 2, p.m., and Bridgeport 7 a.m. There are no train of cars running in connection with any boat except the Mutual Safety until further notice. 31

Tickets, if not purchased at the offices on the line of the road, or on board of the boat, will be charged at advanced prices. Dated tickets positively taken only on the day specified. R. B. MASON, Superintendent. 31

**PASSENGER LINES, SOUTH AND SOUTHWEST.** **New York and Philadelphia Railroad Line.—Direct.** 

Leaves New York daily, from the foot of Liberty street. Morning Line, 9 o'clock, A.M. Mail Pilot Line, 4½ o'clock, P.M. Fare in first class cars, \$4. Second class cars, \$3. 31

Passengers will procure their tickets at the office foot of Liberty street. Philadelphia Baggage Crates are conveyed from city to city without being opened by the way. Each train is provided with a car, in which are apartments and dressing rooms expressly for the Ladies' use. 31

 **Camden and Amboy Railroad Line.** 

For Philadelphia and intermediate places. Leaves Pier No. 2, North River, foot of Battery Place, by Steamboat to South Amboy, daily, Sundays excepted, at 5½ o'clock A.M. Passengers will take the cars at South Amboy. Fare to Philadelphia, \$3. Forward deck passengers, \$2 25. To Freehold and Monmouth, via stages from Hightstown, \$1 50. To Spotswood and West 75 cents. To South Amboy, 25 cents. To Perth Amboy, Tattens, Rossville and Tufts, 12½ cents. 31

The steamboat Independence will land at each of the above named places going and returning, leaving Perth Amboy at 5 o'clock P.M. 31

 **New Jersey Railroad and Transportation Company.** 



For Newark. Fare 25 cents. Leave New York at 8, 9, and 11 o'clock A.M., and 12½, 2, 3, 4½, 6½, and 8 o'clock P.M. Leave Newark at 7, 7½, 8, 9, 10½, A.M., and 1½, 4, 5½, 7½, 9½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave Newark at 11½ A.M., and 9½ P.M. 31

**For Elizabethtown.** Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Elizabethtown at 7, 7½, 8, 10½ A.M., 3½, 6½, 9½, P.M. 31



**For Rahway.** Fare 31½ cents. Leave New York at 9 A.M., 12½, 2, 4½, 6½ P.M. Leave Rahway at 5½, 7½, 11½, A.M., 3, 6½, 9, P.M. 31

**For New Brunswick.** Fare 50 cents. Leave New York at 9 A.M., 4, 4½ P.M. Leave New Brunswick at 5½, 7½, 11, A.M., 8½, P.M. On Sundays, leave New York at 9 A.M., and 4½ P.M. Leave New Brunswick at 12 M., and 8½ P.M. 31

The commutation fare between New York and New Brunswick and intermediate places, including the ferry, \$65 per annum. 31

 **Paterson Railroad. Leave** 

New York, 9½ A.M., 12½, 5½ P.M. Leave Paterson, 8, 11½, A.M., 4 P.M. On Sundays, leave New York 9½ A.M., 5½ P.M. Leave Paterson, 8½ A.M., 4½ P.M. Passengers are advised to be at the ferry a few minutes before the stated hours of departure. Office 75 Courtland street. 31

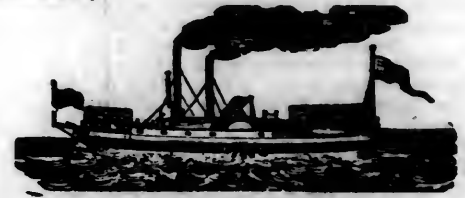
 **Morris and Essex Railroad.** 

Leave New York, 8 a.m., 4½ p.m. Leave Newark, 9 a.m., 5½ p.m. Leave Morristown, 7 a.m. 3½ p.m. Passengers by the morning train to Morristown, will arrive there at 10½ o'clock, where stages will be in readiness to convey them to Schooley's Mountain, Washington, Belvidere and Easton, daily; to Succasunna, Stanhope, Newtown, Milford and Owego on Mondays, Wednesdays and Fridays; and to Rockaway, Dover, Sparta and Newton on Tuesdays, Thursdays and Saturdays. Passengers from Morristown will arrive in Newark in time to take the morning and afternoon trains from Trenton and Philadelphia. 31

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.

ESTABLISHED 1831.



PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 40.]

THURSDAY, OCTOBER 2, 1845.

[WHOLE No. 483, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)  
ROGERS, KETCHUM & GROSVENOR, Patterson, N. J. (See Adv.)  
S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
NORRIS, BROTHERS, Philadelphia, Pa.  
KITE'S Patent Safety Beam. (See Adv.)  
FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)  
NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)  
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A. & G. RALSTON & Co., Philadelphia, Penn. (See Adv.)  
THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 26, 1840.

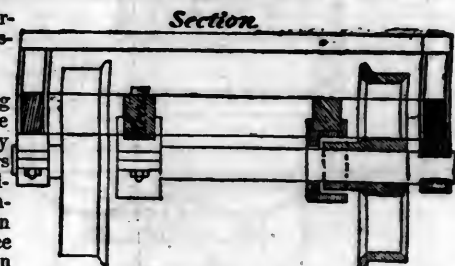
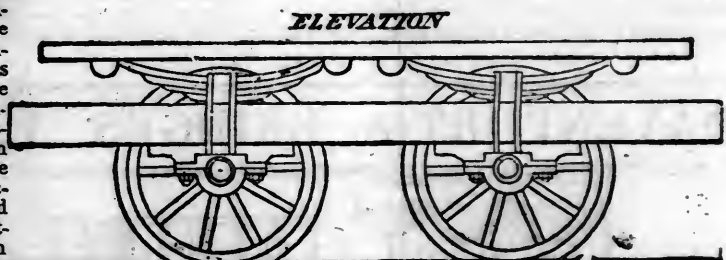
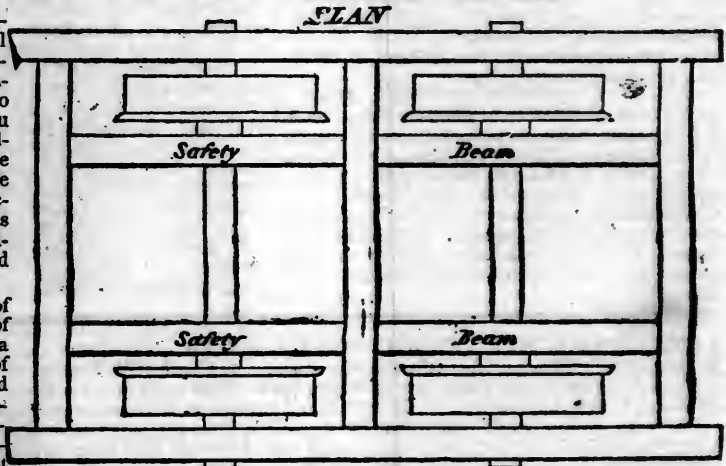
The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co. Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent. Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 223 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. FRENCH & BAIRD. Philadelphia, Pa., April 6, 1844.

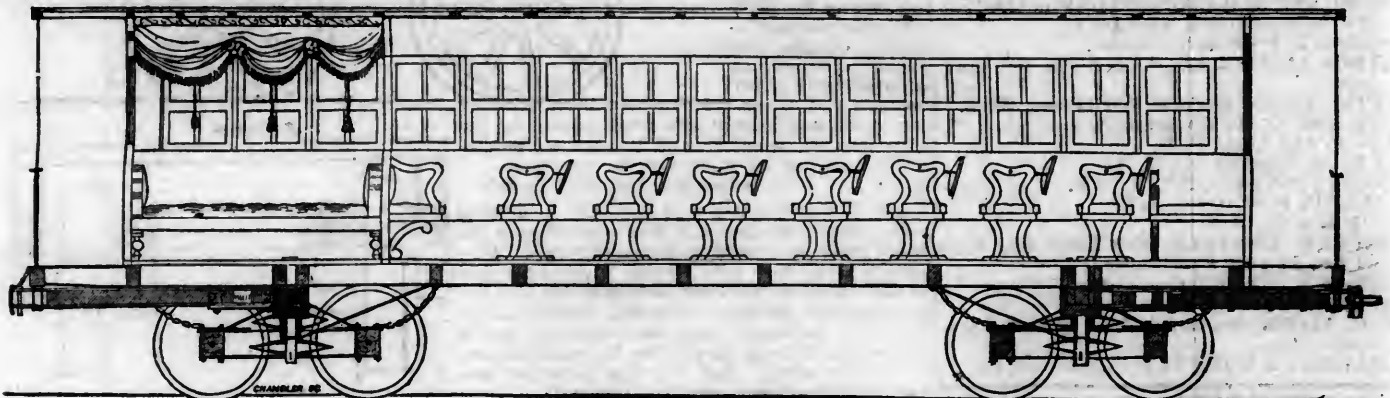
\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45



**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

The article is complete in itself, occupies but little space, is perfectly portable, and requires no brick work, not even to stand upon. It is valuable, not only in the saving of time and labor, but in the economy of fuel, as it has been ascertained by accurate measurement, that the saving in that article is fully two-thirds over other methods heretofore in use. They are now for the first time introduced into New York and Boston by the subscriber, who has the exclusive right for the New England states, New York and New Jersey, and are manufactured by CURTIS & RANDALL, Boston; and by FORCE, GREEN & CO. New York.

**DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.**



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

From 4 inches to 4 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T. L., and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**  
*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.  
**WILLIAM YOUNG,**  
President.  
ja451m

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Biluminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48 State st.,** or to **CURTIS, LEAVENS & CO., 106 State st., Boston,** or to **A. & G. RALSTON & Co., Philadelphia.**  
ja45

**CYRUS ALGER & CO., South Boston Iron Company.**

**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	Number	Diameter of Cylinder	Stroke
1	15 inches	20 inches	
2	14	24	
3	14½	20	
4	12½	20	
5	11½	20	
6	10½	18	

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives. Tenders and Cars.

**NORRIS, BROTHERS.**

## The Iron Manufacture.

We referred in our last, to an article in the Mining Journal of the 30th August, on the probable demand for, and supply of iron during the ensuing five years. The writer evidently understands the subject; and has, in our view, rather underrated the demand for railroads, than otherwise; as we are fully of the opinion—now frequently expressed by intelligent English gentlemen—that the system will be pushed “until every town in England has its railway.” That parliament will grant many new charters for railroads, not only during the ensuing, and the following, but also at many subsequent sessions, no one need doubt; as, while railroads tend so directly to develop the resources of the country, and especially its *distant* sections; and at the same time, pay 4½ per cent. with a prospective increase, there will be men and capital to build them, not only in Europe but also in this country—therefore an increased consumption of iron may be looked for, and a *large* one too, certainly during the next *ten*, aye, *more* than that number of years.

We wish we could place a number of the Railroad Journal, containing this article, in the hands of every business man in this community, and especially in the hands of those who have the means, but lack the courage, to engage in the manufacture of iron for our own supply.

The writer says, “should the atmospheric principle be adopted on some of the lines—which is highly probable—the requisite quantity of iron in these cases, will be increased about 50 per cent. per mile.” We also think it almost certain that the atmospheric principle will be adopted on many lines; and of course that the quantity of iron will be thus materially increased in the first instance, though a less quantity will be required to keep them up, as a renewal of locomotives, and of rails from wear and tear by the locomotive, will be avoided.

The writer remarks, that “some of your readers may be surprised to learn that it will require, to make the *increased* quantity 1,233,000 tons for the year 1848—20,000 tons of coal, and 13,000 tons of iron ore per day, and the labor of about 100,000 men.” He also states that 244 new furnaces, costing £20,000 each, or £4,880,000, will be required, and says that two years will be quite little time enough to get them into operation.—We think so too, and much doubt the completion of so much *in that time*, though all that he has pointed out, and much more, will be accomplished at an early day.

The closing remarks, in relation to the suspension of the works on account of the

high price of iron, we think very just; those interested will be much more likely to push on, even at a probable loss, than to suspend and thus depreciate the value of their shares and incur certain loss—and then it affords such an excellent apology for exceeding original estimates.

Numerous letters and paragraphs have recently appeared in the *Mining Journal* on the above important subject. I have been surprised at some erroneous and contradictory assertions, and no less so at some unwarrantable inferences drawn from correct statements.

Being an old subscriber to your Journal, I take the liberty of troubling you with a few plain facts, and with some simple observations, which will, I think, place the subject in its true position.

It has been gravely and repeatedly asserted, that a double line of railway creates a demand for 700 tons of iron per mile. This is a great exaggeration. Reckoning the rails at 70 lbs. per yard, and the chairs at 20 lbs. each, and making full allowance for pins, bolts, sidings, turn-outs, bridges, stations, locomotives, carriages for passengers and luggage, and the long *et cetera* connected with a railway, you will find 500 tons per mile to be a fair and sufficient estimate.

The number of miles for which railway acts were passed last session is 2841. Reckoning 500 tons per mile, 1,420,500 tons of iron will be required to complete them. By far the larger portion of this quantity being wrought-iron, and a great deal of it highly finished iron, at least 1,800,000 tons of pig iron will be consumed in manufacturing the 1,420,500 tons required for the 2841 miles of railway.

The experience which has now been attained in railroad making, warrants the conclusion, that three years is ample time for completing the 2841 miles. If the 1,800,000 tons is divided equally over the three years, it amounts to 600,000 tons per annum.

But we must not stop here. The impetus for railway making has been given, and nothing will check it until every town in the kingdom is accessible by a railway. Judging from the many bills which were impeded in their progress by the prorogation of parliament, and the number of new lines since proposed—and which number is augmenting almost every day—we are justified in supposing that *not less* than 2000 miles of railway will be sanctioned by parliament next year, and *at least* 1000 miles in the year following. This additional 3000 miles will, according to the foregoing estimate, require 1,500,000 tons of finished iron, or 1,900,000 tons of pig iron—that is, 1,266,000 tons for the 2000 miles, and 633,000 tons for the 1000 miles. Allowing three years for completion, one-third of each of these quantities will also be required in each year after the passing of the acts of parliament—consequently, there will be wanted, in the year 1846, 600,000 tons of iron, in respect of the 2841 miles of last session; in the year 1847 there will be wanted 1,022,000 tons—viz., 600,000 tons

in respect of the acts of last session, and 422,000 tons in respect of the estimated 2000 miles of next session; and in the year 1848 there will be wanted 1,233,000 tons viz., 600,000 tons the residue for last session, 422,000 tons on account of next session, and 211,000 tons in respect of the estimated 1000 miles of the session of 1847—making a total quantity of 2,855,000 tons in three years.

Should the atmospheric principle be adopted on some of the lines—which is highly probable—the requisite quantity of iron will, in these cases, be increased about 50 per cent. per mile.

It will be observed that the foregoing calculations are confined to the railways of this country. It is not unreasonable to suppose, that as many miles of foreign railway will be undertaken in the next three years as the aggregate of the British railways. To think that the foreign supply of iron will, during that period, be equal to the foreign demand, is absurd. Foreign countries *will look* to this country for the deficiency. We will however, confine ourselves at present to the inquiry—how is the *increased* demand for *home consumption*, to the extent of 2,855,000 tons in three years, or upwards of 950,000 tons per annum, to be met?

I have called it an *increased* demand for 2,855,000 tons; the annual quantity of iron hitherto used for railways being *comparatively* insignificant; so that the increasing consumption for other purposes may be considered more than equivalent to the demand, which was created by the railways already made.

Past experience will help us very little in answering the inquiry,—how is the extra quantity of nearly 3,000,000 tons of iron in the next three years to be supplied? In 1825 there was a great demand for iron, prices rose enormously, pig-iron was sold at £10 per ton, and bar-iron at £14. This induced a *large* addition (as it then appeared) to the previous make of iron; so that the quantity manufactured increased from 450,000 tons in 1825 to 680,000 tons in 1830, being an aggregate increase of 230,000 tons per annum in five years, and an average increase of 46,000 tons per annum; but we now want an additional million tons per annum.

Since 1830 the annual make of iron in this country has gradually extended from 680,000 tons to about 1,400,000 tons; being an aggregate increase of 720,000 tons per annum. The use of hot blast, and the discovery of the blackband iron ore, greatly aided this increase. It is not to be expected that such new auxiliaries to iron making will be found in the next three years; and, if they should, a considerable space of time must elapse before new inventions can be successfully applied and extensively adopted.

The production of iron has not materially varied in the last four years, owing to the prices not being remunerative during great part of that time; the make of 1841 was not much below the present make. We may, therefore, consider the increase of 720,000 tons per annum, as being thrown over a period of eleven years, from 1830 to 1841—be-



ing an average increase of 65,454 tons per annum. But we require an increase of 600,000 tons in the next year; of 1,022,000 in 1847; and of 1,233,000 tons in 1848; being an average increase of 411,000 tons in each succeeding year beyond the make of the preceding year—an *annual progressive increase* nearly equal to the *total make* of the kingdom in 1825; and an aggregate increase in three years quite equal to the total make of the last two years.

Again, we inquire, how is the additional quantity of nearly 3,000,000 tons of iron to be produced in the next three years?

It has been asserted in the *Mining Journal*, that the furnaces now in blast could produce double the quantity of iron which they now make. Had it been stated, that they cannot produce 5 per cent. beyond their present make, it would not be far from the truth.—The assumption is perfectly absurd. Would an iron-master have built two furnaces, if one would have made as much iron as is now made with two? Would he keep ten furnaces in blast, employing ten sets of founders, fillers, &c., if nine furnaces could produce the same quantity of iron? Would he refuse orders upon orders, at remunerating prices, as he has done in the last six months, if his present furnaces would furnish an additional supply? Certainly not.

The increased demand can be met in no other way than by a vast extension of mining operations, new furnaces, forges, and mills; new tram-roads and railroads for the use of the iron works; new steam engines for pumping, winding, blowing, hammering, and rolling; new carriages for conveying the minerals to the furnaces and the iron to the shipping places. All this must be a work of time, and will require an immense expenditure of money.

In order to produce the presumed extra quantity of 1,233,000 tons in the third year from the present time, 244 new furnaces (with all their appendages), must be provided in the next two years, reckoning each furnace to produce 5000 tons of iron per annum. Not less than 500 tons of iron per furnace will be consumed at the iron works in consequence of the erection of these 244 new furnaces. Thus, more than 120,000 tons of iron in two years, or 60,000 tons per annum, will be taken away from the present means of supply by the attempt to meet the future demand.

Five hundred tons per furnace may seem to the inexperienced to be an over-statement; but when the iron master calculates upon the quantity of iron consumed in steam-engines, blast-pipes, furnaces, cast-houses, forges and mills, work shops, tram-roads and railroads above and under ground, carriages for raw materials, and for manufactured goods, and a variety of tools and implements, he knows that the quantity is more likely to be exceeded than otherwise.

Next, as to the probable outlay consequent on these 244 new furnaces. It cannot be reckoned at less than £20,000 per furnace, or £4,880,000. Many an iron master would congratulate himself, if his past outlay were

as moderate as our estimate for the future.—Five millions of money is a formidable outlay in two years, for the extension of any one trade. It may appear a small sum to railway companies, whose capital is held in shares of £20 or £50 each. But, to suppose that fifty iron companies, each composed of a few individuals, can or will expend £100,000 each in the next two years, in the extension of existing iron works, or in the erection of new ones, is almost incredible; especially, when it is recollected that, for the three years immediately preceding the present year, most of the iron works were carried on at a positive loss.

Some of your readers may be surprised at the fact, that an increase of 1,233,000 tons of iron in a year, requires the addition of 20,000 tons of coal, and 13,000 tons of iron ore per day, and will give employment to about 100,000 men. Two years will be found quite little enough to provide this vast addition to the supply of minerals, to turn boys into men, and to convert ordinary laborers into skillful colliers, miners, mechanics, founders, fillers, finers, puddlers, and roller-men.

Shall we look abroad for assistance?—Foreign countries will feel the difficulty much more than ourselves, and, after all their exertions to satisfy their own wants, they will be obliged to come here for a supply, when time and enterprise, money and men, have enabled us to meet the demand for home consumption.

We have hitherto presumed that there will be something like a systematic apportionment of the orders for railway iron over a period of three years, so that in each succeeding year there will be a progressively increasing demand. But, will it be so? Are the railway companies so free from rivalry and competition, and so cordial in their cooperation, as to agree together to apportion their orders equally over three years? And, if the companies who have already obtained their acts of parliament, could be induced to take so friendly and so prudent a course, would not new railway companies be sure to disturb such an adjustment of demand and supply? Nothing of the kind will be attempted. Immediately the railway companies are convinced that the price of iron will go higher and higher, until it becomes unprecedentedly high, each company will endeavor to secure its own supply before others, and before iron has reached its maximum price, and thus accelerate, and still further augment, the advance. Symptoms of this movement are already too evident to be mistaken.

It may be said, perhaps, that a great advance in the price of iron will induce the railway companies to slacken their speed, and extend the time for completing their undertakings to five or seven years. It might be so with cautious, calculating, individuals; but it will not be so with public companies, led on by enterprising engineers. They would rather pay any price for iron, than pay 4 per cent. interest to the shareholders without any actual return for their capital, and thus fearfully depreciate the market value of the shares. The advance in the price of iron

will afford an excellent excuse for exceeding the estimated outlay; the powers of borrowing will be exercised; or, if more convenient, additional shares will be created. If iron can be had, no railway will be stopped on account of price.

The difficulty of obtaining iron at any price will shortly present a novel feature in the manufacturing and commercial history of this country. I may then take the liberty of again addressing you. A LOOKER ON.

#### Railways vs. Canals.

We find the following article on this subject, to which we have before referred, in the last number of the *London Railway Express* a new journal recently established. Such is evidently the tendency, and the proprietors show their sagacity by adopting their present course instead of attempting to arrest the progress of railways. *As well might an obstinate individual attempt to turn back a locomotive under full speed as for those interested in canals to attempt to arrest the onward course of railroads.*

A general inclination appears to exist on the part of canal proprietors to convert their canals into railways. The proprietors of the Kennet and Avon canal met at Reading on Tuesday, and agreed to apply to parliament for powers to make their canal into a railway. The Great Western railway company had nearly ruined their carrying trade to and from Hungerford. The canal is 93 miles long, that is 57 cut (from Newbury to Bath,) and 36 of river navigation. The intention is to convert the 57 miles of cutting into a railway; this will give a line between Bath and Newbury, will shorten the distance from Bath and London by the Great Western, and will avoid the Box Tunnel. The Great Western company have got a bill for making a branch from Reading to Newbury and Hungerford, and the canal-railway could make a junction at either place. The expense is stated to be small. The report of Mr. McClean, the engineer, who had made the survey, states,—

“That 47 miles of the proposed railway may be constructed on the land belonging to the company, and that deviations from the present line of canal for a total length of 8 miles will be required in improving the curves and shortening the distance, for which land must be purchased or exchanged. The cost of forming the railway will not exceed an average of £8000 per mile, or for the whole distance, say 55 miles, including stations, £600,000. The gradients will be such as to afford the greatest economy in working the line, by being concentrated in one incline of one in 53 for about two and a quarter miles in length. The distance from London to Bath will be three miles and a half shorter than by the present line, and no tunnel will be required.”

It was agreed that an increased capital of £800,000 be raised by the creation of new shares of £15 each, and that each proprietor of Kennet and Avon shares be offered two new shares in addition to each one present share; that interest at the rate of £4 per cent. per annum be paid on deposits and calls on new shares, and that a dividend at the rate of 7s. 6d. per share per annum be paid to the holders until a dividend on the railway shall be declared.





AMERICAN RAILROADS.													SALES.	
RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on hare.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	Week ending Sept. 15. Last.	
						Gross.	Nett.		Gross.	Nett.				
Me. 1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	101½	100½	
N. H. 2 Concord.....	35	750,000									12	65		
Mass. 3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	111		
" 4 Boston and Maine extension.....	17 1-4	455,703	unfin.											
" 5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	118	117½	
" 6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	111		
" 7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	116½	116½	
" 8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
" 9 Charlestown branch.....		280,260						13	34,654	13,971	5½	80		
" 10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	107½	107½	
" 11 Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,835		119		
" 12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	126		
" 13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6	102		
" 14 Northampton and Springfield.....		172,885	unfin.											
" 15 Norwich and Worcester.....	59	2,170,366	900,000	16,535	100	162,336	24,871		230,674	99,464	3	67	69½	
" 16 Old Colony.....		87,820	unfin.									105		
" 17 Stoughton branch.....	4	63,075	unfin.											
" 18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	120		
" 19 Vermont and Massachusetts.....														
" 20 West Stockbridge.....	3	41,516			100						4			
" 21 Western, (117 miles in Mass.,).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	98½	97½	
" 22 Worcester branch to Milbury.....		8,431	506											
" 23 Housatonic, (10 months,).....	74	1,244,123							150,000			26	33	
Con 24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	93		
" 25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
" 26 Stonington, (year ending 1st Sept.,).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29	32	
N. Y. 27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0			
" 28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109	103	
" 29 Auburn and Syracuse.....	26	766,657		133½		86,291	27,334		96,738	52,544	6	116		
" 30 Buffalo and Niagara.....	22	200,000		1,500								100		
" 31 Erie, (446 miles,).....		5,000,000										27½	31½	
" 32 Erie, opened.....	53						48,000		126,020	59,075				
" 33 Harlem.....	26	2,250,000	750,000	30,000					140,685	62,399		61	62½	
" 34 Hudson and Berkshire.....	31	575,613		50					35,029	1,789	0	11½		
" 35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	61½	65½	
" 36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	56½	57	
" 37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
" 38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
" 39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117		
" 40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
" 41 Troy and Greenbush.....	6	180,000										90		
" 42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
" 43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132		
N. J. 44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		112		
" 45 Elizabethtown and Somerville.....	26	500,000												
" 46 New Jersey.....	34	2,000,000										95½		
" 47 Paterson.....	16	500,000									6	88½		
Pa. 48 Beaver Meadow.....	26	1,000,000												
" 49 Cumberland Valley.....	46	1,250,000												
" 50 Harrisburg and Lancaster.....	36	860,000										30		
" 51 Hazleton branch.....	10	120,000												
" 52 Little Schuylkill.....	29	900,000												
" 53 Blossburg and Corning.....	40	600,000												
" 54 Mauch Chunk.....	9	100,000												
" 55 Minehill and Schuylkill Haven.....	19 1-2	396,117	25,000	7,019	50			12			12	80		
" 56 Norristown.....	20	800,000										6½		
" 57 Philadelphia and Trenton.....	30	400,000										104		
" 58 Pottsville and Danville.....	29 1-2	1,500,000												
" 59 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		25	24½	
" 60 Schuylkill valley.....	10	1,000,000												
" 61 Williamsport and Elmira.....	25	400,000				20,000								
" 62 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		15½	15½	
Del. 63 Frenchtown.....	16	600,000												
Md. 64 Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		558,620	346,946		48½		
" 65 Baltimore and Susquehanna.....	58	3,000,000										24		
" 66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va. 67 Greenville and Roanoke.....	18	284,433	37,544	2,000	100				25,368	6,074		28		
" 68 Petersburg.....	63	969,880	63,000	7,690	100				122,871	72,898	3	77		
" 69 Portsmouth and Roanoke.....	78 1-2	1,454,171												
" 70 Richmond, Fredericksb'g and Potomac.....	76	800,000												
" 71 Richmond and Petersburg.....	22 1-2	700,000							185,243	85,688	6			
" 72 Winchester and Potomac.....	32	500,000												
N. C. 73 Raleigh and Gaston.....	84 1-2	1,360,000												
" 74 Wilmington and Raleigh.....	161	1,800,000												
S. C. 75 South Carolina.....	136								532,871	140,196	5			
" 76 Columbia.....	66	5,671,452		34,410	75	201,464	77,456		328,425	180,704				
Ga. 77 Central.....	190	2,581,723				227,532	93,190							
" 78 Georgia.....	147 1-2	2,650,000				248,026	158,207		248,096	147,523				
" 79 Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Ky. 80 Lexington and Ohio.....	40	450,000												
Ohio 81 Little Miami.....	40	400,000												
" 82 Mad river.....	40	152,000												
Ind. 83 Madison and Indianapolis.....	56	212,000												
Can. 84 Champlain and St. Lawrence.....	15						12,000		58,000	24,000	110			

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Thursday, October 2, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 23,204 tons, and by canal 9,085 05, making 32,289 95 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total.....	290,106
From Schuylkill Haven—total.....	289,003
From Port Clinton—total.....	14,968

Total by railroad.....584,048

BY CANAL.

From Pottsville and Port Carbon—total.....	111,181
From Schuylkill Haven—total tons.....	31,084
From Port Clinton.....	36,935

Total by canal.....179,203

Total by railroad and canal.....763,251

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines, -	144,238	
Room run do., -	54,726	198,961
Beaver Meadow railroad and coal co.,	62,112	
From Penn Haven—Hazleton coal co.,	53,856	
From Rock Port—Buck Mountain coal co.,	16,331	

330,263

WYOMING COAL TRADE—total.....121,551

PINE GROVE COAL TRADE.—total.....38,126

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....319,800

MOUNT CARBON RAILROAD—total tons.....193,366

MILL CREEK RAILROAD—total.....55,153

SCHUYLKILL VALLEY RAILROAD—total.....67,402

[Miners' Journal.]

WESTERN RAILROAD.—Receipts for the week ending September 20.

	1845.	1844.
Passengers.....	\$10,457	\$11,236
Freight, etc.....	9,999	6,926

Total.....\$20,456 \$18,222

Nett gain this week.....\$2,264

Nett gain previously since Jan. 1, '45.....30,977

Total gain.....\$33,241

ATLANTIC AND ST. LAWRENCE RAILROAD COMPANY.—We learn from the Portland Advertiser that Thursday was a day of triumph and festival at Portland, it being the day appointed for the organization of the St Lawrence railroad co. The British and American flags were flying over the City Hall, and in various parts of the city.

The meeting of the stockholders was called to order by judge Preble, and the mayor chosen to preside. John Neal was chosen clerk of the corporation, and took the oath of office. The directors chosen are as follows:—William P. Preble, of Portland, James Deering, of Westbrook, John Mussey, John B. Brown, John Anderson, Eliphalet Greely, St. John Smith, Josiah S. Little, James L. Farmer,

Thomas Hammond and George Turner, of Portland, John A. Poor, of Bangor, Ezra F. Beal, of Norway.

ALBANY AND SCHENECTADY RAILROAD.—An important change in the hour of departure from Albany goes into operation to-day. The one o'clock train has been brought forward to nine o'clock in the morning in order to take travellers at once west, whenever the boat (as will be the case at this season of the year) is detained by the fog. Heretofore passengers who have arrived after 7½ o'clock, have had to wait all this morning before they could leave for the west.

"WEAR OF RAILROAD IRON."—A well written article on the "wear of railroad iron," on different kinds of substructure, by James Herron esq., civil engineer, in reply to our article published by us, on 31st July, from the Boston Courier of the 15th of that month, accompanied by the remarks of "J"—not of the editor—is received, but it came too late for this number, and will therefore find a place in our next.

"SUSPENSION AQUEDUCT."—We have received from Mr. John A. Roebling, an exceedingly interesting description accompanied by a drawing, of the "suspension aqueduct," recently constructed by him, over the Alleghany river, at Pittsburg, for the passage of the Pennsylvania canal into that city.—We have looked with no little interest, for this description, as this is, we believe, the first work of the kind ever constructed, and are therefore greatly obliged by the opportunity of presenting our readers with the first full account of a work so creditable to his enterprize and skill. We shall give it with the illustration in our next number.

"ANOTHER RAILROAD ROUTE," is received and will appear in our next, notwithstanding the writer's insinuation of "undue influence." We will simply remark that no person ever spoke to us in relation to the project referred to; and that we have learned, by an intercourse with society of near forty years, that none are more liable to the charge of being operated upon by "undue influences" than those who are most ready to cast the imputation upon others.

Miami and White Water, Ohio canals

We learn from the Cincinnati Gazette—and we thank the editor for his courtesy in sending it to us again, as we missed it sadly—that the Miami canal breach would be repaired so as to be navigable again on the 16th inst., but that the Lawrenceburgh branch of the White Water canal, would not be navigable under three or four weeks. This is much to be regretted, as the business season will now soon be over. It is however gratifying to learn, as we do, from the Gazette, that Cincinnati is realizing the fruits of her enterprize, in the daily receipt of large quantities of produce by the Little Miami railroad and the white water canal. The present receipts are however only a drop in the bucket, in comparison to what they will be in a few years. Cincinnati will yet reap rich harvests from her railroads and canals. Twenty years more will produce changes which will astonish her most sanguine friends.

Rutland Railroad.

The Bunker Hill Aurora says that Mr. Gilbert has completed his survey, and the profile and estimates of the railroad from Bellows Falls to Burlington, are exhibited at No. 9 Merchants' Exchange. An address in behalf of this railroad, signed by about 200 merchants in the city, has been

published, and a strong effort is being made to complete the subscription for stock.

And the effort will succeed too, who will believe that the Boston merchants will not meet the overtures of western Vermont.

Credit to whom it is due.

There are two reasons why those who copy articles from other journals, should acknowledge the source from whence they were derived; 1st, that he who adopts them, may not be chargeable with their errors, if they are not correct; 2ndly and mainly, that he who puts them forth may have his due, if they are useful. Our reason for alluding to the subject, is simply to request those, who avail themselves of our labors—which, by the by, we are always desirous they should do, will either disguise them by clothing them in more appropriate language, that we may use them again to better purpose, or put on the appropriate ear mark, that we may pass them by; as it is exceedingly vexatious to be led, by a slight alteration in the introduction, to republish ones own paragraphs. On "second sober thought" we should never mistake, from its lack of polish, or finish, our own work, even if we saw it on the locomotive "galaxy" on the Middlebury and Rutland route to Boston, or even upon any of the southern or western lines of road, though when looking upon one object and thinking of another, we might not detect its origin.

Monroe, Georgia Railroad.

We noticed some time since, the sale at auction, of this railroad and its appendages, to J. Cowles, esq. and others, in accordance with notice previously given, for \$155,100, and in a subsequent number, we published a paragraph from the Macon Messenger, which intimated an intention on the part of Andrew R. Moore and others, to contest the sale as illegal. Since then we have endeavored to ascertain the facts in relation to the sale, and we have reason to believe that the sale was not only legal, but fortunate also, as the purchasers are able and ready to complete that part of the road not yet finished, and also to put the whole line in good repair, and efficient working order, that the people along its line may begin to derive some advantage from it.

We have, at different times, during the past ten years, published notices of this work; but have not until recently, understood its proper position, nor appreciated its value. On examination, we are at a loss to know why it is called the "Monroe railroad" in as much as it does not pass through, nor within many miles of any place of that name—but commences at Macon, the termination of the Central road from Savannah, of 190 miles in length—and passes through Forsyth, Griffin and other towns, the distance of 101 miles to Atlanta, about five miles west of Decatur in Dekalb county. It is at this point, we believe, that the "Georgia and South Carolina railroads," from Augusta and Charleston 312 miles in length terminates; and the "Western and Atlantic road" of about 140 miles in length, to the Tennessee line at Rossville, commences. Thus it will be seen that the Monroe railroad is to form the connecting link between the Central road from Savannah, and the state, or Western and Atlantic road, to the Tennessee line, and with the "Hiwassee railroad," from, or near the line, 98 miles north-easterly to Knoxville. There can now, we think, be little doubt, but that operations will be again, at no distant day, resumed on the "Hiwassee," which was nearly, or quite graded some years ago, and then abandoned for want of means to go on. It is also now almost certain, that the "Western and Atlantic

road" will be continued from Rossville, to Chattanooga on the Tennessee river and from thence to Nashville 130 miles, thus opening a communication with middle Tennessee, Kentucky and Ohio, by Steamboats on the Cumberland river to Nashville. By this route, the cotton bagging and provisions, from Kentucky and Ohio, which now find their way to New Orleans and around the capes of Florida, to Savannah and Charleston, and then to the interior of Georgia, over the railroads, a distance of over 2300 miles, at an enormous expense, will pass up the Cumberland about 200 miles to Nashville, and then over the railroads to Atlanta, about 300 miles, and from this point, it may pass over the Monroe road to Macon and Savannah 101, or 291 miles; or to Augusta and Charleston 172, or 312 miles. Who that looks at this subject understandingly, will not see the importance, especially to Savannah and the interior of Georgia, of having the Monroe road put in good working condition as early as possible? Not only from its serving as a connecting link between the central and state roads, from Savannah to Tennessee, but also as it is to become the connecting link between the road from Charleston and Augusta, and the West Point and Montgomery railroad in Alabama. The company which owns the the Monroe road, also has the control of the charter for a railroad from Griffin, on the Monroe road, to West Point, 68 miles, where it will connect with the railroad to Montgomery, now in use, in the direct line to Mobile and New Orleans; and it is an important fact, with which we were not, until recently acquainted, that this short line of *sixty eight miles*, and the distance from Griffin to Atlanta about *fifty miles*, where the Monroe road connects with the line to Charleston, are the only remaining links to be completed, to open a steam route of travel, by steamboat and railroad, from *Bangor in Maine, to New Orleans and Texas!* Thus it will be seen that this "Monroe road," and its branch from Griffin to West Point, occupies a position of vast importance; as, with its *three arms* pointing from Griffin northwardly, southeasterly, and southwesterly, it commands the passes from Savannah to Alabama, to Tennessee, and also from Charleston to Alabama and New Orleans. It is in reality to be the "Turn table" for *four* other important railroads, and it becomes the purchasers to put it in the best possible order, at the earliest period, and when they have done this, we hope they may derive a liberal return for their investment.

We shall soon refer to this subject again, in connection with the extension from the Tennessee river to Nashville and to St. Louis.

#### Oswego and Syracuse Railroad.

We have taken much interest in the success of this work, as promising to be one of great utility and convenience, connecting two important mediums of travel, and transportation, by the shortest possible route of favorable connection.

The route of this road is an exceedingly favorable one, and its estimated cost only \$350,000—of which \$200,000 has been subscribed at Oswego, Syracuse, and along the line; and now the commissioners offer to the capitalists of this city, the balance of \$150,000. We understand that the *right of way* has been mostly obtained, and that it only remains for the city of New York to subscribe this small amount to the capital, to insure an immediate commencement of work upon the line, and an early completion of the road—and will it not be done? shall it be said that New York hesitates to subscribe \$150,000 to a work which will secure to her own storehouses, the business for which Boston is investing *millions* to obtain? We shall see.

#### Canals cheaper than Railways.

"A Norwich paper says that the railway company have been forwarding coals and iron from their own wharf to Norwich by water, as being cheaper to them than taking them on their own rail."

We copy the above from the "London Railway Express" of 29th August, for the purpose of giving both sides of the question, as it has been intimated by some of our subscribers—and we believe them to be warm and true friends also—that we do not give *canals* a fair chance with railroads, or in other words, that we stand so very upright between the two, that we actually lean a *little* over towards railroads. Possibly it may be so, though surely not intentionally—as we have not, and never have had any except a general interest, to be promoted or injured by the success or depression of either—but after an early examination of the subject, we came to the conclusion, a long time since, that canals, for general use, were to be numbered with things that have been, while *railroads* would become the popular, the common, if not the *universal* mode of transacting business on main lines and general routes. Thus far we have not seen cause, nor do we now, to change that opinion; but on the contrary, every year's experience serves to convince us, more fully if possible, that we were and are correct in the belief that canals must yield generally to railroads, except under peculiar circumstances. We should therefore be gratified to learn that our highly esteemed friend, who recently desired to convince us that, in the "old dominion," at least, it would be better to go on and complete their canal system to the Ohio, than to adopt railroads—had changed his views and come out an advocate of railroads, as in that way only, will he allow us to say it? can he most speedily and *effectually* develop the resources of that time-honored commonwealth, which we know he loves as his own mother.

As we desire to give both sides of this really important question, we give the paragraph at the head of this article, and will give others like it when we find them.

For the American Railroad Journal.

#### Grand and Important Discovery.

This is a project to use the elasticity of atmospheric air as a prime mover of machinery. The idea is derived from its application, after compression, to air-guns. But the great difficulty in the present case is, or as it has hitherto existed, how to receive and accumulate it in a vessel from which to allow its escape in the just quantum of body sufficient to force a piston and by this piston to move a lever, without unnecessary loss; and at the same time to keep the reservoir of power undiminished. Of these two great difficulties, the projector considers the last the most important to be overcome and the only hindrance to the application of this, perhaps, more powerful agent than steam, to the propulsion of boats. He establishes his theory upon the fact that a square inch of air will counterbalance a weight of 14 lbs., that it can be compressed into 1551 parts less than its natural volume, as Buffon has it in his translation of Hales. To overcome the difficulty referred to, the projector, Sig. Gonzaga of Rio de Janeiro, claims the merit, and has no objection to sell the privileged right of his invention. He further announces that besides the agent in question he has others derived from the power of the pinion, lever of the first order, pendulum, blocks, etc., etc., powers, these, well known in mechanics, and possibly these projects may have been, in their application and combination, the same with which the Chinese in their last war with the English, were seen to keep boats in motion without steam.

For the American Railroad Journal.

#### New Anthracite Furnace.

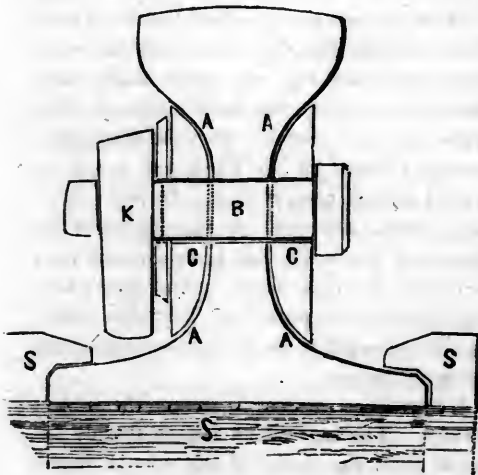
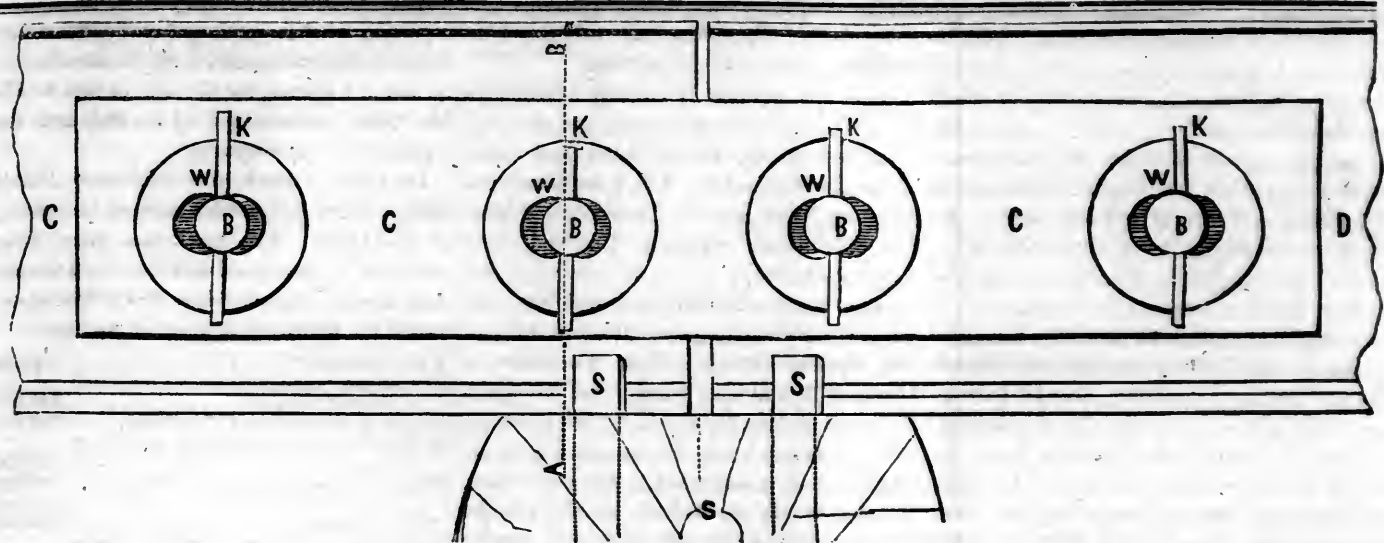
We are indebted to an estimated friend, for the following description of the new anthracite furnace recently erected by ex-governor Porter, and Michael Burke Esq. at Harrisburg Pa. and we avail of this opportunity to express to him our thanks for his repeated favors, during a series of years past, in aid of the railroad cause. This account of the successful operation of this new furnace, will be very acceptable to all who are interested—and who is not?—either in the extension of the manufacture of iron, or in the construction of railroads, and we shall always be gratified and obliged by receiving similar accounts of other new works.

The large anthracite furnace recently erected at Harrisburg, by ex governor Porter and Michael Burke esq., has now been in operation for more than two months, and the success of what is still considered by many as an experiment, is a source of pleasure to the friends of the iron interests, as it must be gratifying to the enterprising proprietors of the establishment.

The height of the stack is about forty feet, and the diameter at the boshes, eleven feet. The blast is furnished by an engine of about sixty horse power, driving two cast iron blowing cylinders of five feet diameter and five and a half feet stroke. But one blowing cylinder is in use at present however, as this one furnishes sufficient blast for one stack, the two cylinders and the machinery being calculated to furnish blast for two stacks, as it is the intention of the proprietors to erect the second stack during the coming season. The ore and coal is lifted vertically from the ground to the top of the stack by means of a water balance, which receives its supply from a reservoir at the top of the furnace, the water being forced up into this reservoir by means of a pump worked by the engine.—The ores used in the Harrisburg furnace, are procured from Chesnut Hill, near Columbia, and from Cumberland county, about five miles from Harrisburg. These ores are mixed in about equal quantities before the charges are put in the furnace; the coal is procured from Wyoming valley.

The furnace produces at present eleven and a half tons per day, or about eighty tons per week. With the two stacks in operation, this furnace will consume about twenty thousand tons of anthracite coal per annum, and an equal amount of iron ore.

The proprietors of the Harrisburg furnace, have understood their true interest, and have paid more attention to the quality than the quantity of iron produced by their furnace.—The result has more than realized the most sanguine anticipations of their friends, as the iron from this establishment has, wherever it has been used, taken precedence of the best charcoal iron manufactured in this part of the state.



Section through A. B.

Weight of rail 63 lbs. per yard. Weight of clamp, bolts, keys and washers 10 lbs. Scale half size.

**Improved Mode of Fastening Rails at the Joints.**

We are indebted for the above drawing and description of a new mode of fastening rails at the joints, to Isaac R. Trimble Esq., superintendent of the Philadelphia, Wilmington and Baltimore railroad. This mode of fastening has been adopted to some extent on that road, as we are informed, with entire success. We therefore commend it to the consideration of those railroad companies, about to relay the old, or to put down a new track. We hope to have an opportunity soon, to examine it in operation, when we will refer to it again.

OFFICE OF THE PHILADELPHIA, WIL-  
MINGTON AND BALTIMORE RAILROAD. }  
Wilmington, August 12, 1845

For the American Railroad Journal.

Dear Sir:—Since the first introduction of railroads in England and the United States, of the great variety of chairs and fastenings devised to secure the rail together at the joint, and the joint to the sill or block beneath, not one has been found to give entire satisfaction. The one herewith described, may

share the same fate as those preceding it: but as it is designed to operate in a very different manner from all others hitherto used, it may possibly answer a better purpose, as I think it will, and prove of some benefit to those laying down rails hereafter, as well as comfort to the traveller.

I can say as far as tried on the new edge rail, laid down on our road this spring, it has proved most excellent—keeping the joints tight, the spikes from drawing, and almost entirely destroying the “beat” when the wheels pass the joints. It is to be kept in view that the object of this fastening, is to “splice” the rails at the joint, and thus obtain, as far as may be possible, the same vertical strength at the joint, as at intermediate points of the rails. This object I am satisfied can be effected—a similar plan was adopted to lengthen out a bar for a switch several years ago, which in use has answered ever since, without derangement.

Experiments were also made a year or two past, by captain Barr, of the Newcastle railroad, for a similar purpose.

A glance at the drawing will show the design. C, D, exhibits a side view of the rails at the joint, with clamp attached, resting on the joint crosstie, S, without any interposing substance whatever, between the rails and the crosstie; c,c, is the clamp iron fitting loosely against the vertical side of rail, but snugly at the re-entering angles or curves at the joint a,a,a; b,b, are the bolts; k,k, the keys; w,w, the washers; s,s, the hook spikes.

A sectional view through A,B, exhibits clearly the whole arrangement, with section (half size) of new rail as laid down and in use. Provision is made for expansion by the longitudinal “slots” in the clamps.

The following was the cost of work and materials for one joint.

	\$ c.
9 lbs. of clamp iron rolled, cut and punched,	
at 4½ cents.....	0 40½
4 holes drilled by hand, per joint 3 cents.....	0 12
1 lb. of bolts, keys, and washers.....	8
	0 60½

The cost of iron work for clamps, will not be at this time, for each clamp and fixture, over 45 cents, or if rails are imported ready drilled, the cost of fastening will not exceed per joint, 33 cents, which would make as cheap a fastening as any now in use, of cast iron, disregarding any question of relative superiority.

I. R. T.

P. S. Should there be any failure in the working of this “clamp fastening” I will not omit to advise you.

**Wear of Railroad Iron.**

The following communication, in reply to Mr. Ellet's theory in relation to the destructibility of railroad iron, is very acceptable; not that we deem any refutation necessary, other than that which is in practical operation, not only on the Reading and the Baltimore and Ohio roads, but also on many other roads both in this country and in Europe, but for the satisfaction of those who have already invested and those who desire to invest, their capital in railroad stocks, we are obliged to the writer, as we shall always be to those who furnish useful and important practical information.

Will not other gentlemen, who have the facts in their possession, communicate them for publication in the Journal? can they in any other way render better service to the cause, just at this moment?

This is precisely the period when the people in every part of the country are looking to the construction of railroads for increased facilities for the transaction of business: of course, then, now is the time to give them facts derived from experience, on our pioneer roads.

For the American Railroad Journal.

In the Ledger of Philadelphia, of 23d August, I find an article over the signature of “Charles Ellet, Jr.,” in relation to the Reading road, and “the wear of railroad iron.” As far as his attack upon the direct-

ors of that particular work goes, I feel no concern; my object in noticing the article, is to correct, *by figures*, the misstatements which the writer has made, or rather, remove the erroneous impression which his articles *may have left* upon the public mind in relation to "the wear and tear of railroad iron." All railroad companies being interested in the subject, will doubtless induce you to present to them the facts which I have collected.

It appeared strange to me at the time, that a man of Mr. Ellet's experience and acknowledged professional ability, should have allowed himself to creep into such mistakes; and I feel convinced that upon a more thorough investigation of the subject, he would be among the first to acknowledge his error. An allowance for his attachment, or interest if you choose, in a rival work of a different character will readily be made by all who understand his position, but those who are ignorant of this fact can only arrive at their conclusions from the statements which he has so boldly set forth, and the obvious impressions which they are designed to convey.

His position with regard to the wear of railroad iron established and not only must the stocks of all our railroads fall in the estimation of the public, but the money which has been invested in many be regarded as lost forever. One fatal error into which Mr. Ellet appears to have fallen is, that the wear of all rails is the same, and that because the Liverpool and Manchester company have been obliged to renew their tracks a second time since the completion of their road, after transporting over them an average freight of 500,000 tons, other companies must anticipate the same necessity. This is the only inference which can fairly be deduced from his statements—whereas every person whose attention has been at all directed to the construction of railroads, and particularly every civil engineer in our country, must admit that the liability to compression, and the daily wear of the bars from friction, is in proportion to the perfection of the substructure, and the machinery or motive power of the road. This fact must certainly be known to the gentleman, and it would have been well had he noticed it in his essay upon the subject.

There is another omission which I cannot allow to pass unnoticed. When the rails are worn out they are thrown aside and regarded by him as worthless. The public will then bear in mind that the arguments of Mr. Ellet have been based upon the following hypotheses:

First: *That all rails of whatever form and substructure are liable to like destruction.*

Secondly: *That when said rails are so destroyed they are entirely worthless.*

The first position is entirely overthrown by the facts which experience on the railroads both in the United States and Great Britain have afforded. The Lowell railroad company, Mass., and the Liverpool and Manchester railroad company, England, have found it necessary to renew their rails after having borne 420,000, and 500,000 tons, while the Philadelphia and Reading road, or that portion extending from Pottstown to Reading, has already transported one and a half million tons, (as shown by the statement of their agents,) and the company have not as yet found it necessary to relay the track. In other words, we find two railways in the United States, which are subject to similar management, differing in their durability in the ratio of 1 to 3. The cause of this difference would require actual observation to define—the difference itself might be easily accounted for by any engineer who is acquainted and familiar with the several modes of construction which have been adopted by the railroad companies of our country.

When the article of Mr. Ellet, to which I have reference, first appeared, I confess, in the absence of other evidence, that I was staggered by his statements. If 500,000 tons of coal, or the transportation of that amount over a railroad will destroy the iron and render it necessary for the company to relay the track, what is the use of making the road? Are not all our railroads visionary schemes, and their projectors doomed to receive the execrations of a confiding people? Altho' some of our railroad companies have consented to carry the article of coal at a lower rate than merchandize, owing to the reduced cost of necessary cars, and decrease in their wear and tear, it is generally believed that less than 1½ cents per ton per mile will not pay more than a fair profit for its transportation. Assuming this amount of 1½ cent per ton per mile, which is a liberal allowance, we find our railroad companies will be obliged to relay their tracks when they have received for transportation \$7,500 per mile, which is less by 25 per cent. than the original cost of any good track in the United States, without reference to graduation and masonry. Hence the conclusion from Mr. Ellet's reasoning is irresistible, *that all the money invested in our railroads is inevitably lost.*

In order to inform myself upon the subject, I have collected and condensed, at no little trouble, from the reports and books of the Baltimore and Ohio railroad company, the tonnage which has been transported over

a portion of that road, and while the result is satisfactory to myself, it shows conclusively, and at a glance, the absurdities into which Mr. Ellet has been led by his over zeal for a particular improvement.

In 1839, a track was laid over Parr's Ridge, about forty miles west of Baltimore, of the H rail. This track has since, for a period of six years and upwards, been in constant use, and up to May, 1845, had transported the following amount of tonnage:

A net tonnage of.....	308,354
Weight of cars and other articles for which no charge was made.....	540,000
Weight of locomotives and tenders.....	202,260
Weight in passenger cars and passengers say.....	197,100
Weight in passenger engines and tenders.....	148,920
Gross tonnage.....	1,456,634
Equivalent to the gross tonnage in transportation of coal of.....	676,848

Hence we see that this track, which is constructed of the H rail, a form that has since been abandoned by our most skilful and practical engineers, has borne a tonnage *thirty-five per cent. greater* than the maximum amount allowed by Mr. Ellet, and is still in a good state of preservation. In fact I have lately been informed by the engineer in charge of this work, that since the first year in which the track came into service, when the defective iron peeled off, but little difference is perceptible in the bars excepting on the short curves.

It is perhaps useless to pursue the subject further. The facts which I have already adduced from the books of the several roads, must dissipate forever the absurdities into which the credulous may have been led by Mr. Ellet's communications. Without giving the details, however, I will present the result of my investigation into another portion of the same road, which has been longer in use and consequently subject to greater travel.

From the town of Ellicott's Mills, a distance of about ten miles, the Baltimore and Ohio railroad is constructed of plate rail with common wooden substructure. Since this rail has been in use it has sustained a trade fully *two-thirds* greater than that mentioned above, or equivalent to the transportation of 1,128,081 tons of coal, or more than twice the quantity considered necessary by Mr. Ellet to render the track unfit for use. The identical track, however, is now passed over by the daily trains, and although considerably worn is considered safe by the superintending engineer.

The next and second position, which, if not assumed by Mr. Ellet, *verbatim*, is virtually relied upon, is the worthlessness of the rail after being compressed or rendered unfit



for present purposes. The writer has here told the truth, but far from the whole truth. He has told enough to prejudice the public mind against railroads, without affording the relief which he possessed, and which a more thorough statement would conduce. He has given *ninety-nine* facts which appeared favorable to his position without adding the *one-hundredth* which would overthrow them all. He has taken the iron from the track and allowed it to lay upon the ground as waste, while he substituted the new material without deducting or allowing the *eighty-five per cent.* which in almost all sections of the country will be given by our manufacturers.

Such is a fair review of the mode of reasoning which Mr. Ellet has resorted to. I have been induced to offer it for the consideration of railroad companies and the public at large—more with a view of enabling them to arrive at fair conclusions than of exposing the sophistries of the writer with whom I have the honor to differ.

Sept. 18th 1845. R. OF DELAWARE.

**Danville and Pottsville Railroad.**

We are pleased to learn that there is a growing determination to construct a railroad between these two important points.—The Miners, Pottsville Journal, says that “a meeting was held in Danville on Tuesday, 9th inst. to take into consideration the best means of promoting the construction of a railroad to connect Danville with Pottsville and Philadelphia.”

We hope they will do more than to meet and resolve. Now is the time to move in the matter, and if the people can be made to see their *true* interest, the road will be built.

“Samuel R. Wood was appointed president, Alexander Montgomery, John C. Boyd, Peter Baldy, George A. Frick, Henry Brevoort, Dr. William H. Magill, Eli Trego and William Donaldson, were appointed vice Presidents, and Edward H. Baldy and Andrew F. Russel, secretaries of the meeting.

We regret that want of room compels us to give only a condensed account of the proceedings. A committee of seven was appointed to draft resolutions expressing the sense of the meeting, who in the preamble setting forth the advantages of the proposed road, say that it “will effect an union between the iron region of Columbia county and the coal basin of Shamokin and Mahony; it will also connect the town of Danville and its great iron interests, with the coal fields of Schuylkill and the interests of our metropolis.”

Several resolutions were passed, of which we think the following two will most interest our readers.

Resolved, That this meeting view the subject of a transit communication by railroad between the termination of the proposed Danville railroad and the town of Pottsville, as one involving consequences and re-

sults of immeasurable magnitude to the interests of the citizens of the two towns respectively and Philadelphia, and that measures ought forthwith to be entered upon to secure a co-operation with the Philadelphia, Reading and Pottsville railroad company, who will doubtless experience on a just representation of facts involved, an interest in the completion of this great work commensurate with that which we ourselves feel.

Resolved, That this meeting recommend that a convention of the citizens of Philadelphia, Pottsville, Reading and the north-western counties, be called to meet in the town of Danville, on *Wednesday* the 29th day of *October*, A. D. 1845, for the purpose of consulting and adopting such measures as may be best calculated to secure a line of communication by railroad between the city of Philadelphia and the waters of lake Erie.”

**Cheshire, or Keene, N. H., Railroad.**

We find the following letter from Thomas M. Edwards Esq., the president of the company, in the Bunker Hill Aurora of 20th September.

It reminds us forcibly of the remarks made by him at the Boston railroad convention, in September 1844—when it was determined by the convention, after a long discussion, to proceed in the appointment of a committee to obtain subscriptions for the road from Fitchburgh to Brattleboro, viz—that “by the time you are ready to run your cars from Fitchburgh by the way of Brattleboro to Bellows Falls, we will be ready to run our cars between the same points *by the way of Keene*, over an equally good route, and 27 miles (if we recollect right,) shorter.” If the following is to be taken as a fair sample of their operations, we shall begin to think that Mr. Edward's assurances will be found correct. We shall at least keep our eye upon his operations—and will just intimate to him that, by sending early notice of their lettings to the Journal, their works may go on, both more economically and more rapidly. Try it gentlemen.

“For the information of those interested in the Cheshire railroad, I wish to say, through the medium of your paper, that the *letting* of the first division of the road, extending from the state line of Massachusetts to Keene, which was closed this day, was fully attended by experienced and responsible contractors; that all the work on the division, necessary to fit the road for the superstructure, has been taken, at prices satisfactory to both the parties concerned; and that the grading will be commenced immediately, and pushed forward, without any avoidable delay, to completion.

Allow me, further, to say, that the location of the road, beyond this place, as far as Bellows Falls, is nearly finished; that proposals will soon be invited, for grading the second division of the road; and that the letting is expected to take place early in October, so that those portions of it requiring

most time will be in progress through the winter.

Without any disposition to enter the lists of railroad controversy, but simply to discredit certain idle rumors which have been put in circulation, I will add that no part of our road, when completed, will be embellished by a “tunnel,” or made interesting by “eighty feet” grades; that only at a single point will there be any grade as high as sixty feet; and that it has been ascertained that at that point there need be none higher.

As the *smoke*, which has been raised by conflicting interests, clears away, as is now taking place, the merits of this route will again stand out as they originally appeared. To any one, acquainted with the country on the line of the road and above, and conversant with the course of business for the last thirty years, it is known that it lies in the *very bed* of a channel of business and travel, which must necessarily make it a great thoroughfare, through all coming time, for the use of a considerable portion of New Hampshire and a large portion of Vermont, to say nothing of sections more remote; and that it is as certain as anything in the future, that it will afford ample remuneration for capital invested, at the same time that it will furnish an invaluable accommodation to the country it traverses.

THOMAS M. EDWARDS.

*Completion of the Georgia Railroad.*—It is a source of unfeigned pleasure to us to announce that a train of passenger cars departs this morning for Atlanta, the terminus of the Georgia railroad. We congratulate the stockholders, and all parties interested, upon this important result, achieved through numerous difficulties and under circumstances, at times, during its progress, peculiarly trying. But they have triumphed over every obstacle, and now we trust will begin to reap the reward of their labors, and their capital, which has been so liberally and freely expended.—Where all have manifested so much zeal, energy and indomitable perseverance in the attainment of a great work, it might be invidious to distinguish, yet we cannot omit the opportunity to do simple and even handed justice to the president, John P. King, and the able and efficient corps of engineers, whose energies have known no flagging during the progress of the work.

We have now a railroad, not inferior to any in the Southern states, extending 172 miles into the interior of the state, which will in a few months be extended eighty miles farther to the Oostenaula river, making an entire line of two hundred and fifty-two miles of the great line of railroad which is designed to connect the Atlantic coast with the fertile valley of the Mississippi.

As we have much more to say in reference to the extension of this grand work, we defer for the present any farther remarks.

The government has appointed Mr. Faraday and Professor Playfair says the Railway Express, to ascertain how far it is possible to consume the smoke from steam engine chimneys.

TRAVELLERS' RAILROAD AND STEAM NAVIGATION GUIDE, ON THE CONTINENT.

List of Railroads Now Open on the Continent, and the Fares.

The Fares are in the Coins of each Country, and reduced into English Currency: th. thalers and silbros; g. guilders, kroutzers and cents; fr. francs and centimes.

FROM	MILES	DESTINATION.	FIRST CLASS.		SECOND CLASS.	
			S. D.	G. D.	S. D.	G. D.
Aix-la-Chapelle	43	Cologne . . . . . th.	2	6 0	1 15	4 6
Amsterdam	25	Utrecht . . . . . g.	1 80	3 0	1 40	2 4
Amsterdam		Arnhem . . . . .				
Antwerp	29	Brussels . . . . . fr.	3 25	2 7	2 50	2 0
Antwerp	150	Cologne . . . . . fr.	21	16 10	16	12 10
Antwerp	96	Lille . . . . .				
Antwerp	107	Aix-la-Chapelle. fr.	13 50	10 10	10 50	8 5
Augsburg	39	Munich . . . . . g.	3	6 0	2 12	4 5
Basel	86	Strasbourg . . . . . fr.	13 95	11 2	10 60	8 6
Berlin	200	Dresden . . . . .				
Berlin	53	Frankfort on O. th.	2 10	7 0	1 15	4 6
Berlin	140	Leipzig . . . . . th.	5 15	16 6	3 20	11 0
Berlin	128	Magdeburg . . . . . th.	4 20	14 0	3 5	9 6
Berlin	18	Potsdam . . . . . th.	20	2 0	15	1 6
Berlin	90	Stettin . . . . .				
Bonn	16	Cologne . . . . . th.	15	1 6	10	1 0
Breslau	53	Oppeln . . . . . th.	2 16	7 8	1 18	4 10
Brunswick	44	Hanover . . . . . th.	20	2 0	18	1 0
Brussels	142	Cologne . . . . . fr.	20 50	16 5	15 50	12 5
Brussels	59	Valenciennes . . . . . fr.	6	4 10	4 75	3 10
Budweis	64	Lintz . . . . . g.	3	5 0	2	3 4
Carlsruhe	21	Baden . . . . . g.	1 30	2 6	1	1 8
Carlsruhe	48	Offenbourg . . . . . g.	3 18	5 6	2 12	3 8
Dresden	60	Leipzig . . . . . th.	2 8	6 10	1 8	3 10
Dresden	134	Magdeburg . . . . .				
Dusseldorf	18	Elberfeld . . . . . th.	25	2 6	18	1 10
Frankfort O.M.	21	Mainz . . . . . g.	2 6	3 6	1 27	2 5
Frankfort O.M.	26	Wiesbaden . . . . . g.	2 42	4 6	1 48	3 0
Hague	47	Amsterdam . . . . . g.	3 65	6 1	2 45	4 1
Hiedelberg	14	Mannheim . . . . . g.	51	1 5	30	0 10
Leipzig	33	Altenburg . . . . . th.	1 12	4 3	26	2 8
Mannheim	73	Baden . . . . . g.	5 6	8 7	3 30	5 10
Mannheim	52	Carlsruhe . . . . . g.	3 18	5 6	2 12	3 8
Manheim	93	Kehl . . . . . g.	6 45	11 3	4 30	7 6
Mannheim	100	Offenbourg . . . . . g.	6 33	10 11	4 24	7 4
Ostend	92	Antwerp . . . . . fr.	9 25	7 5	7	5 7
Ostend	89	Brussels . . . . . fr.	9 25	7 5	7	5 7
Ostend	169	Aix-la-Chapelle. fr.	19 50	15 7	15 25	12 2
Ostend	212	Cologne . . . . . fr.	27	21 7	20 75	16 7
Paris	18	Corbeil . . . . . fr.	3	2 5	2 40	1 11
Paris	75	Orleans . . . . . fr.	15	12 0	12 60	10 1
Paris	84	Rouen . . . . . fr.	16	12 10	13	10 6
Paris	5	St. Cloud . . . . . fr.	80	0 8	60	0 6
Paris	12	St. Germain . . . . . fr.	2	1 7	1 50	1 3
Paris	12	Versailles . . . . . fr.	2	1 7	1 50	1 3
Rouen	84	Paris . . . . . fr.	16	12 10	13	10 6
Vienna	40	Glognitz . . . . . g.	3 29	6 8	2 30	5 0
Vienna	120	Gratz . . . . .				
Vienna	132	Ollmutz . . . . . g.	11 12	23 5	7	14 0

An Alphabetical list of the Distances, in English miles, of the Principal Towns from London, to which are added, those between some of the Continental Towns.

Abbeville	190	Frankfort O.M.	544	Moscow	1396
Aix-la-Chapelle	330	Frieburg	739	Naples	1450
Amsterdam	248	Gand	177	Neurenburg, from	
Arnhem	270	Geneva	1080	Frankfort O.M.	126
Baden-Baden	650	Gratz, fm. Vienna	1020	Neurenbg, f. Leipzig	159
Basel	780	Hague	212	Offenburg	698
Berlin	644	Havre, by Brighton	137	Prague, fm. Vienna	196
Berlin fm. Hamburg	175	" by Southampton	198	Prague, fm. Frank-	
Bern	830	Heidelberg	589	fort O.M.	290
Bieberich	510	Kehl	684	Prague, fm. Dresden	94
Bonn	420	Leghorn	1240	Paris, by Brighton	241
Bordeaux, fm. Paris	346	Leipzig, fm. Frank-	210	Paris, by Southamp.	340
Breslau, fm. Berlin	202	fort O.M.	210	Rome	1360
Breslau, fm. Dresden	154	Liege	300	Rouen, by Southamp.	256
Brussels	250	Lyons, fm. Paris	290	Stuttgart	678
Carlsruhue	625	Mainz	517	Schaffhausen	790
Caub	485	Mannheim	571	St. Petersbg, f. Berlin	1060
Coblentz	458	Milan	942	Strasbourg, fm. Paris	285
Cologne	400	Milan, fm. Venice	200	Trieste, fm. Venice	319
Constance	820	Magdeburg f. Hambg.	157	Utrecht	230
Dijon, fm. Paris	318	Magdeburg f. Leipzg.	74	Vienna, from Frank-	
Dresden, fm. Prague	94	Magdeburg, f. Dresden	134	fort O.M.	437
Dusseldorf	368	Marseilles, fm. Paris	500	Vienna fm. Trieste	319
Elberfeld	388	Munich, fm. Frank-	214	Venice, fm. Milan	200
Emmerich	300	fort, O.M.	214	Wiesbaden	520
Florence	1160	Munich, fm. Vienna	276	Zurich	830

The direct Fares from London are at the following reduced rates.

From LONDON.	Via ROTTERDAM.		Via ANTWERP & from COLOGNE.		Via OSTEND and from COLOGNE.	
	Out, or Single Journey.		Out, or Single Journey, Exclusive of Railroad Fares.			
	Chief cabin	Fore cabin	Chief cabin	Fore cabin	Chief cabin	Fore cabin
To the follow- ing places.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Dusseldorf	2 16 6	1 18 11				
Cologne	2 18 6	1 19 10				
Bonn	2 19 9	2 0 6	2 3 3	1 13 3	1 11 5	1 5 8
Neuwied	3 3 11	2 2 4	2 8 1	1 15 2	1 16 2	1 7 6
Coblentz	3 4 11	2 2 10	2 9 0	1 15 6	1 17 0	1 8 0
Bingen	3 10 1	2 5 2	2 13 9	1 17 9	2 1 9	1 10 3
Bieberich	3 11 1	2 5 9	2 15 3	1 18 5	2 3 2	1 10 11
Wiesbaden	3 11 9	2 6 4	2 16 0	1 19 0	2 3 9	1 11 6
Mayence	3 11 4	2 5 10	2 15 5	1 18 6	2 3 5	1 11 0
Mannheim	3 15 6	2 8 8	2 19 6	2 1 4	2 7 6	1 13 10

Children under 10 years of age, half price; for dogs, half the price of fore cabin is charged; on carriages, and horses booked in London direct for the Rhine, a considerable reduction is also made.

Agents--General Steam Navigation Company.  
 Rotterdam, W. Smith, and Mr. P. A. Van Es.  
 Cologne, J. Simonis.  
 Aix-la-Chapelle, J. A. Mayer.  
 Spa, Dommartin.  
 Antwerp, C. Breugnoty.  
 Ostend, St. Amour.  
 Gand, I. Van Aken.  
 Brussels, W. Middleton.  
 Paris, F. Spiers.  
 Havre, P. Albrecht.  
 Rouen, Company's Office.  
 Dieppe, D. L. Chapman.  
 Boulogne, W. Hughes, Dellatre.  
 Calais, A. Spiers.  
 Hamburg, G. Delaval.

PASSENGER LINES FOR THE NORTH AND WEST.

Morning Line, at 7 o'clock--For Albany, Troy, and intermediate landings.--The steamboat Troy, Capt. A. Gorham, will leave New York, foot of Barclay street, at 7 o'clock, A.M., every Tuesday, Thursday, and Saturday. The steamboat Niagara, Capt. DeGroot, leaves New York at 7 o'clock, A.M. Monday, Wednesday, and Friday.

Afternoon, or 5 and 7 o'clock Line.--At 5 o'clock, P.M., landing at intermediate places, from the foot of Barclay street.--The steamboat New Jersey, Capt. H. H. Fury, will leave on Monday, Wednesday, Friday, and Sunday. The steamboat South America, Capt. M. H. Truesdell, will leave on Tuesday, Thursday, and Saturday. For passage or freight apply on board, or to  
 P. C. SCHULTZ,

Paterson Railroad. Leave New York, 9 1/4 A.M., 12 1/2, 5 1/2 P.M. Leave Paterson, 8 11 1/2, A.M., 4 P.M. On Sundays, leave New York 9 1/4 A.M., 5 1/2 P.M. Leave Paterson, 8 1/2 A.M., 4 1/2 P.M. Passengers are advised to be at the ferry a few minutes before the stated hours of departure. Office 75 Courtland street.

New Jersey Railroad and Transportation Company.--For Newark.

Fare 25 cents. Leave New York at 8, 9, and 11 o'clock A.M., and 12 1/2, 2, 3, 4 1/2, 6 1/2, and 8 o'clock P.M. Leave Newark at 7, 7 1/2, 8, 9, 10 1/2, A.M., and 1 1/4, 4, 5 1/2, 7 1/2, 9 1/2, P.M. On Sundays, leave New York at 9 A.M., and 4 1/2 P.M. Leave Newark at 11 1/2 A.M., and 9 1/2 P.M.

For Elizabethtown. Fare 31 1/2 cents. Leave New York at 9 A.M., 12 1/2, 2, 4 1/2, 6 1/2 P.M. Leave Elizabethtown at 7, 7 1/2, 8, 10 1/2 A.M., 3 1/2, 6 1/2, 9 1/2, P.M.

For Rahway. Fare 31 1/2 cents. Leave New York at 9 A.M., 12 1/2, 2, 4 1/2, 6 1/2 P.M. Leave Rahway at 5 1/2, 7 1/2, 11 1/2, A.M., 3, 6 1/2, 9, P.M.

For New Brunswick. Fare 50 cents. Leave New York at 9 A.M., 4, 4 1/2 P.M. Leave New Brunswick at 5 1/2, 7 1/2, 11, A.M., 8 1/2, P.M. On Sundays, leave New York at 9 A.M., and 4 1/2 P.M. Leave New Brunswick at 12 M., and 8 1/2 P.M.

The commutation fare between New York and New Brunswick and intermediate places, including the ferry, \$65 per annum.

For Reading and Pottsville. By Reading Railroad. Daily, Sundays excepted, from the Depot, corner of Broad and Cherry streets at 8 a.m. Fare, \$3 50. Second class, \$3. To Reading \$2 25. Second class \$1 90.

Long Island Railroad.

Trains run from Brooklyn depot.--Boston train, 8 1/2 a.m., daily, stopping at Farmingdale and St. George's Manor; accommodation train, 9 1/2 a.m., and 5 p.m., for Farmingdale and intermediate places, daily; accommodation train, 3 p.m., for Greenport, daily, stopping at Jamaica, Branch, Hempstead, and Hicksville, and all the stopping places between Hicksville and Greenport. From Greenport depot: Boston train, daily, at 12 1/2 o'clock, m., or on the arrival of steamers from Norwich. Accommodation train at 5 a.m., daily, for Brooklyn and intermediate places. From Farmingdale depot: Accommodation train at 6 1/2 a.m., and 2 1/2 p.m., daily, for Brooklyn and intermediate places.

The steamboat Statesman leaves Greenport for Sag Harbor twice each day, on arrival of the trains from Brooklyn.

Baggage crates will be in readiness, at the foot of Whitehall street, to receive baggage for the several trains, 30 minutes before the hour of starting from the Brooklyn side.

For Newport and Providence, on Monday, Wednesday, and Friday. This line leaves at 8 o'clock, in the morning, from the foot of Whitehall street, South ferry.

**BOSTON COURIER, DAILY, SEMI-Weekly and Weekly.**

The Daily edition of the Courier, presents to merchants and others, an extensive medium of advertising. The circulation of the *Semi-Weekly Courier* (published on Mondays and Thursdays) is believed to be more extensive than that of any other similar Boston Newspaper. This publication embraces all the reading matter of the Daily, the Foreign and Domestic Markets, Review of the Boston Market, Prices current, and Ship News, prepared with great accuracy. The *Weekly Courier* contains as much of the matter of the daily as can be crowded into a sheet of the same size, without ship news, prices current or advertisements.

Our exertions to obtain and publish authentic information on all topics proper for the columns of a newspaper,—the state of trade, the prices of merchandise, the current news of the day, and the political movements in the various sections of the country—will not be abated. The marine department of the *Courier* has been inferior to none in copiousness or accuracy of detail, and it will be our endeavor to maintain its reputation in this respect.

**TERMS OF SUBSCRIPTION.**

For the Daily Courier, for one year, in advance \$8.00  
For the Semi-Weekly Courier, for one year... 4.00  
For the Weekly Courier, for one year..... 2.00

JOSEPH T. BUCKINGHAM.  
EBEN B. FOSTER.

**SPRING STEEL FOR LOCOMOTIVES,**

Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1½ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,

ja3 Albany Iron and Nail Works, Troy, N. Y.

**TO IRON MANUFACTURERS. THE SUB-**scribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO.,

ja45 No. 4 Sout Fronth st., Philadelphia, Pa.

**MACHINE WORKS OF ROGERS, KETCH-**um & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

**Railroad Work:**

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,  
a45 Paterson, N. J., or 60 Wall street, N. York.

**FOR SALE, AT A SACRIFICE—A LOCO-**motive Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine.  
2 8-horse " " " "

1 Upright Hydraulic Press.  
All of which will be sold low, on application to  
T. W. & R. C. SMITH.

Founders and Machinists,  
Alexandria, D. C.

May 12th

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.  
G. A. NICOLLS,  
Reading, Pa.

**GEORGE VAIL & CO., SPEEDWELL IRON** Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1½ in. to 2½ in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wrought Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wrought Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions.  
ja451y

**TO RAILROAD COMPANIES AND MAN-**ufacturers of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,  
ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**FROM NEW YORK.**

**New York and Harlem Rail-**road Company.

Leave City Hall for Yorkville, Harlem and Morrisania at 5.30, 7, 8, 9, 10, a.m.; 1, 2, 3, 3.30, 4, 5, 5.30, 6, p.m. For Fordham and Williams' Bridge at 5.30, 7, 10, a.m.; 2, 3.30, 5, 6, p.m. For White Plains at 7 and 10 a.m.; 2 and 5 p.m. Leave Morrisania and Harlem for City Hall at 6.20, 8, 9, 10, 11, a.m.; 2, 3, 4, 2, 5.20, 6, 6.30, 7.45 p.m. Williams' Bridge for City Hall at 7, 7.40, 10.40 a.m.; 2.40, 5, 5.40, 7.20 p.m. White Plains for City Hall at 7.10 and 40.10 a.m.; 2.10 and 5.10 p.m.

**Evening, or 6 o'clock Line.**—Line steamboats for Albany.—Daily, Sundays excepted.—Through direct at 7 o'clock P.M. from pier between Courtlandt and Liberty streets.—Steamboat Rochester, Capt. R. G. Crittenden, will leave on Monday, Wednesday, and Friday. Steamboat Knickerbocker, Captain A. Houghton, will leave on Tuesday, Thursday, and Saturday.

For Albany and Troy, direct, at 6 o'clock, P.M., from the steamboat pier, foot of Courtlandt street. The Empire, Capt. R. B. Macy, Tuesday, Thursday and Saturday. The Columbia, Capt. Wm. H. Peck, Monday, Wednesday, and Friday.

**PASSENGER LINES, SOUTH AND SOUTHWEST.**

**New York and Philadelphia Rail-**road Line.—Direct. Leaves New York daily, from the foot of Liberty street. Morning Line, 9 o'clock, A.M. Mail Pilot Line, 4½ o'clock, P.M. Fare in first class cars, \$4. Second class cars, \$3.

Passengers will procure their tickets at the office foot of Liberty street. Philadelphia Baggage Crates are conveyed from city to city without being opened by the way. Each train is provided with a car, in which are apartments and dressing rooms expressly for the Ladies' use.

**Camden and Amboy Railroad** Line.—For Philadelphia

and intermediate places. Leaves Pier No. 2, North River, foot of Battery Place, by Steamboat to South Amboy, daily, Sundays excepted, at 5½ o'clock A.M. Passengers will take the cars at South amboy. Fare to Philadelphia, \$3. Forward deck passengers, \$2 25. To Freehold and Monmouth, via stages from Hightstown, \$1 50. To Spotswood and West 75 cents. To South Amboy, 25 cents. To Perth Amboy, Tattens, Rossville and Tufts, 12½ cents.

The steamboat Independence will land at each of the above named places going and returning, leaving Perth Amboy at 5 o'clock P.M.

**Susquehanna Line of Rail-**road Cars and Post Coaches.

This line leaves the depot, corner of Broad and Cherry streets, daily, [Sundays excepted] at 8 o'clock, a.m., via Reading and Pottsville railroad, for Sunbury, Danville, Catawissa, Northumberland, Milton, Muncy, Williamsport, Towanda, Bellefonte, Jersey Shore, Lockhaven, Ralston and Elmira. For seats apply at the stage office, 104 Race street, under the White Swan Hotel.

S. STILES, Agent.

**SUMMER ARRANGEMENT—FARE REDUCED.**

By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

Direct to New Orleans, and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great Southern Mail Line, and the only one that issues a through ticket South. Those who patronize it will save their money and time. Through Tickets from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

Fast Mail Line.—Leave New York at 9 a.m. and arrive in Philadelphia at 3½ p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12½ to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C. at 6 a.m.

Passengers by the above line will arrive at Richmond by 11½ o'clock p.m. and Petersburg, Va. by 2½ o'clock p.m., through to the former city in twelve hours, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

Way Mail Schedule.—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p.m.; arrive in Baltimore at 2½ p.m.; arrive in Washington at 7 p.m. From Philadelphia by steamboat.—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore.

STOCKTON & FALLS.

**LONG ISLAND RAILROAD.—EVEN-**  
ing Line for Newport and Providence.  
Fare 50 cents.  
Every Tuesday, Thursday and Saturday, from the foot of Whitehall street, at 4 o'clock and from Brooklyn depot at 5 p.m.  
On the arrival of the train at Greenport, passengers will proceed immediately in the steamer "New Haven," direct. 2t 39

**BOSTON AND PROVIDENCE RAIL-**  
road. Dedham Branch Railroad. Stoughton Branch Railroad.  
Fall arrangement, to commence Monday, September 29, 1845.  
Steamboat train for New York via Stonington, leaves Boston at 4½ p.m.  
Accommodation trains, leave Boston at 8 a.m. and 3½ p.m. Leave Providence at 8 a.m. and 3½ p.m.  
Fare in first class cars, \$1 25  
"second " 85  
Dedham trains, leave Boston at 9 a.m. 3 p.m., and 6 p.m. Leave Dedham at 7½ a.m., 10½ a.m. and 4½ p.m.  
Fare 25 cents.  
Stoughton trains, leave Boston at 12 m. and 4 p.m. Leave Stoughton at 8 a.m. and 2½ p.m.  
Fare 50 cents.  
W. RAYMOND LEE, *Sup't.*  
Sept. 15, 1845. 31 1y

**NEW YORK AND ERIE RAILROAD**  
LINE. For Middletown, Goshen, and intermediate places. Two daily lines each way, as follows:  
For passengers, the new, and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7 o'clock, A.M., and 5 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4½, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets.  
H. C. SEYMOUR, Superintendent.  
Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale Carbondale, etc.  
On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc., etc. 31 1y

**BALTIMORE AND SUSQUEHANNA**  
Railroad. The Passenger train runs daily except Sunday, as follows:  
Leaves Baltimore at 9 a.m., and arrives at 6½ p.m. Arrives at York at 12½ p.m., and leaves for Columbia at 1½ p.m. Leaves Columbia at 2 p.m., and leaves York for Baltimore at 3 p.m. Fare to York \$2. Wrightsville \$2 50, and Columbia \$2 62½. The train connects at York with stages for Harrisburg, Gettysburg, Chambersburg, Pittsburg and York Springs.  
Fare to Pittsburg. The company is authorized by the proprietors of Passenger lines on the Pennsylvania improvements, to receive the fare for the whole distance from Baltimore to Pittsburg. Baltimore to Pittsburg.—Fare through, \$9 and \$10.  
Afternoon train. This train leaves the ticket office daily, Sundays excepted, at 3½ p.m. for Cockeysville, Parkton, Green Springs, Owings' Mills, etc.  
Returning, leaves Parkton at 6 and Cockeysville and Owings' Mills at 7, arriving in Baltimore at 9 o'clock a.m.  
Tickets for the round trip to and from any point can be procured from the agents at the ticket offices or from the conductors in the cars. The fare when tickets are thus procured, will be 25 per cent. less, and the tickets will be good for the same and following day in any passenger train.  
D. C. H. BORDLEY, *Sup't.*  
Ticket Office, 63 North st. 31 1y

**DAVIS, BROOKS & Co., 30 WALL ST.**  
Have now on hand and for sale,  
200 tons 2½ x ¼ inch Flat punched Rails, Bars 18 feet each.  
100 tons Heavy Edge Rails, 90 tons per mile.  
30 tons 2½ x ¼ inch Flat Rails.  
Also—A STEAM PILE DRIVER, built by "Dunham & Co." which has never been used, and cost originally \$5000. s20 2m

**BALTIMORE AND OHIO RAILROAD.**  
MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7 and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.  
WASHINGTON BRANCH.  
Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5½ P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13 1y

**CENTRAL RAILROAD—FROM SAVAN-**  
nah to Macon. Distance 190 miles.  
This Road is open for the transportation of Passengers and Freight. Rates of Passage, \$8 00. Freight—  
On weight goods generally... 50 cts. per hundred.  
On measurement goods ..... 13 cts. per cubic ft.  
On brls. wet (except molasses and oil) ..... \$150 per barrel.  
On brls. dry (except lime) ... 80 cts. per barrel.  
On iron in pigs or bars, castings for mills, and unboxed machinery ..... 40 cts. per hundred.  
On hhd. and pipes of liquor, not over 120 gallons ..... \$5 00 per hhd.  
On molasses and oil ..... \$6 00 per hhd.  
Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE,  
40 Gen'l. Sup't. Transportation.

**LEXINGTON AND OHIO RAILROAD.**  
Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.  
Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1 25.  
On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.  
The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above. 35 1y

**KEARNEY FIRE BRICK. F. W. BRINLEY,** Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to  
James P. Allaire, }  
Peter Cooper, } New York.  
Murdock, Leavitt & Co. }  
J. Triplett & Son, Richmond, Va. }  
J. R. Anderson, Tredegar Iron Works, Richmond, Va. }  
J. Patton, Jr. } Philadelphia, Pa.  
Colwell & Co. }  
J. M. L. & W. H. Scovill, Waterbury, Con. }  
N. E. Screw Co. } Providence, R. I.  
Eagle Screw Co. }  
William Parker, Supt. Bost. and Worc. R. R. }  
New Jersey Malleable Iron Co., Newark, N. J. }  
Gardiner, Harrison & Co. Newark, N. J. }  
25,000 to 30,000 made weekly. 35 1y

**RAILROAD IRON AND FIXTURES.**  
The Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.  
DAVIS, BROOKS & CO.,  
30 Wall st., N. York. ja45

**OFFICE OF THE NEW YORK AND**  
Erie Railroad Company. No. 50 Wall st. New York. September 13, 1845.

Notice is hereby given to the holders of stock of the New York and Erie Railroad company, that by the terms of the 8th section of the Act of the 14th May, 1845, it is provided that, if within 6 years from the passage of the law the company shall complete a single track from the Hudson river to lake Erie and a branch to Newburgh, in Orange county, then "the said company shall be released from all liability to pay to the state any demand which the state may have against them, with this exception only, that in case any holder or holders of the capital stock of said company heretofore issued and certified, or purporting to be paid in full, shall not within six months from the passage of this act, surrender to the company their stock certificates, and receive or offer to receive therefor, for every two shares of stock heretofore issued, one share of stock to be hereafter issued, then all such stock heretofore issued, and not so surrendered, shall not be subject to the provisions of this law; but the state shall retain the right to claim upon such outstanding stock, and the said company shall pay into the treasury of the state, upon the order of the comptroller, any and all dividends upon such outstanding stock, and the comptroller shall apply the same to the credit of said company, until the state shall receive in such dividends, so much of their said debt of three millions of dollars and the interest thereon, as would be the proportion of such outstanding stockholders to pay, provided the whole debt of three millions of dollars and interest thereon were collected ratably from all the stock of said company now outstanding."

By section 9th, of the same law, it is provided that, "it shall be the duty of the president and secretary of said company, within thirty days after the expiration of the six months mentioned in the last preceding section, to file with the comptroller of the state, a statement of all stocks that shall not have been exchanged in pursuance of the provisions of the last preceding section; and whenever any dividend upon the stock of the said company shall be made, it shall be the duty of the board of directors to notify the comptroller of such dividend, and upon payment of the dividend aforesaid into the treasury, the comptroller shall furnish to said company a receipt for the portion of such dividend belonging to any stock not surrendered and exchanged in pursuance of the last preceding section of this act, and said company shall surrender to the holders of such stock the receipt of said comptroller in lieu of said dividends."

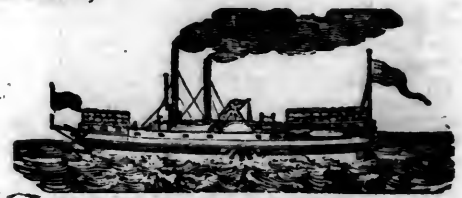
It will be seen that on or before the 14th of November next, each and every holder of the stock of the company must decide whether he will avail himself of the provisions of this law by surrendering his stock and receiving one share for every two shares thus surrendered. With reference to holders who neglect to avail themselves of the provisions of the act, it is made the duty of the company, within thirty days from the 14th of November, "to file with the comptroller a statement of all stocks that shall not have been exchanged" agreeably to the provisions of this act, the dividends on which must be paid into the state treasury, rendering that class of stock practically of no value to the holder. The board of directors consider it their duty to protect the interests of the stockholders by giving all possible publicity to that portion of the law relating to the outstanding stock, that all may have an opportunity for an early compliance with the provisions of the act. By order of the board of directors, 39 & T. S. BAOWN, Acting secretary.

**LAWRENCE'S ROSENDALE HYDRA-**  
ulic Cement. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floors and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE,  
142 Front street, New York.  
Orders for the above will be received and promptly attended to at this office. 33 1y

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 41.]

THURSDAY, OCTOBER 9, 1845.

[WHOLE No. 484, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

### RATES OF ADVERTISING.

One page per annum.....	\$125 00
One column ".....	50 00
One square ".....	15 00
One page per month.....	20 00
One column ".....	8 00
One square ".....	2 50
One page, single insertion.....	8 00
One column ".....	3 00
One square ".....	1 00
Professional notices per annum.....	5 00

**NORWICH AND WORCESTER RAILROAD.** On and after May 22, 1845, Trains will leave as follows, viz:—

**Accommodation Trains, daily,** except Sunday. Leave Norwich, at 6 a.m., and 4 1/2 p.m. Leave Worcester, at 10 a.m., and 4 1/2 p.m.

The morning train from Norwich, and the morning and evening trains from Worcester, connect with the Boston, Western, and Hartford and Springfield railroads.

**New York Train, via Steamboat.** Leaves Norwich for Worcester and Boston, every morning except Monday, upon the arrival of the boat from New York, about 2 a.m. Leaves Worcester for Norwich and New York, at 5 1/2 p.m., daily, except Sunday.

**New York Train, via Long Island Railroad.** Leaves Norwich about 3 p.m., for Worcester and Boston, daily, except Sunday. Leaves Worcester for Norwich and New York, at 7 1/2 a.m., daily, except Sunday, and arrives in Norwich at 9 1/2.

**Freight Trains.** Daily, except Sunday. Fares are less when paid for Tickets, than when paid in the cars.

32 ly EMERSON FOOTE, Sup't.

**LAWRENCE'S ROSENDALE HYDRALIC CEMENT.** This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Flooms and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE, 142 Front street, New York.

Orders for the above will be received and promptly attended to at this office.

32 ly

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

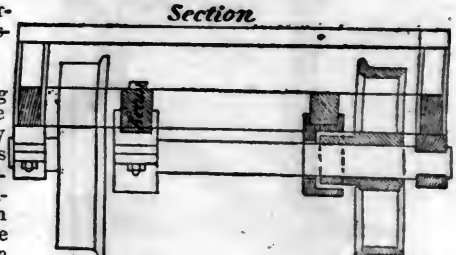
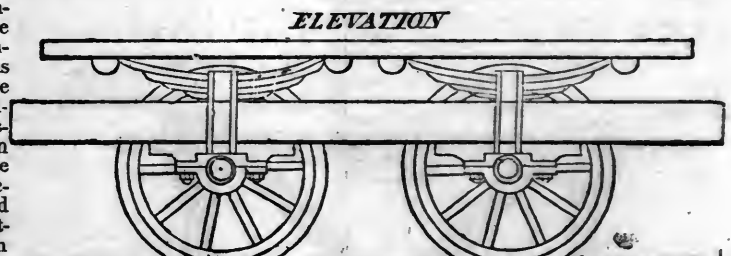
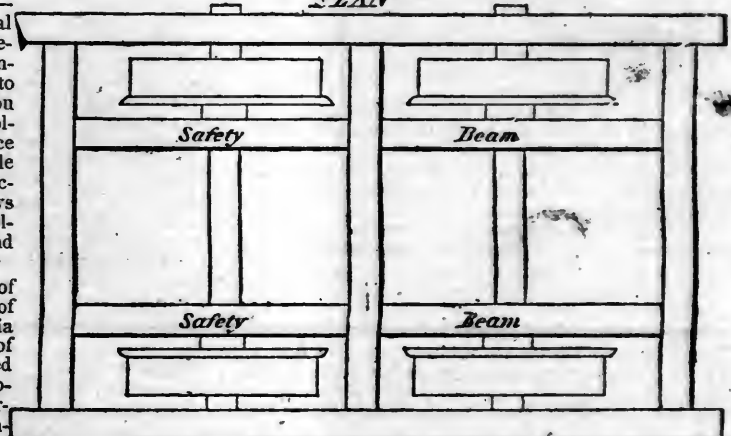
In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

ja46



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. **JOHN F. WINSLOW, Agent.**

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merriitt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

**HENRY BURDEN, Agent.**

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 232 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved **SPARK ARRESTER**, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

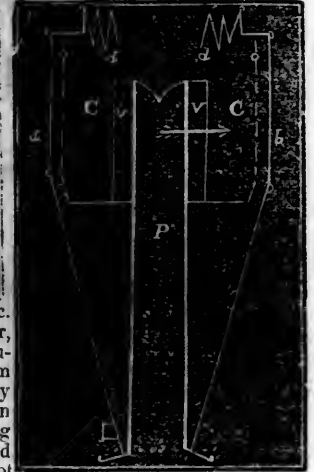
E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

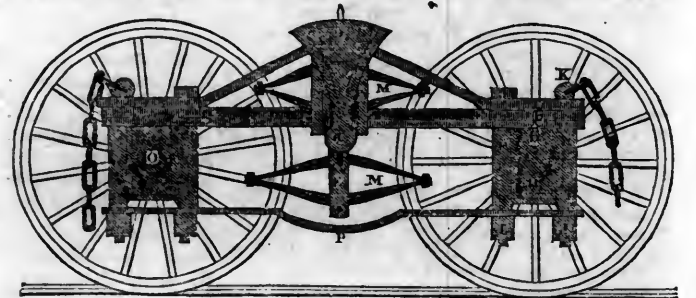
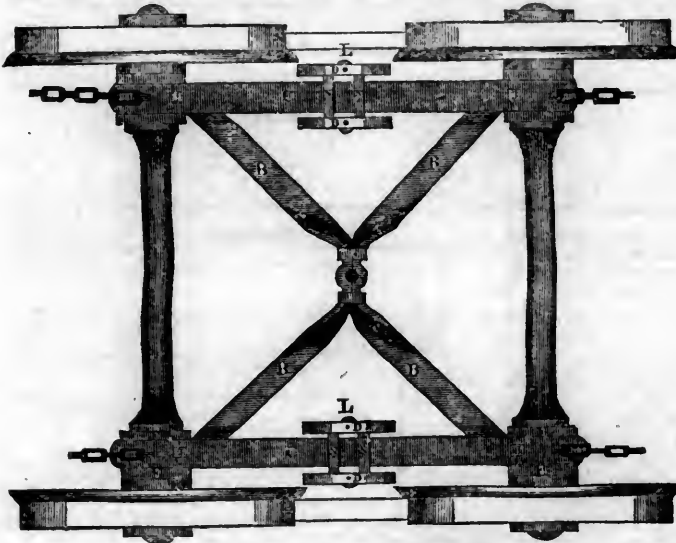
**FRENCH & BAIRD.**  
Philadelphia, Pa., April 6, 1844.

\*\*\* The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45



**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

**DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.**



**DAVENPORT & BRIDGES' IMPROVED PATENT IRON TRUCK FOR RAILROAD CARS**, is presented above, and the attention of Railroad Companies is respectfully invited to the following description of their justly-celebrated invention.

These Trucks are adapted as well for eight-wheeled passenger cars as for baggage and freight cars, giving to each a more agreeable and easy motion than any other Truck heretofore constructed or in use. They are simple in their construction, combining strength and great durability, although weighing at least twelve hundred pounds less than the common Trucks. Besides these excellences, by reason of the elasticity of the braces, B, B, B, as seen in the drawing, and the other peculiarities of construction, made for inside or outside bearing, the weight is equalized upon all the wheels, and yet any one

may be raised so as to pass any inequality on the rails without lifting either of the other wheels from the track, thus rendering it almost impossible to run a car off. Being bound, and having as it were but four joinings, they are protected from injury by lateral strains, and in case of damage are easily repaired.

These excellences have been fully tested by use, for a long time, on the Eastern, the Fitchburg and Long Island railroads; and for proof of the above stated superiority of these Trucks over all others, we refer to the experience of those who have used and run them.

CAMBRIDGEPORT, April 1, 1845.

**DAVENPORT & BRIDGES.**

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention. **ANDREW C. GRAY**, President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN**, Civil Engineer, Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

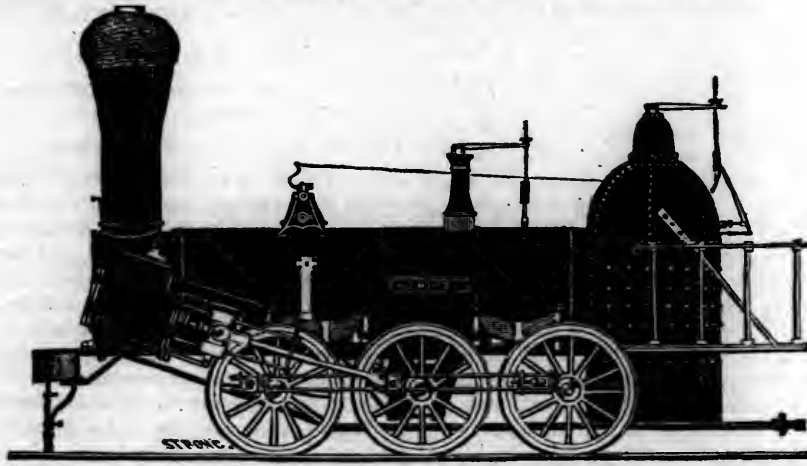
From 4 inches to 12 in calibre and 2 to 12 feet long. capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit. fitting together with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by **MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets, PHILADELPHIA.

**NORRIS' LOCOMOTIVE WORKS.**

BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
" 2,	14	"	"	×	24	"
" 3,	14½	"	"	×	20	"
" 4,	12½	"	"	×	20	"
" 5,	11½	"	"	×	20	"
" 6,	10½	"	"	×	18	"

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**RAILROAD IRON.**—THE MARYLAND AND NEW YORK IRON AND Coal Company are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.  
**WILLIAM YOUNG**, President.  
jy451m

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years. The coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY**, Civil Engineer,

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 51x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS**, 48 State st., or to **CURTIS, LEAVENS & CO.**, 106 State st., Boston, or to **A. & G. RALSTON & Co.**, Philadelphia. ja45

**CYRUS ALGER & CO.**, South Boston Iron Company.

**Railway Speed Unparalleled.**

We announced in a previous number the extraordinary performance of the private express of the London Times, from Sunderland to London, 303 miles in 7 hours 30 minutes running time, with the news of the election of Mr. Hudson. This was considered the greatest performance on record. The gentlemen who performed this feat, left Bishop-Wearmouth at 17 minutes past 4 o'clock p.m. and arrived at the Times office in London, 307 miles, at 25 minutes past 1 a.m., 9 hours and 8 minutes; of which 4 miles or 28 minutes, was in coaches; 1 hour and 10 minutes lost at the twelve stopping places; and 7 hours and 30 minutes in accomplishing the 303 miles in the railway cars. The election news was put in type, the paper worked off and the same gentlemen left the Times office on their return at 2 o'clock and 50 minutes, the eastern station at 3 hours 5 minutes and were again back at Sunderland with the Times containing the result of the election at 10 hours 57 minutes a.m.; having performed the distance, 614 miles in 18 hours and 40 minutes, including 8 miles by coaches, twenty-four stoppages and 1 hour and 25 minutes at the Times office in London; or at the rate of 41 miles per hour, for 15 hours running time.

The distance to London was performed within 5 minutes of the time fixed and would have been done 10 minutes *within* the time, but for delays on the London and Birmingham road, in consequence of the absence of the superintendent and use of one of the old fashioned engines. This may be considered quite rapid enough for all practical purposes and business operations, yet we shall soon be able, both in Europe and this country to communicate intelligence at several hundred times this speed—by the telegraph.

The following account from the Railway Express will give a better idea of this wonderful performance than anything we can say.

The result of the polling for the Sunderland election, which took place on Thursday last, was published in the *Times* exclusively on Friday morning, having been conveyed to that office by a special messenger, who travelled the entire distance, upwards of 303 miles, in about eight hours. The express returned to Sunderland with a large number of the *Times* containing the intelligence, and arrived there shortly after ten o'clock in the morning, while the proceedings connected with the official declaration of the poll were in progress.

The entire credit of organizing these gigantic railway operations is due to Mr. Jas. Allport, manager of the Newcastle and Darlington Junction railway, whose intentions were ably seconded by the various gentlemen attached to the railway establishments whose services were brought into requisition. The special train reached Sunderland before the termination of the proceedings connected with the official declaration of the poll, and while the voice of the returning officer announcing the result was yet resounding from the hustings, to the manifest astonishment of his worship and the gentlemen by whom he was surrounded, a copy of the *Times*, published that same morning in London, upwards of 300 miles from the scene of action, was placed in his hands, and other copies were distributed among the vast assemblage,

whose feelings, thus excited to the highest pitch, burst forth in one universal shout of applause.

A circumstance in all respects so extraordinary requires that this general account should be completed by minute details of the achievement. In the vicinity of Mr. Hudson's committee-room, in Bishop-Wearmouth, a carriage was in readiness to convey the travellers to the railway station of the Branding Junction, now incorporated with the Newcastle and Darlington railway, in Monk-Wearmouth; and exactly at seventeen minutes past four o'clock Mr. Allport, accompanied by Mr. Lockie, of the *Newcastle Journal*, who reported the proceedings for the *Times*, took his seat in the vehicle, and drove off amidst the cheers of those assembled to witness the departure. At twenty-four minutes past four they were seated in the special train, to which a powerful engine was attached, and in one hour—that is to say, at twenty-four minutes past five o'clock—the special train entered the station yard at Darlington, where the engine was detached, and another belonging to the great North of England railway company substituted. Messrs. N. Plues and E. Oxley, directors of the company joined the special train at Darlington, and accompanied the couriers to York, at which city they arrived at twenty-two minutes past six o'clock, having performed the journey from Darlington, a distance of forty-five miles, in fifty-two minutes. On some parts of this line the speed was incredible, the train at one time proceeding at the rate of a mile in forty-eight seconds, or at the astonishing velocity of seventy-five miles an hour! When proceeding at this astonishing rate the motion of the train was scarcely perceptible, there being none of that rocking motion of the carriages observable on broad gauge lines, when going at a much slower rate of speed.—The operation of writing was performed with ease under these circumstances, and not the slightest apprehension of danger was felt by any of the party. Had it been possible to maintain this speed throughout, the journey from Sunderland to London might have been performed in little more than four hours!—From various causes, however, that was impossible, as from the nature of the curves and gradients on some parts of the way, it was not deemed advisable to proceed at any rate approaching that velocity. This will account for the length of time occupied on the whole, though on different parts of the road the speed was almost incredible. It is also proper to state that much time was lost between Rugby and London, on the London and Birmingham line, from the inefficiency of the engine power, and the faulty arrangements made in the absence of the chief superintendent of the line. The train would have arrived in London much earlier than it did had the London and Birmingham railway been able to advance it at the same rate as on the lines from Sunderland to Rugby, all of which are under, and do infinite credit to the management of Mr. Hudson. Additional particulars will be found in the following time table:

	H. M.	Delay.
Bishopwearmouth	4 17	
Monkwearmouth railway station	4 24	M.
Durham	4 52	For water..... 2
Darlington	5 24	Fresh engine..... 6
York	6 22	Fresh engine & change of carriage..... 2
Normanton	6 29	Change of engine.... 3
Masborough	7 34	Ditto..... 4
Chesterfield	8 2	..... 2
Derby	8 37	..... 3
Leicester	9 39	Delay and detention caused by the quarter to eight o'clock train in advance... 15
Rugby	10 6	Change of engine..... 13
Wolverton	11 4	..... 6
Primrose-hill	12 50	..... 11
Euston-square	1 2	..... 3
The Times office	1 25	

Total time	9 8	Total delay	70
H. M.			
Thus from the time occupied in travelling from the committee-room to the Times office..... 9 8			
Deduct for delays..... 1 10			
For the total distance of 307 miles.... 7 58			
Deduct coaching..... 0 28			

Railway travelling 303 miles..... 7 30  
 In Union-street, Blackfriars, the horse attached to one of the coaches in which the party were proceeding from the Euston-square station to the Times office, fell, and the shafts of the vehicle were broken, which caused a delay of about three minutes, which ought to be deducted from the above, and that would leave for actual railway travelling seven hours and twenty-seven minutes.

The party left the Times office at 10 minutes to three o'clock, and at 5 minutes past 3 the special train quitted the Euston-square station for Sunderland, where the party arrived at 57 minutes past 10 o'clock, the distribution of the Times having, in that short interval, been effected over nearly the whole of England. This extraordinary feat is altogether without a parallel. And it is a remarkable fact, equally creditable to the sagacity of Mr. Allport, as to the efficiency of the various railway establishments between Newcastle and London, that, with one exception only, above noticed, there was not a deviation of more than five minutes from the times previously calculated upon for the performance of the journey from Sunderland.

On the special train reaching York from Sunderland, the monster bell of York Minster was rung for the first time in honor of Mr. Hudson's election. The tone of the great St. Peter was heard for many miles round the ancient city, which was on this occasion a scene of universal rejoicing.

The official declaration of the poll took place on Friday morning at the hustings in front of the Exchange, in High-street. A large crowd assembled to witness the proceedings, but the greatest order prevailed. The return was declared as follows:

Mr. Hudson	626
Col. Thompson	498

Majority for Mr. Hudson..... 128  
 In returning thanks Mr. Hudson said, "Here is the *Times* newspaper of this morning just put into my hands. Here, gentle-



men, you see the march of intellect. A special engine was dispatched yesterday afternoon at half-past four o'clock, with the result of the polling, and it has returned this morning, bringing with it the account of the proceedings. See the march of opinion. This triumph of steam is very much owing to the talent which belongs to this neighborhood, and of which you ought to be proud." The Mayor also referred to the astonishing achievement which had been effected by Mr. Allport. He said, that gentlemen and his own son, accompanied by a special messenger for the *Times*, went away yesterday from Sunderland, shortly after the termination of the poll, and they had returned with this sheet (holding up in his hand a copy of the *Times* containing the result of the poll,) and several others, which have been distributed in this town, as well as in the principal towns in the kingdom. It was a feat, he must say, he did not think could have been done. It was unparalleled, and might never occur again in their lifetime. Indeed, it was a thing to be remembered and talked about as long as they lived. It demonstrated the immense public advantages of the railway system.

**NEW FURNACE AT READING PENNSYLVANIA.**—We take the following notice of the new furnace of Dr. Eckert, from the Reading Journal of 30th August. It should have been inserted at an earlier day, that our readers may be apprised of the progress made in the manufacture of iron in this country.—It is becoming daily more and more important that the manufacture should be extended as widely as possible, as it is evident to us, from the present indications in Europe, that we must rely mainly upon ourselves for a supply of iron to construct our railroads during the next ten years. The demand in England will be nearly equal to its ability to supply—therefore we must make renewed efforts to supply ourselves—which we may, and shall do, if our capitalists will make themselves acquainted with the subject. A wider field or richer harvest is scarcely to be found in this country for enterprise and capital, than the manufacture of iron.

We were in error last week in stating that the new furnace had commenced operations. It was 'blown in' on Tuesday last.—During the day and evening, and every day and evening since, it was visited by hundreds of our citizens, all of whom seem to take a peculiar pride and pleasure in this establishment. At first we understand, some difficulty was had, occasioned by the inexperience of the hands in starting a new enterprise of this kind. The proportions of coal, ore and limestone were not properly filled in, and fears were entertained on Wednesday that the furnace would be clogged or "chilled," as it is technically termed. The timely arrival of Mr. Perry—a gentleman of much experience in the anthracite iron business, engaged by the proprietors to start the concern—however, soon set matters to rights. The furnace was vigorously worked, and by Thursday evening the clogs cinder and "nigger heads" were removed, and the chilling process overcome. At this writing, (Friday morning) the furnace may be said to be *successfully blown in*—although as is usual upon starting a new concern, no iron of any conse-

quence or of a good quality can be made for some days.

We have no doubt this will prove one of the most successful iron establishments in the country. Its location is admirable and its advantages pre-eminent. No pains or expense has been spared by the Messrs. Eckert, in its construction, and its arrangements and fixtures are complete throughout.

The successful blowing in of this new furnace must be a proud era in the life of Dr. George N. Eckert, one of the proprietors, under whose superintendence it was built.—We have seen him week after week, and month after month laboring assiduously in urging forward the work. In rain and in storm he was there, and when the hot broiling sun poured its fiercest rays upon the burning earth, he was on the ground, encouraging the men and directing and superintending the work. No wonder then that now when the thing is done—when the bright flame flares merrily up from its prison house, lighting up the Neversink and serving as a beacon of the prosperity of Reading to her own citizens and all the country adjacent—he should feel a peculiar pride and pleasure at the result of his labors. No wonder that our citizens should feel interested and rejoice at his success, and that crowds should nightly assemble to look upon this noble achievement of human power, science and industry. The resources of our borough are now being developed. The iron ore from our hills, is now turned to account. We see it trundled into the fire-pit and turned into iron—iron more precious than gold for all the practical purposes of life—before our eyes. We see numbers of our citizens provided with a new field of usefulness and a new means of procuring for themselves and families an honorable independence. No wonder then that we should feel an interest in the success of the agents who have brought about this great good.

The engine and machinery is a noble evidence of the skill of our Reading mechanics. It was built by Messrs. Dotterer, Taylor and Co., of this borough and performs its work with clock-work precision. The attempt made some weeks since at Harrisburg to injure the well earned reputation of these gentlemen, is here strikingly belied. All works smoothly and beautifully, and we believe thus far no fault has been found with a single part.

We shall have more to say about this furnace, its further operation and capacity, in a week or two, or as soon as it shall have been properly tested.

**A New Propeller.**—A spiral cut wheel has been invented by Mr. S. J. Gold, an engineer of this city, which, if the results obtained with a working model are a fair basis for calculation, seems destined to supersede every other description of propeller used in steam navigation; indeed it would appear that any speed compatible with the resistance of the air might be attained by the application of sufficient power to this wheel. Mr. Gold's propeller has, it is claimed, a vast advantage over the paddle, inasmuch as it runs through

the water without lifting it, and is not retarded by that resistance of the fluid to the blow of the bucket which, becoming greater with the increase of speed, is a serious obstacle to the attainment of extraordinary velocity with the paddle. Over the Archimedean screw and its modifications Mr. Gold claims for his cut wheel this advantage; that whereas half the power expended upon the former is necessary to overcome the resistance of the centre, his wheel has no centre, so far as resistance is concerned, and moves under the direct influence of the whole power applied; or in other words the entire power applied, or very nearly so, is expressed in the velocity obtained.

Mr. Gold's propellers are affixed to the boat, one on each side, in the same situation as the paddles, their axes like those of the paddles, being parallel with the horizon, but unlike them being also parallel with the sides of the boat. The inner angle of the spiral curve is about 45 degrees, and the divisions between the threads of the screw, if we may so call them, answer to the number of buckets in the ordinary paddle wheel.

The invention has been submitted to several eminent scientific men, and Mr. Gold informs us that not one of them has been able to show him why he cannot obtain the same results with full-sized machinery as with his model. He courts investigation, and will be pleased to afford engineers and other scientific men every facility for examining the wheel, and testing its capacity. It is either an invention of incalculable value or it is worth nothing; and he is anxious that every feasible objection, if any such can be urged against it, should be brought forward. The motive power applied by Mr. Gold in his model is simply that of weights and pulleys. Steam has not yet been used.

We publish below the result of the last experiment:

*Experiment of test between two wheels*—One, the common paddle wheel; the other a spiral cut wheel—the boat used in both being the same—the wheels of equal diameter, and the square of the buckets equal—the dips also equal. The extreme length of the boat is 20 feet. The form—two buoys or cylinders 12½ inches diameter. Draft of water 6½ inches.

In a test by a certain power over equal centres the result was as follows—each power being applied to the bucket of each wheel at the dip:

<i>Paddle Wheel.</i>			
1st. Power, 2 lbs.	55 seconds.	200 feet run.	
2d.	4 " 47 "	" "	" "
3d.	6 " 43 "	" "	" "

<i>Cut Wheel—(Power applied as above.)</i>			
1st. 2 lbs.	45 seconds.	200 feet run.	
2d. 4 "	35 "	" "	" "
3d. 6 "	28 "	" "	" "

*Ratio of speed gained by the Cut Wheel, over the common Paddle. As follows:*

With 2 lbs.	22½ per cent.
" 4 "	34½ "
" 6 "	53½ "
" 10 "	near 100 "

"ANOTHER RAILROAD ROUTE," is in type, but unavoidably omitted, in consequence of the amount of other matter previously in hand.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.		Share Capital.						
							Per share.				Aberdeen.....	1,600,000							
							£	s. d.						Per cent. per annum.	Barnsley Junction.....	200,000			
Arboath and Forfar.....	15	102,000	35,000	138,870	.....	.....	0	12	6	2	10	0	25	20	Blackburn and Accrington.....	400,000			
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5	0	2	10	100	100	100	100	Chatham and Portsmouth.....	5,000,000		
Branding Junction.....	23	161,700	365,470	481,452	.....	.....	.....	.....	.....	.....	.....	.....	.....	50	54	Chester and Wrexham.....	120,000		
Bristol and Gloucester.....	37	400,000	211,000	657,825	.....	.....	.....	.....	.....	.....	.....	.....	.....	30	59	Churnet valley.....	1,800,000		
Chester and Birkenhead.....	14	750,000	143,170	518,989	5,856	13,148	0	10	0	2	0	50	60	50	60	Direct Northern to York.....	4,000,000		
Dublin and Drogheda.....	31	450,000	150,000	582,254	.....	.....	.....	.....	.....	.....	.....	.....	.....	60	115	Dublin and Belfast.....	950,000		
Dublin and Kingston.....	6	200,000	152,200	349,736	.....	.....	.....	.....	.....	.....	.....	.....	.....	100	251	Dundee and Perth.....	250,000		
Dundee and Arbroath.....	16	100,000	49,445	153,416	2,989	6,993	1	5	0	5	0	0	25	36	Edinburg and Northern.....	800,000			
Durham and Sunderland.....	18	169,350	124,055	270,392	9,889	17,702	.....	.....	.....	.....	.....	.....	.....	50	25	Ely and Bedford.....	270,000		
East County and North and East.....	86	4,443,200	1,341,155	3,931,905	47,385	118,726	1	6	6	.....	.....	.....	.....	45	57	Glosgow, Dum. & Carlisle.....	1,300,000		
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1	5	0	5	0	0	50	78	Gt. South and West Ext.....	1,200,000			
Glasgow, Paisley and Ayr.....	51	937,500	1,071,258	12,446	12,446	36,736	1	5	0	5	0	0	50	73	Gt. Grimsby and Sheffield.....	600,000			
Glasgow, Paisley and Greenock.....	22	650,000	216,666	797,643	11,830	23,447	0	5	0	2	0	0	25	21	Harwich and E. coun. Jun.....	160,000			
Grand Junction.....	104	2,478,712	2,503,671	84,309	195,080	5	0	0	10	0	0	100	239	100	Huddersfield & M. rl. & cl.....	600,000			
Great North of England.....	45	969,000	581,017	1,307,487	12,201	36,189	3	0	0	6	0	0	100	230	Kendal and Windermere.....	125,000			
Great Western.....	221	4,650,000	3,679,343	7,445,689	143,279	410,046	4	0	0	8	0	0	80	215	Leeds and Dewsbury.....	400,000			
Hartlepool.....	15	438,000	155,540	719,205	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	0	Leeds and Thirsk.....	800,000		
Leicester and Swanington.....	16	140,000	140,000	2,207	2,207	6,317	1	5	0	5	0	0	50	.....	.....	Liv. Ormskirk and Preston.....	600,000		
Liverpool and Manchester.....	32	1,209,000	497,750	1,785,000	64,885	141,252	5	0	0	10	0	0	100	214	London and Portsmouth.....	1,750,000			
Llanelly.....	27	200,000	44,000	221,624	.....	.....	.....	.....	.....	.....	.....	.....	.....	87	.....	London and York.....	5,000,000		
London and Birmingham.....	202	8,874,976	1,928,845	6,614,005	96,413	456,997	5	0	10	0	0	100	245	100	Londonderry & Enniskillen.....	500,000			
London and Blackwall.....	3	804,000	266,000	1,768,851	15,978	23,870	0	3	0	1	10	0	16	10	Lynn and Ely.....	200,000			
London and Brighton.....	56	1,935,000	705,000	2,637,753	30,490	130,156	1	10	0	6	0	0	50	77	Manchester, Bury and Ross.....	300,000			
London and Croyden.....	8	550,000	229,000	761,885	7,583	10,515	0	8	0	4	0	0	14	23	Manchester and Buxton.....	250,000			
London and Greenwich.....	3	759,383	233,300	1,040,930	15,193	28,933	.....	.....	.....	.....	.....	.....	13	11	Mullingar and Athlone.....	.....			
London and South Western.....	92	2,222,100	630,100	2,604,409	89,439	190,631	2	0	0	10	0	0	41	82	Newcastle and Berwick.....	700,000			
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1	0	0	5	0	0	40	62	Richmond & W. End Junc.....	.....			
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2	2	0	4	10	0	93	169	Scottish Central.....	700,000			
Manchester and Leeds and Hull.....	87	2,937,500	1,943,932	3,921,593	46,653	156,761	.....	.....	.....	.....	.....	.....	81	101	Sheffield and Lincolnshire.....	650,000			
Midland railway.....	179	5,158,900	1,719,630	6,279,838	75,227	276,129	3	0	0	6	0	0	100	192	Shrewsbury and Gd. Junc.....	400,000			
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	46,745	5	0	0	5	0	0	100	113	Shrew. Woly. Dudley & B.....	900,000			
Newcastle and Darlington.....	23	500,000	.....	405,728	.....	.....	.....	.....	.....	.....	.....	.....	.....	21	56	Trent Valley.....	900,000		
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466	.....	.....	.....	.....	.....	.....	.....	50	69	West London Extension.....	64,000		
North Union.....	39	739,201	308,306	1,028,593	24,788	37,794	2	10	0	6	5	0	100	176	West Yorkshire.....	1,000,000			
Paris and Orleans.....	82	1,600,000	400,000	1,978,415	.....	.....	.....	.....	.....	.....	.....	.....	.....	20	45	Whitehaven and Maryport.....	100,000		
Paris and Rouen.....	84	1,410,000	.....	.....	31,247	91,171	.....	.....	.....	.....	.....	.....	.....	8	0	FRENCH RAILWAYS.			
Reston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066	.....	.....	.....	.....	.....	.....	.....	4	0	50	32	Boulogne and Amiens.....	1,500,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876	.....	.....	.....	.....	.....	.....	.....	87	135	Central of France.....	1,280,000		
South Eastern.....	88	2,996,000	1,530,277	3,464,172	69,288	139,042	.....	.....	.....	.....	.....	.....	.....	3	1	4	33	Lyons and Avignon.....	2,400,000
Taff Vale.....	30	465,000	195,000	595,089	9,115	22,692	1	17	7	3	15	0	100	104	Orleans, Tours & Bordeaux.....	2,000,000			
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0	15	0	5	1	8	32	52	Paris and Lyons.....	2,500,000			
Yarmouth and Norwich.....	20	187,500	62,500	230,036	5,186	10,008	1	0	0	5	0	0	20	29	Paris and Orleans.....	1,600,000			
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	1,107,146	31,349	75,474	2	10	0	10	0	0	50	115	Paris and Rouen.....	1,400,000			

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10	.....	15	15	Loughborough.....	70	142	142	70	1140	.....
Anti Dry Rot.....	10,000	.....	18	.....	2	.....	Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35	.....	34	.....	Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27	27	Mersey and Irwell.....	500	100	100	10	2	15
Gt Western Steam Pav.....	.....	.....	100	.....	25	.....	Macclesfield.....	3,000	100	100	2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6	.....	Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1	.....	Oxford.....	1,786	100	100	30	505	505
Peninsular and Oriental.....	11,493	50	50	7	64	65	Regents or Loncon.....	21,418	33	33	2	25	25
Ditto.....	3,200	50	40	7	.....	.....	Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....	.....	.....	.....	6	.....	.....	Somerset coal.....	800	150	150	7	123	123
Reversionary Int. Soc.....	5,387	100	100	4	104	104	Stafford and Worcester.....	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60	.....	36	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5	.....	.....	.....	Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7	10	15	.....	Stroudwater.....	200	150	150	19	.....	.....
Thames Tunnel.....	4,000	50	50	.....	.....	.....	Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100	.....	.....	.....	Seyvern & Why & Rail Av.....	3,762	26	26	5	30	30
<b>Canals.</b>							<b>Water Works.</b>						
Ashby de la Zouch.....	1,432	113	fav.	4	70	70	Birmingham.....	4,800	25	25	3	28	28
Barnsley.....	100	100	14	180	180	.....	East London.....	4,433	100	100	8	223	225
Birmingham, 1-16 share..	3,000	118	79	10	150	160	Grand Junction.....	5,500	av.	41	2-3	7	88
Do. and Liverpool Junction	4,000	160	100	.....	13	13	New River L. B. Ann.....	1,500	.....	.....	2	57	57
Coventry.....	500	100	100	20	365	365	Manchester and Salford.....	6,486	av.	30	8	57	57
Cromford.....	460	do.	do.	24	250	250	Vauxhall, lt. S. London.....	1,000	100	100	5	55	55
Derby.....	600	do.	do.	9	105	105	West Middlesex.....	8,294	av.	63	6	126	127
Erewash.....	231	do.	do.	32	440	440	<b>Docks.</b>						
Forth and Clyde.....	1,297	400	40	4	440	440	Commercial Dock.....	1,065	100	100	3	80	80
Grand Junction.....	11,600	100	100	7	162	161	East and West India.....	.....	sto.	.....	5	137	137
Gand Surrey.....	1,500	do.	do.	.....	20	.....	London.....	3,238,310	sto.	.....	4	114	115
Gloucester and Rerkley.....	5,000	do.	do.	.....	8	8	Katharine.....	1,352,752	sto.	.....	5	116	171
Grantham.....	749	150	150	8	185	185	Southampton.....	7,000	50	50	.....	.....	.....
Lancaster.....	11,699	47	47	3	40	40							
Leeds and Liverpool.....	2,897	100	100	34	640	640							
Leicester.....	545	140	140	9	139	139							



AMERICAN RAILROADS.													SALES.	
RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share	1843 Income.		Div. per cent.	1844 Income.		Div. per cent.	Previous prices	Week ending Sept. 15.	
						Gross.	Nett.		Gross.	Nett.			Last	Sales
Me.	1	Portland, Saco and Portsmouth.....	50	1,200,000			89,997	47,166	7	131,404	62,172	6	101½	100½
N. H.	2	Concord.....	35	750,000								12	65	
Mass.	3	Boston and Maine.....	56	1,485,461			178,745	68,499	6	233,101	86,401	6½	111	
"	4	Boston and Maine extension.....	17 1-4	455,703	unfin.									
"	5	Boston and Lowell.....	26	1,863,746			277,315	144,000	8	316,909	147,615	8	118	117½
"	6	Boston and Providence.....	41	1,886,135	none.	18,600	233,388	110,823	6	282,701	156,109	6	111	
"	7	Boston and Worcester.....	44	2,914,078			40,141	162,000	6	428,437	195,163	7½	116½	116½
"	8	Berkshire.....	21	250,000	not stated			17,500	7	17,737				
"	9	Charlestown branch.....		280,260					13	34,654	13,971	5½	80	
"	10	Eastern.....	54	2,388,631			279,563	140,595	6	337,238	227,920	8	107½	107½
"	11	Fitchburg.....	50	1,150,000	just opn'd					42,759	26,835		119	
"	12	Nashua and Lowell.....	14 1-2	380,000			84,079		8	94,588	34,944	10	126	
"	13	New Bedford and Taunton.....	20	430,962			50,671	24,000	6	64,998	24,000	6	102	
"	14	Northampton and Springfield.....		172,88½	unfin.									
"	15	Norwich and Worcester.....	66	2,290,000	900,000	16,535	162,336	24,871		230,674	99,464	3	67	69½
"	16	Old Colony.....		87,820	unfin.								105	
"	17	Stoughton branch.....	4	63,075	unfin.									
"	18	Taunton branch.....	11	250,000				20,000	8	96,687	20,000	8	120	
"	19	Vermont and Massachusetts.....												
"	20	West Stockbridge.....	3	41,516	200	100						4		
"	21	Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000	573,882	284,432		753,753	439,679	3	98½	97½
"	22	Worcester branch to Milbury.....		8,431	506									
"	23	Housatonic, (10 months,).....	74	1,244,123						150,000			26	33
Con	24	Hartford and New Haven.....	38	1,100,000	100,000	10,000	100					6	93	
"	25	Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100							
"	26	Stonington, (year ending 1st Sept.,).....	48	2,600,000	650,000	13,000	100	113,889		154,724	79,845		29	32
N. Y.	27	Attica and Buffalo.....	31	336,211			45,896	7,522		73,248	48,033	0		
"	28	Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000	237,667	152,007	6	109	103
"	29	Auburn and Syracuse.....	26	766,657			86,291	27,334		96,738	52,544	6	116	
"	30	Buffalo and Niagara.....	22	200,000		1,500							100	
"	31	Erie, (446 miles,).....		5,000,000									27½	31½
"	32	Erie, opened.....	53					48,000		126,020	59,075			
"	33	Harlem.....	26	2,250,000	750,000	30,000				140,685	62,399		61	62½
"	34	Hudson and Berkshire.....	31	575,613		50				35,029	1,789	0	11½	
"	35	Long Island.....	96	1,610,221	392,340	29,846				153,456	58,996	0	61½	65½
"	36	Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780	79,804	45,763	0	56½	57
"	37	Saratoga and Schenectady.....	22	303,658			42,242	3,000	1	34,666	8,455	0		
"	38	Schenectady and Troy.....	20 1-2	640,800			28,043			32,646	6,365	0		
"	39	Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000	192,061	120,992	8	117	
"	40	Tonnawanda.....	43	727,332			76,227			114,177	75,865	5		
"	41	Troy and Greenbush.....	6	180,000									90	
"	42	Troy and Saratoga.....	25	475,801			44,325	21,000		38,502	9,971	2½		
"	43	Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	331,932	199,094	8	132	
N. J.	44	Camden and Amboy.....	61	3,200,000			682,832	383,880		784,191	404,956		112	
"	45	Elizabethtown and Somerville.....	26	500,000										
"	46	New Jersey.....	34	2,000,000									95½	
"	47	Paterson.....	16	500,000								6	88½	
Pa.	48	Beaver Meadow.....	26	1,000,000										
"	49	Cumberland Valley.....	46	1,250,000										
"	50	Harrisburg and Lancaster.....	36	860,000									30	
"	51	Hazleton branch.....	10	120,000										
"	52	Little Schuylkill.....	29	900,000										
"	53	Blossburg and Corning.....	40	600,000										
"	54	Mauch Chunk.....	9	100,000										
"	55	Minehill and Schuylkill Haven.....	19 1-2	396,117	25,000	7,019	50					12	80	
"	56	Norristown.....	20	800,000									6½	
"	57	Philadelphia and Trenton.....	30	400,000									104	
"	58	Pottsville and Danville.....	29 1-2	1,500,000										
"	59	Reading.....	94	9,457,570	7,447,570	40,200	50			597,613	343,511		25	24½
"	60	Schuylkill valley.....	10	1,000,000										
"	61	Williamsport and Elmira.....	25	400,000			20,000							
"	62	Philadelphia and Baltimore.....	93	4,400,000			43,043	200,000			210,000		15½	15½
Del.	63	Frenchtown.....	16	600,000										
Md.	64	Baltimore and Ohio, (1st Oct.).....	188	7,623,600			575,235	279,402		658,620	346,946		48½	
"	65	Baltimore and Susquehanna.....	58	3,000,000									2½	
"	66	Baltimore and Washington.....	38	1,800,000			177,227	71,691		212,129	104,529		84	
Va.	67	Greensville and Roanoke.....	18	284,433	37,544	2,000	100			25,368	6,074		28	
"	68	Petersburg.....	63	969,880	63,000	7,690	100			122,871	72,898	3	77	
"	69	Portsmouth and Roanoke.....	78 1-2	1,454,171										
"	70	Richmond, Fredericksb'g and Potomac.....	76	800,000						185,243	85,688	6		
"	71	Richmond and Petersburg.....	22 1-2	700,000										
"	72	Winchester and Potomac.....	32	500,000										
N. C.	73	Raleigh and Gaston.....	84 1-2	3,360,000										
"	74	Wilmington and Raleigh.....	161	1,800,000										
S. C.	75	South Carolina.....	136							532,871	140,196	5		
"	76	Columbia.....	66	5,671,452		34,410	75	201,464	77,456	328,425	180,704			
Ga.	77	Central.....	190	3,000,000	500,000	22,500	100	227,532	93,190	248,096	147,523			
"	78	Georgia.....	147 1-2	2,650,000			248,026	168,207						
"	79	Montgomery and West Point.....	89	500,000	170,000					35,000	15,000			
Ky.	80	Lexington and Ohio.....	40	450,000										
Ohio	81	Little Miami.....	40	400,000										
"	82	Mad river.....	40	152,000										
Ind.	83	Madison and Indianapolis.....	56	212,000										
Can.	84	Champlain and St. Lawrence.....	15					12,000		58,000	24,000		110	

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.  
 Thursday, October 9, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 23,712 tons, and by canal 9,612 07, making 33,385 01 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total...292,093  
 From Schuylkill Haven—total.....299,921  
 From Port Clinton—total.....15,806

Total by railroad.....607,821

BY CANAL.

From Pottsville and Port Carbon—total.....117,198  
 From Schuylkill Haven—total tons.....32,863  
 From Port Clinton.....38,753

Total by canal.....188,815

Total by railroad and canal.....796,636

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines, - 151,052  
 Room run do, - 57,493—208,545  
 Beaver Meadow railroad and coal co., 64,631  
 From Penn Haven—Hazleton coal co., 55,439  
 From Rock Port—Buck Mountain coal co., 17,600

346,215

WYOMING COAL TRADE—total.....126,551

PINE GROVE COAL TRADE—total.....38,869

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....331,765

MOUNT CARBON RAILROAD—total tons.....199,854

MILL CREEK RAILROAD—total.....59,421

SCHUYLKILL VALLEY RAILROAD—total.....78,571

[Miners' Journal.]

EARNINGS OF THE BUFFALO AND NIAGARA FALLS RAILROAD for the month of Sept., 1845....\$4,010 22  
 " " " " 1844....2,961 09

Difference.....\$1,049 13

We have received, by the arrival of the Cambria at Boston, full files of the different London Railway and Mining Journals of the latest dates. The accounts in relation to the iron trade, show a disposition among the iron masters to advance the price.—The quotations do not vary much from those of 29th August, though hoops and sheet are quoted higher; yet there is a decided tendency to advance. It can hardly be otherwise, when there are so many railroads to be made. The following extracts from communications made to the Mining Journal by those familiar with the trade, will be of interest to many of our readers.

*Iron.*—Welsh and Staffordshire very firm at quotations; in Scotch pig several sales made this week at 80s., which is now the lowest price with dealers, some of the masters demand 90s. In Swedish iron and steel there has been very little doing since the publication of last week's *Mining Journal*.

Communicated by Messrs. Whitcomb and Barton, Old Broad Street.—English bar iron continues firm

at quotations; in Scotch pig iron business has not been so brisk this week, but holders refuse to sell under 77s. 6d. cash, and 80s. four months, adding interest; Welsh and Staffordshire iron sells freely at advanced rates, and a further rise confidently expected. In rails very large orders are daily appearing in the market, both for immediate and future delivery, and there are now no sellers under £10 10s. for the latter.

We find many interesting matters in our foreign railway journals, which will be noticed in our next.

One of great importance is the *atmospheric railway*, five miles of which, on the Croydon line, is so far advanced as to have been tried several times with entire success. The exhaustion of the 5 miles of tube was effected with one engine and a vacuum of 26 inches obtained.

The experiments were of course made with great care, yet a speed as high as 65 miles was attained at one point and an uniform speed of 43 miles was carried through on one trip, or 5 miles in 7 minutes.

There are still various opinions in relation to the success of the system—that of course—so there was in relation to the Erie canal, so also, of the success of railroads and locomotive engines. Many were disappointed and others probably will be in relation to this new plan.

We shall give next week such concise accounts as we find in the English journals.

The Dublin and Drogheda railway working expenses are said, in the Railway Express, to have been reduced to 31 per cent. of the gross receipts.

New York and Erie Railroad.

In accordance with notice previously given, the subscription books were opened on the 8th ult. and closed on the evening of Saturday the 4th inst., giving only *twenty four* working days to fill up the subscription of *three millions* of dollars. The directors have given evidence of their fitness and ability for the station they occupy, in the result of their efforts in this instance. It now becomes the duty of the subscribers, to show equal promptness and energy in the performance of their part of the business, that the directors—who not only *work* without pay, but also subscribe and pay more than any others—may be encouraged to renewed efforts to complete what they have so successfully commenced.

Oswego and Syracuse Railroad.

We are pleased to learn that the commissioners, now here, to obtain subscriptions to a part of the capital for this road, are progressing, and that they have a fair prospect of success. There ought to be no delay in the matter, as there are enough here directly interested in the property along, and at the termini of the line, to take the amount, besides the *general interest* which this city has in the work.

Hunt's Merchants Magazine.

We have before us the number for October. It was as usual, out punctually; and, *as usual*, also, it contains a vast amount of useful reading, and should be in the possession of every business man in the country. The list of contents covers nearly two pages, under the following general heads, viz: Commerce before the christian era; the government and currency; the commerce and progress of Chili; sketches of trade and manufactures in Belgium; the mining system of Chili; the champagne districts of France; ocean steam navigation; progress of English railways; mercantile law department; Commercial Chronicle and Review; commercial statistics; railroad and canal statistics; nautical intelligence, and mercantile miscellanies.

It affords us pleasure to learn that it is well sustained and constantly increasing its circulation.

Manchester and Leeds Railway Company.

Eighteenth semi-annual meeting. The 18th half yearly meeting of this company, was held on the 3d of September, in Manchester, when a lengthy and very satisfactory report was made to the shareholders. This road is sixty miles long, very crooked, and with steep gradients, and has cost up to 30th June last, £3,372,240 9s. of which £1,487,389, is paid up capital, and £1,884,851 9s. raised by loans. The business of the last six months, exceeds that of the corresponding six months of last year, by £23,892 12s. 9d., notwithstanding, perhaps we ought to say, *in consequence of* "an important reduction having been made early in the year, on the passenger fares "and in the rates on certain classes of merchandize." The gross receipts for the six months, were £153,279 10s. 8d., and the total expenses including rates, taxes and duty, £52,046 18s. 1d., leaving a balance of £101,232 12s. 7d. The gross receipts for the year, were £315,098 19s. 8d., and the expenses £110,247 2d. leaving a balance of £204,851 19s. 6d., or 6 1/2 per cent., on the total expenditure; but a large proportion of the outlay was raised by loans, it enables them to divide 8 per cent. on the amount raised by shares and have a considerable surplus on hand.

The present indications for increased business on the numerous railways in England are exceedingly favorable—and that our readers may see what *has* been the increase of receipts upon this road, notwithstanding the reduction of charges; we give the following comparative statement of the first six months of 1843, '44 and '45.

The number of passengers booked during these periods, were, in the first six months of 1843—552,639, same period in 1844—673,605, and in 1845—851,497, thus showing an increase in 1844 over the previous year, of 120,966, and in 1845, of 177,892 over 1844—showing conclusively the influences of reduced charges, on the business of the country.

The extract marked for insertion, is unavoidably omitted until our next number.

The editor of the Railway Times, has the following remarks upon the meeting of this company, viz. "The most important feature of this most busy week, is unquestionably the meeting of the Manchester and Leeds company—an undertaking which in spite of its enormous cost, and the steepness of its gradients, continues to carry, with increasing profit, a mass of traffic, in proportion to its extent, second to none in the kingdom. Indeed it may be said of the Manchester and Leeds railway co. that their business is becoming too great 'embarrass de richesses.'"

Railway Cars, Progress of Improvement.

We understand that the Eastern railroad, from Boston to Portland, have recently put several new cars upon their road, which, for convenience, comfort and elegance, surpass every thing of the kind yet seen on American railroads—and when we say that, we can make no further comparison, as the European cars do not, we are informed, at all compare with ours. The following description is from one who has rode in them—which we intend soon to do—and, as it may lead other companies, that we could mention, to give their numerous passengers similar comforts, for equal and superior compensation; we publish it for the good of all parties—not forgetting, by any means, the enterprising manufacturers, Messrs. Davenport and Bridges, of Cambridgeport, near Boston.

Each car seats about 70 persons; each seat is a separate arm chair, made to turn on a pivot, and is

covered with red velvet plush. The cars are 9½ feet wide, which gives ample room for each passenger; (they are about one foot wider than cars are usually built,) instead of carpeting the floor, they have a double floor; the top one is of cherry, and black walnut, laid in diamond form—the sides of the cars are lined up with branch mahogany. They are highly spoken of by all who have rode in them, and they are said to be the best finished and easiest motioned cars they have ever seen—cost \$2,200 each.

The article of Mr. Herron on the wear of railroad iron, should be read with care. We can speak from our own observation, in relation to the superior ease to the passenger, when passing over that part of the road where his plan of superstructure is adopted, as compared with that on other parts of the road; and it follows, we think, of course that the iron will last longer upon it than upon the simple crosstie. This plan has frequently been referred to in this Journal. In the number for Nov. 15, 1840, Aug. 1, 1841, and July 1, 1842, will be found references to it, and we shall probably be able soon to give some further account of it. We shall endeavor to do so that if it is superior and not more expensive, it may be introduced upon some of the numerous railroads soon to be constructed.

#### Portland Railroad.—Canadian Affairs.

We were not a little surprised to see it stated in a late Montreal paper that the subscriptions in that city did not reach £100,000 (\$400,000). Of the two millions required for Canada only \$500,000 were allotted to the province and this—for the city of Montreal—trifling amount, has not yet been raised! It appears that four times the amount to be raised in England was subscribed there at once by speculators, desirous no doubt of obtaining the control of the work so as to hold till it would command a premium in the market and to avoid the annoyance of paying up instalments. The shares were given to those most likely to take some interest in the work, yet it appears that the agent finds some trouble in securing the payment of the first instalment.

The little town of Portland has done more than twice as much as Montreal, although the incidental advantages to the latter city will be greater than to the former. We hope they will continue the system begun in Baltimore and so extensively carried out in New England, of working from tide water into the interior, so as to render the capital productive in the least possible time. There can be no doubt that the railway system of Massachusetts owes its success to the brilliant results of the Providence, Worcester, Lowell and Eastern railroads, and just as little, that our present deplorable inferiority must be ascribed to the failure of all our railways east of Schenectady. If the statements of the friends of the Portland railroad be well founded the construction of the work is certain even without extraneous aid. It is very fortunate that the first division presents the fewest engineering difficulties, so that by the time the greatest obstacles are to be encountered the confidence of the stockholders will be fully adequate to the emergency.

The *Toronto Patriot* announces the appointment of a commission to inquire into the management of the Board of Works and appears to anticipate much good from it. He asks pathetically where are the £1,500,000 stg. gone? And says that "echo and Mr. Killaly answer 'where?'" He appears to be as unlucky as we have been in our inquiries as to that functionary. So far are we from anticipating any good that we should not be surprised, if the

whitewashing, which this commission will certainly put on with no sparing hand, should be the means of getting an additional loan to "complete the works" and make the board "comfortable."

Regrets are vain and perhaps foolish, but we cannot help picturing to our mind's eye the almost magical effect which a judicious application of the money, spent during the last few years, would have had on the prosperity of the country. In place of a few miles of canal adapted, perhaps, to the wealth, population and trade of Holland, we should have hundreds of miles of cheap but efficient railways adapted to the resources and wants of Canada; instead of half a million of dollars of annual deficiencies we should scarcely be able to keep down a surplus; instead of a futile attempt to aid the carrying trade from the western states we should have had an immense trade in *Canadian* flour and British merchandize, and, lastly, instead of turning crowds of emigrants to the far west we should see them quietly and permanently settle where good communications existed and no public burdens awakened their fears. Some short time hence, the people of Canada will awake too late to the fatal effects which have resulted from entrusting the public works, where the highest professional skill, combined with a thorough knowledge of the country, would have found abundant room for the display of its resources, to an individual whose very name is unknown at the "Institution of Civil Engineers." As friends of private enterprise we might rejoice at the failure of the *last* set of government works in this quarter of the globe, but as friends of railroads, the great improvement of the age and so admirably adapted to the climate, country and resources of Canada, we may perhaps be pardoned this expression of our unavailing regrets.

The friends of the two routes to Detroit have, we suppose, agreed to unite on one; at least we hear of no rivalry, and they have decided on the same termini: Buffalo and Detroit. An agent has gone to London to offer the stock there, and we believe that the friends of the line from Toronto to Port Sarnia, have also an agent in England. It is probable that several roads will be chartered during the coming session, with what chance of ultimate success we cannot pretend to say. The railway spirit is however awakening there and if its *first* efforts be happily directed, the rapid extension of this unrivalled mode of communication may be calculated on with safety. The great drawback is of course the unfortunate adoption of the system of government engineering: people will not readily spend their own money, even on small works, when they find their neighbors obtaining all they desire at the public expense. They naturally ask, how is this done? The answer is, by tampering with the legislature; thus the whole becomes one scene of corruption—the real objects of the work, the interests of the public and the warnings of professional men of character, are alike disregarded in the general scramble for the money of the steady, orderly inhabitants who pay the taxes to support a policy as degrading in a moral point of view as it is ruinous financially considered.

**THE CHESAPEAKE AND OHIO CANAL.**—The Chesapeake and Ohio canal company have entered into a contract with Walter Gwyn, William Beverhout Thompson, James Hunter and Walter Cunningham, for the completion of the canal to Cumberland within two years from this time, and the agents of the state of Maryland have approved the contract. The work is to be commenced within thirty days from the 25th inst.

For the American Railroad Journal.

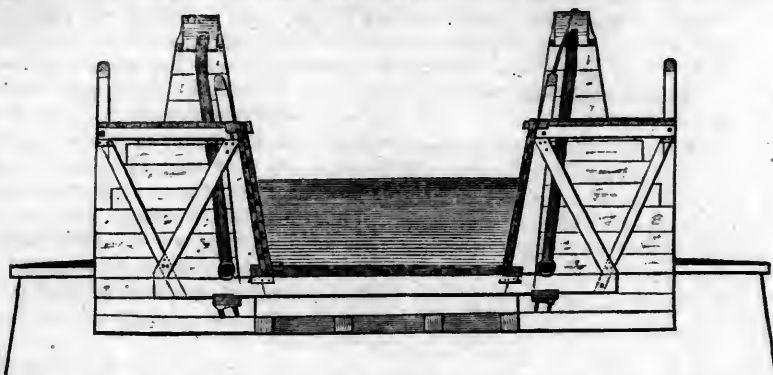
#### The Wire Suspension Aqueduct over the Allegheny River at Pittsburg.

The work recently constructed under this superintendence of John A. Roebling, the designer and contractor, has supplied the place of the old wooden structure, which originally was built by the state of Pennsylvania, at the western termination of the Pennsylvania canal.

The council of the city of Pittsburg, by whom, in consequence of an arrangement with the state, the tolls on this aqueduct are of late received, and who are bound to keep the work in repair, decided on rebuilding, and after considering various plans, adopted that of Mr. Roebling, and entered into contract with him, to reconstruct the communication for the gross sum, including the removal of the old ponderous structure and the repair of the piers and abutments, of \$62,000, a very small sum indeed for a work of such magnitude. As this work is the first of the kind ever attempted, its construction speaks well for the enterprize of the city of Pittsburg.

The removal of the old work, was commenced in September, 1844, and boats were passed through the new aqueduct in May 1845. This work consists of 7 spans of 160 feet each, from centre to centre of pier; the trunk is of wood, and 1140 feet long, 14 feet at bottom, 16½ feet on top, the sides 8½ feet deep. These as well as the bottom, are composed of a *double* course of 2½ inch white pine plank, laid diagonally, the two courses crossing each other at right angles, so as to form a solid lattice work of great strength and stiffness, sufficient to bear its own weight, and to resist the effects of the most violent storms. The bottom of the trunk rests upon transverse beams, arranged in pairs of 4 feet apart; between these, the posts which support the sides of the trunk, are let in with dovetailed tenons, secured by bolts. The outside posts which support the side walk and tow path, incline outwards, and are connected with the beams in a similar manner.—Each trunk post is held by 2 braces, 2½×10 inches, and connected with the outside posts by a double joist of 2½×10 inches. The trunk posts are 7 inches square on top, and 7×14 at the heel; the transverse beams are 27 feet long and 16×6 inches, the space between two adjoining is 4 inches. It will be observed, that all parts of the framing are double with the exception of the posts, so as to admit of the suspension rods; each pair of beams is on each side of the trunk, supported by a double suspension rod of 1½ inch round iron, bent in the shape of a stirrup, and mounted on a small cast iron saddle, which rests on the cable; these saddles are on top of the cable, connected by links, which

Section of the Suspension Aquaduct at Pittsburg, Pa.



diminish in size from the pier towards the centre. The sides of the trunk rest solid against the bodies of masonry, which are erected on each pier and abutment as bases, for the pyramids which support the cables.— These pyramids which are constructed of three blocks of a durable hard sand stone, rise 5 feet above the level of the sidewalk and towpath, and measure 3×5 feet on top, and 4×6½ feet in base. The sidewalk and towpath being 7 feet wide, leave 3 feet space for the passage of the pyramids. The ample width of the tow and footpath is therefore contracted on every pier, but this arrangement proves no inconvenience, and was necessary for the suspension next to the trunk.

The caps which cover the saddles and cables on the pyramids, are suspended next to the trunk, one on each side, each of these two cables is exactly 7 inches in diameter, perfectly solid and compact, and constructed in one piece from shore to shore, 1175 feet long; it is composed of 1900 wires of ¼ inch thickness, which are laid parallel to each other, great care has been taken to insure an equal tension of the wires. Oxidation is guarded against by a varnish, applied to each wire separately, their preservation however is insured for certain by a close compact and continuous wrapping, made of annealed wire, and laid on by machinery in the most perfect manner. A continuous wrapping is an important improvement, which in this case has for the first time been successfully applied.

A well constructed and well wrapped cable presents the appearance of a solid cylinder, which in strength greatly surpasses a chain, made of bars of the same aggregate section or weight. It is not only the great relative strength of wire, which renders it superior to bar iron, but its greater elasticity, which enables it to support strong and repeated vibrations, add still more to its value as a material for bridge building.

The extremities of the cables do not extend below ground, but connect with anchor chains, which in a curved line pass through large masses of masonry, the last links occupying a vertical position. The bars composing these chains, average 1½×4 inch, and are from 4 to 12 feet long, they are manufactured of boiler scrap, and forged in one piece without a weld. The extreme links are anchored to heavy cast iron plates of 6 feet square, which are held down by the foundations, upon which the weight of 700 perches of masonry rest. The stability of this part of the structure is fully insured, as the resistance of the anchorage is twice as great as the greatest strain, to which the chains can ever be subjected.

The plan of anchorage adopted on the aquaduct, varies materially from those methods usually applied to suspension bridges, where an open channel is formed under ground for the passage of the chains. On the aquaduct, the chains below ground are imbedded and completely surrounded by cement. In the construction of the masonry, this material as well as lime mortar, have been abundantly applied. The bars are painted with red lead; their preservation is rendered certain by the known quality of calcareous cements, to prevent oxidation. If moisture should find its way to the chains, it will be saturated with lime, and add another calcareous coating to the iron. This portion of the work has been executed with scrupulous care, so as to render it unnecessary on the part of those, who exercise a surveillance over the structure, to examine it. The repainting of the cables every two or three years will insure their duration for a long period.

Where the cables rest on the saddles, their size is increased at two points by introducing short wires, and thus forming swells, which fit into corresponding recesses of the casting. Between those swells the cable is forcibly pressed down by three set of strong iron wedges, driven through openings, which are cast in the sides of the saddle.

When the merits of the suspension plan were discussed previous to the commencement of the structure, doubts were raised as to the stability of the pyramids and the masonry below, when unequal forces should happen to disturb the equilibrium of adjoining spans. It was then proved by a statical demonstration, that any of the arches with the water in the trunk could support an extra weight of 120 tons, without disturbance to any part of the work. In this examination no allowance at all was made for the great resistance of the woodwork and the stiffness of the trunk itself. During the raising of the frame work the several arches were repeatedly subjected to very considerable unequal forces, which never disturbed the balance and proved the correctness of previous calculations.

The stiffness and rigidity of the structure

is so great, that no doubt is entertained, that each of the several arches would sustain itself, in case the woodwork of the next one adjoining should be consumed by fire. The woodwork in any of the arches separately may be removed and substituted by new material, without effecting the equilibrium of the next one.

The original idea, upon which the plan has been perfected, was to form a wooden trunk, strong enough to support its own weight, and stiff enough for an aquaduct or bridge, and to combine this structure with wire cables of a sufficient strength to bear safely the great weight of water.

The plan of this work therefore is a combination, which presents very superior advantages, viz. great strength, stiffness, safety, durability and economy.

This system for the first time successfully carried out on the Pittsburg aquaduct, may hereafter be applied with the happiest results to railroad bridges, which have to resist the powerful weight and great vibrations which result from the passage of heavy locomotives and trains of cars.

REMARK.—The quantities in the following table are calculated for a depth of water of 4 feet, which has been in the aquaduct ever since the opening. The depth contemplated, was 3½ feet, a greater depth is at present required, on account of the raising of the bottom of the canal by bars and sediment which have to be removed before the level can be lowered.

TABLE OF QUANTITIES ON AQUADUCT.	
Length of aquaduct without extensions	1,140 feet.
“ cables	1,175 “
“ cables and chains	1,283 “
Diameter of cables	7 inches.
Aggregate weight of both cables	110 tons.
Areal section of 4 ft. of water in trunk	59 feet.
Total weight of water in aquaduct	2,100 tons.
“ “ one span	295 tons.
Weight of one span including all	420 tons.
Aggre. number of wires in both cables	3,800
Aggregate solid wire section of both cables in superficial inches	53 inches.
Aggre. solid section of anchor chains	72 inches.
Deflection of cables	14 ft. 6 inches.
Elevation of pyramids above piers	16 ft. 6 inches.
Weight of water in one span between piers	275 tons.
Tension of cables resulting from this weight	392 tons.
Tension of a single wire	206 lbs.
Average ultimate strength of one wire	1,100 lbs.
Ultimate strength of cables	2,090 tons.
Tension resulting from weight of water upon one solid square inch of wire cable	14,800 lbs.
Tension resulting from weight of water upon one sq. inch of anchor chains	11,000 lbs.
Pressure resulting from weight of water upon a pyramid	137½ tons.
Pressure resulting from weight of water upon one superficial foot of pyramid	18,400 lbs.

For the American Railroad Journal. Wear of Railroad Iron.

An article under this head appeared in the United States Gazette of July 19th, and I see it has been copied into the American Railroad Journal of the 31st, with the following remarks:

“The following article from the Boston Courier of July 15th, contains some valuable facts in relation to the wear of the 56 lbs. iron of the second track of the Lowell road.

"It appears from these facts, that the cost of renewing the iron of this road, is about equal to *one cent per ton, of freight per mile*, estimating the passengers and baggage as so much freight.

"As the destruction of iron, according to this experience, greatly exceeds the usual estimate of the value of this item, it would be well to call the attention of engineers to this important subject, with a view to provide some adequate remedy."

The article referred to, which has thus gone the rounds without contradiction; so far as I have seen, states the whole freight, passengers and baggage, that passed over the Lowell road in 7½ years, up to July 1845, at 840,000 tons, one half of which, or 420,000 tons, passed over the second track, rendering the iron upon it unserviceable to a great extent. The writer says:—

"We have at last the means of forming a very safe estimate of the durability of a 56 pounds, to the yard, edge rail, when well laid on an even and well adjusted track.

"The first ten miles of the second track, of the Lowell road, was first brought into use in 1838, after the 'fish-belly rail' had been found inadequate. The new rail was of the H pattern—the form now most generally approved."

He concludes, after stating the trade, and renewals of the iron made:

"They will be compelled to make additional renewals this year, and probably to change the iron on the whole of this ten miles in the course of next year. The durability of this rail may, therefore, be set down at 500,000 tons. The lowest estimate we have ever seen of the powers of a good edge rail, is 1,000,000, etc., etc.

Taking it for granted that these statements are correct, it is certainly calculated to cause not only surprize, but even dismay, in the minds of those who have embarked their capital in railroads, to learn in addition to the above, that this track was built at an unsparing expense, with a view to permanency; and cost, if I recollect aright, nearly double the average cost of the best tracks in the union. Yet I, for one, am by no means surprized at the result. In fact, I had the temerity to predict, in a conversation held with Major Whistler, at Springfield in 1841, that the track and machinery of the Lowell road, would be worn out with much less use than that of any other road in the union.— And again, without having seen it in the meantime, I repeated the prediction about eighteen months ago, in Jones Hotel, in this city, in a conversation with Mr. P. T. Jackson, the president of the company, in the presence of Mr. John Tucker, the president of the Reading railroad. I did not pretend to say how many tons would wear it out, I could only form a comparative estimate between it and other tracks more judiciously constructed.

The object of these remarks, is to establish the fact that the unusually rapid wear of the Lowell iron was foreseen, and predicted, and I doubt not, there were many other engineers, who came to the same conclusions I did, regarding it.

The writer in the Boston Courier has contented himself with giving to the public, the startling results of the Lowell experiment, without pointing out the cause, thus leaving it to be inferred that this experience "will apply to all other railways."

As I predicted the rapid wear of the rails and machinery of this road, I will state the reasoning on which my opinion was formed, that the public may correctly estimate how far the Lowell result will apply to other roads differently constructed.

The Lowell iron was laid on cross sills, and blocks of granite, firmly imbedded in a consolidated bed of rubble, or gravel, three feet deep and seven wide, thus forming a most rigid and unyielding way. There is no spring in such a track, to ease the shocks and jolts, from the bounds of the engines, the irregularities of the wheels, axles and joinings of the rails. Hence the rapid crushing of the iron, in accordance with a well established law of natural philosophy, which has been fully verified by the rather dearly purchased experience of the New York and Harlem, the Philadelphia and Columbia, the Baltimore and Ohio, as well as by the Lowell and many other railroads throughout the United States.

The engineers of the Baltimore and Ohio railroad, in their truly valuable "report, upon the plan of construction of several of the principal railroads in the northern and middle states," etc., published in 1838, make the following remarks, in describing the Harlem road, page 4:

"Within the city the plate rail is laid upon stone sills, disposed longitudinally to afford a continuous support to the rail, a mode of construction now highly inexpedient, on account of the experience already afforded here as well as upon our own road, of quick dilapidation by the wearing of the stone and the crushing of the rails, as well as the destruction of the machinery connected with the motive power."

These remarks will apply with equal force to the T and H rails when laid on stone.— And, as the hard sienite granite of the Lowell road, would not wear out like the soft gneiss used in the Baltimore road, the wear of the iron would be proportionably increased in the former.

Such was the reasoning, and in part, the experience, on which I formed the opinion I expressed in regard to the rapid wear of the Lowell iron. But my opinions on this subject were formed, and freely expressed, ten years before the first period named, or as early as 1831, when the granite and iron track was first proposed. I then predicted its utter failure, in a discussion on the subject with C. Crozet esq., then principal engineer of Virginia, with whom I was at the time engaged as an assistant engineer.

The result of my experience, and observation, through a period of more than fifteen years, has led me to advocate the continuous bearing of the iron rails upon timber, and to devise a plan of track that combines a uniformly even surface, with a general elasticity of structure, so as to save the wear of the rails and machinery, and greatly lessen the expense of adjustments.

Three miles of the new track of the Rea-

ding railroad, between Phoenixville and valley Forge, were laid upon my plan, but instead of being laid upon a good bed of gravel ballasting, it was laid upon a bed of wet clay, and run over by the heavy coal trains for several months before it could be fully filled in, on account of the frost, which has, certainly, as may well be conceived, tested its powers of endurance to the utmost stretch.

This track was opened to the heavy down trade of the road, on the 10th November 1844, since which, to the present time, more than six hundred thousand tons of coal, besides freight, and passengers, have passed over it.

Since the 9th April, '45, two laborers alone have been kept on those three miles, making the necessary adjustments, where the road bed settles, and all repairs.

Their wages for the months of April, May and June, was \$112, which was the whole expense of labor upon the track for these three months, during which time, more tonnage actually passed over it than passed over the new track of the Lowell road the three first years it was in use, according to the writer in the Boston Courier. And now 125,000 tons more, have actually passed over it, than is said to have worn out the Lowell iron altogether, yet the rails, as may be seen are generally little more than brightened on the surface, and certainly, not one rail in one hundred bars, shows any degree of exfoliation or splitting whatever, nevertheless, there are some bad rails on this three miles. It so happened that the iron put upon my track, was from a damaged cargo; these rails were deeply corroded and badly bent, in various directions, so that they could not be perfectly straightened, although heavy sledges were freely used upon them, as well as other means, and a large amount of labor expended in the effort. Being used in this condition, the short bends in the rails gives the track in places the appearance of being slightly out of line, which is only discernible, however, by a very experienced eye, and close observation. The real injury lies in the contortions the rails have suffered.

It is well known that every permanent bend of an iron bar, is a partial fracture, and it is also known to smiths, that re-bending and hammering will separate imperfect welding.

In the distance laid upon my plan, there are about 1710 rails, out of which 10 have been removed in consequence of splitting, showing, in every instance, the clearest evidence of imperfect welding. Some of these rails have had the split end cut off, and were again placed in the main line, but, as they generally split along the middle of the bar, they have, in most cases, been transferred to sidelings.

Thus, out of 1710 rails, that were, as before stated, extensively damaged, only ten bars have been wholly, or in part, removed from the main track, over which six hundred and twenty-five thousand tons have rolled to market, which is less than six-tenths of one per cent.

The two laborers before mentioned, took



out those defective rails, and replaced them by sound ones, during the *day time* while the immense diurnal trade of nearly four thousand tons was passing over the track, without interruption, and this too without breaking the chairs, or other fastenings, as frequently happens on the old plans of construction.

Thus, a practical refutation is given, to the unfounded assertions, or erroneous opinions, industriously circulated, that "it is difficult to adjust when the road bed settles, and almost impossible to repair." This refutation could not at present, (I almost regret) be extended, to the repairs of the timber work, as well as to the adjustments, and removal of the rails, as none of the timbers had been broken by last winter's frosts, aided by the heavy engines, as was confidently predicted by *some distinguished* members of the profession, who had the modesty, at the same time, however, to confess themselves incapable, of adjusting and repairing it, a feat of skill, that we see has been accomplished, as far as required, by two common laborers.

As two men have been found ample to keep in adjustment and repairs, those three miles of track upon which so heavy a trade rolls, it is evident, that if the adjoining track, upon which little more than the empty cars return, were laid upon my plan, an additional laborer would be ample to keep the three miles of double track in order; and, indeed, if the tracks were laid on gravel, the two men would be sufficient on the three miles of double track.

But, allowing one man to each mile of double track, the usual wages paid by the company to the road hands, amounts to about \$250 per annum. Allowing \$10 dollars to each man for tools, and we have \$260 per mile of double track, as the cost of labor, which for 94 miles amounts to \$24,440.—The company's estimate for keeping the road in repairs is \$1000 per mile; or \$94,000 for the whole distance. This is \$69,560 more than a liberal allowance for labor and tools would be on my plan. But this sum probably includes repairs on bridges, in addition to materials for the repairs of track.

With regard to the repairs of the bridges, if they be properly strengthened, and secured from the weather, they will absolutely require little or no repairs; and even the expense of watchmen (which I believe is not included in the above sum) may be dispensed with, by coating the timber with the silicate of potash, and afterwards with lime, which will form a crust of hydraulic cement, that will effectually protect the wood from fire and water.

As the timber of my track has been thoroughly impregnated with one of the most powerful antiseptics, at present known (by chloriate of Mercury,) its durability is placed beyond computation; parts may occasionally be damaged by accident, or otherwise, and require renewing, this together with the fastenings that may be broken, and the renewal of the crossing castings, at switches etc., will be amply provided for by \$100 per mile, or \$9,400 for the whole distance.

Thus with a trade of 1,000,000 tons per annum, the labor and materials for the ordinary repairs of roadway, will be fully provided for by \$360 per mile, or by  $\frac{3.6}{1000}$  of a cent per ton per mile.

The wear of the rails, we have seen, so far, amounts to less than six-tenths of one per cent. under the rolling trade of 625,000 tons. It is, therefore, very difficult to assign the limit of durability of a well proportioned rail, of good iron, properly laid to suit the wheels of the cars, upon a strong well combined, elastic track, so that the rail may have an even continuous bearing on timber. It may exceed ten millions of tons. But suppose the new 60 pound rails are worn out by five millions of tons, (the rails laid upon my track, however, marked R, I found, when undamaged by rust, weighed but 59.2 lbs. per yard; while those more generally laid on the new track, marked T, weight 61.12 lbs. per yard) and that they cost \$6,500 per mile. The old iron will be worth fully two-thirds the first cost. The writer in the Boston Courier allows \$4,700 per mile for the old 56 lbs. rails of the Lowell road; but to be very safe, I will allow only \$4,000 for the 60 lb. rails.

The rails on my track are secured by screw bolts, which affords great facility in removing and replacing them. It has been ascertained that a rail can be taken out and replaced by another, even singly, at seventy-five cents each, which would be a little more than \$400 per mile.

Renewing them throughout, can of course, be done at a much less expense; but allowing for contingencies etc., say \$500 per mile.

The cost of the new iron \$6,500, less the value of the old iron \$4,000, leaves \$2,500, which added to the cost of laying it \$500, and we have \$3,000 per mile of track, as the cost of renewal, which divided by 5,000,000 tons, gives *six hundredths* ( $\frac{6}{100}$ ) of a cent per ton per mile, as the value of the wear of iron, when properly laid, instead of one cent, which applies only to the Lowell granite track, and such others as may be similarly constructed.

A part of the expense of transporting coal on the Reading railroad, consists in the return of the empty cars to the mines, which pass up on the adjoining track. And as the wear of the iron will be in a measure proportionate to the weight, but in a less ratio for light weights, we shall make ample allowance by taking it at one-third, of the above estimate, for the empty car track, or  $\frac{2}{10}$  of a cent per ton of coal per mile.

The cost of maintaining the double track way, will, therefore be:—

Wear of iron on down track per ton per mile	.06
Do " " on up track " " " " " "	.02
Annual repairs and adjustment of both tracks	.036

Making together per ton per mile . . . . . cents .116

Multiplying .116 cents by 94 miles, gives  $\frac{2}{10}$  cents, as the cost of railway per ton of coal, from Pottsville to Richmond.

Here then, are two extreme cases. We have on the one hand, the Lowell granite track, built of such rigid unyielding materials, that the iron upon it is said to have been

rapidly crushed, at the rate of a cent a ton per mile, with 500,000 tons.

On the other had, we see that on a strong, but elastic track of timber, designed expressly to save the wear and tear of iron, and machinery, the wear of the rails has been so far reduced, that even with damaged iron, it has been less than *six-tenths of one per cent. under the rapid passage of 625,000 tons*, nor is it at all likely to exceed the estimate given above.

JAMES HERRON.

Civil engineer.

No. 277, S. 10th street, Philadelphia.

We have a few remarks to offer on the above. It is said that the rails on the Lowell road are destroyed and Mr. H. gives some sound reasons to show that the iron on that road will fail more rapidly than on any other in this country. We should be pleased to see a statement of the number of gross tons which have passed over these rails, the velocities of freight and passenger trains, the weight on the driving wheels of the engines, the actual condition of the rails when removed and their present market value, from some gentleman connected with the road. We do not know whether the rails are worn out, crushed, or merely taken away because inadequate to the larger engines now coming into use. In short, we have a mere newspaper statement and not a particle of engineering information on the subject. On only too many roads such information cannot be obtained, because there is no one capable of investigating the subject and presenting it to the public, but the Lowell road was long under the direction of Mr. Storrow, a gentleman peculiarly qualified by experience and scientific attainments to give a complete exposition of all the circumstances attending and affecting the wear of the rails on that work. His views would have great weight with the profession and through them with that portion of the community taking an interest in railways.

The condemnation of the superstructure of the Lowell road is also quite too sweeping. Admitting it to be most injudicious to place the iron on granite cross-ties without any intervening substance, it by no means follows that the mere interposition of a small block of wood would not in a great measure remedy the defect, or, better yet, that a continuous wooden sill under the L or bridge rail might not convert this into the best superstructure in this country. We hope that this or some other expedient may be tried before banishing the granite ties and substituting the usual—we might almost say, the stereotyped superstructure of New England, first introduced by Messrs. McNeill and Whistler on the Providence road.

An engineer who has kept his eye on all the improvements in railways, considers the want of a means of easy adjustment to be a radical defect in all plans of superstructure yet adopted. A concise statement of the superior facility which Mr. H.'s system presents for this operation would unquestionably be of interest to many of our readers. We think we have seen it stated in the English scientific journals that the process of "Kyanizing" is generally considered to have failed in imparting any durability worthy of notice to timber used in railways, but Payne's process appears to be highly spoken of. As yet, however, there is no process for this purpose which can be considered as fairly established, nor can it be said, according to our views, that the discussion on the wear of railroad iron in this country has led to any statements from which the actual wear of any

given rail under given conditions of traffic and size of engine could be even approximated. It must be remembered that the original 36 lbs. rail at Liverpool was for 6 ton engines at 10 miles per hour and we scarcely exaggerate when we say that the wear and strain from 16 to 18 ton engines at 40 miles per hour are twenty times as great. We freely admit that our opinion on the subject may not be deemed very weighty, but we are pretty confident that, with track and machinery well kept up, the wear of iron rails will form a very small proportion of the cost of transportation on railways. On the other hand the durability of timber has fallen very far short of the expectations of even the least sanguine.

**AMERICAN RAILROAD IRON.**—The Montour company at Danville have made arrangements to supply railroad iron to re-lay the track from Lancaster to Harrisburg at \$70 per ton. We learn that the Mine Hill and Schuylkill Haven co. have also contracted with the Montour company, for iron to re-lay their light track, and also to extend the road to Tremont in the Swatara region.

There are now three establishments for the manufacture of railroad iron in this country, all of which

have sprung into successful operation under the tariff of 1842. If the tariff remains unchanged, competition will soon cause American railroad iron of a superior quality to be purchased as cheap as the English supplied us with iron from 1836 to 1840 when there was no duty upon this article. We shall allude to this subject again next week.—*Miner's Journal*

**TONAWANDA RAILROAD COMPANY.**—The following persons were, on the 18th instant, elected directors of this company for the ensuing year, viz: Hemen J. Redfield, Benjamin Pringle, Chas. M. Lee, Thomas Kempshall, Joseph Field, Samuel Dana, James Brisbane, Thomas H. Newbold, Lewis Brooks, George H. Mumford, Asa Sprague, William F. Weld and Frederick Whitteley. At a subsequent meeting of the directors, Hemen J. Redfield was elected president, and Thomas Kempshall vice president.

**RAILROAD FROM LOCKPORT TO ROCHESTER.**—A meeting, numerously attended, was held at Lockport on the 12th inst., on the subject of a railroad from that place to this. The following gentlemen were appointed a committee to open books, and to receive subscriptions: Lot Clark, William O. Brown, John P. Smith, Asa W. Douglas, and Orsamus Turner.

**RAILROAD TO CHICOPEE.**—The directors of the Connecticut river railroad company, at their recent meeting, voted to construct a branch railroad from Cabotville to Chicopee falls, a distance of two miles. It is estimated that the expense will be from twenty-five to thirty thousand dollars.

**HUDSON RIVER RAILROAD.**—We learn that funds for the survey of a railroad route on the east bank of the Hudson, from this city to Albany, have been provided, and that John B. Jervis, Esq. has been engaged as chief engineer. He will enter upon his duties in about a fortnight.

Measures are in progress for the survey of a railroad from Salem, Mass., to Andover, to intersect with the Boston and Maine railroad, and shorten the route to Lowell.

Books have been opened for a telegraphic communication between Boston and Portland, with the privilege of extending the same to Brunswick, Bath and Bangor.

The iron shipbuilders, Messrs. Hodgson and co. of Liverpool, are building an iron ship of 1200 tons burden, the first of a line of steamers between New York and Liverpool.

The eastern mail will hereafter be conveyed to Cincinnati by railroad from Xenia.

TRAVELLERS' RAILROAD AND STEAM NAVIGATION GUIDE, ON THE CONTINENT.

List of Railroads Now Open on the Continent, and the Fares.

The Fares are in the Coins of each Country, and reduced into English Currency: th. shalers and silbros; g. guilders, kreutzers and cents; fr. francs and centimes.

FROM	MILES	DESTINATION.	FIRST CLASS.		SECOND CLASS.	
			s.	d.	s.	d.
Aix-la-Chapelle	43	Cologne . . . . . th.	2	6 0	1 15	4 6
Amsterdam	25	Utrecht . . . . . g.	1 80	3 0	1 40	2 4
Amsterdam		Arnhem . . . . .				
Antwerp	28	Brussels . . . . . fr.	3 25	2 7	2 50	2 0
Antwerp	150	Cologne . . . . . fr.	21	16 10	16	12 10
Antwerp	96	Lille . . . . .				
Antwerp	107	Aix-la-Chapelle. fr.	13 50	10 10	10 50	8 5
Augsburg	39	Munich . . . . . g.	3	6 0	2 12	4 5
Basel	86	Strasbourg. . . . . fr.	13 95	11 2	10 60	8 6
Berlin	200	Dresden . . . . .				
Berlin	53	Frankfort on O. th.	2 10	7 0	1 15	4 6
Berlin	140	Leipzig . . . . . th.	5 15	16 6	3 20	11 0
Berlin	128	Magdeburg . . . . . th.	4 20	14 0	3 5	9 6
Berlin	18	Potsdam . . . . . th.		20 2 0		15 1 6
Berlin	90	Stettin . . . . .				
Bonn	16	Cologne . . . . . th.		15 1 6		10 1 0
Breslau	53	Oppeln . . . . . th.	2 16	7 8	1 18	4 10
Brunswick	44	Hanover . . . . . th.		20 2 0		18 1 10
Brussels	142	Cologne . . . . . fr.	20 50	16 5	15 50	12 5
Brussels	59	Valenciennes. . . . . fr.	6	4 10	4 75	3 10
Budweis	64	Lintz . . . . . g.	3	5 0	2	3 4
Carlsruhe	21	Baden . . . . . g.	1 30	2 6	1	1 8
Carlsruhe	48	Offenbourg . . . . . g.	3 18	5 6	2 12	3 8
Dresden	60	Leipzig . . . . . th.	2 8	6 10	1 8	3 10
Dresden	134	Magdeburg . . . . .				
Dusseldorf	18	Elberfeld . . . . . th.		25 2 6		18 1 10
Frankfort O.M.	21	Mainz . . . . . g.	2 6	3 6	1 27	2 5
Frankfort O.M.	26	Wiesbaden . . . . . g.	2 42	4 6	1 48	3 0
Hague	47	Amsterdam . . . . . g.	3 65	6 1	2 45	4 1
Hiedelberg	14	Mannheim . . . . . g.		51 1 5		30 0 10
Leipzig	33	Altenburg . . . . . th.	1 12	4 3		26 2 8
Mannheim	73	Baden . . . . . g.	5 6	8 7	3 30	5 10
Mannheim	52	Carlsruhe . . . . . g.	3 18	5 6	2 12	3 8
Mannheim	93	Kehl . . . . . g.	6 45	11 3	4 30	7 6
Mannheim	100	Offenbourg . . . . . g.	6 33	10 11	4 24	7 4
Ostend	92	Antwerp . . . . . fr.	9 25	7 5	7	5 7
Ostend	89	Brussels . . . . . fr.	9 25	7 5	7	5 7
Ostend	169	Aix-la-Chapelle. fr.	19 50	15 7	15 25	12 2
Ostend	212	Cologne . . . . . fr.	27	21 7	20 75	16 7
Paris	18	Corbeil . . . . . fr.	3	2 5	2 40	1 11
Paris	75	Orleans . . . . . fr.	15	12 0	12 60	10 1
Paris	84	Rouen . . . . . fr.	16	12 10	13	10 6
Paris	5	St. Cloud . . . . . fr.		80 0 8		60 0 6
Paris	12	St. Germain. . . . . fr.	2	1 7	1 50	1 3
Paris	12	Versailles . . . . . fr.	2	1 7	1 50	1 3
Rouen	84	Paris . . . . . fr.	16	12 10	13	10 6
Vienna	40	Glognitz . . . . . g.	3 29	6 8	2 30	5 0
Vienna	120	Gratz . . . . .				
Vienna	132	Ollmutz . . . . . g.	11 12	23 5	7	14 0

An Alphabetical list of the Distances, in English miles, of the Principal Towns from London, to which are added, those between some of the Continental Towns.

Abbeville . . . . .	190	Frankfort O.M. . . . .	544	Moscow . . . . .	1396
Aix-la-Chapelle . . . . .	330	Frieberg . . . . .	739	Naples . . . . .	1450
Amsterdam . . . . .	248	Gand . . . . .	177	Neurenburg, from	
Arnhem . . . . .	270	Geneva . . . . .	1080	Frankfort O.M. . . . .	126
Baden-Baden . . . . .	650	Gratz, fm. Vienna . . . . .	120	Neurenbg, f. Leipzig	159
Basel . . . . .	780	Hague . . . . .	212	Offenburg . . . . .	698
Berlin . . . . .	644	Havre, by Brighton. 137		Prague, fm. Vienna. 196	
Berlin fm. Hamburg 175		" by Southampton 198		Prague, fm. Frank-	
Bern . . . . .	830	Heidelberg . . . . .	589	fort O.M. . . . .	290
Bieberich . . . . .	510	Kehl . . . . .	684	Prague, fm. Dresden. 94	
Bonn . . . . .	420	Leighorn . . . . .	1240	Paris, by Brighton. 241	
Bordeaux, fm. Paris. 346		Leipzig, fm. Frank-		Paris, by Southamp. 340	
Breslau, fm. Berlin. 202		fort O.M. . . . .	210	Rome . . . . .	1380
Breslau, fm. Dresden 154		Liege . . . . .	300	Rouen, by Southamp. 256	
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Carlsruhe . . . . .	625	Mainz . . . . .	517	Schaffhausen . . . . .	790
Caub . . . . .	485	Mannheim . . . . .	571	St. Petersburg, f. Berlin. 1060	
Coblenz . . . . .	458	Milan . . . . .	942	Strasbourg, fm. Paris 285	
Cologne . . . . .	400	Milan, fm. Venice. . . . .	200	Trieste, fm. Venice. 319	
Constance . . . . .	820	Magdeburg f. Hambg. 157		Utrecht . . . . .	230
Dijon, fm. Paris . . . . .	318	Magdeburg f. Leipzg. 74		Vienna, from Frank-	
Dresden, fm. Prague. 94		Magdebg. f. Dresden. 134		fort O.M. . . . .	437
Dusseldorf . . . . .	368	Marseilles, fm. Paris 500		Vienna fm. Trieste. 319	
Elberfeld . . . . .	388	Munich, fm. Frank-		Venice, fm. Milan. 200	
Emmerich . . . . .	300	fort, O.M. . . . .	214	Wiesbaden . . . . .	520
Florence . . . . .	1160	Munich, fm. Vienna. 276		Zurich . . . . .	830

The direct Fares from London are at the following reduced rates.

From LONDON.	Via ROTTERDAM.		Via ANTWERP & via OSTEND and from COLOGNE.		Via COLOGNE.	
	Out, or Single Journey.		Out, or Single Journey, Exclusive of Railroad Fares.			
	Chief cabin	Fore cabin	Chief cabin	Fore cabin	Chief cabin	Fore cabin
Dusseldorf	£ 2 16 6	£ 1 18 11				
Cologne	2 18 6	1 19 10				
Bonn	2 19 9	2 0 6	2 3 3	1 13 3	1 11 5	1 5 8
Neuweid.	3 3 11	2 2 4	2 8 1	1 15 2	1 16 2	1 7 6
Coblenz	3 4 11	2 2 10	2 9 0	1 15 6	1 17 0	1 8 0
Bingen	3 10 1	2 5 2	2 13 9	1 17 9	2 1 9	1 10 3
Bieberich	3 11 1	2 5 9	2 15 3	1 18 5	2 3 2	1 10 11
Wiesbaden	3 11 9	2 6 4	2 16 0	1 19 0	2 3 9	1 11 6
Mayence	3 11 4	2 5 10	2 15 5	1 18 6	2 3 5	1 11 0
Mannheim	3 15 6	2 8 8	2 19 6	2 1 4	2 7 6	1 13 10

Children under 10 years of age, half price; for dogs, half the price of fore cabin is charged; on carriages, and horses booked in London direct for the Rhine, a considerable reduction is also made.

Agents--General Steam Navigation Company.

Rotterdam, W. Smith, and Mr. P. A. Van Es.	Brussels, W. Middleton.
Cologne, J. Simonis.	Paris, F. Spiers.
Aix-la-Chapelle, J. A. Mayer.	Havre, P. Albrecht.
Spa, Dommartin.	Rouen, Company's Office.
Antwerp, C. Breugnoty.	Dieppe, D. L. Chapman.
Ostend, St. Amour.	Boulogne, W. Hughes, Dellatre.
Gand, L. Van Aken.	Calais, A. Spiers.
	Hamburg, G. Delaval.

**BOSTON COURIER, DAILY, SEMI-Weekly and Weekly.**

The Daily edition of the Courier, presents to merchants and others, an extensive medium of advertising. The circulation of the *Semi-Weekly Courier* (published on Mondays and Thursdays) is believed to be more extensive than that of any other similar Boston Newspaper. This publication embraces all the reading matter of the Daily, the Foreign and Domestic Markets, Review of the Boston Market, Prices current, and Ship News, prepared with great accuracy. The *Weekly Courier* contains as much of the matter of the daily as can be crowded into a sheet of the same size, without ship news, prices current or advertisements.

Our exertions to obtain and publish authentic information on all topics proper for the columns of a newspaper,—the state of trade, the prices of merchandise, the current news of the day, and the political movements in the various sections of the country—will not be abated. The marine department of the Courier has been inferior to none in copiousness or accuracy of detail, and it will be our endeavor to maintain its reputation in this respect.

**TERMS OF SUBSCRIPTION.**

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For the Semi-Weekly Courier, for one year... 4.00  
For the Weekly Courier, for one year..... 2.00

JOSEPH T. BUCKINGHAM.  
EBEN B. FOSTER.

**SPRING STEEL FOR LOCOMOTIVES,**

Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1½ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,

ja5a Albany Iron and Nail Works, Troy, N. Y.

**TO IRON MANUFACTURERS. THE SUB-**

scribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO.,

ja45 No. 4 South Front st., Philadelphia, Pa.

**MACHINE WORKS OF ROGERS, KETCH-**

um & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

**Railroad Work.**

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,  
a45 Paterson, N. J., or 60 Wall street, N. York.

**FOR SALE, AT A SACRIFICE—A LOCO-**  
motive Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine.  
2 8-horse " "  
1 Upright Hydraulic Press.

All of which will be sold low, on application to  
T. W. & R. C. SMITH.  
Founders and Machinists,  
Alexandria, D. C.

May 19th

**NICOLL'S PATENT SAFETY SWITCH**  
for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.  
G. A. NICOLLS,  
Reading, Pa.

**GEORGE VAIL & CO., SPEEDWELL IRON**

Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1½ in. to 2½ in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions.

ja451y

**TO RAILROAD COMPANIES AND MAN-**

ufacturers of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.  
THOMAS & EDMUND GEORGE,  
ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**FROM NEW YORK.**

**New York and Harlem Rail-**  
road Company.

Leave City Hall for Yorkville, Harlem and Morrisania at 5.30, 7, 8, 9, 10, a.m.; 1, 2, 3, 3.30, 4, 5, 5.30, 6, p.m. For Fordham and Williams' Bridge at 5.30, 7, 10, a.m.; 2, 3.30, 5, 6, p.m. For White Plains at 7 and 10 a.m.; 2 and 5 p.m. Leave Morrisania and Harlem for City Hall at 6.20, 8, 9, 10, 11, a.m.; 2, 3, 4, 2, 5.20, 6, 6.30, 7.45 p.m. Williams' Bridge for City Hall at 7, 7.40, 10.40 a.m.; 2.40, 5, 5.40, 7.20 p.m. White Plains for City Hall at 7.10 and 40.10 a.m.; 2.10 and 5.10 p.m.

31  
*Evening, or 6 o'clock Line.*—Line steamboats for Albany—Daily, Sundays excepted—Through direct at 7 o'clock P.M. from pier between Courtlandt and Liberty streets.—Steamboat Rochester, Capt. R. G. Crittenden, will leave on Monday, Wednesday, and Friday. Steamboat Knickerbocker, Captain A. Houghton, will leave on Tuesday, Thursday, and Saturday.

31  
For Albany and Troy, direct, at 6 o'clock, P.M., from the steamboat pier, foot of Courtlandt street. The Empire, Capt. R. B. Macy, Tuesday, Thursday and Saturday. The Columbia, Capt. Wm. H. Peck, Monday, Wednesday, and Friday.

**PASSENGER LINES, SOUTH AND SOUTHWEST.**

**New York and Philadelphia Rail-**  
road Line.—Direct. Leaves New York daily, from the foot of Liberty street. Morning Line, 9 o'clock, A.M. Mail Pilot Line, 4½ o'clock, P.M. Fare in first class cars, \$4. Second class cars, \$3.

Passengers will procure their tickets at the office foot of Liberty street. Philadelphia Baggage Crates are conveyed from city to city without being opened by the way. Each train is provided with a car, in which are apartments and dressing rooms expressly for the Ladies' use.

**Camden and Amboy Railroad**  
Line.—For Philadelphia

and intermediate places. Leaves Pier No. 2, North River, foot of Battery Place, by Steamboat to South Amboy, daily, Sundays excepted, at 5½ o'clock A.M. Passengers will take the cars at South Amboy. Fare to Philadelphia, \$3. Forward deck passengers, \$2 25. To Freehold and Monmouth, via stages from Hightstown, \$1 50. To Spotswood and West 75 cents. To South Amboy, 25 cents. To Perth Amboy, Tattens, Rossville and Tuffs, 12½ cents.

The steamboat Independence will land at each of the above named places going and returning, leaving Perth Amboy at 5 o'clock P.M.

**Susquehanna Line of Rail-**  
road Cars and Post Coaches.

This line leaves the depot, corner of Broad and Cherry streets, daily, (Sundays excepted) at 8 o'clock, a.m., via Reading and Pottsville railroad, for Sunbury, Danville, Cattawissa, Northumberland, Milton, Muncy, Williamsport, Towanda, Bellefonte, Jersey Shore, Lockhaven, Ralston and Elmira. For seats apply at the stage office, 104 Race street, under the White Swan Hotel.

34 S. STILES, Agent.

**SUMMER ARRANGEMENT—FARE REDUCED.**

By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

Direct to New Orleans, and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great Southern Mail Line, and the only one that issues a through ticket South. Those who patronize it will save their money and time. Through Tickets from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

Fast Mail Line.—Leave New York at 9 a.m. and arrive in Philadelphia at 3½ p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12½ to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.

Passengers by the above line will arrive at Richmond by 11½ o'clock p.m. and Petersburg, Va. by 2½ o'clock p.m., through to the former city in twelve hours, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those who take the Bay route.

Way Mail Schedule.—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p.m.; arrive in Baltimore at 2½ p.m.; arrive in Washington at 7 p.m. From Philadelphia by steamboat.—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore.

STOCKTON & FALLS.

**LONG ISLAND RAILROAD.—EVENING** Line for Newport and Providence. Fare 50 cents.

Every Tuesday, Thursday and Saturday, from the foot of Whitehall street, at 4½ o'clock and from Brooklyn depot at 5, p.m.

On the arrival of the train at Greenport, passengers will proceed immediately in the steamer "New Haven," direct. 2t 39

**BOSTON AND PROVIDENCE RAILROAD.** Dedham Branch Railroad. Stoughton Branch Railroad.

Fall arrangement, to commence Monday, September 29, 1845.

Steamboat train for New York via Stonington, leaves Boston at 4½ p.m.

Accommodation trains, leave Boston at 8 a.m. and 3½ p.m. Leave Providence at 8 a.m. and 3½ p.m.

Fare in first class cars, \$1 25  
" second " 85

Dedham trains, leave Boston at 9 a.m. 3 p.m., and 6 p.m. Leave Dedham at 7½ a.m., 10½ a.m. and 4½ p.m.

Fare 25 cents. Stoughton trains, leave Boston at 12 m. and 4 p.m. Leave Stoughton at 8 a.m. and 2½ p.m.

Fare 50 cents.

W. RAYMOND LEE, *Sup't.*  
31 ly

Sept. 15, 1845.

**NEW YORK AND ERIE RAILROAD LINE.** For Middletown, Goshen, and intermediate places. Two daily lines each way, as follows:

For passengers, the new, and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7½ o'clock, A.M., and 5 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4½, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets.

H. C. SEYMOUR, Superintendent.

Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale, Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc., etc. 31 ly

**BALTIMORE AND SUSQUEHANNA RAILROAD.** The Passenger train runs daily except Sunday, as follows:

Leaves Baltimore at 9 a.m., and arrives at 6½ p.m. Arrives at York at 12½ p.m., and leaves for Columbia at 1½ p.m. Leaves Columbia at 2 p.m., and leaves York for Baltimore at 3 p.m. Fare to York \$2. Wrightsville \$2 50, and Columbia \$2 62½. The train connects at York with stages for Harrisburg, Gettysburg, Chambersburg, Pittsburg and York Springs.

Fare to Pittsburg. The company is authorized by the proprietors of Passenger lines on the Pennsylvania improvements, to receive the fare for the whole distance from Baltimore to Pittsburg. Baltimore to Pittsburg.—Fare through, \$9 and \$10.

Afternoon train. This train leaves the ticket office daily, Sundays excepted, at 3½ p.m. for Cockeysville, Parkton, Green Springs, Owings' Mills, etc.

Returning, leaves Parkton at 6 and Cockeysville and Owings' Mills at 7, arriving in Baltimore at 9 o'clock a.m.

Tickets for the round trip to and from any point can be procured from the agents at the ticket offices or from the conductors in the cars. The fare when tickets are thus procured, will be 25 per cent. less, and the tickets will be good for the same and following day in any passenger train.

D. C. H. BORDLEY, *Sup't.*  
Ticket Office, 63 North st.  
31 ly

**DAVIS, BROOKS & Co., 30 WALL ST.** Have now on hand and for sale, 200 tons 2½ x ½ inch Flat punched Rails, Bars 18 feet each.

100 tons Heavy Edge Rails, 90 tons per mile. 30 tons 2½ x ½ inch Flat Rails.

Also—A STEAM PILE DRIVER, built by "Dunham & Co." which has never been used, and cost originally \$5000. s20 2m ja45

**BALTIMORE AND OHIO RAILROAD.** MAIN STEM. The Train carrying the Great Western Mail leaves Bal-

timore every morning at 7½ and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburg. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburg \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburg \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5½ P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13 ly

**CENTRAL RAILROAD-FROM SAVANNAH TO MACON.** Distance 190 miles. This Road is open for the transportation of Passengers and Freight. Rates of Passage, \$8 00. Freight—

On weight goods generally... 50 cts. per hundred. On measurement goods... 13 cts. per cubic ft. On brls. wet (except molasses and oil)... \$1 50 per barrel. On brls. dry (except lime)... 80 cts. per barrel. On iron in pigs or bars, castings for mills, and unboxed machinery... 40 cts. per hundred. On hhds. and pipes of liquor, not over 120 gallons... \$5 00 per hhd. On molasses and oil... \$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE, Gen'l. Sup't. Transportation. 40

**LEXINGTON AND OHIO RAILROAD.** Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 26 miles. Fare \$1-25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above. 35 ly

**KEARNEY FIRE BRICK.** F. W. BRINLEY, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire, } New York.  
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J. Patton, Jr. } Philadelphia, Pa.  
Colwell & Co. }  
J. M. L. & W. H. Scovill, Waterbury, Con.  
N. E. Screw Co. } Providence, R. I.  
Eagle Screw Co. }  
William Parker, Supt. Bost. and Wore. R. R.  
New Jersey Malleable Iron Co., Newark, N. J.  
Gardiner, Harrison & Co. Newark, N. J.  
25,000 to 30,000 made weekly. 35 ly

**RAILROAD IRON AND FIXTURES.** The Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO., 30 Wall st., N. York. 41 2t

**OFFICE OF THE NEW YORK AND Erie Railroad Company. No. 50 Wall st. New York. September 13, 1845.**

Notice is hereby given to the holders of stock of the New York and Erie Railroad company, that by the terms of the 8th section of the Act of the 14th May, 1845, it is provided that, if within 6 years from the passage of the law the company shall complete a single track from the Hudson river to lake Erie and a branch to Newburgh, in Orange county, then "the said company shall be released from all liability to pay to the state any demand which the state may have against them, with this exception only, that in case any holder or holders of the capital stock of said company heretofore issued and certified, or purporting to be paid in full, shall not within six months from the passage of this act, surrender to the company their stock certificates, and receive or offer to receive therefor, for every two shares of stock heretofore issued, one share of stock to be hereafter issued, then all such stock heretofore issued, and not so surrendered, shall not be subject to the provisions of this law; but the state shall retain the right to claim upon such outstanding stock, and the said company shall pay into the treasury of the state, upon the order of the comptroller, any and all dividends upon such outstanding stock, and the comptroller shall apply the same to the credit of said company, until the state shall receive in such dividends, so much of their said debt of three millions of dollars and the interest thereon, as would be the proportion of such outstanding stockholders to pay, provided the whole debt of three millions of dollars and interest thereon were collected ratably from all the stock of said company now outstanding."

By section 9th, of the same law, it is provided that, "it shall be the duty of the president and secretary of said company, within thirty days after the expiration of the six months mentioned in the last preceding section, to file with the comptroller of the state, a statement of all stocks that shall not have been exchanged in pursuance of the provisions of the last preceding section; and whenever any dividend upon the stock of the said company shall be made, it shall be the duty of the board of directors to notify the comptroller of such dividend, and upon payment of the dividend aforesaid into the treasury, the comptroller shall furnish to said company a receipt for the portion of such dividend belonging to any stock not surrendered and exchanged in pursuance of the last preceding section of this act, and said company shall surrender to the holders of such stock the receipt of said comptroller in lieu of said dividends."

It will be seen that on or before the 14th of November next, each and every holder of the stock of the company must decide whether he will avail himself of the provisions of this law by surrendering his stock and receiving one share for every two shares thus surrendered. With reference to holders who neglect to avail themselves of the provisions of the act, it is made the duty of the company, within thirty days from the 14th of November, "to file with the comptroller a statement of all stocks that shall not have been exchanged" agreeably to the provisions of this act, the dividends on which must be paid into the state treasury, rendering that class of stock practically of no value to the holder. The board of directors consider it their duty to protect the interests of the stockholders by giving all possible publicity to that portion of the law relating to the outstanding stock, that all may have an opportunity for an early compliance with the provisions of the act. By order of the board of directors. 39 8t T. S. Brown, Acting secretary.

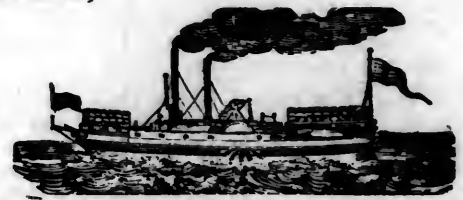
**OFFICE OF THE NEW YORK AND Erie Railroad Company. No. 50 Wall st. New York 4th October, 1845.**

Notice is hereby given that the sum of three millions of dollars, required by the law of May 14th, 1845, has been subscribed to the capital stock of this company, and that the books have been closed. The subscribers are required to make a payment of five dollars on each share, at the office of the company, on or before Thursday, the 16th of October inst.

By order of the board of Directors. T. S. Brown, Acting Secretary. 41 2t

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 42.]

THURSDAY, OCTOBER 16, 1846.

[WHOLE No. 485, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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- TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)
- ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)
- S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)
- NORRIS, BROTHERS, Philadelphia, Pa.
- KITE'S Patent Safety Beam. (See Adv.)
- FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)
- NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)
- ROSS WINANS, Baltimore, Md.
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- SETH ADAMS, Engineer, South Boston, Mass.
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- JAS. P. ALLAIRE, N. Y.
- H. R. DUNHAM & Co., N. Y.
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- PHENIX FOUNDRY, N. Y.
- R. HOE & Co., N. Y.
- ANDREW MENEELY, West Troy. (See Adv.)
- JOHN F. STARR, Philadelphia, Pa.
- MERRICK & TOWNE, do.
- HINCKLEY & DRURY, Boston.
- C. C. ALGER, Stockbridge Iron Works, Stockbridge, Mass.
- BALDWIN & WHITNEY, Philadelphia, Pa.

### IRON MERCHANTS and IMPORTERS.

- DAVIS, BROOKS & Co., N. Y. (See Adv.)
- A. & G. RALSTON & Co., Philadelphia, Penn. (See Adv.)
- THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM. PLAN

Messrs. Editors.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1846.

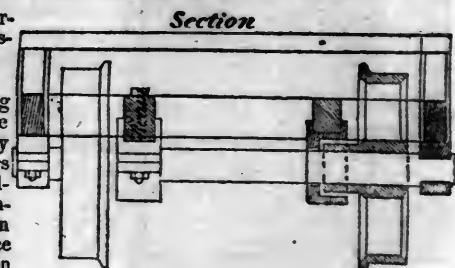
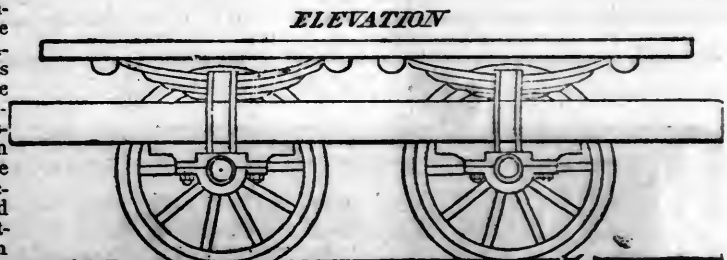
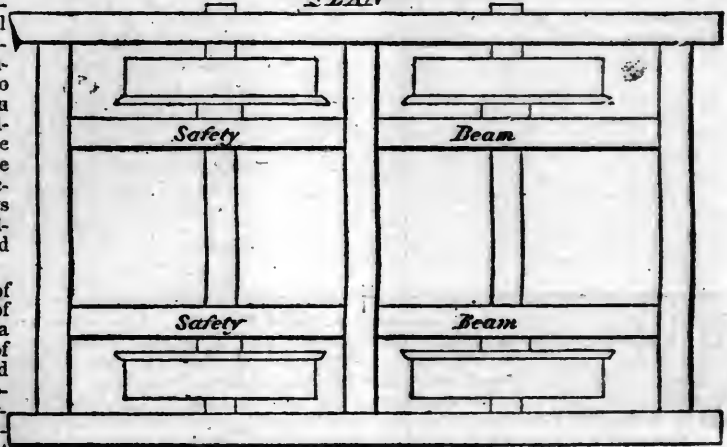
The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y.  
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

### FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

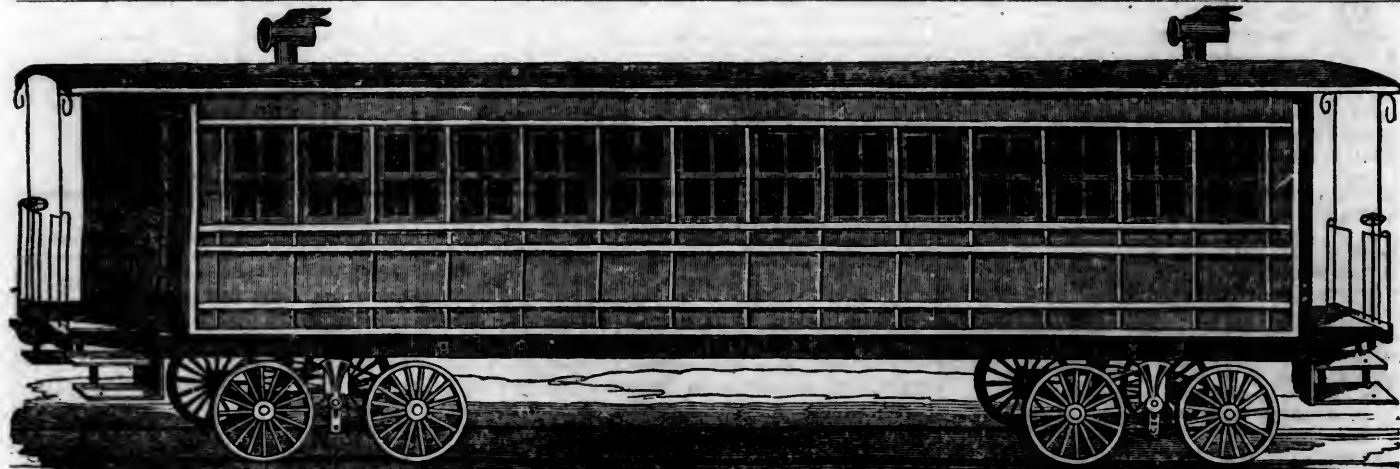
\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45



**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

The article is complete in itself, occupies but little space, is perfectly portable, and requires no brick work, not even to stand upon. It is valuable, not only in the saving of time and labor, but in the economy of fuel, as it has been ascertained by accurate measurement, that the saving in that article is fully two-thirds over other methods heretofore in use. They are now for the first time introduced into New York and Boston by the subscriber, who has the exclusive right for the New England states, New York and New Jersey, and are manufactured by

CURTIS & RANDALL, Boston; and by  
FORCE, GREEN & CO. New York.



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**R**AILROAD IRON AND LOCOMOTIVE Tyres imported to order and constantly on hand by **A. & G. RALSTON** Mar. 20tf 4 South Front St., Philadelphia.

**T**HE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention. **ANDREW C. GRAY,** President of the Newcastle Manuf. Co. ja45

**C**USHMAN'S COMPOUND IRON RAILS. etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,** Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid. ja45

**T**O RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

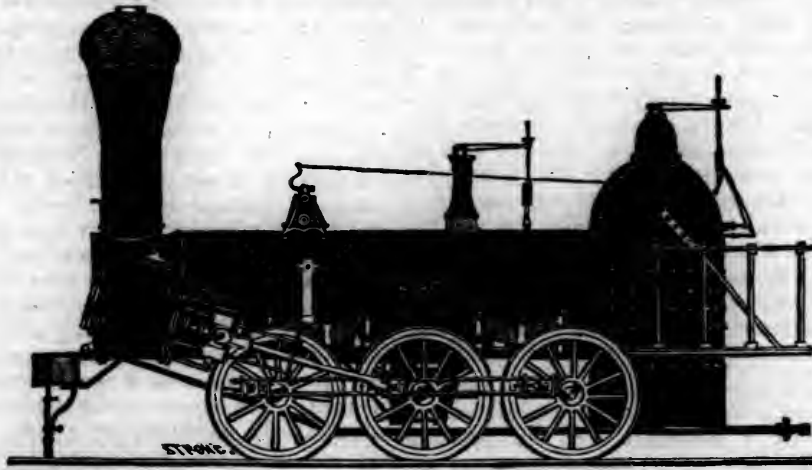
From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by **MORRIS, TASKER & MORRIS.** Warehouse S. E. Corner of Third & Walnut Streets, PHILADELPHIA.

**NORRIS' LOCOMOTIVE WORKS.**

BUSH HILL, PHILADELPHIA, Pennsylvania.



**M**ANUFACTURE their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
"	2,	14	"	"	×	24	"
"	3,	14 1/2	"	"	×	20	"
"	4,	12 1/2	"	"	×	20	"
"	5,	11 1/2	"	"	×	20	"
"	6,	10 1/2	"	"	×	18	"

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**R**AILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Companies are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland. **WILLIAM YOUNG,** President.

**T**O IRON MASTERS.—FOR SALE.—MILL SITES in the immediate neighborhood of Bituminous Coal and Iron Ore, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years: the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore. **W. R. CASEY, Civil Engineer,**

**V**ALUABLE PROPERTY ON THE MILL Dam For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.  
Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.  
Pattern shop, 35x32 feet, with lathes, work benches, &c.  
Work shop, 86x35 feet, on the same floor with the pattern shop.  
Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.  
Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.  
Store house—a range of buildings for storage, etc., 290 feet long by 20 wide.  
Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.  
Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:  
Boiler house 50 feet long by 30 feet wide, two stories.  
Blacksmith shop, 49 feet long by 20 feet wide.  
For terms, apply to **HENRY ANDREWS,** 48 State st., or to **CURTIS, LEAVENS & CO.,** 106 State st., Boston, or to **A. & G. RALSTON & Co.,** Philadelphia. ja45

**CYRUS ALGER & CO.,** South Boston Iron Company.

**Nashville and Atlantic Railroad.**

We take the following exceedingly appropriate and forcible remarks from an address delivered by Dr. J. Overton, of Nashville, Ten., before a convention held in the city on the 3d of July last, in relation to that construction of a railroad to the Tennessee river at Chattanooga, there to connect with the Georgia roads to Savannah and Charleston. It would seem that not another word need be said on the subject to induce the legislature, now in session to grant a charter authorizing a few of the people to invest their own money in a way which will advance the prosperity the convenience and the intelligence of all who reside within its influence; yet all cannot see the subject in its true light, as Dr. Overton does, and therefore we have taken the liberty of referring to it at some length in another place, in the hope of aiding in a measure which we consider of vast importance, even greater in a national than in a local or pecuniary point of view.

Doctor Overton said "he would now discuss the practicability and advantages of the proposed road. He had labored to acquire correct information on the subject, as he was unwilling to be misled himself or to mislead others, and should give the results of his inquiries. The distance from Charleston to Nashville was 597 miles—of these, 136 miles were in the state of South Carolina, 311 in Georgia, and 130 in the state of Tennessee. This left the smallest part of the great work of connecting the heart of our state with the Atlantic Ocean, to be accomplished by the state of Tennessee. Our friends in South Carolina and Georgia, are looking forward most steadfastly and anxiously to the consummation of it, and have exhibited decisive proofs of a determination to accomplish their share of the greatest work of the United States. At the last annual meeting of the stockholders of the South Carolina branch of this railroad, a committee of seven was appointed to take into consideration the matters connected with their railroad. They say: 'of the distance to Tennessee, 390 miles are already virtually made, and the strong arm of the state of Georgia, that has already effected so much, is extended to complete the remaining fifty-six miles to the Tennessee river. Thus it seems we are already in sight of the great and growing west, and the obstacles to overcome are nothing compared with what have already been surmounted.' The balance of the road, to wit: the remaining fifty-six miles to Chattanooga, on the Tennessee river, is under contract, and the grading and masonry completed. The Hon. J. P. King, formerly a senator and now the president of the Georgia railroad, in a report of the condition of the progress of the road in Georgia, made on the 1st of May 1845, says: 'the engineer gives us the following gratifying intelligence, that our anxious and arduous labors are drawing to a close, and that in September next, cars loaded in Augusta may be carried without transshipment to Oostenaulea over a continuous line of railway exceeding 250 miles.'

'This intelligence was as acceptable to our Cherokee country and to east and middle Tennessee as it was to the stockholders. By the sudden termination of the eastern Alleghenies on our borders, and the breach made

in the western spur of the great Appalachian chain, by the Tennessee river, nature seems to have invited the enterprize of Georgia to a connection, social, political and commercial with the great and growing west.—It may be safely asserted that no other work in the Union can be compared with this in importance; more especially if this country should be afflicted with a war.' He concurred fully in this view of the subject; and felt satisfied that the citizens of Tennessee could and would, when this matter was fully investigated by them, do that portion of the work which was within their jurisdiction, and cordially embrace the hands which have been extended to them. He stated that he had an interview with the profound and accomplished geologist of the state, Dr. Troost, in reference to the physical character of the country between Nashville and Chattanooga. That gentleman had examined the country with great care; and he believed a route could be selected from the town of Murfreesborough to Chattanooga, over which a road could be constructed, cheaper than from Murfreesborough to Nashville with the single exception of about five miles; that these excepted miles, would pass over a spur of the Cumberland mountain; but that this was no difficult matter, as there was a deep gap in the mountain, out of which flow the head waters of Battle creek east into the Tennessee river, and the head waters of Elk, which flowed west into our own Cumberland.

This gap nature seems to have made on purpose to enable us to accomplish without difficulty a connection with our southern friends. He did not expect there was the same extent of country in the United States over which a railway could be constructed cheaper than from Nashville to Chattanooga. He believed from the best information which he could obtain, that \$10,000 per mile, was a liberal estimate for the construction of the entire route. This would make the road cost \$1,300,000. Put its cost, however, at two millions, and he regarded it as entirely within the competency of the country, engaged and pledged by the strongest inducements of interest to construct it. In the first place, he said it had been established by experience, that from two-thirds to three-fourths of the labor required to make a railroad, could be done by the common labor of the country, which did not require mechanical skill. He had an interesting letter on this subject from a distinguished citizen of South Carolina, Gen. Gadsden, the president of the South Carolina road, in which he states that this portion of the labor can be done as well and much cheaper with slave labor, than by any other kind. This fact he believed had been demonstrated by the construction of some of the turnpikes in middle Tennessee. Two-thirds of the labor then necessary to construct the road, or labor of the value of \$1-200,000, could be done by the farmers who inhabit those counties through which the road will run. This would leave only six or seven hundred thousand dollars to be advanced—a large portion of which would be expended among our own people within the

state. He had no doubt of the ability of this community to construct the road in two years without embarrassment, if they chose to prosecute the work with energy.

Before undertaking to show that the investment of two millions of dollars in the construction of this road would be a profitable investment, he stated that he would consider the value of some incidental advantages which would be held out by its construction. He stated that he had been informed by his friend Dr. Troost, that in the vicinity of the place where this road would terminate on the Tennessee river, there was an inexhaustible mine of coal, of the purest quality in the world. He exhibited to his audience a specimen of this coal, from the extensive cabinet of the geologist. He had heretofore adverted to the fact that the first railroads in America and Europe were constructed for the purpose of transporting coal, and that some of the most profitable roads in the United States, were engaged now in the transportation of little else. He stated upon the authority of practical business men, that coal could be delivered at Nashville from this mine, by means of a railroad, at 5 or 6 cents, and perhaps less, per bushel. This would be a reduction of more than one-half of the present average prices of coal. Diminish the price of an article one-half, and, as a general rule, it will double the consumption. What a vast saving would this be to this community. What a perpetual and profitable business it would furnish to the road. The interest on the money invested would be \$120,000 per annum. Can any one doubt that this community would not save the amount annually in the reduction of the price of coal alone? M'Culloch, a standard writer on British statistics, states that the coal fields of Great Britain have given her that commercial and manufacturing ascendancy which she now holds, and that they have been more profitable to her than mines of the precious metals would have been. He would not, however, enlarge on this topic, as all must see its vast and abiding importance.

The increase in the value of real estate in the city of Nashville and Davidson county might be put down with safety at 50 per cent., and the value of all the intermediate real estate between Nashville and Chattanooga would be increased to the same extent. This he thought was a very moderate calculation; when it is considered that middle Tennessee is perhaps the finest stock, tobacco, and grain growing country in the world, and that it is so shut out from market, except at select periods of the year, that its produce is diminished one-third in value by the cost of transportation, having no choice of markets either as to time or place. It was estimated by a northern railroad committee, that the value of real estate would be affected in this favorable manner from thirty to fifty miles, more or less, on either side of the road. The value of real estate must everywhere be affected by its contiguity to a permanent market and the consequent reduction of the cost of transportation—and this contiguity



and reduction is always effected by railroads. Whatever is saved in transportation is added to the price of commodities in effect, and to that extent enhances the annual value of real estate. The general effects of the Indianapolis and Madison railway is thus described by an able correspondent of the New York News:

Where railroads have been constructed, they have generally given rise to much more business, and vastly increased that which was previously in existence. Many proofs of this may already be seen along the route, and every year will develop more and more the energy and ingenuity of the population and the resources of the country. In the vicinity of the first forty miles, at least two-thirds of the land is of a poor quality, and as yet most of the farms are small and the surplus produce quite limited. But the way passengers and freight to and from this unpromising part of the state, contribute more than one-third of the present business and profits of the road. Steam mills, cooper shops, meadows, orchards, dairies, etc., give value to the land and timber, and employment to the industrious, which they have previously sought in vain. Every year will increase the demand and supply of these and other articles, which, instead of requiring time to be transported to distant and uncertain markets, will be purchased with cash at the door of the producer. Where there is an orchard or a cultivated locust grove or 10 acres, and a meadow of 30 on a farm near the road, there will soon be paid for the transportation of its products, from \$50 to \$100 a year; and the owner, for all practical purposes, will be as well situated in reference to a market as if he were within three miles of the Ohio river.—No one can form in advance any just estimate of the business originated and increased by railroads, or the extent of their advantages, especially to the farming interest. The purchase and keeping up of extensive teams, and the necessity of hastening to market in good weather, when probably it is glutted, is obviated. Heavy articles from abroad, necessary for comfort, are purchased cheaper. The prices and demand for agricultural products are enhanced, and the community generally is invigorated by the variety of employments created by the cheapness of transportation and facility of intercourse.

This railroad would enhance the value of the stock of the seven turnpikes which now terminate at the city of Nashville. All of them would aid the railroad and receive benefits from it. He believed the increase in the value of real estate in Davidson county alone, which would necessarily result, and the increase in the value of the existing road stock, would justify the outlay of capital necessary to build the road, leaving out of view all other incidental advantages.

Middle Tennessee has now but one market or outlet for her produce, to wit, New Orleans. She can only reach that market when the casualties of the season will permit, and is always thrown behind the produce of those states which lie on the waters of the Ohio, Mississippi and Missouri. This railroad will bring the cotton, live stock, tobacco, beef, pork, lumber and grain of middle Tennessee within 28 hours of the seaboard at all seasons, and place before them the great city of Charleston, containing about 30,000 inhabitants, and Savannah, containing about 12,000 inhabitants. The present New Orleans monopoly would thus be broken up. If middle and east Tennessee were permitted by the nature of things to choose her home markets out of the whole Union, she would select, of course, the great cotton states of South Carolina and Georgia,

in preference to all others. The productions of middle Tennessee, intended for foreign markets, instead of passing down the Cumberland 200 miles, down the Ohio 60 miles and down the Mississippi 1,200 miles, and then around the cape of Florida 1,000 miles, making in all 2,460 miles of dangerous navigation, with heavy insurance exacted at every stage of its progress, with transshipment after transshipment, it would pass in 28 hours to the city of Charleston, without danger and without insurance, at one-fifth the cost of transportation, and in one-tenth of the time, and would be in Europe before that by the river reached New York. The advantages of such a state of things, absolutely defies calculation, and he declared his solemn belief that the prosperity of middle Tennessee could never begin until this road was constructed.

Almost the entire supply of foreign merchandise brought from Europe and the Northern cities for middle Tennessee, would pass by Charleston and reach Nashville in 88 hours from the city of New York. This would give to our imports all the advantages to be enjoyed by our exports, in the event of the completion of this great enterprise.—Whatever is saved to a community in the cost of transportation is so much gained.—The merchants, by saving the time and expense of travel and the expense of bringing in their goods, could furnish the farmers with their supplies so much the cheaper.—What a vast sum would be saved in five years by this road, not only from the devouring jaws of water, but from reduction in the price of supplies as well as in the increased value of produce. It would build two such roads. He believed the annual saving to the counties of Rutherford and Davidson would pay the annual interest of the investment.

These arguments had been based on the amount of the present production and consumption of the country. The effect, however, of the railroad, would be instantly to increase the population of the country, stimulate its industry and quadruple its production, and, to the same extent, its commercial agencies and manufactures. The limestone which now lies embedded in our hills and valleys would be converted into lime and transported to the seaboard, and the untold, unknown and vast resources of this fertile and wealthy country would be called into action by their contiguity to the great markets of the world.

The London Railway Times states: 'it is an admitted fact that the establishment of a railroad produces an increase of traffic at least two fold at the expiration of less than two years.' If such be the effect in a country like England, surrounded by the sea, where the population is in the extreme of density, and the utmost energies of human mind and muscle are taxed to produce a bare subsistence, what will be the effect on a fertile and healthy country, partially shut out from the great markets of the world, the resources of which have never been half developed, and a people whose energies have never been called into action? It must be to increase them ten fold.

Mr. King, formerly a senator in congress, and now president of the Georgia railroad, says in his last report, 'railroads create the business they thrive upon.' The Merchants' Magazine says: 'it is the nature of railroads to multiply commercial transactions through the facilities they offer, and to create business where none existed before—so that a line which scarcely pays its expenses the first year of its existence, must in a few years become extremely lucrative. It is in this view that railroads claim the attention of merchants more than any other mode of investment, inasmuch as they create the commerce it is their business to transact, and therefore, while yielding a better and safer dividend, are superior to banks. How many persons would go to Charleston if they could go in 28 hours, at the cost of six or seven dollars and without danger? Thousands would go if for no other purpose than to indulge in a sight of the ocean, and in the luxuries of fresh oysters and tropical fruits. The Richmond Compiler states that 'the experience of the fourteen years we (in Virginia) have had in the use of railroads, has established the fact that, when properly constructed, they are capable of accommodating a much larger business, and of transporting at so small an expense as to be able by low charges to attract more business than was deemed possible at any earlier period of their history. But for this, the railroads in Virginia, except those for coal transportation, would have been profitless concerns.' There is in reference to the construction of the Nashville and Chattanooga road a rare union of advantages. It is the shortest, cheapest and safest way to transport the peculiar productions of our country to the best home and foreign markets—the shortest, safest and cheapest way to get our foreign supplies; and has the superadded advantage of having inexhaustible coal mines on the road, which alone are now supporting railroads in Europe and America. He had come deliberately to the conclusion that this would be one of the best investments in the Union. Railroad stock had stood the test of time, and accumulating profits had been the result, wherever the roads had been judiciously located, economically constructed and well managed.—In support of this opinion he would give the opinion of commercial writers and journals, as better than his own. A commercial correspondent of the New York Morning News, of the 5th of April, 1845, says: 'one of the most remarkable features of the age, is railroads. The speculations of past years have run into goods, wild lands, bank stock, and fancies, which have been swept away leaving no wreck behind. Whoever considers the value of railroads and their effects upon business, must be at once convinced, that if conducted with a moderate degree of prudence, they must become the most valuable property in the country.' Speaking of the New England roads, he says: 'these roads costing \$30,000,000, gave last year a revenue of \$3,000,000, and their effect has been to double the value of property in the five New England states. This

magnificent result has been accomplished in less than fifteen years, by means of these roads.' The Merchants' Magazine, published in the city of New York, decidedly one of the ablest and most accurate journals of the kind ever published, says: 'looking back on past events, and observing the results of different modes of investment, the capitalist perceives that railroad enterprises have alone been exempt from the disasters that have befallen all other modes of investment, and that railroads were yielding a good revenue, constantly increasing in amount. This means of investment has grown into importance in the last fifteen years, and has been, wherever prudently adopted, productive of the most surprising results, not only in relation to the mere profitableness of the investment, but in regard to the great stimulus it has given to the local trade, and to the increase in travel.' Mr. King, in his last report on the state of the Georgia road, says: 'it should be encouraging to the stockholders to see that railroads are everywhere yielding an increased profit, and rapidly growing in favor as an investment for capital. It may be safely assumed that no road in the Union, well located, built on sufficient capital and well managed, has failed to pay fair and increasing dividends. The stocks of such railroads are everywhere rising in the market. The natural tendency of their operations is an increase of net profit. This has been the history of our own road. The South Carolina road exhibits the same results. The same truth is manifest in England, France, Belgium, and in the returns of the 28 roads in Germany.' He referred with pride and satisfaction to the able reports of Gen. Gadsden, president of the South Carolina railroad, and the report of Mr. King, president of the Georgia railroad, put forth this year, as sustaining him in his positions, and as holding forth the highest possible evidences of the propriety of this measure as an investment for capital—independent of all the other incidental advantages which have been enumerated. These reports put down the common and vulgar error, that railroads could succeed only in the densely inhabited states of Europe, and in the vicinity of large and populous cities; and that the iron, coal, tobacco, grain, live stock, cotton, hemp, flax seed, bacon, lard, flour and other produce and productions of the south and west, could not furnish profitable employment to such an improvement. These roads beginning at Charleston and Savannah, though but partially finished, and terminating in the western frontier of these states, and before they had exercised half the power usual to such improvements for the increase of business on which they elsewhere thrive, are, notwithstanding, under these little favorable circumstances, yielding to their owners six per cent. per annum on the capital invested.

This was more than any *honestly managed bank* in the United States yielded through a series of years. The bank of the United States yielded only about 5 per cent. at the time of her greatest power and palmy reputation, and ended like an unsubstantial pa-

geant; leaving bankruptcy, poverty and misery behind—a monument of folly and unmatched corruption. The American Railroad Journal, published in the city of New York, commenting on these reports, says: 'the success of the Massachusetts roads are well known. But few here are aware of the fact, that next in order, come the roads of South Carolina and Georgia. In Georgia, no less than 190 miles have been put in operation by the expenditure of \$2,581,723, which, after making all reasonable allowances, forms a mortifying contrast with the cost of many of our works both public and private.' What becomes of the sage conclusions of those wise-aces who hold out the idea to us that a railroad can only be successfully and profitably sustained at the north. It appears from the reports of these officers of South Carolina and Georgia roads, that the largest item in the profits of these roads, consists—1st, in the transportation of cotton, and 2nd, in passengers. These furnish profitable employment to the capitalist and cheaper transportation to the planter.—The success of these roads furnish the best test which we could have of the practicability and success of the proposed continuation of the route from Chattanooga to Nashville. The density of the population in South Carolina and Georgia is about the same as that of middle Tennessee. In these states the sole object sought, is a reduction of the cost of transportation without reaching a foreign market. In reference to a large portion of Tennessee produce, it would find a home market in South Carolina and Georgia, and therefore a double object is gained by the continuation. The road could (he believed from the best information he had) be constructed as cheaply as the Georgia road had been. If this road was constructed, it would have the advantage of all other roads in the Union in one particular. It would unite great and wealthy communities engaged mainly in the culture and growth of different productions, and therefore they would maintain a larger and more profitable trade than that existing between any other states in the Union. He stated that the common error in reference to railroads, that short ones could only succeed, was now *exploded*. He stated it was now well understood and admitted that the longer the road the greater the amount of travel and business it attracted, and that this increase of business was much greater than the proportional increase of expense in the cost of construction and keeping in operation. Neither a greater length of road nor a greater increase of business involves a corresponding increase of expenditure, but the reverse of this is the fact. The roads in Georgia and South Carolina would greatly increase the profits of the Tennessee roads, and the Tennessee roads would greatly increase the profits of their roads. There was another immense source of profit which would accrue to this road. Vast amounts of produce from the north-western states, if not all, destined for the European markets, would come up the Cumberland river, and at Nashville would be transhipped and placed on the

railroad from Charleston, as the cheapest, speediest, and safest route. Whoever will examine the maps, will see that this incalculable source of business and profit must come to the support of this road as sure as it is constructed. In conclusion, he appealed to all patriots in support of the establishment of this road as the best possible mode of enabling them to defend the cities of Savannah and Charleston against foreign invasion, and of receiving assistance from them by the cheap and rapid transportation of men and munitions of war from the interior to the sea board, and from the sea board to the interior of our valleys, and in some measure dispensing with the cost and danger of keeping up standing armies in time of peace.—Almost the whole military force of New England could be thrown into Boston in a day or two. The city of New York, by the roads now constructed and in contemplation could have a hundred thousand men from the interior for her defence at the shortest notice. So of Richmond, Philadelphia and Baltimore. New Orleans was once saved from British pillage by the Mississippi river. When the defence of the country and the vital interest of the commercial and agricultural community all demand our undivided energies to the construction of this road, shall we hesitate? He submitted these facts and suggestions to the calm and enlightened consideration of his countrymen, with the expression of his deliberate opinion, that this work must and will succeed, and that the dawn of our prosperity will not break upon us till it be accomplished.

We find the following interesting items, under the head of "Gossip," in the London Railway Chronicle of Sept. 13th.

Performances are better than promises.—We like the performances of old companies better than the promises of embryo ones.—Three times within the year ending next 1st of October will the Grand Junction have cheapened their fares. Reductions took place on the 1st of October last, on the 1st of May last, and are again to take place on the 1st of next month. First class passengers will economize 3s. the fare being reduced from 20s. to 17s., and by the express from 23s. to 20s., and the second class 2s., the reductions being from 16s. to 14s. As we are now in the neighborhood, we may mention that express trains are at last to be started between Liverpool and Manchester, performing the journey in 45 minutes.

The reduction of fares on the Manchester and Leeds has increased the number of travellers 26 per cent. during the last half-year. The charge for a late excursion from Nottingham, through Liverpool, to the Menai straits, upwards of 500 miles, was only 14s. Passengers are now carried on the Liverpool and Manchester between the latter place and Patricroft, the first class at 1d. and the second class at 2d. per mile.

There is some talk of leasing the North Union line to the Grand Junction at 10 per cent. for stock A, and 7 per cent. for stock B, and of the Preston and Wyre to the Manchester and Leeds.

Sunderland has got Mr. Hudson as its representative, and, as a consequence, what is perhaps of no less importance to it, third class carriages running to Newcastle at 9*d.* and to Shields at 4*d.*

The immediate effect of the opening of the railway to Guilford has been to reduce the price of coals 10*s.* per ton—an effect which has had a sensible influence in smoothing away the prejudices with which the advent of the railway was regarded. Three months ago there were three coaches between Guilford and London daily. There are now trains ten times in a day.

It seems that the export of pine apples from the West Indies to this country has been promoted by the colonial railroads which lead to the coast. Nearly 400,000 pines have been thus transported this present season.

A correspondent of the *Hull Packet* points out that a new feature in the transit of goods is now taking place between London and the outports; goods which used to be borne coastwise are now carried by railway. 140 chests of tea were sent hence on Tuesday last, in bond and would reach London by return of post.

The savans of the French Academy are busying themselves with railways. M. Laborde proposes an electric telegraph, which is to tell its signals by sounds. M. Ruau has a plan to substitute horse power for steam in locomotives.

It is expected that the example set by the emperors of Russia and Austria of their friendliness towards railways will soften the heart of the pope, who has hitherto forbidden his children to participate in their advantages. The emperor of Russia has originated the idea of a line from St. Petersburg to Odessa, a distance of 1,600 miles. This would connect the Baltic, Black, and Caspian seas, and would be the commencement of an overland route to Ispahan.

#### Atmospheric Railway.

London and Croydon line. We referred in our last to the recent experiments on this line of atmospheric railway. The following statement is taken from the *Railway Express*, of 13th Sept.

*The Croydon Atmospheric Railway.*—Experiments on this new and interesting principle, which bids fair to overturn all our preconceived ideas of railway travelling, were made last week, in the presence of Mr. Wilkinson, chairman of the company, and several of the directors. Mr. Samuda, as before, directed the proceedings. On Friday there were five carriages attached to the piston carriage, the aggregate weight amounting to probably thirty tons. The first experiment was from Croydon to the Dartmouth Arms, but from some misunderstanding as to time, one of the stationary engines was not brought into action, and the vacuum obtained in the tube was in consequence, imperfectly developed. The speed attained, however, was fully equal to that usually adopted in the working of the locomotive lines, being on the average 30 miles an hour. On the return a greater speed was attained, the barometer at starting indicating above 21 inches, or 10½ lbs. of atmospheric pressure on the square inch

of the piston. There was no stopping at any of the intermediate stations, and we had a good opportunity of judging of the speed that might be obtained. The distance of 5 miles was accomplished in six minutes and a quarter, giving an average of 48 miles an hour; but part of this distance (a quarter of a mile) the speed reached 65 miles an hour. The second upward trip was continued throughout at an equal speed, and the distance was accomplished in seven minutes, being rather above 43 miles an hour. The return to Croydon was equally satisfactory. The barometer indicated from 26 inches, the maximum, to 11 inches, the minimum, or from 13 to 5½ pounds on each square inch. The result is such as must satisfy the most sceptical, because the experiments have clearly proved that a greater degree of speed can, by the atmospheric principle, be communicated in a lesser time than by the present system, while all possibility of those fearful accidents that have so lately happened on different lines are completely avoided. Every day tends to lessen the unimportant disadvantages arising from the want of a thorough understanding between the different departments on the railway; and it may safely be asserted that when the principle has had time and opportunity given it of arriving at greater maturity, the superiority over the locomotive engines will be so marked as to silence every caviller.

#### Traveling as it Was,

In 1750, or about that period, in England would not altogether suit the present period. We find the following extract from "Wade's London Review" in the *Railway Express* and copy it for the purpose of asking some one of our readers, who possesses the gift of prophecy, or of reasoning from the past to the future, to spread out before us a picture as clear of what will be the mode and facilities for travel and transportation in the year *nineteen hundred and forty*, 95 years hence, or a period corresponding in the future with 1750 in the past. Who will oblige us?

*Travelling as it was.*—Turnpikes were the first means, canals the second, railways are the third; and projection through an atmospheric tube, or flying, to the speed of which we are rapidly approximating, may form the fourth or grand climacteric. The rapidity with which these transitions have been made is extraordinary. England, in the middle of the last century, was hardly better off for roads than Spain or Poland. The chief part of the internal trade of the country was carried on by pack-horses, the roads not being passable for a cart or other wheeled carriage.—This, the writer knows, was the case in the counties of York and Lancaster, from the relations of persons who had witnessed and participated in this mode of conveying merchandize. A line of horses, in single file, the first having a bell, conveyed through long winding lanes a large part of the woollen manufactures of the West Riding of Yorkshire. A gentleman of Manchester, who realized a sufficient fortune to enable him to keep a carriage, when not a half-dozen were kept in the town, carried on his business in this way. He sent the manufactures of the place into Nottinghamshire, Lincolnshire,

Cambridgeshire, and the intervening counties, and principally took in exchange feathers from Lincolnshire, and malt from Cambridgeshire and Nottinghamshire. All his commodities were conveyed on pack-horses; and he was from home the greatest part of the year. His balances were received in guineas, and were carried with him in his saddle-bags. He was exposed to the vicissitudes of the weather, to great labor and fatigue, and to constant danger. In Lincolnshire he travelled chiefly along bridle-ways through fields, where frequent gibbets warned him of his perils, and where flocks of wild fowls continually darkened the air. Business carried on in this manner required a combination of personal attention, courage, and physical endurance not to be hoped for in a deputy; consequently a merchant was compelled to do his own work, and led a much more severe and irksome life than a bagman afterwards, and still more than a traveller of the present day. It is almost within living memory when there was no carriage-road between Horsham and London; the only means of reaching London, 36 miles distant, was either by going on foot or horseback, the latter not being practicable at all seasons of the year, nor in every state of the weather. In Scotland, about the same period, the modes of intercourse and conveyance were not more advanced. Oatmeal, coals, turf, and even straw and hay, were carried not by carts or wagons, but on horseback.

*Splendid Iron Bridge over the Neva.*—Messrs. Bury, Curtis, and Kennedy, the celebrated engineers of Liverpool, have received instructions from the emperor of Russia to construct an iron bridge of powerful dimensions to be erected over the river Neva at St. Petersburg. This river is at present crossed by three bridges of boats only, and in the winter season the damage done to them by the ice is so considerable that it has been determined to erect the bridge in question; and it is probable at a future time the other two will be replaced by bridges of iron. The length of this bridge is 1,078 feet, and will consist of seven arches—the centre one being 156 feet span; and the three on each side 143 feet, 125 feet, and 107 feet respectively. A separate arch at one end will be devoted to a swivel-bridge, seventy feet wide, by which vessels can be admitted to the custom house. The total weight of iron in this enormous structure will be nearly 10,000 tons, or about five times the quantity which was employed in the famous Menai bridge; the cost of the iron alone will exceed £100,000.

*New Rolling Mill.*—The new rolling mill of the Messrs. Bertolet, on the Schuylkill, above Penn street bridge, is nearly completed, and will be ready for operation in about a month. The workmen are now engaged in rigging up the engines built by Messrs. Dotterer and Taylor of this borough, and putting in the machinery, from the foundry of Adam Johnson, above the railroad. In a very short time this establishment will afford a new opening for the industrious workmen hereabouts.

RAILROADS.		Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843. Income.		Div. per cent.	1844. Income.		Div. per cent.	Previ- ous prices	SALES.	
							Gross.	Nett.		Gross.	Nett.			Week ending Sept. 15.	Last Sales
Me.	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	101½	100½	
N. H.	2 Concord.....	35	750,000									12	65		
Mass.	3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	111		
	4 Boston and Maine extension.....	17 1-4	455,703	unfin.											
	5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	118	117½	
	6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	111		
	7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	116½	116½	
	8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
	9 Charlestown branch.....		280,260						13	34,654	13,971	5½	80		
	10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	107½	107½	
	11 Fitchburg.....	50	1,150,000	just opn'd						42,759	26,835		119		
	12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,568	34,944	10	126		
	13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6	102		
	14 Northampton and Springfield.....		7 2,883	unfin.											
	15 Norwich and Worcester.....	66	2,290,000	900,000	16,535	100	162,336	24,871		230,674	99,464	3	67	69½	
	16 Old Colony.....		87,820	unfin.									105		
	17 Stoughton branch.....	4	63,075	unfin.											
	18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	120		
	19 Vermont and Massachusetts.....														
	20 West Stockbridge.....	3	41,516	200		100						4			
	21 Western, (117 miles in Mass.,)	156	7,686,202	4,686,202	30,000		573,882	294,432		753,753	439,679	3	98½	97½	
	22 Worcester branch to Milbury.....		8,431	506											
	23 Housatonic, (10 months,)	74	1,244,123							150,000			26	33	
Con	24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	93		
	25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
	26 Stonington, (year ending 1st Sept.,)	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29	32	
N. Y.	27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0			
	28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109	103	
	29 Auburn and Syracuse.....	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
	30 Buffalo and Niagara.....	22	200,000		1,500								100		
	31 Erie, (446 miles,)		5,000,000										27½	31½	
	32 Erie, opened.....	53						48,000		126,020	59,075				
	33 Harlem.....	26	2,250,000	750,000	30,000					140,685	62,399		61	62½	
	34 Hudson and Berkshire.....	31	575,613			50				35,029	1,789	0	11½		
	35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	61½	65½	
	36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	56½	57	
	37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
	38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
	39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117		
	40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
	41 Troy and Greenbush.....	6	180,000										90		
	42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
	43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132		
N. J.	44 Camden and Amboy.....	61	3,200,000				682,832	383,680		784,191	404,956		112		
	45 Elizabethtown and Somerville.....	26	500,000												
	46 New Jersey.....	34	2,000,000										95½		
	47 Paterson.....	16	500,000									6	88½		
Pa.	48 Beaver Meadow.....	26	1,000,000												
	49 Cumberland Valley.....	46	1,250,000												
	50 Harrisburg and Lancaster.....	36	860,000										30		
	51 Hazleton branch.....	10	120,000												
	52 Little Schuylkill.....	29	900,000												
	53 Blossburg and Corning.....	40	600,000												
	54 Mauch Chunk.....	9	100,000												
	55 Minehill and Schuylkill Haven.....	19 1-2	396,117	25,000	7,019	50			12			12	80		
	56 Norristown.....	20	800,000										6½		
	57 Philadelphia and Trenton.....	30	400,000										104		
	58 Pottsville and Danville.....	29 1-2	1,500,000												
	59 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		25	24½	
	60 Schuylkill valley.....	10	1,000,000												
	61 Williamsport and Elmira.....	25	400,000				20,000								
	62 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		15½	15½	
Del.	63 Frenchtown.....	16	600,000												
Md.	64 Baltimore and Ohio, (1st Oct.)	188	7,623,600				575,235	279,402		658,620	346,946		48½		
	65 Baltimore and Susquehanna.....	58	3,000,000										2½		
	66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	67 Greensville and Roanoke.....	18	284,433	37,544	2,000	100				25,368	6,074		28		
	68 Petersburg.....	63	969,880	63,000	7,690	100				122,871	72,898	3	77		
	69 Portsmouth and Roanoke.....	78 1-2	1,454,171												
	70 Richmond, Fredericksb'g and Potomac*	76	800,000							185,243	85,688	6			
	71 Richmond and Petersburg.....	22 1-2	700,000												
	72 Winchester and Potomac.....	32	500,000												
N. C.	73 Raleigh and Gaston.....	84 1-2	1,360,000												
	74 Wilmington and Raleigh.....	161	1,800,000												
S. C.	75 South Carolina.....	136			34,410	75				532,871	140,196	5			
	76 Columbia.....	66	5,671,452				201,464	77,456		328,425	180,704				
Ga.	77 Central.....	190	3,000,000	500,000	22,500	100	227,532	93,190		248,096	147,523				
	78 Georgia.....	147 1-2	2,650,000				248,026	158,207							
	79 Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Ky.	80 Lexington and Ohio.....	40	450,000												
Ohio	81 Little Miami.....	40	400,000												
	82 Mad river.....	40	152,000												
Ind.	83 Madison and Indianapolis.....	56	212,000												
Can.	84 Champlain and St. Lawrence.....	15						12,000		58,000	24,000	110			

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Thursday, October 16, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 22,096 tons, and by canal 9,690 09, making 31,786 10 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total.....	303,819
From Schuylkill Haven—total.....	309,474
From Port Clinton—total.....	16,623

Total by railroad.....629,917

BY CANAL.

From Pottsville and Port Carbon—total.....	123,720
From Schuylkill Haven—total tons.....	34,737
From Port Clinton.....	40,047

Total by canal.....198,505

Total by railroad and canal.....828,423

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.	
Summit mines, -	157,643
Room run do., -	58,896
Beaver Meadow railroad and coal co.,	66,510
From Penn Haven—Hazleton coal co.,	58,046
From Rock Port—Buck Mountain coal co.,	18,827

WYOMING COAL TRADE—total.....	136,745
PINE GROVE COAL TRADE—total.....	38,869
MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....	342,905
MOUNT CARBON RAILROAD—total tons.....	206,709
MILL CREEK RAILROAD—total.....	63,184
SCHUYLKILL VALLEY RAILROAD—total.....	84,140

[Miners' Journal.]

WESTERN RAILROAD.—Receipts for week ending Oct. 4th.

	1845.	1844.
Passengers.....	\$9720	\$9047
Freight, etc.....	9780	7987
Total.....	\$19,500	\$17,034

Transactions of the Reading railroad for the 4th week in September for three years.

	1843.	1844.	1845.
Business.....	\$48,825 65	72,175 07	132,613 67
Coal, tons.....	30,613	52,530	100,221

Showing an increase of \$60,438 58, or 83 per cent. over 1844, and of \$83,788 02, or 171 per cent. over 1843.

READING RAILROAD.—A comparative statement of the business of the Philadelphia and Reading railroad, for one week in Sept., in years 1843, 1844, and 1845:

		Coal tons.
Week ending Sept. 30, 1843..	\$12,446 68.	8,137 10
" " " 28, 1844..	16,974 33.	12,720 13
" " " 27, 1845..	29,619 43.	22,465 7

ERIE RAILROAD.—The earnings of the Eastern Division of the New York and Erie railroad for the month of September, 1845, were:

For freight.....	\$9,325 80
Passengers and mail.....	6,273 92
Total.....	\$15,599 72
Same term last year.....	15,543 29
Increase.....	56 43

Do. year ending 30th September:

Freight.....	\$101,632 17
Passengers and mail.....	59,927 71
Total.....	161,559 88
Last year.....	158,285 28
Increase in 1845.....	3,274 60

CANANDAGUA AND CORNING RAILROAD.—The engineer has made his report on this route which connects the Erie railroad at Corning. The results are as follows:

Cost.....	\$1,337,988
Income.....	\$235,650
Expense.....	99,498
Nett income.....	\$136,215

Wear of Railroad Iron.

This subject is attracting attention in the right quarter. Those who are familiar with it in all its bearings begin to speak out. The communication of S, in this number, is directly to the point and very acceptable. We shall always have room for "more of the same sort."

Concord and Lebanon N. H. Railroad.

We understand says the N. H. Patriot, that the directors of the Northern railroad have located their road over the route surveyed by way of Franklin. It will be seen by an advertisement in this paper, that proposals are invited for the grading of the road."

We have been looking for this announcement and are gratified by its appearance.

If the recollection of our early days is correct, this will be found a favorable route to construct, yielding liberal returns to those who invest their capital and of great advantage to the people along its line. We could say much in relation to this road, and in favor of its connection with the Central, Vermont railroad, at the mouth of White river, if it were necessary but it is not as the road is *sure to be built*, and as sure, we think, to connect with the Central road, when completed. Some truths require argument to convince people that they are truths others are so self evident that argument is quite unnecessary—and we consider this question as belonging to this latter class—so will the public when the roads are ready for use—and their connection will follow as a matter of course.

It does not follow however that there should not also be a connection with the road by the way of Keene and also by the way of Brattleboro—but the reverse is the fact. There should be, and will be a connection between all the roads running from the seaboard at, and east of Boston towards lake Champlain and Montreal, by means of a railroad up the valley of the Connecticut river from Hartford or rather from Greenfield, Mass.—as there is now a railroad almost to that place—to Canada line. Business will require that railroads shall, in all practicable cases connect, that it may have every possible facility for and the fewest restrictions upon, an easy and cheap movement. And it will be found too by experience that these connections will promote rather than interfere with the different roads, especially in New England, where, we again assert, that every strip of territory *thirty miles in width* from the seaboard to Canada line, between Byram river and the Kennebec, will from its own resources, support a well constructed and economically managed railroad. It is therefore folly and worse than that,

for the friends of different lines to waste their time and money in attempting to oppose others, as we do not hesitate to say that the four great lines now under consideration in New England, from the seaboard to lake Champlain and Canada will be built. Opposition may retard for a little time but it cannot prevent their construction.

Nashville and Atlantic Railroad.

The people of Nashville and middle Tennessee have put the ball in motion; and if they understand their own interest, and appreciate the value of their undeveloped resources, they will not relax their efforts until they have constructed a good railroad from Nashville to the termination of the Georgia railroads, which we understand is to be on the Tennessee river at Ross' landing, or *Challanooga*.

Very considerable efforts were made some years since, and several railroads were commenced in Tennessee, and large amounts expended upon them, but we are not aware that there is a single mile of railroad *now in use* in the state\*—therefore the people, and especially those of middle Tennessee, owe it to themselves, to open from their capital, a way out of their state, by which they can reach the seaboard, or a market on the Atlantic, in the cheapest and most expeditious manner. It is indeed, becoming a matter of vital importance to the prosperity of the state to the early development of her resources, the opening of her mineral regions, the working up of forests of timber, the *cultivation of her* millions of fertile acres, that new avenues to market should be opened from her capital to the Atlantic, to the Mississippi, and to the Ohio.

This point being settled, the next question is, in which direction shall the first effort be made? To the Mississippi, or to the Atlantic? This question may be answered differently in Tennessee, by those who would be *first accommodated*, and benefited by railroads, but those who view the subject in its *general bearings only*—who have a general, without any *local interest*, there can be, we imagine, but *one* answer; and that will be, towards the Atlantic, by the shortest route *yet to be constructed*; of course therefore to the termination of the Georgia railroads at Chattanooga, which is, as we are informed by good authority, *only about one hundred and thirty miles* from Nashville, the heart of the state.

We have, in years gone by, taken some pains to look at, and into, the subject of connecting the great West with the Atlantic, St. Louis, and its five thousand miles of navigable rivers with the seaboard and without being obliged to make the circuit of cape Florida, we came to the conclusion that with all the avenues that may be made northward and eastward, there is certain to be one also to the nearest point on the Atlantic, which is through Tennessee, to meet the noble works of Georgia and Charleston at the Tennessee river.

These works have progressed to an extent little known by the people of this country. They are nearly half completed to St. Louis, and as we said at the commencement of this article, "the people of Nashville and middle Tennessee have put the ball in motion" as will be seen by an article in this number of the Journal, which we take from a very able address made by DR. J. OVERTON, of Nashville, to the convention assembled there on the 3d of July last.

If the people of this country generally understood

\* There may be a few miles in use, of which we have no definite account, if so, we shall be much obliged to any gentleman who will furnish us with the facts in relation to it, for our table.

the subject of railroads—their influences upon, and advantages to society, as well as the gentleman who addressed that convention, there would be little need of *urging* them to the construction of such works; they would, it appears to us, readily join in bringing about a system of measures in our government, which would render it *obligatory* upon every man possessing property, to contribute his relative proportion towards the construction of such works, he of course retaining an interest in them, and having a voice in their management, proportionate to the amount paid by him, even if it be but five dollars, five hundred, or five thousand. There are however very few, not directly interested and engaged in their construction and management, that do appreciate their value—their *necessity indeed* under the present circumstances of society—as well as Dr. Overton, of course the only reliance must be upon the efforts of individuals; upon the *few* who see and appreciate their value, to agitate the subject and disseminate correct information among those to be benefitted, and who in that region will not be by the construction of a railroad from Nashville to intersect the Georgia railroads at Chattanooga. The importance of such a work cannot be fully appreciated, until it has been some years in operation; though its influences will be seen and felt, from the first blow of the pick axe and thrust of the spade, in the new life and energy it will give to business and the enhanced value of property along its line and beyond its terminus.

If any doubt this assertion let them look upon the map and see that, by the completion of this short link of 130 miles, there will be a *new steam* route, and the shortest possible from the Mississippi, at the mouth of the Ohio river, to the Atlantic; a new region of fertile soil, and immense deposits of rich minerals brought to the light of day, and to the use of man, by this easy, speedy, and cheap conveyance to market. The cotton bagging, bacon, corn, and tobacco of Kentucky, Ohio, Indiana, Illinois and Missouri will reach the interior of Georgia, Alabama, and South Carolina, over this road and its connections, by a route of 5 or 6 or 700 miles, and in five to six or seven or eight days, instead of descending the Mississippi to New Orleans, around the cape of Florida, to Savannah or Charleston, and thence by railroad, making a voyage of 2,300 to 2,500 miles, requiring 30 to 40 days, or nearly equal to a voyage from Charleston to Liverpool.

When this road shall have been completed to Nashville, it will have acquired such an impetus that, notwithstanding it will there meet the steamboats on the Cumberland river, it will be speedily continued on to the Ohio, at some suitable point in its course to *St. Louis*, and also in a southwesterly direction to *Memphis*—thus securing to Nashville the advantages to result from being upon one of the immense thoroughfares between the Atlantic and the states west of the Mississippi, which, within half a century will number *at least as many* as there are *now east* of that river.

Looking at the subject in this point of view, how important is it for early and energetic action by the legislature of Tennessee now in session. They should, we think, give this subject their earliest and most dispassionate consideration, that no time need be unnecessarily lost in commencing operations: *complete this* work and others of equal importance will speedily follow, and then at no distant day will the smoke rise from a thousand lofty chimneys within the borders—what are now the *wilds*—of Tennessee, in which the rich minerals now useless to

man will be converted to a thousand purposes, and *by her own citizens* too, instead of sending to other states, or to Europe, for the necessary implements of domestic life. See to it then, ye patriotic sons of Tennessee, and if you would furnish the people with accurate and useful information, publish extensively and circulate widely the address of which we give a part in this number of the Journal. Its facts may be relied on, and its reasoning is based on what is now recorded in the history of past experience; truth—truth an hundred times proved by experience, which is more strange than fiction, may be found in that address—which should be read by every man in Tennessee.

We shall refer to this matter again in our next, in giving an able communication signed "Atlantic," published in the Georgia Constitutionalist, from the pen of one who understands the subject, and duly appreciates its vast importance, as well to those in the interior, as those on the seaboard.

#### "Another Railroad Route."

In the Journal of 4th September, at page 572, we introduced a project for a railroad, with the above caption. We found an article in the Argus, which proposed the construction of a railroad from Saratoga Springs, in a northwesterly direction to the High Falls, in Lewis county, and from thence along the valley of Black river to Watertown and Sacket's Harbor, with a branch to Cape Vincent.—This project struck us at the reading, as one of the thousand which have been started, by those who would be benefitted by a work of the kind, rather than by those who would be likely to build the road, and we spoke of it under that impression—as we do of other new projects when presented to our consideration, without ever having conversed with any one on the subject, and certainly without the most distant idea that any "secret opposition had been at work" or any "undue influence had been bro't to bear upon us." We usually look at new projects with, *it is said*, quite too much favor—believing as we do, that railroads should be built wherever the resources of a region will be developed, if the people to be benefitted can and will meet the expense of it. We are not of those who think a railroad to be profitable, must pay a large dividend. Many railroads would be profitable to a large portion of the people, if they never paid 5, or even 3 per cent., in consequence of the increase given to the value of property; such roads however should be built by the people and property to be benefitted by the work. It may be that this proposed line is of that class, if so, then it should be built, but it did not so strike us, though it did strike us very forcibly, that it would pay neither five nor three per cent. to its stockholders in the way of dividends. In this however, we may be entirely mistaken, and to show our readiness to be convinced of our error, and to make all possible amends for the injury we have done, by the candid expression of our first opinions, we assure the writer of "another railroad route," in this number, that we shall promptly and cheerfully publish any facts or statistics of the business which would be done on the proposed road, together with any estimate, based on instrumental examination of the cost of a road from Saratoga to Watertown, which he may furnish us; and we promise further—if he will not again intimate that we have been *ploughed* with—to advocate the project, if he makes out a feasible route, and a fair prospect that the benefit will be equal to the outlay.

We would suggest, however, now our hands are in, to the writer, that if he becomes a *subscriber* to

the Railroad Journal, to which he pays so high a compliment, instead of relying upon a stray number, he will find that it yields neither to the Argus nor to any *other* paper in the country, in zeal or liberality—we say nothing about its ability, towards new projects of railway communication; and possibly he may find information there which will induce him to believe that *lateral* roads, branching off northerly from the Utica and Schenectady road, up the valley of the principal streams, will be quite as useful to that isolated region "in the north, far, far, away from railroads and canals," as he represents it, and much less expensive to make than a road *nearly* parallel to, and not *very* far, at the farthest, from one of the best railroads and the *very best* canal in the country; he will at all events find, if he makes the experiment, that it will give him some idea in relation to railroads of which he never dreamed.

For the American Railroad Journal.

#### Wear of Railroad Iron.

Several articles have appeared in your Journal upon the subject of the "wear of railroad iron;" it appears to me that the recital of a few *facts*, will aid in the discussion of this matter.

I have not seen the communication of Mr. Ellet, to which your correspondent "R. of Delaware" alludes, but I understand from his statement, that Mr. Ellet assumes that the transportation of 500,000 tons of coal or other freight, over a railroad will destroy the rails or injure them to such an extent, as to render them unfit for subsequent use.

It is further stated that the "Liverpool and Manchester railroad and the Boston and Lowell railroad have found it necessary to renew their rails after having borne 420,000 and 500,000 tons."

The rail adopted originally, by the Liverpool and Manchester company, (the first railway which was used to any extent in England for passenger traveling) was the elliptic or fish-bellied rail, weighing 35 lbs. to the yard, with 3 feet bearings, intended for engines weighing from 6 to 8 tons.

The same rail both in form and in weight, was adopted by the Boston and Lowell company in 1834, I think, being the first, or it may be, the second company, which brought the edge rail into use in this country, this rail was also intended for engines of the same class as those introduced upon the Liverpool and Manchester railroad.

These rails proved to be too light in both cases for engines even of the class for which they were designed, they did not *wear out*, but they were not of sufficient strength for the weight which they had to support, and, as a necessary consequence, they *broke*. On the Liverpool and Manchester road, parallel rails, weighing from 60 to 75 lbs. per yard (five different kinds) with bearings of 3 feet to 5 feet, have been substituted for the original, or elliptic form, and in the Boston and Lowell road parallel rails of 55 lbs. per yard, with 3 feet bearings, have been made to take the place of the earlier patterns. The change in both cases having been made to make the rail suitable to the load which it has to bear.

Engines of much greater weight are used on all railways now, than were those in use ten years ago, instead of engines from 6 to 8 tons in weight, they are now made to weigh from 12 to 24 tons; this is the true cause of *renewing* the rails on the Liverpool and Manchester and the Boston and Lowell railways.

I have known an instance of a railway on which a plate rail after having performed its office for some

6 years or more with engines in use upon it for which the rail was calculated, say 8 tons, to be at the end of that period in very tolerable condition, yet when heavier engines and trains of another road were brought upon it, temporarily, the rails of the road in question were almost destroyed in the course of nine months. Such an effect might be anticipated, it is obvious; still this case is precisely analogous to the cases of the Liverpool and Manchester and Boston and Lowell railroads, referred to by your correspondent.

At page 288 of *Pambour*, the following statement will be found, it will be perceived that 600,000 tons which had passed over the Liverpool and Manchester railway in the space of 21 months, had reduced the weight of the rail very inconsiderably.

"On May 10, 1831, on the Liverpool line, a malleable iron rail 15 feet in length, carefully cleaned, weighed 177 lbs. 10½ oz.; on February 10, 1833 the same rail taken up by Mr. J. Locke, then resident engineer on the line, and well cleaned as before, weighed 176 lbs. 8 oz.: it had consequently lost in 21 months a weight of 18½ oz. The number of gross tons that had passed on the rail during that time, we estimated at 600,000 tons. Thus we see that with so considerable a tonnage, and with the velocity of the motion on that railway, the annual loss of the rail was only 1-268 of its primitive weight, so that it would require more than a hundred years to reduce it to half its present strength."

Wear of rails on the Stockton and Darlington railway, (from Wood.)

"Malleable iron rails 15 feet long over which locomotive engines pass, weighing from 8 to 11 tons, wagons and their load 4 tons each."

"86,000 tons passed over in a year, exclusive of engines and wagons."

"Weight of rail 1 cwt. 24½ lbs."

"Loss of weight in 12 months 8 oz."

Other railway companies besides the Liverpool and Manchester and the Boston and Lowell have changed their rails; for example, the Stockton and Darlington commenced with a rail of 28 lbs. to the yard, subsequently changed for one of 35 lbs., and finally to one of 64 lbs. On this rail was 2,560 tons of coal transported, daily, prior to 1839, or at the rate of upwards of 800,000 annually. The London and Birmingham railway company have also changed their rail from 50 lbs. per yard to one weighing 65 and another pattern weighing 70 lbs. per yard. The Great Western rail has been increased from 44 lbs. per yard, which is the weight of the rail for the first 28 miles from London, to one weighing 62 lbs. per yard, both being supported continuously, or upon longitudinal bearings.

I trust that enough has been said to show that changing the rails upon a railway is not proof that the change has been made because the rails have worn out. With about as much propriety one might assert that the Erie canal had not answered the purpose for which it was constructed, because it is being thrown aside for another of greater capacity, for one capable of admitting the passage of larger boats. The railways of the present day with the engine now used is a very different thing from the railways and engines of 1825 and 1830: for example, in the conditions stipulated by the directors of the Liverpool and Manchester company, in 1829, when they offered a premium of £500 "for an engine weighing 6 tons, capable of drawing on a level plane a train of carriages of the gross weight of 20 tons, including tender and water tank, 10 miles per hour;" it was required that the said engine "with its complement of water in the boiler, must at most not exceed 6 tons, and a machine of less weight will be preferred, if it draw a proportionate weight."

It was for such engines and such loads and velocities, that the rails of the Liverpool and Manchester line was intended.

Would it be reasonable to decry railways as a means of transportation because such a rail would not support an engine of 20 tons with its load of 600 tons, traveling 20 miles per hour?

Washington, Oct. 6, 1845.

S.

For the American Railroad Journal.

#### Another Railroad Route.

On a journey, passing through your city, a friend put into my hands your Journal of the 4th ult., and pointed out to me an article on page 572, headed "Another Railroad Route." Unfortunately, we live (in the estimation of some folks) out of the world, because we have settled down in northern New York, in the Black river country, and therefore our plans and suggestions and those of disinterested travellers, are to be treated with ridicule and held up to the world sarcastically by those who are so happily situated as to need no "other railroad route." It is not very important to know whether you wrote the article in question from your own knowledge or by information, but we Black river folks at least, disagree with you when you publish to the world that a *railroad route from or near Saratoga springs and thence reach the high falls on Black river in the town of Greig, Lewis county, opposite Turin, and then follow the valley of Black river to Sacket's Harbor, branching off to Kingston in Canada by way of Cape Vincent* is a project which if built would

"promote the interest of individuals and certain places and accommodate a large number of people, yet the shareholders would not derive adequate return, nor would the general benefits resulting to community in increased value of property be sufficient to warrant the expenditure."

You quote the article, or its sentiment, from the Albany Argus, which paper latterly has opened its columns, and indeed, invited discussion on suchlike projects, and has shown, I think, a more liberal spirit in railroad matters than the Journal you are the editor of has. We consider your article which I allude to, as wholly gratuitous, and the only amends we can ask or hope at your hands is that you will permit me to correct your error and disabuse the public mind.

I claim this at your hands. Your Journal is received as a text book in many parts of this state and the eastern states, on railroad subjects, and what you condemn or approve can and does exert an influence for good or for evil in the minds of many. You tell the public in your first article of the first column of your Journal, that "it is also the best medium for placing the merits of new undertakings fairly before the public." If this is so, which I cannot doubt, what an injury then, have you done us in thus condemn-

ing a feeble effort of ours to get relief in our neglected and sequestered situation. We have a right to suppose that some secret opposition has been at work and some undue influence brought to bear on you. We suppose you are in favor and approbate the Ogdensburg and lake Champlain route, the Saratoga and Whitehall route, Rome and Watertown route, Syracuse and Oswego route. *So are we.* The Watertown and Cape Vincent route we are in favor of too, because it is a part of our plan, we think these roads will be built, we think they are wanted, and we also think that the "other railroad route" in question will be built; but to the subject.

Before you condemn let the subject be examined. Take the map and suppose yourself at Ballston or Saratoga springs, from there mark the spot where the Moose and Black rivers unite, then follow down the Black river and mark again Watertown, the centre and capital of Jefferson county; then mark again Sacket's Harbor, and Cape Vincent. By this route, lake Ontario at Sacket's Harbor, can be reached from Albany in a distance of 163 miles, and Cape Vincent, which is opposite Kingston in Canada, in 180 miles. You can add the distance to New York city and Boston. And here let me ask you for a shorter route from the Hudson to lake Ontario? - This route is feasible and 139 miles of railroad is all that is lacking to unite us to our commercial cities; 56 of the 139 miles, is the distance from Sacket's Harbor to the high falls, and the rise is gradual and a trifle over 400 feet.— This route, besides being the shortest to Boston and New York city, will have no state tolls to pay; it is an inland route, which in connection with its summer termination Sacket's Harbor, which is a military post, is of no small consequence in a state and national point of view; it would carry all the fashionable travel from Saratoga and Ballston in the summer season to Niagara and the lakes; it would take the whole travel from Canada West in the summer in connection with steamboats on the lakes, as the shortest route to the Atlantic; and in the winter it would of necessity as well as being the shortest route, take the whole travel in connection with the Canada railroad, of Michigan, north part of Illinois, Wisconsin and Iowa; it would rival the Erie canal and the railroad on its banks, for the transportation of merchandize to the west and bringing back the surplus produce, as well as for those emigrating west. I say nothing of the benefit that our country would secure in the operation. We could at least vie with the more favored portions of our state, and Lewis and Jeffer-

son alone would increase in a much greater proportion in population in the first ten years after the road was built than any other counties. We have the means, the materials, enterprize and men and we only want the facilities.

I refer you to the Albany Argus of 17th ult., to a communication dated on lake Huron, 3d September, signed "J." and headed "The Great West—the Present and Future." In speaking of the facilities afforded by our Canada neighbors for reaching lake Ontario and of the comparative prices of transportation from the west to Buffalo and Oswego, he closes the communication as follows:

"Looking at the clear probability of this tendency of trade and travel on to lake Ontario through the Canadian improvements, it will soon become important for us in New York to decide and to act upon the best course to draw both towards the Hudson river. The fact that tolls are required upon our central line of railway, is stimulating Boston to attempt to monopolize this trade and travel by a railway over the Green mountain to Burlington and an extension of this line from Platsburg to Ogdensburg.

"The prospect of the success of such a work is not perhaps quite equal to the magnitude of the design; yet if accomplished, it would be no aid to New York. In looking forward to results from any other position at the west, the intelligent mind, free from prejudice or local attachment, will scarcely fail to come to the conclusion that this trade, will to a large extent flow down the St. Lawrence unless our canals shall be improved and the tolls properly graduated; and unless there shall be established a good railway communication between lake Ontario and the Hudson river at Albany."

In your remarks, above referred to, you say:—

"There are two classes of railroads which ought to be built. The first is where great public interest will be promoted: where an easy, rapid and cheap communication will be opened between two important points and thereby benefit communities—these should be built at the public expense if individual enterprize is not equal to the task. These should be built even if the immediate returns will not meet the outlay. The other class is where many interests will be promoted, and the returns are sure to be ample or remunerative to those who invest."

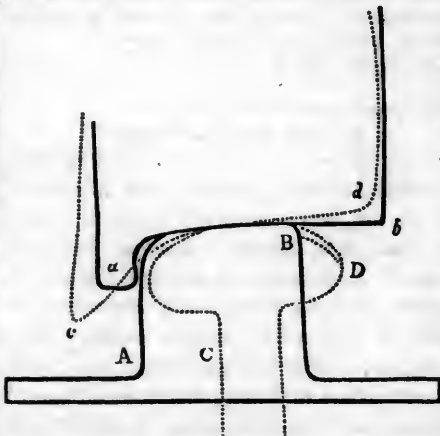
Now, sir, "J," from lake Huron points to our route, and in my humble opinion, it comes within your rules.

To conclude, I say that although we live in the north, far, far away from railways and canals, we cannot with complacency see our hopes and projects ridiculed or laughed at. I trust we will succeed in getting hereafter a more favorable opinion from you, of our route, and I may, perhaps, awaken curiosity in some persons to examine and fall in with the project, who now, like yourself, may have prejudged our case, saying that this plan is to promote the interests of *individuals and certain places* and not the public and that it is, as you say ironically, "another railroad route."

#### Railroad Accidents.

As like causes under similar circumstances, produce like results, we place the following explanation

of the recent accidents on the Eastern Counties, England, railway, that the managers of our railroads may be upon their guard. The article is from that excellent periodical, the London Railway Record.



A B, Great Western rail.

C D, Eastern Counties' rail.

a b, flange suited for Great Western rail.

c d, flange used for Eastern Counties.

We call attention to the explanations given by Mr. Bidder, at the meeting of the Norfolk railway company yesterday, as to the cause of the late accidents on the Eastern Counties' line.\* These explanations, and the statement made by Mr. Peto, appear to set the question at rest.

The engines referred to were made by Messrs. Slaughter and Stodhert of Bristol.—The following rough sketch (not to scale) will show the difference between the rails of the Great Western and Eastern Counties' lines.

The dark lines represent Messrs. Slaughter and Stodhert's wheel and the Great Western rails, and the dotted lines exhibit the Eastern Counties' pattern. Now if any joint were "out," even a quarter of an inch, it would mount, and cutting the rails, like shears, the engine would run off; whereas the bevelled flange instead of mounting and cutting, would *press* against the side, and the engine would pass in perfect safety.

As stated at the meeting, the engines have been taken off the line, and we understand that the makers will substitute other wheels *at their own cost*.

#### Central Railway Stations.

We perceive that it is becoming quite the order of the day in England, to bring the stations of several railways together. We like this plan as it saves much inconvenience to travellers. We should like to see it become more general in this country. The annexed articles from the Wolverhampton Chronicle and Leeds Mercury, may be read without injury to any one and possibly good may result.

We are glad to hear that Wolverhampton is about to take its proper place as a grand central railway station; we have been too long in the back ground, and have no doubt that not only our fellow-townsmen, but all the merchants, manufacturers, and farmers of this populous neighborhood, will give

\* It appears that two engines were built with the flanges of their wheels of a shape suited to the Great Western rails, whereas an altogether different form is required for the Eastern counties' Railway.

their approbation and support to so beneficial an undertaking; we allude to the determination taken by the South Staffordshire Junction, the Oxford, Worcester, and Wolverhampton, the Grand Junction, and the proposed Shrewsbury, Wolverhampton, and South Staffordshire Junction, to have a grand station for all the railways as near the centre of the town as possible. The bottom of Queen street is the spot we have heard named for the joint terminus.

#### Sites of the new Railway Stations at Leeds.

—Though some degree of uncertainty still exists as to the precise situation of the combined railway stations at Leeds, we may mention, generally, that both these stations will be on the south side of the Wellington road, at the entrance from Bradford to Leeds; that for the North Midland and Bradford and Leeds station united nearly opposite the exchange, at the point where Bishopgate street and Wellington road unite; and that for the Leeds and Dewsbury, and Leeds and Thirsk railways, near the Wellington Inn, in the vacant land between that place and the manufactory of Messrs. Gott, at Bean Ing. The distance of these two stations from each other will scarcely exceed three hundred yards; and the question will naturally arise whether they could not be united for the use of all the four railways, particularly as there is plenty of room scheduled for both between the Wellington road and Bean Ing from west to east, and from the Wellington road and the river, from north to south. This station amalgamation would effect, we understand, a saving of £50,000 in the outlay.

#### Infringement of Patent.

Railway Improvement.—The following statement from the Mining Journal, shows that some of our Yankee inventions are esteemed valuable by English engineers and machinists.

"We have always been opposed to monopoly of every description, and particularly infringements of patents—the produce of years of toil, anxiety, and expense, to the inventive mind of the projector. A trial was instituted on Wednesday last, at the northern Circuit, in Liverpool, before Baron Rolfe—*Newton v. the Grand Junction railway company*—for an infringement of patent; a case which excited considerable interest in the railway world in that vicinity. The action was to recover compensation from the Grand Junction railway company, for the infringement of a patent taken out by the plaintiff on the 15th of May, 1843, for improvement in the bearing of axles of railway carriages, and other axles, where great friction existed. A plea had been attempted to be put in, that the plaintiff was not the original inventor; but that it was a communication from a Mr. Isaac Babbett, an American, from Boston, who had sold it to him when at Liverpool in 1843, but which was overruled by the court. The invention is one of great importance in diminishing the wear and tear of locomotive engines. It consists in lining the semicircular brass 'step' of the axle which rested on the axle, and



bore the weight of the carriage, with an alloy of a softer metal of considerable thickness, which was prevented from spreading and yielding to the pressure by a brass fillet along its edge. The step was lined by first polishing the inside, tinning it, and then placing it within a mould the size of the axle, or 'journal,' as it was called, running in the alloy while in a state of fusion: this alloy, in cooling, adhered to the tin, and became incorporated with the brass step, fitting closely to the journal, or axle, which revolved it. The great advantage of this arrangement is, that it diminishes friction in preventing the heating of the axles, in needing a smaller supply of oil, and in enabling the bearer to run for a much longer time without the necessity of renewal or repair. Mr. Fothergill, foreman to Sharp and co., stated that he had been many years employed in the manufacture of railway carriages, and that this improvement was new to him, until the appearance of the patent in 1843. It was a very great improvement, and extremely useful in diminishing friction and preventing heat. Mr. Robert Stephenson, the eminent engineer to the London and Birmingham line, Mr. Fairbairn, of Manchester, Mr. Benjamin Cubitt, Mr. Thomas Wilkinson, foreman to Boulton and Watts, Soho Works, Mr. Benjamin Lewis, Mr. Edward M'Connell, engineer to the Birmingham and Gloucester railway company, and many other first rate engineers, all bore testimony to the general advantage of this invention.—Mr. Michael Allison, of the locomotive department to the Liverpool and Manchester railway company, also corroborated the benefits derived from it, and that there had been a very great and marked improvement in the running of the engines since the introduction of this method; the Kingfisher, the Heron and the Ostrich, were fitted up with these bearings. Formerly the brass bearings on the old construction, would run from 400 to 1000 miles; they now could run, if fitted with this patent, from 4,000 to 10,000 miles. The Kingfisher had run 20,000, and the bearings were still in good condition. A bearing was produced that had run 32,000 miles without repairs. The jury, after giving due consideration to the importance of the case—as it affects the patent inventions of the scientific men in this country generally, where railways and machinery are so rapidly on the increase—returned a verdict for the plaintiff of £1,000, which gave universal satisfaction to the engineering gentlemen present. It is really "too bad" that a company like the Grand Junction railway—one of the most profitable lines in the united kingdom—should resort to such an illiberal action as the infringing the hard and scientific labors of ingenious inventors.

Mr. Hudson's empire (over railroads,) extends, says the Railway Express, over the York and North Midland, 76½ miles; Hull and Selby, 31; Leeds and Selby, 20½; North Midland, Midland Counties, Hull and Selby, 178½; Newcastle and Darlington, 66; Great North of England, 45; Sheffield and

Rotherham, York and Scarborough, North British, Whitby and Pickering, a territory of nearly 600 miles.

#### Rationale of Railroads.

The following excellent article on the "rationale of railroads," is from the London "Iron Times," a journal which puts forth many good things. The views of the writer are so entirely in accordance with our own and yet so much better expressed than we could do it, that we adopt it entire and should be much gratified to see it extensively republished by those papers who receive the journal. It states facts which ought to be universally appreciated.

We said the other day, that the genius of iron was in the ascendant; we may say, indeed, that this is the age of iron, not such as the poets foretold, an age of hard-heartedness and comparative poverty; but rather an age full of golden opportunities for the advancement of the civilization of man. This beneficent age of iron, however, has its enemies and depreciators, who, if they cannot charge it with absolute uselessness, are determined to see in it nothing but a tendency to mad speculation, and to exhaust the wealth of the country. It is too late in the day to doubt the varied advantages of a railway (the mightiest offspring of this iron age); but railway speculation and railway bubbles form by no means a bad theme whereon the press may dilate, and the ignorant, the unthinking, and the timid may dwell with credulous avidity. Against this irrational view of the material enterprise of our country we have already frequently protested, and we cannot perform our duty more satisfactorily than by pointing out, from time to time, what are the genuine aspects, moral and physical, in which this age of iron should present itself to the eyes of our countrymen.—We will just glance, for example, at some of the more prominent ameliorations which a railway accomplishes. The public are too apt to regard a railway with exclusive reference to attorneys, counsel, directors, shareholders, and the quotations of the stock market, occasionally, perhaps, diversified by accidents, extortion, and official impertinence. Except in some of these relations we are persuaded that a railway never enters into public contemplation. The vast changes silently but surely effected by the traffic of a railway across a country previously unembraced by its iron arms are either unknown, forgotten, or unheeded. Yet do they deserve to be recorded, and the crude opinions of the public corrected and enlightened. No railway, however insignificant its termini, has yet been established without a direct increase of means for the employment of industry, and the wealth which that employment generates; and this has not been done merely by substituting one mode of employment for another, but by creating new modes of employment which would not have been called into action unless by the demands of a railway. If any one will examine fifty miles of railway, with its stations, engine-houses, factories, rails, sleepers, steam-engines, carriages trucks—its secretary, clerks, engineers, drivers, police, porters, and constant succession of laborers in all departments, and then mul-

tiple those fifty miles by forty, which will give him the number of miles of railway now in operation throughout the kingdom, he will have some idea of the infinite variety of demands made upon human skill and human labor. It is true that a railway cannot be constructed without throwing out of employment, or rather directing into other channels, the old modes of conveyance; this is a consequence necessarily attendant upon every great change, and the prejudicial effects of which are both limited & temporary. As well might it be charged upon Arkwright and Crompton, as a crime that they had superseded the spinning jenny as upon Stephenson and Brunel that they had abolished stage coaches; and at this moment, although postmasters may be at a discount, and travellers no longer swallow a meal in ten minutes at a roadside inn, yet the number of horses used, and the number of inns frequented, have been increased at least tenfold by the establishment of railways. Not only have these new sources of industry been developed, but the wages of industry have been advanced and made stable. The most cursory observation is sufficient to show the improved character and (if we may use the expression) quality of all persons employed on a railway, from the highest to the lowest. That gentlemanly looking man waiting the arrival of the train, giving his orders with rapid ease to the attendants around him, receiving prompt obedience, and evidently impressed with the responsibility of his position, is not the chairman of the company, as the crowd of passengers imagine, but simply the station clerk. And the robust appearance and substantial uniform of the humblest porters betoken a thriving race, unequalled elsewhere by laborers of the same class. These are the direct effects produced by railway management and liberality, to which, however, the beneficial effects of a railway establishment in its operation upon wages must not be confined. By offering well-paid employment in the districts through which it passes a railway draws off the surplus labor, and relieving the labor market, whether agricultural or manufacturing, enables labor to obtain a better price, not only by the example it sets of giving fair wages, but also by diminishing the supply, and equalizing it with the demand. All the trades and manufactures summoned by a railway to aid in its formation, or to minister to its ever returning wants, have also naturally an impulse given to them, by which capital and labor both profit. The capitalist pours forth his sluggish hoards, gratified at their sudden vitality; and the laborer, the collier, and the miner, the mason and the bricklayer, the wheewright and the coach builder, instead of beseeching occupation at any rate of wages, as in times of depression and slackness, is sought for by the employer, and offered a remuneration, twenty, and even thirty per cent. beyond what he had been accustomed to for years. In the north of England, stone masons, who, two or three years ago, received but 18s. a week, are now freely obtaining from 25s. to 30s.; and agricultural labor-

ers in the same part of the country are getting 15s. to even 18s. a week, more than three times as much as they get in some parts of the west of England. Other causes may have contributed to this improvement, but the most potent has been the exhilarating influence of railway enterprise.

#### Railway Accidents.

The importance of investigating whatever is offered as a prevention of accidents on railroads induces us to copy the following from the London Railway Express.

On Tuesday last, Major-General Pasley visited Birmingham, and witnessed, in company with Mr. Maconnell, of the Gloucester line, and Dr. Melson, Mr. George Heaton's experiments on the effects produced in a system of rotating machinery by the neglect of proper attention to the accurate balancing of the revolving parts; particular reference being directed to the engines and carriages of railways, as connected with a class of accidents in which, after a violent oscillation and jerking motion, the engine leaps from the rails, dragging with it the tender and carriages attached. The apparatus invented by Mr. Heaton for the illustration of this subject is of a very ingenious construction, and may be made to travel or rotate with a smooth and equable, or with an agitated and oscillatory motion, as it is accurately balanced or thrown out of balance in a variety of ways. It is thus shown that, unless the weight of the cranks of the engine, with their connecting rods, be counterpoised, and the wheels of the carriage themselves, which are generally out of balance, be more carefully constructed, a cause is continually in operation which must inevitably, if the velocity be urged beyond a certain limit, varying with the amount of un-compensated weight in rotation, throw the train off the line. The hammering, jerking, shouldering, oscillating, and jumping motion of railway engines are successively imitated; and the loss of power, entailed by the neglect of counterpoise, is shown far to exceed all the importance which has heretofore been attached to it. We understand that General Pasley was occupied during five hours in investigating and recording the results of the various experiments, and we are glad to find that the attention of the scientific is at length drawn to those facts which were many years since discovered by Mr. Heaton, and 5 years ago publicly promulgated and exhibited by Prof. Melson, his coadjutor in this important work.

The Whitewater canal, which connects Lawrenceburg, on the Ohio river, with Cambridge, Indiana, on the National road, is now completed. The entire length of this canal is 76 miles. It was commenced by the state of Indiana in 1836, and finished to Brookville, a distance of 30 miles, in 1840. About this time the finances of the state became embarrassed, and she was compelled to discontinue operations on all her public works, leaving \$450,000 worth of work to be finished on a line nearly 40 miles in length, between Brookville and Cambridge, to complete the canal. At this juncture a company procured

a charter from the state, and by its untiring exertions the work has been completed.—The Cincinnati Gazette, speaking of the result of this enterprise, says:—

The result will be that our city will add one more arm by which she stretches her influence and control far into the interior of this rich valley, (the Whitewater) while it will be put in reach of a valuable market. It will now rapidly develop its resources, and as it is said that every tree cut down in the western forests puts a spindle in motion at the north, or elsewhere, we are assured the interests of all classes hereabouts, will be advanced by the completion of this important work. We expect a new aspect on the face of business in the Whitewater valley next year; the towns there will rise with rapidity, and Cambridge city, situated on the National road, at the head of navigation, surrounded by a fertile country, must soon become a second Dayton.—*Balt. American.*

**Reading Iron and Nail Works.**—Messrs. Seyfert and M'Manus former partners have become sole proprietors of this concern.—Mr. Whittaker having disposed of his interest to these gentlemen. The mill is in full operation and doing a very large business.

#### Miscellaneous Railroad Intelligence.

**VERMONT CENTRAL RAILROAD.**—The final surveys for the Vermont Central railroad are progressing rapidly, and on the 16th inst., it is expected that a location and letting by the directors can be made, commencing at Charleston, N. H. Great improvements have been made upon the survey of Mr. Carter, as respects the grades, distance and curvatures. It fully ascertained that no grade over 40 feet to the mile will be necessary, and but one curve of less than 1900 feet radius, that one being 1400. A saving in the distance will be made of 10 miles, if the line passes through Northfield gulf route, and 16 if by Williams-town gulf. By the surveys making for a continuation of this road towards Montreal and Ogdensburg, it is also found that in the line from Boston to those places, a further saving of distance may be made of 8 miles by not running into Burlington with through trains, but to the north of that town. This gap must however be traversed by the Rutland line, coming as it does from the south by the lake shore, and will, with the savings in distance between Burlington and Connecticut river make the length of the Central and Rutland routes equal, so far as Ogdensburg and Montreal are concerned, and to Burlington only 8 miles of advantage in favor of the Rutland. The excavation will be generally easy on the Central line, as very little rock is found on the surveyed route, and a small amount of river bridging will be needed.

The soil is generally underlaid with sand and gravel, with scarcely any clay or other hard stuff for moving, and the hauls or movement required short and easy.—*Boston Post.*

**HOUSATONIC RAILROAD.**—The receipts for freight during the month of September amount to \$8,790 84—and for passengers and mail to \$4,571 89—making a total of \$13,362 73—being an increase over the receipts of the same month in 1844, of \$1,766 64.

**HARTFORD AND NEW HAVEN RAILROAD.**—A change, commencing Oct. 1st, has been made in the running arrangement of this road. Trains leave Springfield for Hartford now, at 8 a.m., 12½ m. and 4½ p.m. The night train is stopped. Returning cars leave Hartford for Springfield at 10½ a.m., 2 p.m. and 4½ p.m. The early morning train up is discontinued, and the evening train hastened in its departure.

Preparations are making for the relaying of the Hartford and New Haven railroad with the heavy T rail.

**Providence and Worcester Railway.**—The whole of the stock of this road has been subscribed, and it is said that the work will be prosecuted with vigor.

**PROVIDENCE AND WORCESTER RAILROAD.**—At a meeting held on Wednesday, the following named gentlemen were elected directors for the current year. Alexander Duncan, Moses B. Ives, Harvey Chace, Jas. Y. Smith, Christopher S. Rhodes, Orray Taft, Joseph Carpenter, Allen O. Peck, Geo. W. Hallett, William Foster, Earl P. Mason, Chas. L. Fisher, Moses B. Lockwood, Jacob Little, John Barstow, Nathaniel F. Potter, Duty Greene, Charles Dyer, Gideon L. Spencer, Aaron Rathbone. At a meeting of the directors, held immediately after the adjournment of the board was organized by the election of Alexander Dancan president, and A. O. Peck, clerk, protom.—*Prov. Journal.*

**WORCESTER AND GREENFIELD RAILROAD.**—We are informed by a friend who has travelled over the proposed road from Worcester to Greenfield via Barre, that great interest is felt along the whole route in the proposed road. It is thought a road can be built from Greenfield to Troy, for about one-third of the cost of the Western road from Springfield to Albany.—*Greenfield (Mass.) Gazette.*

A railroad is now in operation from Cincinnati to Xenia, and proposals are invited for the continuation of the same to Columbus. The Cleveland people are moving for the construction of a railroad from that city to Columbus; thus completing a railroad communication from the Ohio river at Cincinnati, to Cleveland. There is already a canal in operation from Portsmouth (on the Ohio) to Cleveland.

It is proposed to extend the Louisa railroad from Gordonsville to Harrisonburgh in Virginia, with a view to its being hereafter continued to Parkersburg on the Ohio.

The Stockholders of the Chesterfield railroad co. have determined to charge only so much for transportation hereafter, as will enable them to declare a dividend of six per cent.—*Richmond Enq.*

**Madison and Indianapolis Railroad.**—The report of business on this road for the week ending 27th Sept. shows a handsome increase over the preceding week, which was one of the heaviest since the opening of the road. Passengers 292 and produce and merchandize in large quantities.

"We hope" says the editor of the State Journal, that every one will preserve these weekly statements, that they may have at hand, at all times, facts showing what has been contended for by those conversant with the subject, that the ratio of increase of business, or receipts of the road, are more than equal to the square of the distance of its extension.

We hope so too, for this is an important fact which ought to be, though it is not generally known. Extend the line and the income will increase in a compound ratio.

**SOUTH CAROLINA RAILROAD.**—The increase of business on this road for the last 9 months, ending 1st of October inst. has been \$123,333. The following are the receipts for the last 4 years, commencing on the 1st of Jan. of each year, and ending on the 30th Sept. each embracing a period of nine months, viz: 1842, \$234,351; 1843, \$256,908; 1844, \$300,774; 1845, \$357,684. These sums are exclusive of the profits of the S. W. R. R. Bank, and the contract for carrying the U. S. Mail.—*Charleston Patriot.*

**GEORGIA RAILROAD STOCK.**—A sale of the stock of this company was made last week at Augusta, at 90 dollars per share, cash.

**CHARLESTON AND NASHVILLE.**—There was a great meeting at Charleston on the 4th inst. to take measures for the completion of a railroad between Charleston and Nashville. The mayor of the city presided, and speeches were made by Col. Gadsen, and Richard Yeadon.

**STEAM CANAL PACKETS.**—A meeting was held in Reading last week, for the purpose of considering the feasibility of forming a company, to place a line of steam packets on the enlarged canal in the spring, to ply between that place and Philadelphia. It proposed to carry about 100 passengers and 20 tons of merchandize at low rates, and run through in six hours. A committee was appointed to confer with the Navigation company on the subject. The high rates of fare charged by the railroad company, instigated this movement.—*Miners' Journal.*

**BOSTON COURIER, DAILY, SEMI-Weekly and Weekly.**

The Daily edition of the Courier, presents to merchants and others, an extensive medium of advertising. The circulation of the Semi-Weekly Courier (published on Mondays and Thursdays) is believed to be more extensive than that of any other similar Boston Newspaper. This publication embraces all the reading matter of the Daily, the Foreign and Domestic Markets, Review of the Boston Market, Prices current, and Ship News, prepared with great accuracy. The Weekly Courier contains as much of the matter of the daily as can be crowded into a sheet of the same size, without ship news, prices current or advertisements.

Our extions to obtain and publish authentic information on all topics proper for the columns of a newspaper,—the state of trade, the prices of merchandise, the current news of the day, and the political movements in the various sections of the country—will not be abated. The marine department of the Courier has been inferior to none in copiousness or accuracy of detail, and it will be our endeavor to maintain its reputation in this respect.

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**SPRING STEEL FOR LOCOMOTIVES,**

Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent,

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**TO IRON MANUFACTURERS. THE**

Subscribers, as Agents of Mr. Geo. Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO.,

45 No. 4 Sout Fronth st., Philadelphia, Pa.

**MACHINE WORKS OF ROGERS,**

Ketchum & Grosvenor, Paterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

**Railroad Work.**

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

**Cotton, Wool and Flax Machinery**

of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,

45 Paterson, N. J., or 60 Wall street, N. York.

**FOR SALE AT A SACRIFICE—A LOCO-**

motive Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine.  
2 8-horse " " "

1 Upright Hydraulic Press.

All of which will be sold low, on application to

T. W. & R. C. SMITH.

Founders and Machinists,  
Alexandria, D. C.

May 12th

**NICOLL'S PATENT SAFETY SWITCH**

for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,

Reading, Pa.

**GEORGE VAIL & CO., SPEEDWELL IRON**

Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/2 in. to 2 1/2 in thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptio nst.

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**TO RAILROAD COMPANIES AND MAN-**

ufacturers of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,

45 N. E. cor. 12th and Market sts., Philad., Pa.

**FROM NEW YORK.**

**New York and Harlem Rail-**

road Company.

Leave City Hall for Yorkville, Harlem and Morristown at 5.30, 7, 8, 9, 10, a.m.; 1, 2, 3, 3.30, 4, 5, 5.30, 6, p.m. For Fordham and Williams' Bridge at 5.30, 7, 10, a.m.; 2, 3.30, 5, 6, p.m. For White Plains at 7 and 10 a.m.; 2 and 5 p.m. Leave Morristown and Harlem for City Hall at 6.20, 8, 9, 10, 11, a.m.; 2, 3, 4, 2, 5.20, 6, 6.30, 7.45 p.m. Williams' Bridge for City Hall at 7, 7.40, 10.40 a.m.; 2.40, 5, 5.40, 7.20 p.m. White Plains for City Hall at 7.10 and 40.10 a.m.; 2.10 and 5.10 p.m. 31

Evening, or 6 o'clock Line.—Line steamboats for Albany—Daily, Sundays excepted.—Through direct at 7 o'clock P.M. from pier between Courtlandt and Liberty streets.—Steamboat Rochester, Capt. R. G. Crittenden, will leave on Monday, Wednesday, and Friday. Steamboat Knickerbocker, Captain A. Houghton, will leave on Tuesday, Thursday, and Saturday. 31

For Albany and Troy, direct, at 6 o'clock, P.M., from the steamboat pier, foot of Courtlandt street. The Empire, Capt. R. B. Macy, Tuesday, Thursday and Saturday. The Columbia, Capt. Wm. H. Peck, Monday, Wednesday, and Friday. 31

**NORWICH AND WORCESTER RAIL-**

Road. On and after May 22, 1845, Trains will leave as follows, viz:—

Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4 1/2 p.m. Leave Worcester, at 10 a.m., and 4 1/2 p.m.

The morning train from Norwich, and the morning and evening trains from Worcester, connect with the Boston, Western, and Hartford and Springfield railroads.

New York Train, via Steamboat. Leaves Norwich for Worcester and Boston, every morning except Monday, upon the arrival of the boat from New York, about 2 a.m. Leaves Worcester for Norwich and New York, at 5 1/2 p.m., daily, except Sunday.

New York Train, via Long Island Railroad.—Leaves Norwich about 3 p.m., for Worcester and Boston, daily, except Sunday. Leaves Worcester for Norwich and New York, at 7 1/2 a.m., daily, except Sunday, and arrives in Norwich at 9 1/2.

Freight Trains. Daily, except Sunday. Fares are less when paid for Tickets, than when paid in the cars.

EMERSON FOOTE,

321y

Superintendent.

**LAWRENCE'S ROSENDALE HYDRA-**

lic Cement. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floods and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE, 142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 321y

**SUMMER ARRANGEMENT—FARE**

**REDUCED.**

By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

Direct to New Orleans, and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great Southern Mail Line, and the only one that issues a through ticket South. Those who patronize it will save their money and time. Through Tickets from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

Fast Mail Line.—Leave New York at 9 a.m. and arrive in Philadelphia at 3 1/2 p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12 1/2 to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.

Passengers by the above line will arrive at Richmond by 11 1/2 o'clock p.m. and Petersburg, Va. by 2 1/2 o'clock p.m., through to the former city in twelve hours, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

Way Mail Schedule.—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p. m.; arrive in Baltimore at 2 1/2 p.m.; arrive in Washington at 7 p.m. From Philadelphia by steamboat.—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore.

STOCKTON & FALLS.

**LONG ISLAND RAILROAD.—EVEN-**  
ing Line for Newport and Providence.  
Fare 50 cents.

Every Tuesday, Thursday and  
Saturday, from the foot of Whitehall street, at 4  
o'clock and from Brooklyn depot at 5 p.m.

On the arrival of the train at Greenport, passen-  
gers will proceed immediately in the steamer "New  
Haven," direct. 2t 39

**BOSTON AND PROVIDENCE RAIL-**  
road. Dedham Branch Railroad. Stough-  
ton Branch Railroad.

Fall arrangement, to com-  
mence Monday, September 29, 1845.

Steamboat train for New York via Stonington,  
leaves Boston at 4½ p.m.

Accommodation trains, leave Boston at 8 a.m. and  
3½ p.m. Leave Providence at 8 a.m. and 3½ p.m.

Fare in first class cars, \$1 25  
" second " 85

Dedham trains, leave Boston at 9 a.m. 3 p.m.,  
and 6 p.m. Leave Dedham at 7½ a.m., 10½ a.m.  
and 4½ p.m.

Fare 25 cents.  
Stoughton trains, leave Boston at 12 m. and  
4 p.m. Leave Stoughton at 8 a.m. and 2½ p.m.

Fare 50 cents.

W. RAYMOND LEE, Sup't.

Sept. 15, 1845. 31 1y

**NEW YORK AND ERIE RAILROAD**  
LINE. For Middletown, Goshen, and inter-  
mediate places. Two daily  
lines each way, as follows:

For passengers, the new, and commodious steamboat  
St. Nicholas, Capt. Alex. H. Shultz, will leave the  
foot of Duane street daily, [Sundays excepted,] at 7½  
o'clock, A.M., and 5 o'clock, P.M., through in five  
hours. Returning, the cars will leave Middletown  
at 6, A.M., and 4½, P.M. For further particulars  
inquire of J. Van Rensselaer, Agent, corner of  
Duane and West streets,

H. C. SEYMOUR, Superintendent.

Stages run from Middletown daily, in connection  
with the afternoon line, to Bloomingburg, Wurts-  
boro, Monticello, Mt. Pleasant, Binghamton, Owe-  
go, Port Jervis, Honesdale Carbondale, etc.

On Monday, Wednesday, and Friday, to Dun-  
daff, Montrose, Friendsville, Lenox, Brooklyn, etc.,  
etc. 31 1y

**BALTIMORE AND SUSQUEHANNA**  
Railroad. The Passenger train runs daily  
except Sunday, as follows:

Leaves Baltimore at 9 a.m., and  
arrives at 6½ p.m. Arrives at York at 12½ p.m.,  
and leaves for Columbia at 1½ p.m. Leaves Co-  
lumbia at 2 p.m., and leaves York for Baltimore at  
3 p.m. Fare to York \$2. Wrightsville \$2 50, and  
Columbia \$2 62½. The train connects at York  
with stages for Harrisburg, Gettysburg, Chambers-  
burg, Pittsburg and York Springs.

Fare to Pittsburg. The company is authorized  
by the proprietors of Passenger lines on the Penn-  
sylvania improvements, to receive the fare for the  
whole distance from Baltimore to Pittsburg. Balti-  
more to Pittsburg.—Fare through, \$9 and \$10.

Afternoon train. This train leaves the ticket of-  
fice daily, Sundays excepted, at 3½ p.m. for Cockeys-  
ville, Parkton, Green Springs, Owings' Mills, etc.

Returning, leaves Parkton at 6 and Cockeysville  
and Owings' Mills at 7, arriving in Baltimore at  
9 o'clock a.m.

Tickets for the round trip to and from any point  
can be procured from the agents at the ticket offices  
or from the conductors in the cars. The fare when  
tickets are thus procured, will be 25 per cent. less,  
and the tickets will be good for the same and follow-  
ing day in any passenger train.

D. C. H. BORDLEY, Sup't.

31 1y Ticket Office, 63 North st.

**DAVIS, BROOKS & Co., 30 WALL ST.**  
Have now on hand and for sale,

200 tons 2½ x 7 inch Flat punched Rails, Bars  
18 feet each.

100 tons Heavy Edge Rails, 90 tons per mile.  
30 tons 2½ x 7 inch Flat Rails.

Also—A STEAM PILE DRIVER, built by  
"Dunham & Co." which has never been used, and  
cost originally \$5000. s20 2m

**BALTIMORE AND OHIO RAILROAD.**  
MAIN STEM. The Train carrying the  
Great Western Mail leaves Bal-

timore every morning at 7 and  
Cumberland at 8 o'clock, passing Ellicott's Mills,  
Frederick, Harpers Ferry, Martinsburgh and Han-  
cock, connecting daily each way with—the Wash-  
ington Trains at the Relay House seven miles  
from Baltimore, with the Winchester Trains at  
Harpers Ferry—with the various railroad and  
steamboat lines between Baltimore and Philadelphia  
and with the lines of Post Coaches between Cum-  
berland and Wheeling and the fine Steamboats on  
the Monongahela Slack Water between Browns-  
ville and Pittsburgh. Time of arrival at both Cum-  
berland and Baltimore 5½ P. M. Fare between  
those points \$7, and 4 cents per mile for less distan-  
ces. Fare through to Wheeling \$11 and time about  
36 hours, to Pittsburgh \$10, and time about 32 hours.  
Through tickets from Philadelphia to Wheeling  
\$13, to Pittsburgh \$12. Extra train daily except  
Sundays from Baltimore to Frederick at 4 P. M.,  
and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at  
night from Baltimore and at 6 A. M. and 5½ P. M.  
from Washington, connecting daily with the lines  
North, South and West, at Baltimore, Washington  
and the Relay house. Fare \$1 60 through between  
Baltimore and Washington, in either direction, 4  
cents per mile for intermediate distances. s13 1y

**CENTRAL RAILROAD—FROM SAVAN-**  
nah to Macon. Distance 190 miles.

This Road is open for the trans-

portation of Passengers and  
Freight. Rates of Passage, \$8 00. Freight—

On weight goods generally... 50 cts. per hundred.

On measurement goods ..... 13 cts. per cubic ft.

On brls. wet (except molasses  
and oil).....\$1 50 per barrel.

On brls. dry (except lime)... 80 cts. per barrel.

On iron in pigs or bars, cast-  
ings for mills, and unboxed  
machinery..... 40 cts. per hundred.

On hds. and pipes of liquor,  
not over 120 gallons.....\$5 00 per hhd.

On molasses and oil.....\$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded  
free of commission. THOMAS PURSE,  
40 Gen'l. Sup't. Transportation.

**LXINGTON AND OHIO RAILROAD.**  
Trains leave Lexington for Frankfort daily,  
at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lex-  
ington daily, at 8 o'clock a.m. and 2 p.m. Dis-  
tance, 26 miles. Fare \$1 25.

On Sunday but one train, 5 o'clock a.m. from  
Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to  
15th March) is 6 o'clock a.m. from Lexington, and  
9 a.m. from Frankfort, other hours as above.  
35 1y

**KEARNEY FIRE BRICK. F. W.**  
BRINLEY, Manufacturer, Perth Amboy,  
N. J. Guaranteed equal to any, either domestic or  
foreign. Any shape or size made to order. Terms,  
4 mos. from delivery of brick on board. Refer to

James P. Allaire, }  
Peter Cooper, } New York.

Murdock, Leavitt & Co. }  
J. Triplett & Son, Richmond, Va. }

J. R. Anderson, Tredegar Iron Works, Rich-  
mond, Va. }

J. Patton, Jr. } Philadelphia, Pa.  
Colwell & Co. }

J. M. L. & W. H. Scovill, Waterbury, Con.  
N. E. Screw Co. } Providence, R. I.  
Eagle Screw Co. }

William Parker, Supt. Bost. and Worc. R. R.  
New Jersey Malleable Iron Co., Newark, N. J.  
Gardiner, Harrison & Co. Newark, N. J.

25,000 to 30,000 made weekly. 35 1y

**RAILROAD IRON AND FIXTURES.**  
The Subscribers are ready to execute orders  
for the above, or to contract therefor, at a fixed  
price, delivered in the United States.

DAVIS, BROOKS & CO.,  
30 Wall st., N. York.

ja45

**OFFICE OF THE NEW YORK AND**  
Erie Railroad Company. No. 50 Wall st.  
New York. September 13, 1845.

Notice is hereby given to the holders of stock of  
the New York and Erie Railroad company, that by  
the terms of the 8th section of the Act of the 14th  
May, 1845, it is provided that, if within 6 years from  
the passage of the law the company shall complete  
a single track from the Hudson river to lake Eric  
and a branch to Newburgh, in Orange county, then  
"the said company shall be released from all liabil-  
"ity to pay to the state any demand which the state  
"may have against them, with this exception only,  
"that in case any holder or holders of the capital  
"stock of said company heretofore issued and certi-  
"fied, or purporting to be paid in full, shall not with-  
"in six months from the passage of this act, surren-  
"der to the company their stock certificates, and re-  
"ceive or offer to receive therefor, for every two  
"shares of stock heretofore issued, one share of stock  
"to be hereafter issued, then all such stock heretofore  
"issued, and not so surrendered, shall not be subject  
"to the provisions of this law; but the state shall re-  
"tain the right to claim upon such outstanding stock,  
"and the said company shall pay into the treasury of  
"the state, upon the order of the comptroller, any and  
"all dividends upon such outstanding stock, and the  
"comptroller shall apply the same to the credit of  
"said company, until the state shall receive in such  
"dividends, so much of their said debt of three mill-  
"ions of dollars and the interest thereon, as would be  
"the proportion of such outstanding stockholders to  
"pay, provided the whole debt of three millions of  
"dollars and interest thereon were collected ratably  
"from all the stock of said company now outstand-  
"ing."

By section 9th, of the same law, it is provided  
that, "it shall be the duty of the president and sec-  
"retary of said company, within thirty days after the  
"expiration of the six months mentioned in the last  
"preceding section, to file with the comptroller of  
"the state, a statement of all stocks that shall not  
"have been exchanged in pursuance of the provis-  
"ions of the last preceding section; and whenever  
"any dividend upon the stock of the said company  
"shall be made, it shall be the duty of the board of  
"directors to notify the comptroller of such dividend,  
"and upon payment of the dividend aforesaid into  
"the treasury, the comptroller shall furnish to said  
"company a receipt for the portion of such dividend  
"belonging to any stock not surrendered and ex-  
"changed in pursuance of the last preceding section  
"of this act, and said company shall surrender to  
"the holders of such stock the receipt of said comp-  
"troller in lieu of said dividends."

It will be seen that on or before the 14th of No-  
vember next, each and every holder of the stock of  
the company must decide whether he will avail  
himself of the provisions of this law by surrender-  
ing his stock and receiving one share for every two  
shares thus surrendered. With reference to holders  
who neglect to avail themselves of the provisions of  
the act, it is made the duty of the company, within  
thirty days from the 14th of November, "to file  
"with the comptroller a statement of all stocks that  
"shall not have been exchanged" agreeably to the  
provisions of this act, the dividends on which must  
be paid into the state treasury, rendering that class  
of stock practically of no value to the holder. The  
board of directors consider it their duty to protect  
the interests of the stockholders by giving all pos-  
sible publicity to that portion of the law relating to  
the outstanding stock, that all may have an oppor-  
tunity for an early compliance with the provisions  
of the act. By order of the board of directors.  
39 8t T. S. Brown, Acting secretary.

**OFFICE OF THE NEW YORK AND**  
Erie Railroad Company. No. 50 Wall st.  
New York 4th October, 1845.

Notice is hereby given that the sum of three mil-  
lions of dollars, required by the law of May 14th,  
1845, has been subscribed to the capital stock of  
this company, and that the books have been closed.

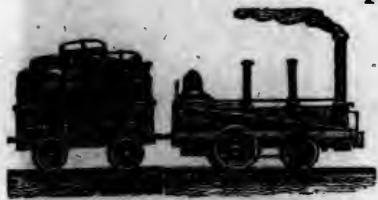
The subscribers are required to make a payment of  
five dollars on each share, at the office of the com-  
pany, on or before Thursday, the 16th of October  
inst.

By order of the board of Directors.  
T. S. Brown, Acting Secretary.

41 2t

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 43]

THURSDAY, OCTOBER 23, 1845.

[WHOLE No. 486, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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One page per annum.....	\$125 00
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One square ".....	1 00
Professional notices per annum.....	5 00

### ENGINEERS and MACHINISTS.

- J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)  
 TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)  
 ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
 S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
 NORRIS, BROTHERS, Philadelphia, Pa.  
 KITE'S Patent Safety Beam. (See Adv.)  
 FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)  
 NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)  
 ROSS WINANS, Baltimore, Md.  
 CYRUS ALGER & Co., South Boston Iron Company.  
 SETH ADAMS, Engineer, South Boston, Mass.  
 STILLMAN, ALLEN & Co., N. Y.  
 JAS. P. ALLAIRE, N. Y.  
 H. R. DUNHAM & Co., N. Y.  
 WEST POINT FOUNDRY, N. Y.  
 PHENIX FOUNDRY, N. Y.  
 R. HOE & Co., N. Y.  
 ANDREW MENEELY, West Troy. (See Adv.)  
 JOHN F. STARR, Philadelphia, Pa.  
 MERRICK & TOWNE, do.  
 HINCKLEY & DRURY, Boston.  
 C. C. ALGER, Stockbridge Iron Works, Stockbridge, Mass.  
 BALDWIN & WHITNEY, Philadelphia, Pa.

### IRON MERCHANTS and IMPORTERS.

- DAVIS, BROOKS & Co., N. Y. (See Adv.)  
 A. & G. RALSTON & Co., Philadelphia, Penn. (See Adv.)  
 THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM. PLAN

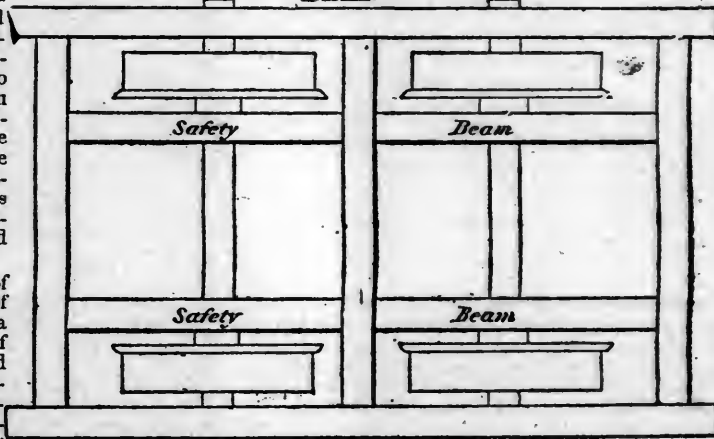
MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.  
 Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

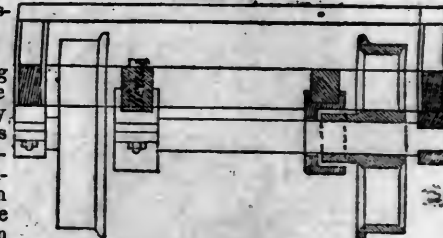
JOHN FRAZER, Agent,  
 GEORGE CRAIG, Superintendent,  
 A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



### ELEVATION



### Section



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co. Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand.

ja45

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

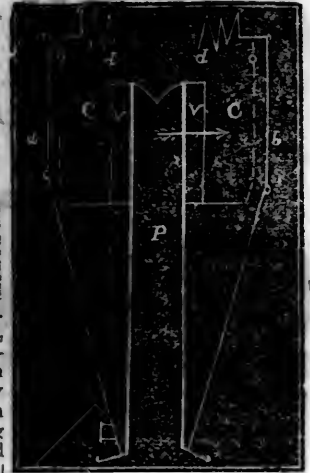
These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

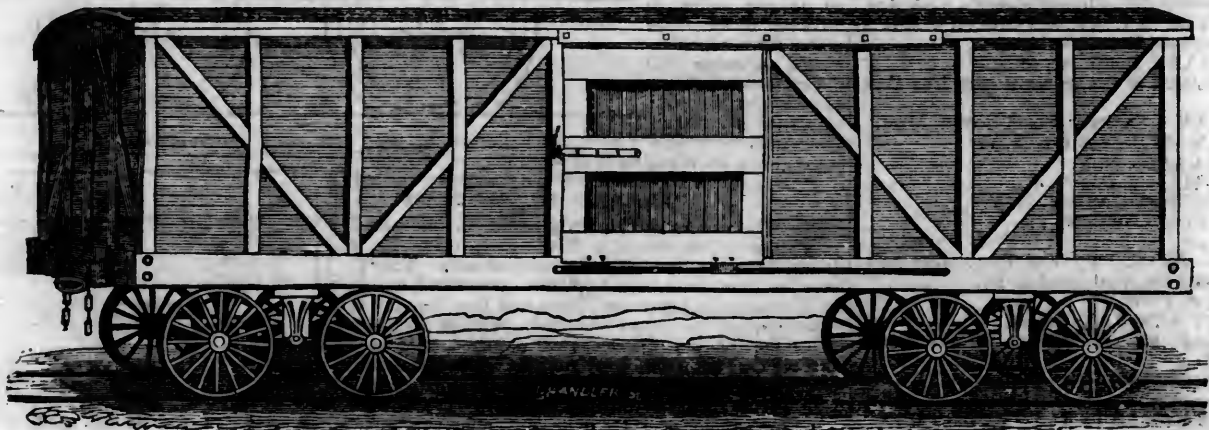


**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

The article is complete in itself, occupies but little space, is perfectly portable, and requires no brick work, not even to stand upon. It is valuable, not only in the saving of time and labor, but in the economy of fuel, as it has been ascertained by accurate measurement, that the saving in that article is fully two-thirds over other methods heretofore in use. They are now for the first time introduced into New York and Boston by the subscriber, who has the exclusive right for the New England states, New York and New Jersey, and are manufactured by

CURTIS & RANDALL, Boston; and by FORCE, GREEN & CO. New York.

**DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.**



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotives and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having to use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**  
**WELDED WROUGHT IRON TUBES**

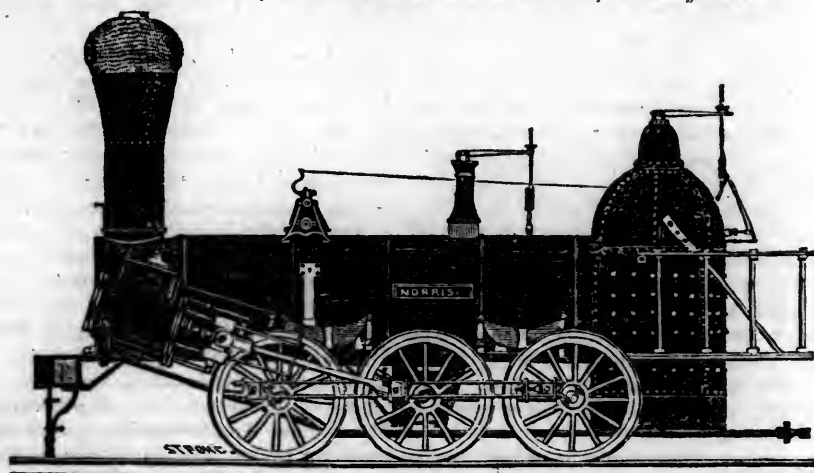
From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**

BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
" 2,	14	"	"	×	24	"
" 3,	14 1/2	"	"	×	20	"
" 4,	12 1/2	"	"	×	20	"
" 5,	11 1/2	"	"	×	20	"
" 6,	10 1/2	"	"	×	18	"

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.

**WILLIAM YOUNG,**  
President.

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Birmingham Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, turnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48 State st.,** or to **CURTIS, LEAVENS & CO., 106 State st., Boston,** or to **A. & G. RALSTON & Co., Philadelphia.**  
ja45

**YRUS ALGER & CO., South Boston Iron Company.**

**The Iron Trade of Europe.**

This branch of European industry, great as it has always been considered, is assuming a still more important aspect. The demand for railways, ships, buildings and bridges all of which are comparatively new applications of the article, is now and will be for many years so great and imperative that large investments of capital must be speedily made in its manufacture, both in Europe and this country, or the prices will be so high that important enterprises will be checked in their progress and suspended before completion. We recently published an article from the London Mining Journal on the probable demand and means of supplying it, which ought to be read by our iron masters and capitalists more generally than it can be unless republished, as we requested, by those with whom we exchange. It appears to us that more useful information could not be given to their readers.

We now give another article on the same subject from the same journal received by the steamer Great Britain.

In the iron districts of England, as also in Scotland, the demand for both bar and pig continues on the increase, and another rise in price is the consequence. In Scotland heavy transactions have taken place in pig iron, at £4, though many holders are not selling under £4 10s. per ton; bars are quoted at £9, with considerable business doing, and the prevailing opinion is, that prices must go up. The Staffordshire iron masters have issued circulars to the trade, informing them that no further orders can be taken under an advance of 20s. per ton on bars, and 10s. on pigs. There is nothing in the present aspect of affairs to lead us to doubt, but that these prices will be maintained, or even still further advanced, as the demand for railway iron must continue for years. We only hope that in the anxiety to realize the utmost profit that this demand will create, the price is not forced up to that unhealthy state, which will be sure to cause a reaction, inflict a corresponding stagnation in the trade, and destroy the very object which the parties concerned had in view, while, by keeping at fair and even largely remunerating prices, a sound, healthy, and long continued course of prosperous trading will be the result, beneficial alike to the capitalist, the miner, and the consumer. Since writing the above, we have received the following interesting remarks from an intelligent correspondent:—

"The iron trade is daily becoming of more and more interest, not only in this country, but in France, Belgium, Sweden, and the north of Europe, as railways progress, and extensive are the contracts that have been entered into by the iron masters of England and the continent, to meet the demands that are so rapidly on the increase, not only for railway material but iron for ship building, now making so wonderful a progress all over Europe, and even in the east and west Indies. We understand (as we predicted some time ago), there is likely to be a general rise of this metal throughout the United Kingdom and on the continent, as the iron masters are so pressed for supplies, and railway contractors wish to proceed with locomotive speed. Several of the large firms in South Staffordshire have issued printed

circulars, announcing that they have advanced the price of bars 20s. and pigs 10s. per ton on the former quotations, and that no orders will be accepted under this advance, which has been caused, partially, through the pressure for iron, to supply the new lines now in progress, and also the small quantity of the ready material on hand to meet the emergency. The iron masters never were so busy as at present in Wales, Staffordshire, and other large mining districts, and at good remunerating prices; the furnaces have not only been increased, but are in full work night and day, as there is no lack of ore and coal. The progress that has been made within the last six years in this country, in the building of iron steamers, and many of them of very large magnitude, the Great Britain to New York, the *Hindustan* and the *Bentinck* in the Indian Ocean, from Calcutta to Suez, and many others of minor tonnage, now building in the royal docks and other yards, is causing a demand for sheet and cast iron, that was little anticipated.—The French government is also making great improvements in the amelioration of its navy, but particularly their armed steam vessels. Several iron steam ships have been ordered by the minister of marine, to be constructed at Brest, Cherbourg, Indret, Rochfort, La Rochelle, Bayonne, and Toulon.—The *Penguin* sloop of war has been built of iron, with a steam engine of thirty horse power, as an experiment: she was constructed by Messrs Mazeline Brothers, of Havre de Grace, who have received orders, should she prove to answer, to build four others.—The building of iron vessels, which less than half a century ago, would have been looked upon as a chimera, is daily gaining more renown, not only in this country, but all over mercantile Europe, which only shows what invention and the perseverance of man will accomplish. There is a general rise in iron now taking place all over the continent, in consequence of the vast railway and steam navigation speculations.

"As connected with the present position of the iron trade on the continent, the following quotations, that have been made from official returns, may also be interesting to your readers:—at the last contract entered into at Brussels for rails and chairs, the price of rails was £12 10s. to £13 per ton, and chairs £9 5s. to £9 10s. per ton, which is an increase of 20 per cent. since the 10th of August last, and this is even 12s. to 16s. cheaper than in France, where iron is on the rise to a great extent. At the foundries of Saint Dizier it is daily becoming higher, half rock iron being at £14 10s. to £15 per ton; the fine iron of Berry is at £19 15s., and wrought iron at £20 16s.; the general average price at the private forges is, for cast iron from £7 10s. to £8, and at Montlucon cast metal is selling at £6 5s. to £6 10s. the 100 kil., or two cwt., with a general tendency to an advance. The following is the progress making at the forges at Terrenoire and Lorne, in the department of La Loire, the gas from the high furnaces is used for heating the steam engines that work the bellows, as well

as for heating the air of the high furnaces. At Lorrette the steam engine boiler is heated by the gas that comes from the remelting oven. The high furnaces of La Jahotiere in the lower Loire, that had not been at work for several years, has been reconstructed, and is heated by Welsh anthracite coal and coke produced from the coal mines of the department. This furnace produces cast metal of a very superior quality for moulding. The proprietor of the work at Pont Eveque, in the department of the Isere, has been making some very extensive and important experiments to submit cast metal to puddling when in a liquid state, immediately it comes from the high furnaces, the results of which have been most satisfactory, as, by this new method, they can pass through the puddling furnace nine, to ten loads of cast metal within the twelve hours, instead of only six; it yields the same quantity of iron as by the ordinary system, and the iron thus obtained is of a far superior quality, and one great advantage is, that the consumption of fuel is reduced by 30 and 40 per cent.—At the forges of Bauclin, in the Jura, the gas from the high furnaces is employed for heating a steam engine that works the bellows. At the manufactory of Ichoux and Pontens, in the Llandes, the Comtoise system for the refining of cast metal is adopted, and has produced a very great economy in the manufacture of iron. At Orthes the refining, which used to be formerly on the Walonne system, has been replaced by the above method, which is found far superior. At the works of Treveray, in the department of the Meuse and Montblainville, gas is used for puddling from a refining furnace, heated with charcoal and a mixture of dry wood. The heating of steam boilers by gas is now generally adopted in nearly all the departments throughout France being a great saving of fuel. I have made the above few remarks, as they show that, both in France and Belgium, there is an increasing spirit for mining enterprise; but, let our own miners and iron masters be on the *qui vive*, and no foreign nation can compete with them, for although there is plenty of ore on the continent, they have not the facilities of machinery, and, more particularly, they want a good supply of coal, the chief assistant to all extensive mining operations.

**Harrisburg Railroad.**

We have neither received the report, nor the Lancaster Union, & can therefore only give the following statement, in relation to the condition of the work, which we find in the Pittsburg Gazette of 11th inst., should we be so favored as to receive a copy of the report, we may have more to say in relation to it.

"We have received a copy of the annual report of the president and directors of the Harrisburg railroad company, giving a statement of its condition for the year ending Sept. 1st, 1845. From this report we learn that the company have disposed of 4,000 additional shares of their stock on the 21st of August, the proceeds of which are to be appropriated to the remaining unfunded debts of the company, and to laying H rails on the balance of the road. The directors con-



gratulate the stockholders on the prospect of being relieved from the financial embarrassments under which they have heretofore labored, by the most troublesome debts of the company having been funded or otherwise settled.

The whole debt of the company is now \$645,929. The revenue of the company for the past financial year was \$71,538, and the expenses proper of the road and company \$34,800. The expenses for keeping in repair the wooden track between Elizabethtown and Harrisburg, was \$8,678, or \$482 per mile, while the 18 miles between Dillersville and Elizabethtown has been only \$1,408, or \$78 25 per mile, being less than one-sixth of the flat rail. The bad condition of that part of the road has been the cause of a considerable falling off in the freight business over it. The directors, however, anticipate a very largely increased freight business when the contract which has been entered into to lay the whole road with H rails shall have been completed."

#### The Magnetic Telegraph.

This important discovery appears to meet with less opposition, and greater favor, than any other of equal utility that has ever been presented to the consideration of an intelligent people. There is a simplicity about it which enables every one, who views it, to comprehend and appreciate its utility, though they may not understand the cause which produces such astonishing results.

The following gives us but a limited idea of the progress making in its extension in this country.—We have no doubt but that within a few years, the wires will be placed along the line of every important railroad, and reach from one seaport to another, and from each seaport to every important inland city and town in the Union. When one city has a line to the important inland points, others must have them for their own protection. Their extension will astonish many, and wonderfully facilitate the business operations of the country.

*Atlantic and Mississippi Telegraph.*—Henry O'Reilly, Esq., writing from Harrisburg to a friend in Albany, speaks in the most encouraging manner of the prospect of this great and truly important undertaking. Speaking of the arrangements for constructing the central line of the telegraph for this great route, he says:

"It is truly gratifying to be able to say that, from all I meet, whether state officers, canal commissioners, railroad companies and officers, or citizens generally, I have experienced nothing but courtesy and facilities for expediting the work. The work between Lancaster and Harrisburg will be completed in four or five weeks at farthest, and I expect to reach the Allegheny Portage before Christmas—one hundred and fifty miles beyond this; and, after a visit to friends of the work in western New York, in the next week or ten days I hope to be able to extend it to Pittsburg early in January."

It is expected that the line of magnetic telegraph between New York and Boston, via Hartford, will be in operation by the middle of November. It is important that a depot should be established here, and as this depends upon the amount of stock taken by

our citizens, we hope business men and others interested will subscribe the necessary amount.

We understand that the citizens of Springfield, New Haven, and Bridgeport have already secured depots in their respective towns.—*Hartford Courant.*

We find the following account of the establishment at St. Petersburg under the management of our countrymen, Messrs *Eastwick*, of Philadelphia, *Harrison*, and *Winaus*, of Baltimore, in the *London Mining Journal*. There was, we believe, an energetic competition between these gentlemen, and several English manufacturers, for the contractors to supply the Russian railroads with machinery, cars etc, and we consider it high credit to our countrymen as mechanics that it was decided in their favor.—They will, we are sure, justify the confidence reposed in them by the Russian government.

We should like also to obtain a description of the establishment under the direction of Mr. Norris also of Philadelphia, at Viennd.

#### Colossal Manufacturing Establishment.

There is now in full operation at St. Petersburg, perhaps the most extraordinary, as well as gigantic commercial establishment which can be found in the history of the world, ancient or modern. Messrs *Eastwick* and *Harrison*, the famed locomotive engine and boiler makers, of Philadelphia, having succeeded in obtaining the great contract for the construction of the locomotive requirements for the system of railroads about being carried out in Russia, have located themselves there—built a manufactory of immense extent, in which 3500 men are constantly employed, and in the conducting of which there are some curious features. To keep order among such a congregation—exceeding the whole population of a good-sized town, and consisting of English, American, Scotch, Irish, German, and Russian—a company of soldiers is kept on duty at the works, and a perfect police force, whose duties are confined to the establishment. Refractory men of every nation are discharged for irregular conduct, excepting Russian, and these (we suppose it is to inspire them with a love for their country and admiration for the *gentle Nicholas*) are, for the slightest offence, immediately tied up to the triangles, soundly flogged, and sent again to their work. It is but justice to Messrs. *Eastwick* and *Harrison* to say, that they have strongly appealed against this treatment, so peculiar to this semi-barbarous nation, but without effect. The plan of paying this enormous multitude is ingenious; on being engaged, the man's name is, we believe, not even asked, but he is presented with a medal, numbered: in the pay-house are 3500 wooden boxes, and, on presenting himself on Saturday night for his pay, the clerk hands him his money, takes his medal as a receipt, which is dropped into the box of its number, and gives him another medal, as a pledge of engagement for the following

week. We are promised a plan of the works, with a more particular account of the methods adopted; and as the principles upon which such a gigantic affair is conducted must be interesting, we shall have much pleasure in laying the particulars before our readers.—[*Mining Journal.*]

*Great Luxembourg.*—We hear upon authority that the concession of the line from Brussels to Namur has been obtained by the Great Luxembourg railway.

Switzerland is taking measures to have railroads, even among her mountains. One of her projects is for forming a line from Geneva to join one of the great French lines. Germany, also, will have railroads to join the principal French ones. In a few years, all the principal places of the entire continent will be united by these roads of iron. A treaty has been made between the Belgian and French governments, for enabling the carriages of the railway which join the French northern at the frontier, to run each on the other's line without unloading. When Switzerland and Germany shall have their railroads, it is to be hoped they will have the good sense to adopt a similarly enlightened measure.

#### Pottsville, Sunbury and Erie Railroad.

There was a meeting held at Pittsburg on the 20th ult., northern and western Pennsylvania, favorable to the construction of the "Pottsville Sunbury and Erie railroad." We have received a circular from the officers of the meeting containing resolutions passed by that body, one of which recommends that a convention be held on the 21st of October, of the friends of the proposed road, at the borough of Ridgeway, Elk co., Pa., and allco unites friendly to the construction of said road are earnestly requested to send delegates.

It will be remembered that we spoke of this route a week or two since as the best that could be selected for a railroad communication between Philadelphia and the west. We are glad to see the people moving in this matter; the work is of great importance to our region and we hope that our citizens will take such measures as may aid in accomplishing this object.—*Miners' Journal.*

*Our Inland Navigation.*—Much admiration was excited in Liverpool, Eng., a few weeks since, by the appearance of the ship *Muskingum*, direct from Marietta, Ohio, "seventeen hundred miles from salt water," as the Englishmen reported. This circumstance led to an estimate of the distance, or length and extent of a voyage from Pittsburg on the Ohio, to New Orleans; thence to the Yellowstone river, and back to Pittsburg. The distances given are as follows: Pittsburg to Cincinnati 498 miles: Louisville 137: mouth of the Ohio 435: New Orleans 1012: St. Louis 1184: Weston 500: Yellow Stone 1348: back to St. Louis 1848: mouth of the Ohio 172: Pittsburg 980. Making a voyage of 8024 miles, without going in sight of salt water. Well may Englishmen admire our facilities for inland navigation.—*Scientific American.*



AMERICAN STATE WORKS AND CANALS, ETC.

STATE WORKS.	Length in miles.	Cost.	1843.		1844.		The State Canals are all 4 feet deep, and the locks are 13 to 17 feet wide, and 80 to 90 feet in length.
			Income.	Expend.	Income.	Expen.	
N. Y. 1 Black river canal.....	35	1,524,967	.....	.....	.....	.....	The six millions paid to the canal fund from auction and salt duties are not included in the estimate of cost. The Genesee valley and the Black river canals require large sums for their completion, the interest of which <i>additional</i> sum is much greater than the estimated gross income of these canals when finished. The sums required to complete these two canals are \$2,000,000 and \$600,000, making their total cost when finished \$5,553,000 and \$2,409,000; an expenditure incurred on estimated incomes (admitted to be liberal,) of \$39,000 and \$14,000 respectively. The total receipts from the works of Pennsylvania for 1843 were \$1,019,401; for 1844 \$1,161,326, and the cost about 30 millions. The receipts for 1844 were as follows: Canal tolls, - - - - - 578,404 Railroad tolls, - - - - - 252,855 Motive power, - - - - - 319,590 Trucks, - - - - - 13,477 of which \$585,922 is from 118 miles of railroad, and \$578,404 from 550 miles of canal. The canals of Ohio are supported by a property tax of 5¢ mills on the dollar. There are 853 miles of canal in the State, which yielded in 1843 \$471,623, and in 1844 \$515,393, the cost, 1st Jan. '43 being \$15,577,233. The increase of '44 over '43 is only \$43,770, though the year '44 has exhibited a greater increase throughout the country than ever before known. These 21 millions on sundry works yield no income whatever. The central railroad yields above 6 per cent., and is the only State work—the Erie canal excepted—which is able to stand alone.
" 2 Cayuga and Seneca.....	21	257,000	16,557	10,953	24,611	14,443	
" 3 Champlain canal.....	61	1,251,664	102,308	.....	116,731	.....	
" 4 Chenango.....	23	684,600	8,140	14,486	14,381	12,740	
" 5 Chenango.....	97	2,420,000	16,195	15,967	22,171	15,960	
" 6 Crooked lake.....	8	156,777	461	3,674	1,491	3,951	
" 7 Erie—enlargement of.....	363	12,618,852	1,880,316	.....	.....	.....	
" 8 Genesee valley.....	120	3,739,000	.....	.....	.....	.....	
" 9 52 miles opened, cost \$1,500,000.....	.....	.....	12,292	13,819	19,641	15,557	
" 10 Oneida lake.....	6	50,000	225	2,239	621	1,636	
" 11 Oswego.....	38	565,437	29,147	22,742	56,105	28,599	
Pa. 12 Beaver division canal.....	25	.....	.....	.....	7,381	5,386	
" 13 Delaware canal.....	60	.....	.....	.....	109,278	22,870	
" 14 French creek.....	45	.....	.....	.....	.....	.....	
" 15 Seneca river towing path.....	.....	69,276	.....	.....	381	.....	
" 16 Columbia railroad.....	82½	4,204,969	.....	.....	413,336	205,067	
" 17 Eastern division.....	36	.....	.....	.....	179,781	138,915	
" 18 Juniata canal.....	93	.....	.....	.....	.....	.....	
" 19 Portage railroad.....	36½	1,828,461	.....	.....	351,102	248,943	
" 20 Western division canal.....	105	.....	.....	.....	.....	.....	
" 21 North branch Susquehanna canal.....	73	.....	.....	.....	101,949	57,633	
" 22 West " ".....	72	.....	.....	.....	.....	.....	
Ohio 23 Hocking canal.....	56	975,130	4,757	.....	5,236	4,139	
" 24 Miami canal.....	85	1,660,742	68,640	38,826	77,844	22,341	
" 25 Miami extension.....	105	2,856,636	8,291	.....	12,723	14,741	
" 26 Miami northern division.....	35	322,000	.....	.....	unfin'd.	.....	
" 27 Muskingum.....	91	1,627,318	23,167	.....	29,385	15,027	
" 28 Ohio.....	334	4,600,000	322,754	123,398	343,711	113,210	
" 29 Wabash.....	91	3,028,340	35,922	6,400	49,589	12,817	
" 30 Walhonding.....	25	607,269	838	39,005	1,977	1,238	
" 31 Western road.....	31	255,015	7,254	1,782	8,747	2,929	
Ind. 32 Sundry works.....	.....	11,000,000	.....	.....	.....	.....	
" 33 Maumee canal.....	.....	.....	.....	.....	.....	.....	
Ill. 34 Sundry works.....	.....	10,000,000	.....	.....	.....	.....	
Mich. 35 Central railroad.....	110	1,842,308	149,987	75,960	211,170	89,420	
" 36 Southern railroad.....	68	936,295	24,064	7,907	60,341	70,000	

CANALS.	Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
			Gross.	Nett.		Gross.	Nett.			
Blackstone.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	We may, perhaps, at some future time be enabled to give the particulars of all these canals. The Chesapeake and Ohio canal is not yet completed to the coal mines, hence its trifling income. The enlargement of the Schuylkill canal has been commenced. The Morris canal was lately sold for one million, about one-fourth of its cost.
Bald Eagle Navigation.....	25	400,000	.....	.....	.....	.....	.....	.....	.....	
Beaver and Sandy, (part).....	.....	1,000,000	.....	.....	.....	.....	.....	.....	.....	
Charleston, (S. C.).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Chesapeake and Ohio.....	184	12,370,470	47,637	.....	.....	.....	.....	.....	.....	
Conestoga.....	12	300,000	.....	.....	.....	.....	.....	.....	.....	
Delaware and Chesapeake.....	13	.....	.....	.....	.....	.....	.....	.....	.....	
Schuylkill.....	108	3,500,000	279,795	102,221	.....	190,693	120,624	.....	.....	
Farmington.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
James river and Kenhawa.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Middlesex.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Port Deposit.....	10	200,000	.....	.....	.....	.....	.....	.....	.....	
Delaware and Raritan.....	43	2,900,000	99,623	53,327	.....	131,491	84,455	.....	.....	
Southwark.....	.....	300,000	.....	.....	.....	.....	.....	.....	.....	
Tide Water.....	45	2,900,000	.....	.....	.....	.....	.....	.....	.....	
Union.....	80	2,000,000	.....	.....	.....	.....	.....	.....	.....	
Morris.....	101	1,000,000	.....	.....	.....	.....	.....	.....	.....	
Dismal Swamp.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

CANADIAN CANALS.	Length in miles.	No. of locks.	Lockage in feet.	Size of locks.			Width of canal.		Estimate.	Expended to Sept. 1843.	Income.	
				Length of chamber.	Width.	Depth on mitre sill.	Bottom.	Surface.			1843.	1844.
The Welland canal.....	.....	.....	.....	feet.	feet.	feet.	feet.	feet.	3,948,572	2,485,572	64,658	.....
Main trunk from Port Colborne to Port Dalhousie.....	28	31	328	150	26 1-2	8 1-2	45	81	.....	.....	.....	.....
Junction branch to Dunville.....	21	1	6	150	26 1-2	8 1-2	35	71	.....	.....	.....	.....
Broad creek branch to Port Maitland.....	1 1-2	1	6	200	45	9	45	85	.....	.....	.....	.....
The St. Lawrence canal.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Galops and Port Cardinal.....	2	2	7	200	45	9	50	90	.....	.....	.....	.....
Rapid Plat.....	4	2	11 1-2	200	45	9	50	90	672,498	973	.....	.....
Farren's point.....	3-4	1	3 1-2	200	45	9	50	90	.....	.....	.....	.....
Cornwall, passing the Long Sault rapids.....	11 1-2	7	48	200	55	9	100	150	865,372	1,665,663	.....	.....
Beauharnois, do. Coteau, Cedars and Cascades road.....	11 1-4	9	82 1-2	200	45	9	80	120	1,190,087	275,426	.....	.....
Lachine, do. Lachine rapids.....	8 1-2	5	44 1-2	200	45	9	80	120	old canal. 1,001,333	400,000	29,288	.....
Elargement of do.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	64,439	.....	.....
Total from lake Erie to the sea.....	12	57	525	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chambly.....	66	9	74	120	24	6	36	60	200,000	440,000	1,409	.....

COAL COMPANIES.	Length in miles.	R. rd. Canals.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
				Gross.	Nett.		Gross.	Nett.			
Delaware and Hudson.....	16	108	2,800,000	930,203	196,702	10	.....	.....	.....	130	.....
Lehigh.....	20	72	6,000,000	.....	.....	.....	.....	.....	.....	31	.....

RAILROADS.		Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previous prices.	SALES.			
							Income.			Gross.	Nett.			Gross.	Nett.	Week ending	
							Gross.	Nett.		Last.	Sales						
Me.	1	Portland, Saco and Portsmouth.....	50	1,200,000					7	131,404	62,172	6	101½		100½		
N. H.	2	Concord.....	35	750,000								12	65				
Mass.	3	Boston and Maine.....	56	1,485,461			178,745	68,499	6	233,101	86,401	6½	111				
"	4	Boston and Maine extension.....	17 1-4	455,703	unfin.												
"	5	Boston and Lowell.....	26	1,863,746			277,315	144,000	8	316,909	147,615	8	118		117½		
"	6	Boston and Providence.....	41	1,886,135	none.	18,600	233,388	110,823	6	282,701	156,109	6	111				
"	7	Boston and Worcester.....	44	2,914,078			40,141	162,000	6	428,437	195,163	7½	116½		116½		
"	8	Berkshire.....	21	250,000	not stated			17,500	7	17,737							
"	9	Charlestown branch.....		280,260					13	34,654	13,971	5½	80				
"	10	Eastern.....	54	2,388,631			279,563	140,595	6	337,238	227,920	8	107½		107½		
"	11	Fitchburg.....	50	1,150,000	just op'n'd					42,759	26,835		119				
"	12	Nashua and Lowell.....	14 1-2	380,000			84,079		8	94,588	34,944	10	126				
"	13	New Bedford and Taunton.....	20	430,962			50,671	24,000	6	64,998	24,000	6	102				
"	14	Northampton and Springfield.....		1,283	unfin.												
"	15	Norwich and Worcester.....	66	2,290,000	900,000	16,535	162,336	24,871		230,674	99,464	3	67		69½		
"	16	Old Colony.....		87,820	unfin.								105				
"	17	Stoughton branch.....	4	63,075	unfin.												
"	18	Taunton branch.....	11	250,000				20,000	8	96,687	20,000	8	120				
"	19	Vermont and Massachusetts.....															
"	20	West Stockbridge.....	3	41,516	200							4					
"	21	Western, (117 miles in Mass.,).....	156	7,686,202	4,686,202	30,000	573,882	284,432		753,753	439,679	3	98½		97½		
"	22	Worcester branch to Milbury.....		8,431	506												
"	23	Housatonic, (10 months,).....	74	1,244,123						150,000			26		33		
Con	24	Hartford and New Haven.....	38	1,100,000	100,000	10,000	100					6	93				
"	25	Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100										
"	26	Stonington, (year ending 1st Sept.,).....	48	2,600,000	650,000	13,000	100	113,889		154,724	79,845		29		32		
N. Y.	27	Attica and Buffalo.....	31	336,211				45,896	7,522	73,248	48,033	0					
"	28	Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000	237,667	152,007	6	109		103		
"	29	Auburn and Syracuse.....	26	766,657			133½	86,291	27,334	96,738	52,544	6	116				
"	30	Buffalo and Niagara.....	22	200,000		1,500							100				
"	31	Erie, (446 miles,).....		5,000,000									27½		31½		
"	32	Erie, opened.....	53					48,000		126,020	59,075						
"	33	Harlem.....	26	2,250,000	750,000	30,000				140,685	62,399		61		62½		
"	34	Hudson and Berkshire.....	31	5,613			50			35,029	1,789	0	11½				
"	35	Long Island.....	96	1,610,221	392,340	29,846				153,456	58,996	0	61½		65½		
"	36	Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780	79,804	45,763	0	56½		57		
"	37	Saratoga and Schenectady.....	22	303,658				42,242	3,000	34,666	8,455	0					
"	38	Schenectady and Troy.....	20 1-2	640,800				28,043		32,646	6,365	0					
"	39	Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000	192,061	120,992	8	117				
"	40	Tonnawanda.....	43	727,332				76,227		111,177	75,865	5					
"	41	Troy and Greenbush.....	6	180,000									90				
"	42	Troy and Saratoga.....	25	475,801			44,325	21,000		38,502	9,971	2½					
"	43	Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	331,932	199,094	8	132				
N. J.	44	Camden and Amboy.....	61	3,200,000			682,832	383,880		784,191	404,956		112				
"	45	Elizabethtown and Somerville.....	26	500,000													
"	46	New Jersey.....	34	2,000,000									95½				
"	47	Paterson.....	16	500,000								6	88½				
Pa.	48	Beaver Meadow.....	26	1,000,000													
"	49	Cumberland Valley.....	46	1,250,000													
"	50	Harrisburg and Lancaster.....	36	860,000									30				
"	51	Hazleton branch.....	10	120,000													
"	52	Little Schuylkill.....	29	900,000													
"	53	Blossburg and Corning.....	40	600,000													
"	54	Mauch Chunk.....	9	100,000													
"	55	Minehill and Schuylkill Haven.....	19 1-2	396,117	25,000	7,019	50					12	80				
"	56	Norristown.....	20	800,000									6½				
"	57	Philadelphia and Trenton.....	30	400,000									104				
"	58	Pottsville and Danville.....	29 1-2	1,500,000													
"	59	Reading.....	94	9,457,570	7,447,570	40,200	50			597,613	343,511		25		24½		
"	60	Schuylkill valley.....	10	1,000,000													
"	61	Williamsport and Elmira.....	25	400,000			20,000										
"	62	Philadelphia and Baltimore.....	93	4,400,000			43,043	200,000		210,000			15½		15½		
Del.	63	Frenchtown.....	16	600,000													
Md.	64	Baltimore and Ohio, (1st Oct.).....	188	7,623,600			575,235	279,402		658,620	346,946		48½				
"	65	Baltimore and Susquehanna.....	58	3,000,000									2½				
"	66	Baltimore and Washington.....	38	1,800,000			177,227	71,691		212,129	104,529		84				
Va.	67	Greensville and Roanoke.....	18	284,433	37,544	2,000	100			25,368	6,074		28				
"	68	Petersburg.....	63	969,880	63,000	7,690	100			122,871	72,898	3	77				
"	69	Portsmouth and Roanoke.....	78 1-2	1,454,171													
"	70	Richmond, Fredericks'g and Potomac.....	76	800,000						185,243	85,658	6					
"	71	Richmond and Petersburg.....	22 1-2	700,000													
"	72	Winchester and Potomac.....	32	500,000													
N. C.	73	Raleigh and Gaston.....	84 1-2	1,360,000													
"	74	Wilmington and Raleigh.....	161	1,800,000													
S. C.	75	South Carolina.....	136	5,671,452		34,410	75	201,464	77,456	532,871	140,196	5					
"	76	Columbia.....	66							328,425	180,704						
Ga.	77	Central.....	190	3,000,000	500,000	22,500	100	227,532	93,190	248,096	147,523						
"	78	Georgia.....	147 1-2	2,650,000				248,026	158,207								
"	79	Montgomery and West Point.....	89	500,000	170,000		100			35,000	15,000						
Ky.	80	Lexington and Ohio.....	40	450,000													
Ohio	81	Little Miami.....	40	400,000													
"	82	Mad river.....	40	152,000													
Ind.	83	Madison and Indianapolis.....	56	212,000													
Can.	84	ChAMPLAIN and St. Lawrence.....	15					12,000		58,000	24,000		110				

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Thursday, October 23, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 18,463 tons, and by canal 3,459 04, making 21,912 04 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total.....	312,594
From Schuylkill Haven—total.....	318,781
From Port Clinton—total.....	17,004

Total by railroad.....648,380

BY CANAL.

From Pottsville and Port Carbon—total.....	126,093
From Schuylkill Haven—total tons.....	35,823
From Port Clinton.....	40,047

Total by canal.....201,965

Total by railroad and canal.....850,345

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.	
Summit mines, -	157,643
Room run do., -	58,896
Beaver Meadow railroad and coal co.,	66,510
From Penn Haven—Hazleton coal co.,	58,046
From Rock Port—Buck Mountain coal co.,	18,827

WYOMING COAL TRADE—total .....	360,922
PINE GROVE COAL TRADE—total.....	141,745
MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....	38,809
MOUNT CARBON RAILROAD—total tons.....	353,697
MILL CREEK RAILROAD—total.....	210,840
SCHUYLKILL VALLEY RAILROAD—total.....	65,797
[Miners' Journal.]	84,140

WESTERN RAILROAD.—Receipts for week ending Oct. 11th.

	1845.	1844.
Passengers.....	\$7,579	\$9,004
Freight, etc.....	10,340	8,833
Total.....	\$17,919	\$16,837

READING RAILROAD.—A comparative statement of the business of the Philadelphia and Reading railroad, for one week in Oct., in years 1843, 1844, and 1845:

Week ending Oct. 7, 1843..	\$12,408 95	Coal tons. 8,240 4
" " " 5, 1844..	17,572 31	13,098 17
" " " 4, 1845..	33,131 23	24,096 9

Norwich and Worcester Railroad.—The following is the amount of net profits sworn to by the directors, and verified by the commissioners for Massachusetts and for Connecticut:

	Receipts.	Expenses.	Profits.
1843 .....	162,335 93	129,774 95	32,560 97
1844 .....	230,674 05	131,179 70	99,494 35
1845, 5 mos 84,183 01	52,519 09	31,663 92	

Total.. 477,192 99 313,473 75 163,718 24  
 Out of this surplus has been paid according to the circular—

Two dividends ..	99,210	Two new engines	15,300
Norwich city loan	25,000	New wharf .....	3,600
Extension reserve	25,000	Damage to engine	2,000

Total .....\$170,110

Utica and Schenectady Railroad.—The receipts of this road for nine months ending October 1, during four years, are as follows:

1842 .....	\$226,862
1843 .....	212,252
1844 .....	235,666
1845 .....	275,754

Utica and Schenectady Railroad.—Statement of monthly receipts from passengers and special receipts in each year.

Months.	1842.	1843.	1844.	1845.
Jan'y...	11,601 36	10,264 43	8,610 89	11,977 42
Feb'y...	12,071 96	8,447 14	8,764 83	10,610 37
M'ch...	18,952 98	8,932 76	13,132 93	19,861 93
April ..	31,250 68	21,166 79	32,263 19	36,417 51
May ..	31,293 38	28,258 02	27,215 68	28,260 59
June ..	24,854 40	27,201 93	29,110 79	31,125 95
July...	28,187 12	32,298 49	35,774 89	42,011 92
August..	33,408 46	37,186 22	41,581 49	47,382 07
Sept ..	35,243 44	37,496 87	39,204 82	48,973 01
Oct ..	29,623 27	31,869 29	32,441 45	
Nov ..	25,927 46	22,638 96	23,814 59	
Dec ..	11,055 28	11,402 91	14,357 19	

\$293,471 79 276,163 81 306,278 75 275,750 77  
 Special 39,913 13 71,133 97 78,112 84

Total..333,384 92 343,297 78 384,391 59

Railroad Companies.

We recently addressed a circular to the different railroad companies in the United States, in which we offered to insert their standing advertisements, to occupy one-fourth of a column, and to send them two copies of the Journal, one by mail as published, and the other half bound at the close of the year, for twenty dollars. We have long felt the want of some publication, either weekly or monthly, in which may be found the advertisements of all the railroads and steamboats on the principal routes in the country—where a traveller in New York may ascertain at what time he can arrive at, and depart from, Boston, Portland, Montreal, Buffalo, Detroit, Cincinnati, Philadelphia, Baltimore, Washington, Richmond, Charleston, Savannah and other important points, in one paper and in convenient form. Such a publication we have thought would be exceeding convenient to the multitude of travellers in these days; and, with the view of furnishing such a publication, at an early day, either in, or in connection with, the Railroad Journal; we made this proposition to the railroad companies first, in the belief that they would cheerfully respond to it, as by doing so, they will contribute materially to the future prosperity of the Journal, and at the same time, it is believed, to their own interest, and to the convenience of many travellers.

We have already received authority from the following named companies, to insert their advertisements on the terms proposed, and we confidently anticipate similar orders from most, if not all of the other companies; as we have not yet had a single unfavorable reply. We therefore feel assured that where they can, at so little cost, promote their own interest, and render an important service to their passengers, and at the same time so materially contribute to the permanence and future prosperity of

this Journal, they will generally, and we hope universally send in their advertisements, and also the twenty dollars.

The Journal belongs to the cause—not to any individual or company—therefore we feel that we have a just claim after devoting to it so much time and effort, with so little return or benefit, during the past fourteen years—upon every railroad company, engineer and railroad shareholder in the country, for their best efforts to extend its circulation, as it is the only one of the kind in the Union, and was the first established any where, though there are now eight or ten in London, all liberally supported by ADVERTISING.

We desire to return our cordial thanks to the following companies for their prompt and favorable reply; and as cordially desire an opportunity to return thanks to every other company in the country for a similar favor.

Boston and Providence; Boston and Maine; Norwich and Worcester; New York and Erie; Baltimore and Ohio; Baltimore and Susquehanna; Richmond, Fredericksburg and Potomac; Central, Georgia and Lexington and Ohio.

Late Foreign News.

We have received, by the Hibernia, through Adams and Co.'s express, our regular files of London railway and mining journals to the latest dates, viz. Horvath's the Times and Record of the 1st, the Express of the 3d inst, and the Mining Journal of the 27th ult, and also Le Chemin de Fer Belge, from some unknown friend, who will please accept our thanks for his attention.

We have also a few lines from our respected friend in London, which will be very acceptable to those engaged in the manufacture of iron in this country, though not so acceptable to those interested in the construction of railroads. It is however entirely in accordance with our own views on the subject. Iron must advance. The demand will be greater than the supply unless large additional investments are immediately made in the manufacture; no greater restriction need be imposed upon the extension of railroads than will arise from the difficulty of obtaining iron.

The inducements for extending the system in England continue to increase in a manner almost incredible. The rapid increase of receipts on the different railways and especially on those which have reduced their rates, during the current year and consequently the great increase in the value of railway property, may be seen from the following statement.

Increased Value of Railways.—The improvement in the incomes of existing railways still continues, and during the last two months amount to upwards of £200,000 on comparison with the corresponding two months of 1844. The lines which have reduced their fares most liberally are the greatest gainers. At this rate of increase of income the value of the railway property of the country is becoming greater by upwards of £2,000,000 sterling per month.

Is it surprising, with such results from past investments, that the surplus capital seeks for similar returns? Not at all; and therefore we may anticipate an extension in railways in Great Britain until, as was well said by a looker on, "every town in the kingdom has its railway facilities." And even so will it be in this country, if our capitalists will now engage in the manufacture of iron to meet our own wants.

There never was a period so fortunate for invest-

ments in the business, as the demand abroad will, for some years, be equal, or nearly so, to the foreign supply; and the demand *here* will be greater than it has ever been and will continue to increase for years to come; prices must of course range high and afford large returns for capital and insure a stability in the business and an extension in the manufacture, which will astonish the most sanguine.

#### Railway Speculations in England.

There appears to be great apprehension in some quarters, that sad disasters are to follow the present railway rage, or *mania*, as it is termed; but we do not so apprehend. To us it appears only a desire of the many to invest their means—be they small or great—in that business which will yield them the best returns; and it fortunately so happens that the very best investment that can be made, is in a branch of business which gives constant employment, and good pay to thousands of their own people, increases the value of almost every kind of property—and is a source of great convenience and economy, both in *time* and money, to all who have occasion to travel; thus benefiting all by the expenditure, and keeping the money passing rapidly from hand to hand and still within the country. It is possible that a few speculators, those who have little to lose, may be thrown off the track, that however is of little consequence, when those who have money to invest, and those who have property to be enhanced in value, and those who have hands to labor are all—*all* benefited by the construction of railroads. There is little danger of a crisis in railway affairs so long as they are built with the surplus capital of the country, and pay a better rate of interest than most other kinds of investment.

#### Self-Acting Break.

An interesting and important experiment was made, says the London Railway Record, of 1st October, "on Monday last with Mr. Thornton's patent self-acting railway break, at the Hassock's station of the London and Brighton railway, before Gen. Pasley, Capt. Heaviside" and others. On the first experiment at the rate of 30 miles per hour, the carriage was detached from the engine, upon which the break dropped into gear, without any known agency to those in the carriage, and stopped the carriage in 30 yards, to the astonishment of all. The next experiment was made at 35 miles an hour and on the carriage being detached came to a rest in 35 yards. The third experiment was at the rate of 45 miles an hour and with the same success, on the breaks being permitted to act, the carriage came to a rest in 45 yards.

It was the opinion of those present that the experiments were entirely successful and satisfactory, and it is believed that it will be reported favorably upon by Gen. Pasley, to the board of trade.

#### Iron Trade.

"There has been," says the Mining Journal of 27th Sept., "a very brisk trade during the week in Glasgow pig iron, and the market continues animated with an upward tendency. Sales have been made at 85s. net cash, which is a rise on last quotations, at this price holders are firm, and few appear disposed to accept it. Contracts have been offered at 80s., and refused; holders asked 90s. per ton; the price generally may be quoted at 87s. 6d. net cash, though a few parcels may be picked up at 85s. From the reports of the iron masters throughout the north, there is very little doubt but that there will be a very great rise this season, not only in pig, but in every description of iron, as the demand daily increases."

(Foreign Correspondence, of the American Railroad Journal.)  
21 TOKEN HOUSE YARD. }  
London, October 3, 1845. }

Absence in Germany, has prevented me from writing to you for several weeks, and now I am so busy that I have but a moment to tell you that the price of iron has advanced with railway speed in the past three weeks, and there is every prospect of further advance, as the price is now the result of *bonafide* railway orders, not as before, in the spring, when speculators anticipating an immense consumption for railway purposes, bought recklessly, and not having capital enough to sustain themselves until the real consumptive demand should come round, as it has now, were compelled to sell at low prices and thus were ruined. It is useless to tell you, because you know as well as I do, the immense number of railways in progress, and of the immense consumption of iron for general purposes in a period of unexampled prosperity now prevailing, which cause a demand for iron that is really unheard of before in my long experience of the iron trade. The prices are as follows: Glasgow pigs 100s. per ton in the Clyde, merchant bars at Cardiff £9 per ton, and railway bars at Cardiff £12 per ton, and I have no doubt before another month goes round, that we may quote £1 per ton additional for each of these kinds. So that our American iron masters need fear no competition from this country; they may charge \$100 per ton for rails with the most perfect composition, and fear no rivalry from England. I strongly advise them to go into the manufacture of iron with great spirit and increased capital, not doubting that for years to come, high prices may be looked for, and an unlimited control of their own market may be expected for years. In the meantime high prices will diminish consumption, and the makers will be gradually found to lower prices, and I hope they will be more satisfied to do a large business at moderate prices than a small business at very high rates. The atmospheric principle is increasing in public favor in this country, and I hope from the developments on the Croydon railway and the south Devon railway, and other lines that will soon be in operation, that the sanguine expectations of its friends will be realized. You recollect our countryman Pinkus of Philadelphia, is the inventor of this beautiful and most philosophical plan of railway. He has been robbed of the reputation and profit of the invention, but I still hope justice will be done to him. Parties here are interesting themselves in his behalf, and I hope he will yet do well. In Germany, the railways are carried on slowly, compared with this country. The king of Hanover is making one of 92 miles, from Hanover to Hamburg, but he has been two years about it and will take two years more. In this country, it would have been made in twelve months; as there are no difficulties in the way. I hope to write again soon, and am now most truly yours.

G. RALSTON.

**Railroad Improvements in Georgia,**  
And a comparative statement of the cost of a voyage from Charleston to Liverpool, and from New Orleans to the same port.

The following well written article was first published in the Augusta, (Ga.) Constitutionalist. It has been since republished in several papers in the south. The writer is evidently a gentleman of ability, who thoroughly understands the subject; and is deeply interested in the success of the Georgia railroads. He shows clearly how by extending them into Tennessee, they may be made more useful to the people, and more profitable to the shareholders—and at the same time sources of great economy in

the shipping of produce from an Atlantic, over a gulf port.

We were aware that there must be a material difference in the expense of shipping cotton, and other produce from the southern Atlantic and the gulf ports; but had never seen a comparison of expenses. The difference as here made out, is much greater than we had supposed, and it must operate powerfully in favor of the Atlantic ports when proper facilities for reaching them from St. Louis, or even from Nashville, are completed. Even if the expenses were equal both ways, the difference in *time* and *climate* would be sufficient to insure to the Atlantic ports, with good railroad facilities, a large share of the business, which now goes to New Orleans from above the point at which the railroad shall touch the Mississippi, near the north of the Ohio, or at St. Louis.

There are many intelligent people who would be loth at this time to believe, and still more loth to admit even if they believed, that a railroad from the Mississippi at the mouth of the Ohio, or St. Louis to the Atlantic at Charleston or Savannah, could compete with that noble river, or at all interfere with the business of New Orleans—now a mighty city, but *still in embryo*—yet a well constructed single track railroad, between those two points, would find ample employment, and yield rich returns to its proprietors the first year after its completion; and in less than ten years from the opening of the road, a double track on one line only, would not be able to accommodate the business. There will, beyond all question in our minds, be at least three lines of railroad from the Mississippi river to the southern Atlantic ports, two of which if not all of them are sure to connect with the present railroads of Georgia.

There appears to us to have been, not only much enterprize, but exceedingly good judgment and great foresight evinced by the gentlemen of Georgia, who planned, and have thus far executed the railroads in that state. To strike those mighty rivers as *high up as possible*, was their true policy—as the country below must then open other avenues in self defence, or rather to be on an equal footing with those above them—whereas, had the lower route been first opened, it might have been a long time before this upper one would have been completed; but complete this and the others are sure to follow.

It is to be hoped that the legislature of Tennessee, now in session, will, at an early day, grant a liberal charter for a railroad from Nashville to Chattanooga, to connect there with the state, or Western and Atlantic road of Georgia, which will now be speedily completed, by which an easy and cheap avenue to market, will be opened to middle Tennessee; and new life given to every department of industry, and increased value given to every species of property within reach of its influences. There cannot be a doubt but that the completion of this road in three years would enhance the value of property in Tennessee to an amount at least three times its cost; and it is difficult to estimate, with any degree of accuracy, the advantages which would result to the people from its early construction. Lateral, or branch roads would be made—and in their train an improved agriculture, and the opening and working of the extensive mines, of that region would be sure to follow; thus giving new life to enterprize, increased profits to capital, and an immensely enhanced value to property of every description. If this matter is properly estimated by the legislature of Tennessee, there will be no delay in the passage of a charter, which will insure the early construction of the road.

### Railroad Improvements in Georgia

The railroad improvements of Georgia, heretofore but little noticed abroad, begin to excite attention in different parts of the Union. The rapid progress of these improvements recently, is creating an interest in the right direction, and we are encouraged with the hope, that Georgia will yet reap the honors, and realize the profits of one of the greatest improvements of the age! Dr. James Overton, of Nashville, lately made a very able speech in that city, which exhibits a thorough acquaintance with the whole subject, and shows in a very striking light, the important bearing of these improvements upon the interests of his own state, and those of the most populous and fertile portion of the great valley of the Mississippi! The object of this speech—which I am pleased to see extensively re-published—was to impress upon the people of Tennessee, the importance and expediency of building a railroad from Nashville to Chattanooga. And all intelligence recently received from that quarter, encourages the belief that the route is practicable, and that the road will be built.

These facts must have an important bearing upon the policy of continuing our state work. They give hopes that had not been previously entertained, to any extent, and if these hopes be strengthened by future demonstrations, the views of many of our citizens will doubtless undergo a change on this subject.

There has been much dissatisfaction with the present location of the road, and its contemplated terminus at Chattanooga. It has been thought by many, that the route by Gunter's Landing was preferable on many accounts. That it was shorter, cheaper, accommodated better the rich valley of the Coosa, as well as upper and north Alabama, and the valley of the Tennessee.—That it intersected that river below the most formidable obstructions,—would communicate laterally with Nashville, through Huntsville, by means of existing turnpikes, and above all, was in the most direct line to Memphis, the point first contemplated as the ultimate terminus of this great connecting line of improvement. These are brief hints at the reasons given for a preference to the Gunter's Landing route, but this is no longer an original question. The expense, the most formidable objection to the Chattanooga route, has mostly been incurred, and the lower route, as a state work, or even as a continuous railroad route, has been long since abandoned. No one has recently supposed, that the state, after such vast expenditures upon the upper route, would now reconsider the matter, and run a road to Gunter's Landing. I have seen no reason for the apprehension lately expressed by the friends of the present route, or any practical utility in their revival in the public prints, of an absolute issue. It was not believed from the last action of the legislature on the subject, that any further appropriation would shortly, if ever, be made, and no disposition was manifested in Tennessee, until recently, to continue the route, or even to furnish suitable boats for the nav-

igation of the river. In this state of affairs, the people of north Alabama—suffering for want of a communication with the south Atlantic ports, and with the southern and middle parts of their own state, agitated the subject of making a railroad from Gunter's Landing to the double springs on the Coosa river—and by steamboats on the Coosa, and a short road from Rome, thus connect with the state road sixty-five miles from its eastern terminus. It was known that this would have been rather an imperfect continuance of the line, but it would have been remarkably cheap—would have been a valuable feeder to the Georgia state road—would have answered a most valuable purpose to north Alabama and a part of west Tennessee; and for many other reasons would have been far better than no extension at all. It was therefore advocated and encouraged, by all the true friends of the Georgia state work, and the improvements connected with it.

This is the only "rival route" that I have recently heard advocated, and which appears to have given rise to such an effusion of ink, and waste of paper; unless the lower line were a continuous railroad line, the two routes would not very materially interfere with each other, supposing both to be put in operation.

The Alabama part of this improvement, I believe has been abandoned. The company depended much on a share of the 2 per cent. fund, which the state proposed only to loan to them, instead of making a subscription or donation, to the one or the other of which the company believed itself entitled. And again congress meanly refused, at the last session, to grant them the alternate section, (though of no value) or even to grant them the right of way over the public land, except upon conditions, both forbidding and insulting. The Georgia part of this contemplated line, I hope will be made by individual enterprize. It is very important to the Georgia state work and the improvements connected with it, to afford this facility to the rich valley of the Coosa.

The route to Chattanooga being the only continuous railroad route, extending the state road to the Tennessee river, the policy of an early extension will doubtless be agitated at the next session of the legislature. Few, I presume, will oppose the extension of the road to Cross Plains, at the expense of the state. And perhaps none will oppose its completion, if it can be done at the expense of others. The extension of the road to Cross Plains would add greatly to the profits of the road, and cost but a mere trifle. It would place the road nearer to the Hiwassee valley, and in fact to nearly all the most fertile and productive parts of east Tennessee. It would also give the full advantage of the road to nearly all the northwestern parts of our own state, and would not be very remote from some of the finest counties of middle Tennessee. It is clearly the interest, as well as the duty of the state, to continue the road to this point, with convenient despatch, and this will doubtless be done. It has been the opinion of many, however, that the state

should stop here, at least for the present, and await future developments on the score of profits.

If, however, there be a reasonable prospect of the extension of the road to Nashville, the whole aspect of the question would seem to be changed. In that case the road should certainly progress to completion, and, upon mere financial considerations, it should be finished by the state itself. It would become not only one of the most important in many senses, but also one of the most profitable roads in the Union. What a vast field of patronage would encircle the northwestern extremity of this road! Nashville, seated at the head of navigation on the Cumberland, and encircled by a country of inexhaustible fertility for a great extent around—offering a choice of markets to the exporter, and the quickest and shortest passage to the Atlantic, by many days, and many hundred miles—bringing her heavy groceries from the gulf, and her dry goods through the Atlantic ports, must become a great inland depot for both imports and exports, and speedily rise to the rank of one of the finest inland cities in the Union.

Such an inland city at the western terminus of the line, would powerfully aid the other unequalled advantages of the location. Nashville is situated nearly on a direct line between Augusta and St. Louis, and is consequently on the nearest route from that city to the ports of Savannah and Charleston.—This route would, therefore, not only draw into it a rich trade from east and west Tennessee, north Alabama, and the southern counties of Kentucky, but would also draw some trade from Ohio, central Kentucky, Missouri, and the southern part of Illinois. And being open at all seasons of the year, would at some seasons, when other channels are obstructed by ice or low water, draw a great deal of trade from the section last named. It would at all times draw a heavy travel, not only from all those sections of country, but from Arkansas, the upper part of Mississippi, and in fact from the whole range of country, between the Ozark and the Rocky mountains! None will doubt the great extent of the travel from these regions. A glance at the map settles that question. All know that expedition, cheapness, and certainty, will secure that; but some have doubted whether much trade could be drawn from countries bordering on the Mississippi and its tributaries, with their cheap steamboat navigation to the gulf. Such persons have not acquainted themselves with the great advantages of the Atlantic over the gulf ports. Those unaccustomed to details may draw some idea of these advantages from the well known fact, that many exports go to New York from Cincinnati, rather than to New Orleans. Instead of running down to New Orleans, without transshipment, and at the lowest freight perhaps in the world, on an inland line of the same length, we find them sometimes struggling up a low river to Portsmouth, then transhipped and carried more than three hundred miles on the canal to the lake, from there by steamboat to Buf-

falo, from there by canal to Albany, from there by steamboat to New York! These are generally very heavy articles of provisions, and we find them carried 12 or 1300 miles, partly over artificial improvements of immense cost, and undergoing four transshipments, in preference to going to a gulf port in less time without transshipment, and for a fraction of the freight charged upon the other route!

Strange as this may seem, merchants understand the matter perfectly well. As it may not, however, be so well understood by planters and farmers, I will, for their information, give a comparative statement of what would be the earnings of a ship from Liverpool, say of 700 tons, making a trip to a gulf and an Atlantic port, at the same rate of freight.

Comparative statement of what a ship of 700 tons will earn in a voyage from Liverpool to Charleston (an Atlantic port,) and to New Orleans (a gulf port.)

*Liverpool to Charleston, giving four months for the voyage.*

Interest four months on value of ship, say \$25,000, at six per cent.....	500 00
Sailing ship: being seamen's wages, etc., etc., \$1000 per month.....	4,000 00
Insurance on ship out and home, 1 1/2 per cent.....	447 50
Port charges, (wharfage, pilotage, etc.)	450 00
Storing 3 1/2 bales cotton to the ton, 2275 bales at 10 cents.....	227 50
Compressing same at 50 cents per bale, Commissions on freight, 2275 bales, averaging 380 each, 864,509 lbs., at 1/2 d. stg., \$8,645; at 2 1/2 per cent.....	1,137 50
Com. on disbursements in Charleston...	216 12
	45 37

Expenses of voyage, less charges in Liverpool.....	\$7,023 99
Cargo, 2275 bales, weighing 380 each, at 1/2 d. stg., freight, and 5 per cent. primage	9,077 00

Net profits of Charleston voyage..... \$2,043 01

*Same ship on a voyage to New Orleans.*

Interest for five months on value of ship, \$25,000, at six per cent.....	625 00
One month extra wear and tear of ship, (usual estimate) 1/2 per cent.....	187 50
Five months sailing of ship, \$1,000 per month.....	5,000 00
Insurance from and back to Liverpool, 2 1/2 per cent.....	637 50
Port charges (pilotage, marketing, etc.)	600 00
Towing in from and out to Balize, \$425, and \$212 50.....	675 50
Storing 2275 bales cotton at 30 cents.....	682 50
Compressing same, at 50 cents each.....	1,137 50
Commissions on freight, 2275 bales 440 each, at 1/2 d. stg., \$9,191 at 5 per cent..	459 55
Com. on disbursements, \$3,517 05, at 5 per cent.....	185 85

Charges at New Orleans.....	\$10,202 90
Freight \$9,191, and 5 per cent. primage.	9,650 00

Loss..... 552 90

Here we see that the same ship that would make a profit of \$2,043 01 on a voyage to Charleston, at the same rate of freight, make a loss of \$552 90 on a voyage to New Orleans. And this, notwithstanding a cargo of cotton affords a comparison more favorable to New Orleans than perhaps any other.—The heavy square bales of that port giving an advantage in weight of cargo, as may be seen, equal to \$546. The consequence is, that freight must be necessarily higher, and

of course produce of the same quality, lower in the gulf than in the Atlantic ports.

These are obvious disadvantages, which can be accounted for by figures, and facts known and tangible. Say,

1. Difference of interest from increased length of voyage.
2. Difference in sailing ship for same reason.
3. Heavy difference in insurance for the dangers of passing the straits and keys of Florida.
4. Enormous charge for towing to and from the Balize.
5. Difference port charges.
6. Difference in charges for storing, commissions, etc., etc.

But there are other advantages in the Atlantic ports, still more important but not so easily estimated.

An intelligent correspondent doing business in New Orleans, speaking on this subject says: "The saving of interest, freight, insurance, towage, landing charges, etc., etc., are not the only advantages of an Atlantic port, but being so much nearer the great consuming markets of the world, the demand is always more active, and presents many advantages to the merchant, as he can promptly avail himself of any late intelligence, and actually have his shipment nearly to Europe, before the New Orleans shipper will have passed the Balize! This is much felt, and duly appreciated by the merchants of New Orleans," etc. It will readily be perceived that the advantages above enumerated do not apply to cotton alone, but equally to all other products, and apply still stronger, to provisions, a principal product of the west. The same correspondent adds—"and again: the tedious passage of the Gulf in summer, is very prejudicial to the shipment of grain and provisions. After the month of May, it may be safely assumed, that 50 per cent. of the flour and corn exported becomes sour and heated," etc.

In the language of an intelligent merchant of Huntsville, "no one can estimate the disadvantages of the gulf ports, but those who have been confined to them."

Look for instance, at the charges upon a planter of north Alabama, above the shoals: He usually pays freight per 100 lbs..... 62 1/2  
Insurance..... 1 1/2 p. c.  
The returns are so slow and uncertain that the custom is to draw at 6 months,—loss of interest..... 4 p. c.  
Commissions for accepting..... 2 1/2 p. c.  
Commissions for selling..... 2 1/2 p. c.  
Landing charges, per bale..... 40 cts.

Apply these charges to an actual shipment, add storage, mending, etc., and take off a loss of 1/2 a 1/2 per cent. per lb. in the price for the disadvantage of a gulf port, then run out the account to a net balance, and really it would seem, that our "land locked" neighbor can have, at the present low prices, but very little left. Had he the advantage of a railroad connecting with the Atlantic, he could go with his cotton to market, sell his own cotton if he preferred to do so—avoid many other of the exorbitant charges before enumerated—get the increased price of an Atlantic port—purchase his supplies, and return home in a few days. Is it at all strange, that our north Alabama friends are feeling a deep interest in the progress of our improvements?

Speaking of the disadvantages under which north Alabama labors, a correspondent says: "What holds good as to cotton from north Alabama, holds good as to other produce, and from numerous other points. Let us consider for a moment what would be the result to all the country within one hundred miles of a railroad from Augusta to Nashville, Tennessee," etc. My friend runs out these consequences with much judgement and ability, but as they will be made obvious from what has been said, I need not extend this article by repeating them. In fact I have extended this communication much longer than I intended. My object is only to introduce the subject and press it upon the inquiring intelligence of the country. I hope it may be taken up by abler hands. Some of our intelligent merchants could do more justice to it.—I have to derive many of my facts from them, and claim no other merit in using them, than that of an endeavor to give them a proper application, and urge the importance of the conclusions to which they lead. I am indebted for many important details to a friend doing business in New Orleans, who formerly did business in Charleston, and who is, therefore, practically qualified to speak upon the comparative advantages of the gulf and Atlantic ports.

This is a subject of deep interest to the south and west, and big with consequences to the social and commercial relations of these sections of the Union. Should this contemplated road be built to Nashville, we are on the eve of a great commercial revolution, too little thought of by the great mass of our people.\* Without it even, we may soon look for a vast accession to our trade. On this day, I am informed, that the Georgia railroad will unite with the State road, 173 miles from Augusta. In a few weeks, the State road will be finished beyond the Hightower, and in a few weeks more, it will reach the Oostenaula river near New Echota, and within about 40 miles of the Tennessee line. The rich vallies of east Tennessee will then pour down their surplus products to the head of the road, and must hereafter, derive their principal supplies from the South Atlantic cities. I am glad to hear that our merchants are preparing for this enlarged trade from the west.

Augusta possesses unequalled advantages as a depot, for every description of export.—The same advantages which have recommended Augusta so strongly to the planter as a cotton market, will apply equally to every other product intended for a foreign market.

\* One of the largest property holders in New Orleans, it is well known there, sold out a very large amount of property the past year. A friend, who was in New Orleans last winter, informed me that he asked him his reasons. He answered, that the extension of northern improvements, particularly the Boston and Albany railroad, had already taken much trade from the upper tributaries of the Mississippi—that others were progressing—and, if the Georgia line should be extended to Nashville, (which he thought highly probable,) it would tap the valley, at its very heart, and the advantages of the Atlantic over the gulf ports were so great that he did not know what the consequences might be to New Orleans. He was certain, at any rate, that it must powerfully check the growth of the city.



A sound currency, and abundant capital, insures fair competition and full prices, if he wishes to hold, he can do so at a very low rate of storage, and in fire proof ware-houses, equal to any in the Union. By holding at Augusta, he has the advantage of a constant choice of seaports; and can, at the shortest notice, avail himself of the temporary advantages of either. No location could possibly offer more advantages as a depot for export than Augusta, and certainly no part of our population should have more cause than its merchants, to rejoice at the extension of our improvements, which must so rapidly increase not only the quantity, but the variety of its exports.

ATLANTIC.

**Chesapeake and Ohio Canal.**

We copy the following statement, originally published in the Albany Evening Journal, from the National Intelligencer—as we are not favored with an exchange with the Journal—for the purpose of congratulating the numerous friends of the canal upon the prospect of a speedy completion of that work to Cumberland; where they anticipate from the coal and iron mines of that region, ample and remunerating business.

We are gratified by the prospect of another noble avenue being soon in use for the transaction of business between the vast mineral region of the Alleghenies and the large cities of the Union, as we are fully of the opinion that the increasing population and the rapid development of our agricultural and manufacturing resources will at an early day require all that the people will be disposed to construct. The resources of this country are beyond computation; and but one in a thousand justly appreciates the energy and enterprize of our people, hence it is, many suppose that our improvements are going ahead of our necessities. It will, however, soon be discovered that there will be ample business, at remunerating prices, for all, if their managers will adopt that system which shall give to the people the greatest accommodation at the lowest possible rates. These rates are to be arrived at by experiments guided by sound discretion and careful management and not by the efforts of rival companies to ruin each other.

We hold that no class of people are better entitled to liberal returns upon their investment than those who invest in railroads and canals, for the reason that their profits are always delayed and oftentimes uncertain, while the thousands, who run no risk, are almost invariably benefited, therefore the rates charged for the use of such works should always be such as will insure fair returns, yet such as will at the same time induce the greatest possible amount of business.

This canal has a powerful rival already in the field, with harness fairly on, and branches reaching into the very bowels of the mines, and will have all its arrangements made to meet—and successfully too—any competition that may be brought against it; we hope therefore, that wise counsels will govern in the directions of these two companies, and that both will be so managed as to give to the proprietors and also to the people and the business operations of the community the greatest possible benefit.

“The Chesapeake and Ohio canal, as will be seen by the following letter from a friend, is to be forthwith completed. From our knowledge of the gentlemen who have undertaken this work, we have no hesitation in

commending the attention of contractors to their letting.

New York, October 9, 1845.

Dear Sir: Pursuing our recent conversation in relation to the contract lately entered into by myself and others, constituting the firm of Gwynn and Co., with the Chesapeake and Ohio canal company, for the unfinished work of the canal, I have to state that our contract amounts to \$1,625,000, including some collateral stipulations.

The work extends over a distance of fifty miles, commencing at dam No. 6, a few miles above Hancock, and ending at the town of Cumberland, in which distance work has already been executed equal to 31 7-10 miles, leaving to be done that which is equal to 18 3-10 miles.

The amount of cost will serve to give you an idea of the heaviness of the work to be done, and I will only state on this point that it embraces the completion of a tunnel, (the arching of which will require 5,000,000 of bricks) dams, locks, aqueducts and culverts, besides a considerable amount of heavy excavation.

The contractors contemplate sub-letting the greater part of this work, and are now prepared to exhibit this part to bidders, and receive applications for it. One or more of the contractors will remain on the line for this purpose until after the 20th instant, when sub-contracts will probably be entered into, so far as the bids are found to be satisfactory. Any of your friends that may be disposed to examine the work will be cordially welcomed and kindly treated, and I trust their visits may prove of mutual advantage. The contractors are already prepared with money sufficient to fulfil all sub-contracts they may enter into.

It may not be amiss for me to state that those disposed to examine the work to be done can be conveyed on the Baltimore and Ohio railroad either to Hancock or Cumberland, as they may prefer, and at either place may readily find horses to convey them along the line of work, and be directed either to the contractors or engineers of the company in charge of the line.

The work must be commenced by the contractors during this month, and is to be completed within two years.

**Railway Gossip.**

The London Railway Chronicle has the following among much other gossip.

Iron foundries are said to be about to be established at Boulogne, to be worked by coals imported from Wales.

Circulars have been issued in the iron trade announcing that further orders could not be received unless at an advance of 1l. per ton. One circular intimated an advance of 10s. per ton on nail rods. An advance on pig iron of from 5s. to 10s. per ton has also taken place.

We have already mentioned that a central station is projected to be erected in Birmingham. The proposition seems to meet with the concurrence of the street commissioners, who have met to deliberate thereon. The inhabitants themselves welcome the project

warmly. Their experience of railways has taught them to appreciate their value. The Birmingham Advertiser says:—“Should the present contemplated great railway lines through the town be successful, what living man can calculate the beneficial results—the immense importance to the trading interests—and the rapid increase of the property, not only in Birmingham, but throughout the midland districts? Dudley, Tipton, Wednesbury, Bilston, Stourbridge, Westbromwich, and Walsall will be only a ten minutes ride from the centre of the midland metropolis—less time than it takes our merchants and manufacturers who reside at Edgbaston, Highgate, Smallheath, etc., to walk to their dinners.”

The highest rise which has yet taken place in any shares is instanced by those of the Wakefield, Pontefract and Goole. Shares on which £2 10s. have been paid last week brought £60, or 2,400 per cent.

During the Eccles race week the passengers carried between Manchester and Patricroft exceeded 40,000. As many as six trains in the hour started during certain periods of the day. Before the reduction of fares, these races hardly made any sensible difference in the usual traffic receipts.

Steam Carriages on the Prairies.—The following paragraph from the Sangamo (Ill.) Journal announces another prospective innovation upon the ancient manners and customs of the prairies. We wonder what the prairie wolves will say to such company? We shall doubtless hear from them when this machine is in full operation.

The Sangamo Journal states that Gen. Semple, one of the senators in congress from Illinois, is about to perfect an experiment which he has been laboring at for several years. He proposes to run locomotives on ordinary level roads. He has already surveyed and marked out a natural level route from Springfield to Alton, and expects very shortly to run a locomotive between the two places. To attain this level, he has been compelled to make a circuit of twenty or thirty miles, but this will be a matter of little importance, if success should otherwise crown his efforts.

Railroad from Woonsocket to Dedham, Mass.—A meeting is called at Dedham next Friday, to take measures for the construction of a railroad from Woonsocket, through Norfolk county, to Dedham.

Railroad from Lexington to Maysville, Ky.—We see from the Maysville and Lexington papers, that active preparations are being made to obtain a charter for a railroad from Maysville to Lexington at the approaching session of the legislature.

Wilton Railroad.—The managers of this road are progressing with their subscription; something more than one-half of the requisite amount of stock is already taken up, on or near the line of the road, for commencing the first division as far as East Wilton, which will probably be completed in the course of 1846. The remainder of the route is considered practicable and feasible to Marlow and on to Connecticut river. It is at least 13½ miles nearer to Boston from Burlington than either of the other routes.—Amherst (N. H.) Cabinet.

The Susquehanna Democrat states that the differences between the Delaware and Hudson canal company and the New York and Erie railroad company have been fully and fairly adjusted—and all opposition to the railroad passing through Pike and Wayne counties will be withdrawn; all the protection to the works of the canal company claimed by them have been acceded to by the railroad co.

Bridge over the Niagara River.—A writer in the Rochester Advertiser was led to make the following estimate of the cost of a stone bridge across the

agara river at a point below the falls, where it is only 332 feet wide. The writers calculations are made for a bridge of a single stone arch, and the practicability of the scheme is not at all doubted. Supposing, says the writer, the bridge to be 350 feet long and 39 feet wide, there would be room for a railroad track, a carriage way, and side walk for foot passengers. It is estimated to cost as follows:—  
 Excavation in the bank for foundation.... \$5,000  
 Plank centre 440 feet long, 30 feet wide, 8 feet thick, 1,300,000 ft. plank \$7..... 9,000  
 Expenses and putting up of centre..... 10,000  
 Stone masonry, 22,000 cubic yds. \$4..... 88,000  
 Contingencies..... 8,000  
 Total.....\$120,000

It is supposed that an iron suspension bridge could be constructed at a less rate, but the objection would be that the public would not have perfect confidence in its safety, at least so the writer thinks.

The Regent's canal, London, has been purchased by a new railway company, for upwards of 100,000. The new railway will run through the heart of London, and connect the Great Western, London, and Birmingham, and Eastern Counties railways.

Improved Locomotive.—A new engine, called the Concor, has lately been constructed for the Liverpool and Manchester railway company, by their su-

perintendent engineer, Mr. Durance. The improvements consist in having a double firebox, the combustible gases being consumed in the second, which would otherwise escape in an unconsumed state.—By this means a considerable increase of heating power is obtained, and consequently an increased speed. We understand that the fuel used is coal, instead of coke.

The auxiliary screw steamer Massachusetts, which sailed from New York on the 15th of Sept., reached Liverpool on the 3d inst., after a voyage of seventeen days and a half, allowing for the difference of longitude between Liverpool and New York. The following remarks upon her voyage are from a passenger:

"We have had a succession of variable winds, short intervals of calms, and a great deal of cloudy, rainy, and foggy weather. We also have had a considerable proportion of head winds, not very fresh, and have never furled our topgallant sails but once on account of the strength of the wind—we have never reefed topsails. The motive power of the ship has been in use alone, or aided by the canvas, ten days, twenty-one hours, and has performed its duty excellently well. The new rig works to a charm; and all who have witnessed the combined efforts of the steam and sails, are perfectly satisfied of the value of the former as an auxiliary to a good modelled sailing packet."

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Our extensions to obtain and publish authentic information on all topics proper for the columns of a newspaper,—the state of trade, the prices of merchandise, the current news of the day, and the political movements in the various sections of the country—will not be abated. The marine department of the Courier has been inferior to none in copiousness or accuracy of detail, and it will be our endeavor to maintain its reputation in this respect.

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 EBEN B. FOSTER.

**TRAVELLERS' RAILROAD AND STEAM NAVIGATION GUIDE, ON THE CONTINENT.**

**List of Railroads Now Open on the Continent, and the Fares.**

The Fares are in the Coins of each Country, and reduced into English Currency: th. thalers and silbergros; g. guilders, kreutzers and cents; fr. francs and centimes.

FROM	MILES	DESTINATION.	FIRST CLASS.		SECOND CLASS.	
			s.	d.	s.	d.
Aix-la-Chapelle	43	Cologne.....th.	2	6 0	1 15	4 6
Amsterdam	25	Utrecht.....g.	1 80	3 0	1 40	2 4
Amsterdam	..	Arnhem.....	..	..	..	..
Antwerp	28	Brussels.....fr.	3 25	2 7	2 50	2 0
Antwerp	150	Cologne.....fr.	21	16 10	16	12 10
Antwerp	96	Lille.....	..	..	..	..
Antwerp	107	Aix-la-Chapelle.fr.	13 50	10 10	10 50	8 5
Augsburg	39	Munich.....g.	3	6 0	2 12	4 5
Basel	86	Strasbourg.....fr.	13 95	11 2	10 60	8 6
Berlin	200	Dresden.....	..	..	..	..
Berlin	53	Frankfort on O.th.	2 10	7 0	1 15	4 6
Berlin	140	Leipzig.....th.	5 15	16 6	3 20	11 0
Berlin	128	Magdeburg.....th.	4 20	14 0	3 5	9 6
Berlin	18	Potsdam.....th.	.. 20	2 0	.. 15	1 6
Berlin	90	Stettin.....	..	..	..	..
Bonn	16	Cologne.....th.	.. 15	1 6	.. 10	1 0
Breslau	53	Oppeln.....th.	2 16	7 8	1 18	4 10
Brunswick	44	Hanover.....th.	.. 20	2 0	.. 18	1 10
Brussels	142	Cologne.....fr.	20 50	16 5	15 50	12 5
Brussels	59	Valenciennes..fr.	6	4 10	4 75	3 10
Budweis	64	Lintz.....g.	3	5 0	2	3 4
Carlsruhe	21	Baden.....g.	1 30	2 6	1	1 8
Carlsruhe	48	Offenbourg.....g.	3 18	5 6	2 12	3 8
Dresden	60	Leipzig.....th.	2 8	6 10	1 8	3 10
Dresden	134	Magdeburg.....	..	..	..	..
Dusseldorf	18	Elberfeld.....th.	.. 25	2 6	.. 18	1 10
Frankfort O.M.	21	Mainz.....g.	2 6	3 6	1 27	2 5
Frankfort O.M.	26	Wiesbaden.....g.	2 42	4 6	1 48	3 0
Hague	47	Amsterdam.....g.	3 65	6 1	2 45	4 1
Hiedelberg	14	Mannheim.....g.	.. 51	1 5	.. 30	0 10
Leipzig	33	Altenburg.....th.	1 12	4 3	.. 26	2 8
Mannheim	73	Baden.....g.	5 6	8 7	3 30	5 10
Mannheim	52	Carlsruhe.....g.	3 18	5 6	2 12	3 8
Mannheim	93	Kehl.....g.	6 45	11 3	4 30	7 6
Mannheim	100	Offenbourg.....g.	6 33	10 11	4 24	7 4
Ostend	92	Antwerp.....fr.	9 25	7 5	7	5 7
Ostend	89	Brussels.....fr.	9 25	7 5	7	5 7
Ostend	169	Aix-la-Chapelle.fr.	19 50	15 7	15 25	12 2
Ostend	212	Cologne.....fr.	27	21 7	20 75	16 7
Paris	18	Corbeil.....fr.	3	2 5	2 40	1 11
Paris	75	Orleans.....fr.	15	12 0	12 60	10 1
Paris	84	Rouen.....fr.	16	12 10	13	10 6
Paris	5	St. Cloud.....fr.	.. 80	0 8	.. 60	0 6
Paris	12	St. Germain.....fr.	2	1 7	1 50	1 3
Paris	12	Versailles.....fr.	2	1 7	1 50	1 3
Rouen	84	Paris.....fr.	16	12 10	13	10 6
Vienna	40	Glognitz.....g.	3 29	6 8	2 30	5 0
Vienna	120	Gratz.....	..	..	..	..
Vienna	132	Ollmutz.....g.	11 12	23 5	7	14 0

An Alphabetical list of the Distances, in English miles, of the Principal Towns from London, to which are added, those between some of the Continental Towns.

Abbeville.....	190	Frankfort O.M.....	544	Moscow.....	1396
Aix-la-Chapelle....	330	Frieburg.....	739	Naples.....	1450
Amsterdam.....	248	Gand.....	177	Neurenburg, from	
Arnhem.....	270	Geneva.....	1080	Frankfort O.M....	126
Baden-Baden.....	650	Gratz, fm. Vienna...	120	Neurenbg, f. Leipzig	159
Basel.....	780	Hague.....	212	Offenbourg.....	698
Berlin.....	644	Havre, by Brighton.	137	Prague, fm. Vienna.	196
Berlin fm. Hamburg	175	" by Southampton	198	Prague, fm. Frank-	
Bern.....	830	Heidelberg.....	589	fort O.M.....	299
Bieberich.....	510	Kehl.....	684	Prague, fm. Dresden.	94
Bonn.....	420	Leghorn.....	1240	Paris, by Brighton..	241
Bordeaux, fm. Paris.	346	Leipzig, fm. Frank-		Paris, by Southamp.	340
Breslau, fm. Berlin..	202	fort O.M.....	210	Rome.....	1380
Breslau, fm. Dresden	154	Liege.....	300	Rouen, by Southamp.	256
Brussels.....	250	Lyons, fm. Paris....	290	Stuttgart.....	678
Carlsruhe.....	625	Mainz.....	517	Schaffhausen.....	790
Caub.....	485	Mannheim.....	571	St. Petersburg, f. Berlin.	1069
Coblentz.....	458	Milan.....	942	Strasbourg, fm. Paris	285
Cologne.....	400	Milan, fm. Venice..	200	Trieste, fm. Venice..	319
Constance.....	820	Magdeburg f. Hambg.	157	Utrecht.....	230
Dijon, fm. Paris....	318	Magdeburg f. Leipzig.	74	Vienna, from Frank-	
Dresden, fm. Prague.	94	Magdebg. f. Dresden.	134	fort O.M.....	437
Dusseldorf.....	368	Marseilles, fm. Paris	500	Vienna fm. Trieste..	319
Elberfeld.....	388	Munich, fm. Frank-		Venice, fm. Milan..	203
Emmerich.....	300	fort, O.M.....	214	Wiesbaden.....	520
Florence.....	1160	Munich, fm. Vienna.	276	Zurich.....	830

The direct Fares from London are at the following reduced rates.

From LONDON.	Via ROTTERDAM.		Via ANTWERP & from COLOGNE.		Via OSTEND and from COLOGNE.	
	Out, or Single Journey.		Out, or Single Journey, Exclusive of Railroad Fares.			
	Chief cabin	Fore cabin	Chief cabin	Fore cabin	Chief cabin	Fore cabin
Dusseldorf	£ 2 16 6	£ 1 18 11	£ ..	£ ..	£ ..	£ ..
Cologne...	2 18 6	1 19 10	..	..	..	..
Bonn.....	2 19 9	2 0 6	£ 2 3 3	£ 1 13 3	£ 1 11 5	£ 1 5 8
Neuweid...	3 3 11	2 2 4	£ 2 8 1	£ 1 15 2	£ 1 16 2	£ 1 7 6
Coblentz...	3 4 11	2 2 10	£ 2 9 0	£ 1 15 6	£ 1 17 0	£ 1 8 0
Bingen...	3 10 1	2 5 2	£ 2 13 9	£ 1 17 9	£ 2 1 9	£ 1 10 3
Bieberich...	3 11 1	2 5 9	£ 2 15 3	£ 1 18 5	£ 2 3 2	£ 1 10 11
Wiesbaden...	3 11 9	2 6 4	£ 2 16 0	£ 1 19 0	£ 2 3 9	£ 1 11 6
Mayence...	3 11 4	2 5 10	£ 2 15 5	£ 1 18 6	£ 2 3 5	£ 1 11 0
Mannheim...	3 15 6	2 8 8	£ 2 19 6	£ 2 1 4	£ 2 7 6	£ 1 13 10

Children under 10 years of age, half price; for dogs, half the price of fore cabin is charged; on carriages, and horses booked in London direct for the Rhine, a considerable reduction is also made

**Agents-General Steam Navigation Company.**

Rotterdam, W. Smith, and Mr. P. A. Van Es.	Brussels, W. Middleton.
Cologne, J. Simonis.	Paris, F. Spiers.
Aix-la-Chapelle, J. A. Mayer.	Havre, P. Albrecht.
Spa, Dommartin.	Rouen, Company's Office.
Antwerp, C. Brequigny.	Dieppe, D. L. Chapman.
Ostend, St. Amour.	Boulogne, W. Hughes, Dellatre.
Gand, I. Van Aken.	Calais, A. Spiers.
	Hamburg, G. Delaval.

**BOSTON AND MAINE RAILROAD.**

Upper Route. Boston to Portland via, Charlestown, Somerville, Malden,

Stoneham, South Reading, Reading, Wilmington, Ballardvale, Andover, North Andover, Bradford, Haverhill, Atkinson, Plaistow, Newtown, Kingston, East Kingston, Exeter, South Newmarket, Newmarket, Durham, Madbury, Dover, Somersworth, South Berwick, North Berwick, Wells, Kennebunk, Saco and Scarborough.

Winter Arrangement, 1845 & 6. On and after Monday, October 20th, 1845, Passenger Trains will run daily, (Sundays excepted), as follows, viz.

Leave Boston for Portland at 7 $\frac{1}{2}$  a.m. and 2 $\frac{1}{2}$  p.m. Leave Boston for Great Falls at 7 $\frac{1}{2}$  a.m., 2 $\frac{1}{2}$  p.m. and 3 $\frac{1}{2}$  p.m. Leave Boston for Haverhill at 7 $\frac{1}{2}$  a.m., 2 $\frac{1}{2}$ , 3 $\frac{1}{2}$  and 5 p.m. Leave Portland for Boston at 7 $\frac{1}{2}$  a.m., and 3 p.m. Leave Great Falls for Boston at 6 $\frac{1}{2}$  a.m., 9 $\frac{1}{2}$  a.m. and 4 $\frac{1}{2}$  p.m. Leave Haverhill for Boston at 6 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , and 11 a.m., and 6 $\frac{1}{2}$  p.m.

Special Train.—A special train will leave Boston for Andover at 11 $\frac{1}{2}$  a.m., and Andover for Boston at 3 $\frac{1}{2}$  p.m.

The Depot in Boston is on Haymarket Square. Passengers are not allowed to carry Baggage above \$50 in value, and that *personal* Baggage, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every \$500 additional value. **CHAS. MINOT,**  
October 20, 1845. 43 1y *Sup't.*

**SPRING STEEL FOR LOCOMOTIVES,**

Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 $\frac{1}{4}$  to 6 inches in width, and of any thickness required; large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

**JOAN F. WINSLOW, Agent,**  
j5a3 Albany Iron and Nail Works, Troy, N. Y.

**IRON MANUFACTURERS. THE**

Subscribers, as Agents of Mr. Geo. Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late R. v. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

**A. & G. RALSTON & CO.,**  
ja45 No. 4 Sout Front st., Philadelphia, Pa.

**MACHINE WORKS OF ROGERS,**

Ketchum & Grosvenor, Paterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.  
Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

**ROGERS, KETCHUM & GROSVENOR,**  
a45 Paterson, N. J., or 60 Wall street, N. York.

**FOR SALE AT A SACRIFICE—A LOCOMOTIVE**

Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine. 2 8-horse " " " "

1 Upright Hydraulic Press.  
All of which will be sold low, on application to  
**T. W. & R. C. SMITH,**  
Founders and Machinists,  
May 12th Alexandria, D. C.

**NICOLL'S PATENT SAFETY SWITCH**

for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.  
**G. A. NICOLLS,**  
ja45 Reading, Pa.

**GEORGE VAIL & CO., SPEEDWELL IRON**

Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 $\frac{1}{2}$  in. to 2 $\frac{1}{2}$  in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptio n.s.t  
ja45ly

**TO RAILROAD COMPANIES AND MANUFACTURERS**

of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tirs for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

**THOMAS & EDMUND GEORGE,**  
ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**FROM NEW YORK.**

*New York and Harlem Railroad Company.*

Leave City Hall for Yorkville, Harlem and Morrisania at 5.30, 7, 8, 9, 10, a.m.; 1, 2, 3, 3.30, 4, 5, 5.30, 6, p.m. For Fordham and Williams' Bridge at 5.30, 7, 10, a.m.; 2, 3.30, 5, 6, p.m. For White Plains at 7 and 10 a.m.; 2 and 5 p.m. Leave Morrisania and Harlem for City Hall at 6.20, 8, 9, 10, 11, a.m.; 2, 3, 4, 2, 5.20, 6, 6.30, 7.45 p.m. Williams' Bridge for City Hall at 7, 7.40, 10.40 a.m.; 2.40, 5, 5.40, 7.20 p.m. White Plains for City Hall at 7.10 and 40.10 a.m.; 2.10 and 5.10 p.m. 31

*Evening, or 6 o'clock Line.*—Line steamboats for Albany—Daily, Sundays excepted.—Through direct at 7 o'clock P.M. from pier between Courtlandt and Liberty streets.—Steamboat Rochester, Capt. R. G. Critenden, will leave on Monday, Wednesday, and Friday. Steamboat Knickerbocker, Captain A. Houghton, will leave on Tuesday, Thursday, and Saturday. 31

For Albany and Troy, direct, at 6 o'clock, P.M. from the steamboat pier, foot of Courtlandt street. The Empire, Capt. R. B. Macy, Tuesday, Thursday and Saturday. The Columbia, Capt. Wm. H. Peck, Monday, Wednesday, and Friday. 31

**NORWICH AND WORCESTER RAILROAD.**

On and after May 22, 1845, Trains will leave as follows, viz:—

Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4 $\frac{1}{2}$  p.m. Leave Worcester, at 10 a.m., and 4 $\frac{1}{2}$  p.m.

The morning train from Norwich, and the morning and evening trains from Worcester, connect with the Boston, Western, and Hartford and Springfield railroads.

New York Train, via Steamboat. Leaves Norwich for Worcester and Boston, every morning except Monday, upon the arrival of the boat from New York, about 2 a.m. Leaves Worcester for Norwich and New York, at 5 $\frac{1}{2}$  p.m., daily, except Sunday.

New York Train, via Long Island Railroad.—Leaves Norwich about 3 p.m., for Worcester and Boston, daily, except Sunday. Leaves Worcester for Norwich and New York, at 7 $\frac{1}{2}$  a.m., daily, except Sunday, and arrives in Norwich at 9 $\frac{1}{2}$ .

Freight Trains. Daily, except Sunday. Fares are less when paid for Tickets, than when paid in the cars.

**EMERSON FOOTE,**  
32 1y Superintendent.

**LAWRENCE'S ROSENDALE HYDRAULIC CEMENT.**

This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floods and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by **JOHN W. LAWRENCE,**  
142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 32 1y

**SUMMER ARRANGEMENT—FARE REDUCED.**

By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

*Direct to New Orleans,* and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great *Southern Mail Line,* and the only one that issues a *through ticket South.* Those who patronize it will save their money and time. *Through Tickets* from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

*Fast Mail Line.*—Leave New York at 9 a.m. and arrive in Philadelphia at 3 $\frac{1}{2}$  p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12 $\frac{1}{2}$  to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.

Passengers by the above line will arrive at Richmond by 11 $\frac{1}{2}$  o'clock p.m. and Petersburg, Va. by 2 $\frac{1}{2}$  o'clock p.m., through to the former city in *twelve hours,* and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

*Way Mail Schedule.*—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p. m.; arrive in Baltimore at 2 $\frac{1}{2}$  p.m.; arrive in Washington at 7 p.m. *From Philadelphia by steamboat.*—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and *through tickets* apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore.

**STOCKTON & FALLS.**  
31

**LONG ISLAND RAILROAD.—EVEN-** ing Line for Newport and Providence. Fare 50 cents.

Every Tuesday, Thursday and Saturday, from the foot of Whitehall street, at 4 o'clock and from Brooklyn depot at 5 p.m.

On the arrival of the train at Greenport, passengers will proceed immediately in the steamer "New Haven," direct. 2t 39

**BOSTON AND PROVIDENCE RAIL-** road. Dedham Branch Railroad. Stoughton Branch Railroad.

Fall arrangement, to commence Monday, September 29, 1845.

Steamboat train for New York via Stonington, leaves Boston at 4 1/2 p.m.

Accommodation trains, leave Boston at 8 a.m. and 3 1/2 p.m. Leave Providence at 8 a.m. and 3 1/2 p.m.

Fare in first class cars, \$1 25 second " 85

Dedham trains, leave Boston at 9 a.m. 3 p.m., and 6 p.m. Leave Dedham at 7 1/2 a.m., 10 1/2 a.m. and 4 1/2 p.m.

Fare 25 cents, Stoughton trains, leave Boston at 12 m. and 4 p.m. Leave Stoughton at 8 a.m. and 2 1/2 p.m.

Fare 50 cents.

W. RAYMOND LEE, Sup't.

Sept. 15, 1845. 31 1y

**NEW YORK AND ERIE RAILROAD** LINE. For Middletown, Goshen, and intermediate places. Two daily lines each way, as follows:

For passengers, the new, and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7 o'clock, A.M., and 5 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4 1/2, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets.

H. C. SEYMOUR, Superintendent.

Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc., etc. 31 1y

**BALTIMORE AND SUSQUEHANNA** Railroad. The Passenger train runs daily except Sunday, as follows:

Leaves Baltimore at 9 a.m., and arrives at 6 1/2 p.m. Arrives at York at 12 1/2 p.m., and leaves for Columbia at 1 1/2 p.m. Leaves Columbia at 2 p.m., and leaves York for Baltimore at 3 p.m. Fare to York \$2. Wrightsville \$2 50, and Columbia \$2 62 1/2. The train connects at York with stages for Harrisburg, Gettysburg, Chambersburg, Pittsburg and York Springs.

Fare to Pittsburg. The company is authorized by the proprietors of Passenger lines on the Pennsylvania improvements, to receive the fare for the whole distance from Baltimore to Pittsburg. Baltimore to Pittsburg.—Fare through, \$9 and \$10.

Afternoon train. This train leaves the ticket office daily, Sundays excepted, at 3 1/2 p.m. for Cockeysville, Parkton, Green Springs, Owings' Mills, etc.

Returning, leaves Parkton at 6 and Cockeysville and Owings' Mills at 7, arriving in Baltimore at 9 o'clock a.m.

Tickets for the round trip to and from any point can be procured from the agents at the ticket offices or from the conductors in the cars. The fare when tickets are thus procured, will be 25 per cent. less, and the tickets will be good for the same and following day in any passenger train.

D. C. H. BORDLEY, Sup't.

31 1y Ticket Office, 63 North st.

**DAVIS, BROOKS & Co., 30 WALL ST.** Have now on hand and for sale, 200 tons 2 1/4 x 1/4 inch Flat punched Rails, Bars 18 feet each.

100 tons Heavy Edge Rails, 90 tons per mile. 30 tons 2 1/4 x 1/4 inch Flat Rails.

Also—A STEAM PILE DRIVER, built by "Dunham & Co." which has never been used, and cost originally \$5000. s20 2m

**BALTIMORE AND OHIO RAILROAD.** MAIN STEM. The Train carrying the Great Western Mail leaves Bal-

timore every morning at 7 1/2 and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cum-

berland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburg. Time of arrival at both Cumberland and Baltimore 5 1/2 P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5 1/2 P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13 1y

**CENTRAL RAILROAD—FROM SAVAN-** nah to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight. Rates of Passage, \$8 00. Freight—

On weight goods generally... 50 cts. per hundred. On measurement goods... 13 cts. per cubic ft. On brls. wet (except molasses and oil)... \$1 50 per barrel. On brls. dry (except lime)... 80 cts. per barrel. On iron in pigs or bars, castings for mills, and unboxed machinery... 40 cts. per hundred. On hhds. and pipes of liquor, not over 120 gallons... \$5 00 per hhd. On molasses and oil... \$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE, Gen'l. Sup't. Transportation.

**LXINGTON AND OHIO RAILROAD.** Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1-25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above. 35 1y

**KEARNEY FIRE BRICK. F. W. BRINLEY, Manufacturer, Perth Amboy, N. J.** Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire, Peter Cooper, Murdock, Leavitt & Co. } New York. J. Triplett & Son, Richmond, Va. J. R. Anderson, Tredegar Iron Works, Richmond, Va. J. Paton, Jr. } Philadelphia, Pa. Colwell & Co. } J. M. L. & W. H. Scovill, Waterbury, Con. N. E. Screw Co. } Providence, R. I. Eagle Screw Co. } William Parker, Supt. Bost. and Worc. R. R. New Jersey Malleable Iron Co., Newark, N. J. Gardiner, Harrison & Co. Newark, N. J. 25,000 to 30,000 made weekly. 35 1y

**RAILROAD IRON AND FIXTURES.** The Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO., 30 Wall st., N. York. ja46

**OFFICE OF THE NEW YORK AND** Erie Railroad Company. No. 50 Wall st. New York. September 13, 1845.

Notice is hereby given to the holders of stock of the New York and Erie Railroad company, that by the terms of the 8th section of the Act of the 14th May, 1845, it is provided that, if within 6 years from the passage of the law the company shall complete a single track from the Hudson river to lake Erie and a branch to Newburgh, in Orange county, then "the said company shall be released from all liability to pay to the state any demand which the state may have against them, with this exception only, that in case any holder or holders of the capital stock of said company heretofore issued and certified, or purporting to be paid in full, shall not within six months from the passage of this act, surrender to the company their stock certificates, and receive or offer to receive therefor, for every two shares of stock heretofore issued, one share of stock to be hereafter issued, then all such stock heretofore issued, and not so surrendered, shall not be subject to the provisions of this law; but the state shall retain the right to claim upon such outstanding stock, and the said company shall pay into the treasury of the state, upon the order of the comptroller, any and all dividends upon such outstanding stock, and the comptroller shall apply the same to the credit of said company, until the state shall receive in such dividends, so much of their said debt of three millions of dollars and the interest thereon, as would be the proportion of such outstanding stockholders to pay, provided the whole debt of three millions of dollars and interest thereon were collected ratably from all the stock of said company now outstanding."

By section 9th, of the same law, it is provided that, "it shall be the duty of the president and secretary of said company, within thirty days after the expiration of the six months mentioned in the last preceding section, to file with the comptroller of the state, a statement of all stocks that shall not have been exchanged in pursuance of the provisions of the last preceding section; and whenever any dividend upon the stock of the said company shall be made, it shall be the duty of the board of directors to notify the comptroller of such dividend, and upon payment of the dividend aforesaid into the treasury, the comptroller shall furnish to said company a receipt for the portion of such dividend belonging to any stock not surrendered and exchanged in pursuance of the last preceding section of this act, and said company shall surrender to the holders of such stock the receipt of said comptroller in lieu of said dividends."

It will be seen that on or before the 14th of November next, each and every holder of the stock of the company must decide whether he will avail himself of the provisions of this law by surrendering his stock and receiving one share for every two shares thus surrendered. With reference to holders who neglect to avail themselves of the provisions of the act, it is made the duty of the company, within thirty days from the 14th of November, "to file with the comptroller a statement of all stocks that shall not have been exchanged" agreeably to the provisions of this act, the dividends on which must be paid into the state treasury, rendering that class of stock practically of no value to the holder. The board of directors consider it their duty to protect the interests of the stockholders by giving all possible publicity to that portion of the law relating to the outstanding stock, that all may have an opportunity for an early compliance with the provisions of the act. By order of the board of directors. 398t T. S. BROWN, Acting secretary.

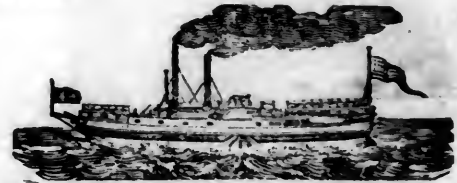
**OFFICE OF THE NEW YORK AND** Erie Railroad Company. No. 50 Wall st. New York 4th October, 1845.

Notice is hereby given that the sum of three millions of dollars, required by the law of May 14th, 1845, has been subscribed to the capital stock of this company, and that the books have been closed. The subscribers are required to make a payment of five dollars on each share, at the office of the company, on or before Thursday, the 16th of October inst.

By order of the board of Directors. T. S. BROWN, Acting Secretary. 41 2t

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



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THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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- TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)
- ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)
- S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)
- NORRIS, BROTHERS, Philadelphia, Pa.
- KITE'S Patent Safety Beam. (See Adv.)
- FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)
- NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)
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- CYRUS ALGER & Co., South Boston Iron Company.
- SETH ADAMS, Engineer, South Boston, Mass.
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- A. & G. RALSTON & Co., Philadelphia, Penn. (See Adv.)
- THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM. PLAN

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

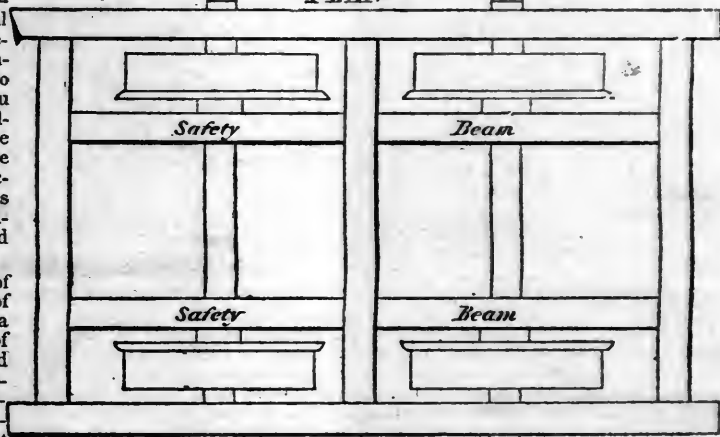
Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

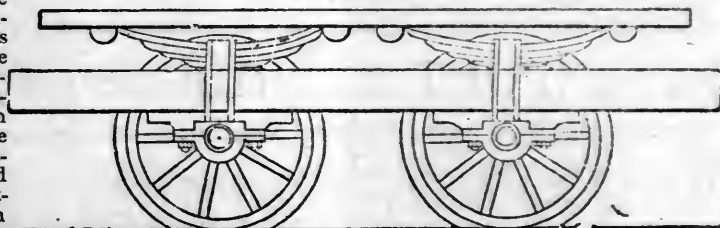
In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent, JAMES ELLIOTT, Sup. Motive Power,  
GEORGE CRAIG, Superintendent, W. L. ASHMEAD, Agent.

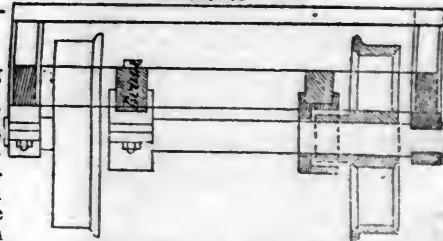
A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



### ELEVATION



### Section



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. **JOHN F. WINSLOW, Agent.**

Albany Iron and Nail Works, Troy, N. Y.  
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

**HENRY BURDEN, Agent.**  
Spikes are kept for sale, at Factory Prices, by I & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

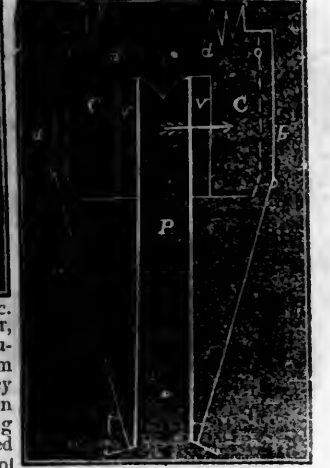
These Arresters are constructed on an entirely ancient principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

- E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

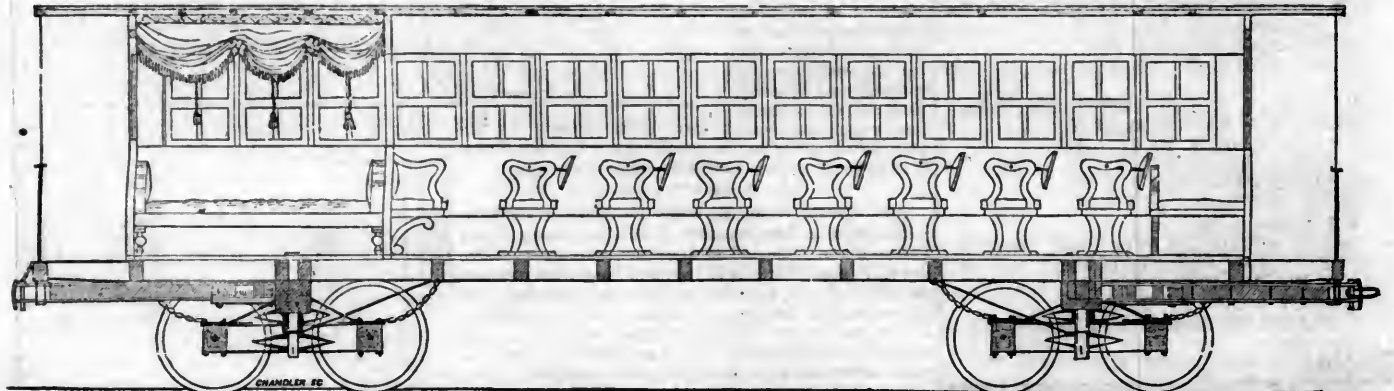
N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. **FRENCH & BAIRD.**  
Philadelphia, Pa., April 6, 1844. ja45



**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

The article is complete in itself, occupies but little space, is perfectly portable, and requires no brick work, not even to stand upon. It is valuable, no only in the saving of time and labor, but in the economy of fuel, as it has been ascertained by accurate measurement, that the saving in that article is fully two-thirds over other methods heretofore in use. They are now for the first time introduced into New York and Boston by the subscriber, who has the exclusive right for the New England states, New York and New Jersey, and are manufactured by **CURTIS & RANDALL, Boston;** and by **FORCE, GREEN & CO. New York.**

**DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.**



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

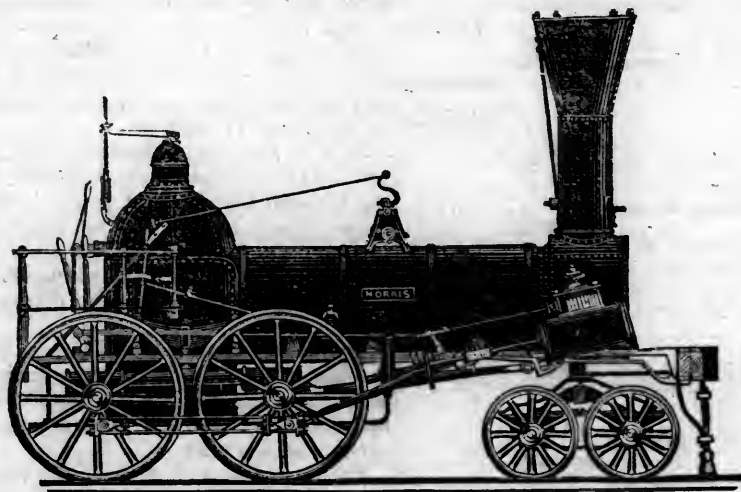
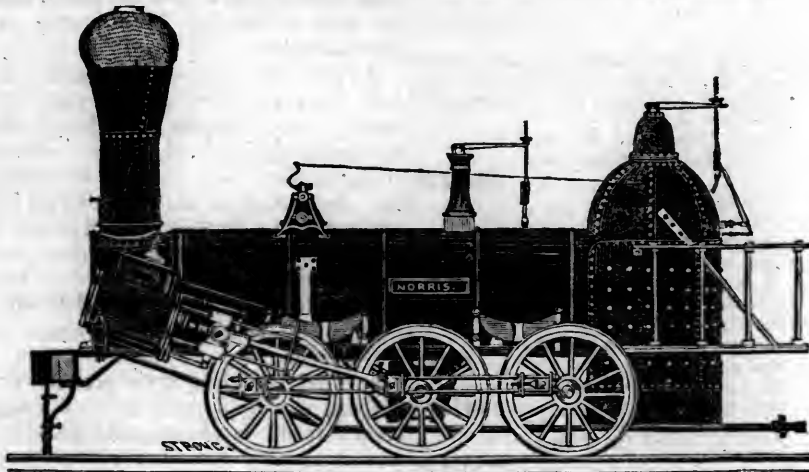
From 4 inches to 1 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**

*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
" 2,	14	"	"	×	24	" "
" 3,	14½	"	"	×	20	" "
" 4,	12½	"	"	×	20	" "
" 5,	11½	"	"	×	20	" "
" 6,	10½	"	"	×	18	" "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND**  
Coal Company are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Allegany County, Maryland.  
**WILLIAM YOUNG,**  
ja45lm President.

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Baltimore* Coal and *Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years—the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, turnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia.** ja45

**CYRUS ALGER & CO., South Boston Iron Company.**

Nineteenth Annual Report,

Of the President and Directors to the Stockholders of the Baltimore and Ohio Railroad Company.

At a meeting of the stockholders held pursuant to the charter, on the second Monday of October, 1845, in the city of Baltimore, the president and directors of the Baltimore and Ohio railroad company submitted the following report and statements of the affairs of the company:

FIRST.—Of the Main Stem.—The statement A shows the situation of the company's affairs on the 30th ultimo; the revenue and expenses on the main stem for the year ending on the same day, are shown by the statement B; and the statement C shows the receipts from all sources, and the disbursements of all kinds during the same period. They are the following, viz:

<b>A.</b>	
Dr. The Baltimore and Ohio railroad company.	
Stock in the Washington branch road.	\$1,032,600 00
Cost of road to Harper's Ferry, including real estate, depots, locomotives, passenger and burden cars, etc.	4,000,000 00
Cost of road west of Harper's Ferry, including real estate, locomotives, etc.	3,623,606 28
Coal trade, for amount expended in cars and engines for that purpose, including \$38,216 74 in the previous year.	118,803 98
Sterling bonds in the hands of Messrs. Baring, Brothers & Co. of London.	3,181,005 11
City of Baltimore six per cent. stock on hand.	40,096 59
Sinking fund for the redemption of the million loan.	35,999 97
Debt due by the Washington branch road—same as cash.	6,041 18
Cash in the hands of officers.	8,543 52
Cash on hand.	96,369 21
<b>Cr.</b>	\$2,143,065 84
Loan at six per cent. for the purpose of taking stock in the Washington branch road.	1,000,000 00
Stock.	7,000,000 00
Baring, Brothers & Co., London, for balance now due.	153,708 95
State of Maryland five per cent. sterling bonds.	3,200,000 00
Forfeited stock, balance of that account.	364 70
Interest received on city stock.	2,618 59
Revenue—balance of this account on the 1st of October, 1844.	490,008 87
Amount which has accrued since.	738,703 18
Dividend from the Wash. road in April last.	30,978 00
	<u>1,259,590 05</u>
Less expenses, repairs & interest, including the sum of \$48,419 44 expended for purposes of construction.	473,216 45—
	<u>986,372 60</u>
	\$2,143,065 84

**B.**

Statement of the revenue and expenses of the Baltimore and Ohio railroad company, on account of the main stem of the road, for the year ending the 30th of September, 1845.

The amount received for the transportation of passengers and merchandise for the year ending September 30th, 1845, has been..... 738,603 18

And the expenses for the same period have been as follow, viz:

Expenses of transportation, including fuel, salaries of superintendent, agents, conductor, etc.	113,285 86
Repairs of road.	88,184 87
“ depots.	6,921 42
“ passenger cars.	11,229 27

“ locomotives.....	44,481 71
“ burden cars.....	24,895 64
“ water stations.....	1,525 94
Repairing and rebuilding bridges.....	55,516 24
Watching bridges and pumping water at water stations..	8,984 50
Office and incidental expenses, including salaries, house rent, fees to counsel, tax on property, etc.....	8,815 99
Making in all.....	<u>363,841 44</u>
And showing the earnings of the road to be.....	374,761 74
The dividend of the main stem from the Washington branch in April last was..	30,978 00
And the dividend yet to be received from the same.....	30,978 00
Making.....	61,956 00
The interest on the million loan, etc.....	60,931 83
Leaving.....	<u>1,024 17</u>
	\$375,785 91

**C.**

Statement of the receipts from all sources, and the disbursements of all kinds of the Baltimore and Ohio railroad company, during the year ending the 30th of September, 1845.

There remained a surplus on the 1st of October, 1844, after the dividend was declared, of.....	16,527 32
The revenue for the year ending the 30th September, 1845, inclusive, has been..	738,603 18
This road has received a dividend of three per cent. from the Wash. branch....	30,978 00
Making.....	<u>769,581 18</u>
There have been received on account of forfeited stock.....	563 50
And for interest on city of Baltimore six per cent. stock.....	2,618 59
There remained unexpended in the hands of officers on the 1st of October, 1844.....	4,774 10
Showing the total amount of receipts from all sources.....	794,064 69
The expenses of working the road, etc. including the interest on million loan have been.....	<u>424,773 27</u>
Leaving.....	<u>\$369,291 42</u>

The other disbursements of the company during the year, have been the following, viz:

Payment to Baring, Brothers & Co.....	50,017 53
For various purposes on account of construction.....	48,419 44
For the coal trade.....	118,803 98
And for the sinking fund.....	999 97
Making.....	<u>218,240 92</u>

The company have on hand belonging to both roads... 184,677 66

Deduct amount belonging to Washington branch. 88,308 45

Due by the Washington branch..... 6,041 18

City six per cent. stock, amounting to..... 40,096 59

Cash in the hands of officers, 8,543 52

Office of the Baltimore and Ohio railroad company, 1st October, 1844. }  
J. I. ATKINSON, Secretary.

Taking the statement A, and beginning on the debit side, it will be observed that the following are shown, viz:

1. That the item of "Cost of road west of Harper's ferry" is the same as stated in last year's report, the capital being absorbed,

and every expenditure now incurred being necessarily taken out of the revenue. There has been expended, however, the sum of \$48,419 44 properly applicable to this account, being for settlement of claims for right of way, interest on the debt to Messrs. Baring, and the cost of placing the money in England, the construction of bridges, improvements at depots, and various other items; and this sum the board have directed to be considered as part of the expenses of the current year. There is also included in this amount, the sum of \$10,270 paid to contractors for making the road, which, at the time of the last report, was in litigation; so that the whole sum now unsettled of this class of debts, amounts to only \$2,150.

2. That the amount expended in cars, engines, etc., for the accommodation of the coal trade has been \$118,803 98, which includes the sum of \$38,216 74 disbursed in the previous year.

3. That the city of Baltimore six per cent. stock has been reduced since the last annual report, \$20,000; which sum was set apart as a sinking fund, for the redemption of the million loan, incurred on account of the construction of the Washington branch road; making, together with \$15,000 heretofore set apart for the same purpose, and the accumulations of quarterly interest reinvested as they accrue, the sum of \$37,000.

Then by reference to the credit side it will be seen:

1. That the "loan at six per cent. for the purpose of taking stock in the Washington branch road," is placed at \$1,000,000, as it was originally, instead of \$985,000, as in last year's statement; the board having ordered that the \$15,000 of bonds belonging to this account, which were cancelled, and upon which, in October 1843, a "sinking fund," was commenced, should be restored, and placed in such position as to accumulate by the quarterly interest.

2. That the debt of Messrs. Baring, Brothers and Co., now stands at \$153,708 95, being \$50,000 less than last year. It may be proper here to remark, that the remittance of this sum was made on the first of May last, five months before the payment was due, and at a saving of interest for the difference of time.

By the statement B it will be seen that the revenue of the road for the year ending the 30th September last, has amounted to \$738,603 18, being \$79,983 20 more than the revenue of last year.

Of the expenses of working the road and keeping it in order, shown by this statement, it is gratifying to observe that, while there has been a considerable increase in the trade and travel, there has been comparatively but a trifling increase in the expenses; except in the item of repairs of bridges, which is upwards of \$49,000 greater than that of last year, and to which more particular reference will hereafter be made.

The net receipts from the business of the main stem, over and above the expenses, independently of its connection with the Washington branch, amount to the sum of \$375,-



785 91, being nearly five and a half per cent upon the capital.

Appended to this report will be found a table showing the aggregate number of passengers, and the amount in tonnage of the various articles of produce and merchandize transported over the road on each year for the last ten years, and the gross revenue received from the same. This statement affords gratifying evidence of the gradual increase of the business of the road through that entire period, and especially since its completion to Cumberland.

The statement C shows the surplus remaining on hand after the dividend of last year; the receipts from all sources during the year, and the disbursements on all accounts for the same period, together with the available means of the company on the 30th ultimo.

By this statement, it will be seen that the company have on hand the following, viz :

Cash in bank.....	\$184,677 66	
Less belonging to the Washington road.....	88,308 45	
Leaving.....		\$96,379 21
City stock on hand.....		40,096 59
Debt due by the Washington branch road, which is the same as cash....		6,041 18
Borrowed from the revenue for the purpose of the coal trade, and to be refunded out of that trade.....	\$118,803 98	
Less amount received from that trade.....	28,202 98	90,601 00
Making.....	\$233,107 98	
And to which may be added the dividend of 3 per cent. to be received from the Washington branch road.....		30,978 00
Making in all.....	\$264,085 98	

Of this, the board have applied to the purposes of the sinking fund, according to the resolution announced in the annual report of 1842, for the reimbursement of the loan of a million of dollars contracted for the construction of the Washington road, the sum of \$20,000, and of the balance, they have determined to divide among the stockholders three dollars on each share of stock, payable on and after the first day of November next, leaving a surplus of \$34,085 98, which will be applied as so much to the extinguishment of the debt due by the coal trade, and which debt, as will be observed, has been placed among the available resources of the company as borrowed from the revenue.

The condition of the track west of Harper's Ferry, is of the most satisfactory character. The trains, both of passengers and merchandize, have continued to pass over it without interruption; and the cost of keeping it in repair is quite inconsiderable. That portion east of Harper's Ferry is in as perfect condition as the nature of the materials of which it is constructed, renders practicable. Some difficulty has heretofore been experienced in procuring the timber in sufficient quantity for its repair from the southern states; but, it is hoped that, in a short time, supplies will be furnished from the line of the road, so that this difficulty will be entirely obviated.

It is manifested, however, that the increasing business of the road, and especially that arising from the prosecution of the coal trade, will render it necessary for the company steadily to pursue the system commenced in 1838, of gradually renovating the entire line to Harper's Ferry with a substantial edge rail, such as is used west of that point; and in some of the sections along the Patapsco, to avoid the short curves which so seriously obstruct the efficiency of the motive power.

Indeed, a wise economy would suggest that the accomplishment of so important a work should not be delayed beyond the earliest practicable period.

An accident occurred to the Harper's Ferry viaduct on the 18th of March last, similar to that which happened to the same structure on the 5th of September previous. On the evening of the former day, as a train was crossing—consisting of the engine Gladiator, nine house cars loaded with merchandize and produce, one gondola with iron, and ten cars loaded with coal, the most western span upon the curved arm of the bridge, on the main stem of the road, suddenly gave way, precipitating into the river the gondola and the ten cars loaded with coal. The engine and the remaining portion of the train having got beyond the pier that sustained the arch which fell, passed safely over. The conductor of the train fell among the broken timbers into the river, but providentially escaped with but slight injury. As the straight arm of the bridge remained uninjured, no delay of consequence occurred in the passage of the trains; so that the business of the road was not seriously interrupted.

The cars which fell into the river, and their contents, were recovered, having suffered but little damage; and the arch before the close of the year, will have been restored in the most permanent manner, at a cost of about \$6,000. The arch which had previously fallen, has been rebuilt in the same substantial style, and has withstood, for the last two months, the severest tests of its strength and sufficiency. In the reconstruction of both arches, the opportunity has been embraced, of raising them out of the reach of high water, of protecting them securely from the weather, and rendering them in every part accessible to constant and minute inspection.

The recurrence of such an accident, as will be readily supposed, created the most lively anxiety in the minds of the board, both as to the durability of the bridges along the entire route, and the principles upon which they were constructed. They accordingly ordered the most rigid scrutiny to be instituted upon both these points, and the result of that examination has tended to confirm the opinion expressed in their former report, of the correctness of the principle of construction.

In regard to the immediate cause of the last accident, it appeared, upon a close examination of all the circumstances, to have been due in part to defective workmanship, and the unsound state of a part of the timber which

could not readily be inspected, and which had escaped the attention of the supervisor, at the time it was placed in the work. It was also attributable in part to the premature removal, by a sudden flood in the river, of the temporary support which had been put under the arch during its repair, and for assisting it while deprived of the counter thrust of the adjacent span, which had not then been reconstructed.

It will be remembered that it was necessary to hasten the finishing of the bridges along the route, in order to avoid delay in the opening of the road to Cumberland; and, the difficulty which attended the procuring of the proper description of timber in sufficient quantities, made, in some instances, a very rigid inspection scarcely practicable.— Under all these circumstances, the board, taking into consideration the paramount necessity of preventing any apprehension on the part of travellers for their personal safety, and the certainty that the increase of the trade, and the consequent more frequent passage of trains of increased weight, would render it imperatively necessary that these structures should be placed in the most perfect condition, have had them all so thoroughly refitted and strengthened as to secure them effectually against the recurrence of similar casualties for the future.

The outlay incident to the accomplishment of this important object, and which, in strictness, is indeed a part of the capital or cost of construction of the work, will account for the greatly increased expenditure of the last over that of the preceding year, for the same purpose. It will also be borne in mind, that as the first accident occurred in September 1844, just previous to the termination of the financial year, no portion of the expense of its repair was included in the statement of that year.

The expenditure under this head for the coming year, will be very much below those of the past. The work which remains to be done, will have for its object, not the strengthening of the bridges, the security of which in this respect is complete, but in protecting them more perfectly from the weather, and preparing them to perform their duty for a long period, without further cost than must necessarily be attendant upon the maintenance of every structure, composed of perishable materials.

We must not omit to mention that a considerable proportion of the present year's expense, under this head, is for materials now on hand for work still to be done; and, therefore, in fact, chargeable to the operations of the ensuing year.

We may also observe that it is not surprising, nor calculated to excite mistrust, that they have required to be strengthened, when it is considered that, owing to the increase in the weight of the trains, they are daily bearing a burthen equal to that which they were originally designed to sustain only at rare intervals. This great increase in the weight of trains has indeed taken place in most of the railways of the United States, and with similar effects upon their timber

bridges, the entire reconstruction of which, upon several important lines, has become necessary—and at a cost far exceeding that of refitting and strengthening those upon the Baltimore and Ohio railroad, when the number of the bridges, and the mode of their repair are considered.

The other appurtenances of the road, together with the cars, engines, and other machinery, are in a satisfactory condition.

The heavy engines, of 22 tons weight, built for the coal trade at the manufactory of Mr. Winans in this city, have proved themselves very valuable machines, of great power and simplicity of construction, easily maintained in repair, and burning the Cumberland coal in the most satisfactory manner; and in this last particular, solving a question of much interest in the economy of the company's transportation. The general result of the transportation of coal thus far has been to demonstrate the sufficiency of the estimates of its cost heretofore made by the company's engineers, and thus to encourage the board to enter as largely into its transportation as circumstances may show to be expedient. The quantity of coal transported during the past year has indeed, from a variety of causes, fallen very far short of that agreed to be furnished by the company with whom the contract for its carriage was made. Other companies in Allegheny are now, however, preparing to enter largely upon the working of their mines; and, unlike the company first referred to, which divides the produce of its mines between its own furnaces and the seaboard market, will devote themselves exclusively to the supply of the market. All these companies are looking to the Baltimore and Ohio railroad for the transportation of their coal, and are preparing lateral railways of their own, to connect with it at Cumberland. The board have entered into a contract with the most considerable of these companies, (the Maryland mining company,) to transport, in annually increasing quantities, to the extent of 52,500 tons of coal, which together with what the other companies, including the Mount Savage company will contribute, may amount within a year or two, to 100,000 tons or upwards. The transportation of this large tonnage, which will be swelled by a considerable amount of other heavy commodities, from the outer depot to tide water, has occupied the serious attention of the board; and, under the ordinance of the city, approved April 19, 1845, they have had surveys of all the practicable routes, made during the past summer, and have a full report upon them from the engineer department, which they have now under consideration.

Subsequent to the last annual report, the attention of the board was called, by numerous petitions from persons engaged in the flour trade, to the fact that, in consequence of the low rates of toll charged by the Chesapeake and Ohio canal, that article was being rapidly diverted from this market to the District of Columbia; and, praying that the board would reduce the rate upon the railroad, to such a point as would prevent that diversion.

The flour trade has always been consid-

ered of great importance to the prosperity of the city of Baltimore; and, as long as the communication with the interior was kept up by turnpikes, almost the entire product of Maryland, and a considerable portion of Pennsylvania and Virginia, was brought to this market.

This circumstance, as is well known to those familiar with the early history of this city, contributed essentially to its rapid increase in commerce, wealth and population; but, the construction of the Chesapeake and Ohio canal along the western border of Maryland, and of the Cumberland valley railroad from Chambersburg to Philadelphia, had already diverted a very considerable portion of the article from this market; so that the inspections of several years past, instead of increasing with the growth and settlement of the country, are scarcely equal to those of a very early period. Any further diversion of this important trade was, therefore, regarded with alarm; and, under the circumstances of the case, the board deemed it to be their duty to consider the applications made to them for a reduction of tolls, not so much with reference to profit as to the preservation of the trade. It was evident also that, if this particular article were diverted to another market, a very considerable portion of business necessarily connected with it, and growing out of it, would also be diverted; and, the result would prove not only a very serious injury to the city, but an absolute loss to the company of the revenue which might otherwise be derived from the return trade. It was, therefore, resolved that the rates of toll upon this article should be reduced along that portion of the road which is adjacent to the Chesapeake and Ohio canal, to such a point as would compensate for the expense of transportation.

It is believed that this measure has had the salutary influence expected from it, and there is reason to anticipate that, when the mills will be enabled to grind, the quantity of flour which will be brought to this market, during the present season, will be materially increased.

It is obvious that the very low rates charged by the Chesapeake and Ohio canal company for the transportation of this article, to the cities of the District, do not afford a remunerating revenue, by which that company might be enabled to meet its obligations to the state of Maryland; and that, while this is the case, its policy, at the same time, had the unjust effect of abstracting trade from the city of Baltimore, to which the state was looking, in a very great degree, for the means, by taxation, of paying the interest upon the debt contracted for the construction of the canal. If the rate charged by the canal were an adequate one, and had been made with a view to its obligations to the state, the city of Baltimore would have less right to complain, whatever might be the injury she suffered in other respects; but when she was heavily taxed for the construction of a work which, at the same time, deprived her of the means of paying that tax, the evil was one which it was supposed would readily call for the interference of the state, the only authority

which could exercise a sufficient control over the subject. Accordingly an opportunity was afforded by certain interrogatories propounded by the state, at the last session, to present the views and wishes of this company in regard to a mutual adjustment of tolls between the two companies, upon all the articles which might be offered for transportation. A copy of the answer to these interrogatories will be appended to this report.—From the answer to the second interrogatory, it will be observed that this company was willing to enter into an arrangement by which the exclusive transportation of coal, iron, and such articles as it was supposed, at the period of its commencement, would belong legitimately to it: provided the canal company would place such rates upon other articles, the produce of the soil, as would afford some revenue to the state in case they were carried by the canal or otherwise be transferred to the railroad.

No action of the legislature grew out of this proposition, and the whole subject remains in its original state.

SECOND.—Of the Washington road.—The affairs of the Washington road are shown by the statement D and E as follow:

<b>D.</b>	
Dr. The Washington branch road.	
Cost of road, real estate, engines and cars.....	\$1,650,000 00
Cash in the hands of officers.....	122 57
Cash on hand.....	88,308 45
	\$1,738,431 02
Cr. Stock.....	\$1,650,000 00
Annuity account.....	25,000 00
Due the Baltimore and Ohio railroad..	6,041 18
Revenue, for balance of this account..	57,389 84
	\$1,738,431 02
Office of the Baltimore and Ohio railroad } company, October 1st, 1845. }	
J. I. ATKINSON, Secretary.	

**E.**  
Statement of the revenue and expenses of the Washington branch of the Baltimore and Ohio railroad, for the year ending the 30th of September, 1845.

The amount received for the transportation of passengers and merchandize for the year ending the 30th of September, 1845.....	\$208,813 62
And the expenses for the same period, have been as follows, viz:	
Expense of transportation, including fuel, salaries of the superintendent, agents, conductors, etc.....	\$27,786 78
Repairs of the road.....	15,582 38
“ locomotives.....	6,459 60
“ passenger cars.....	8,466 16
“ burden cars.....	4,566 81
“ depots.....	234 27
“ water stations.....	2 34
“ bridges.....	1,432 19
Interest on the Elk Ridge landing annuity.....	1,250 60
Bonus to the state, one-fifth of the receipts from passengers.....	38,699 43
Office and incidental expenses, including salaries, house rent, etc.....	5,421 53
Burden cars.....	3,414 26
Real estate and construction of depots.....	\$624 00
Deduct amount of lot sold.....	250 78
	373 22
	113,718 97
	\$95,094 65
Office of the Baltimore and Ohio railroad } company, October 1st, 1845. }	
J. I. ATKINSON, Secretary.	

AMERICAN STATE WORKS AND CANALS, ETC.

STATE WORKS.		Length in miles.	Cost.	1843.		1844.		The State Canals are all 4 feet deep, and the locks are 13 to 17 feet wide, and 80 to 90 feet in length.
				Income.	Expend.	Income.	Expen.	
N. Y.	1 Black river canal.....	35	1,521,967	.....	.....	.....	.....	The six millions paid to the canal fund from auction and salt duties are not included in the estimate of cost. The Genesee valley and the Black river canals require large sums for their completion, the interest of which <i>additional</i> sum is much greater than the estimated gross income of these canals when finished. The sums required to complete these two canals are \$2,000,000 and \$600,000, making their total cost when finished \$5,553,000 and \$2,400,000; an expenditure incurred on estimated incomes (admitted to be liberal,) of \$39,000 and \$14,000 respectively. The total receipts from the works of Pennsylvania for 1843 were \$1,019,401; for 1844 \$1,161,326, and the cost about 30 millions. The receipts for 1844 were as follows: Canal tolls, 578,404 Railroad tolls, 252,855 Motive power, 319,590 Trucks, 13,477 of which \$585,922 is from 118 miles of railroad, and \$578,404 from 550 miles of canal. The canals of Ohio are supported by a property tax of 5½ mills on the dollar. There are 853 miles of canal in the State, which yielded in 1843 \$471,623, and in 1844 \$515,393, the cost, 1st Jan. '43 being \$15,577,233. The increase of '44 over '43 is only \$43,770, though the year '44 has exhibited a greater increase throughout the country than ever before known. These 21 millions on sundry works yield no income whatever. The central railroad yields above 6 per cent., and is the only State work—the Erie canal excepted—which is able to stand alone.
"	2 Cayuga and Seneca.....	21	237,000	10,557	10,953	24,618	14,443	
"	3 Champlain canal.....	61	1,251,664	102,308	.....	116,739	.....	
"	4 Chemung.....	23	684,600	8,140	14,486	14,385	12,740	
"	5 Chenango.....	97	2,420,000	16,195	15,967	22,179	15,969	
"	6 Crooked lake.....	8	156,777	461	3,674	1,498	3,951	
"	7 Erie—enlargement of.....	363	12,618,852	1,880,316	.....	.....	.....	
"	8 Genessee valley.....	120	3,739,000	.....	.....	.....	.....	
"	9 52 miles opened, cost \$1,500,000.....	.....	.....	12,292	13,819	19,641	15,557	
"	10 Oneida lake.....	6	50,000	225	2,239	621	1,636	
Pa.	12 Beaver division canal.....	38	565,437	29,147	22,742	56,165	28,599	
"	13 Delaware canal.....	25	.....	.....	.....	7,381	5,386	
"	14 French creek.....	60	.....	.....	.....	109,278	22,870	
"	15 Seneca river towing path.....	45	.....	.....	.....	.....	.....	
"	16 Columbia railroad.....	82½	69,276	.....	.....	381	.....	
"	17 Eastern division.....	36	4,204,969	.....	.....	443,336	205,067	
"	18 Juniata canal.....	93	.....	.....	.....	179,781	138,915	
"	19 Portage railroad.....	36½	1,823,461	.....	.....	351,102	248,943	
"	20 Western division canal.....	105	.....	.....	.....	.....	.....	
"	21 North branch Susquehannah canal.....	73	.....	.....	.....	101,949	57,633	
"	22 West ".....	72	.....	.....	.....	.....	.....	
Ohio	23 Hocking canal.....	56	975,130	4,757	.....	5,286	4,139	
"	24 Miami canal.....	85	1,660,742	68,610	38,826	77,844	22,341	
"	25 Miami extension.....	105	2,856,636	8,291	.....	12,723	14,741	
"	26 Miami northern division.....	35	322,000	.....	.....	unfin'd.	.....	
"	27 Muskingum.....	91	1,627,318	23,167	.....	29,385	15,027	
"	28 Ohio.....	334	4,600,000	322,754	123,398	343,711	113,210	
"	29 Wabash.....	91	3,028,310	35,922	6,400	48,589	12,817	
"	30 Walhonding.....	25	607,269	838	39,005	1,977	1,238	
"	31 Western road.....	31	255,015	7,254	1,782	8,747	2,929	
Ind.	32 Sundry works.....	.....	11,000,000	.....	.....	.....	.....	
"	33 Maume canal.....	.....	.....	.....	.....	.....	.....	
Ill.	34 Sundry works.....	.....	10,000,000	.....	.....	.....	.....	
Mich.	35 Central railroad.....	110	1,842,308	149,987	75,960	211,170	89,420	
"	36 Southern railroad.....	68	936,295	24,064	7,907	60,341	70,000	

CANALS.		Length in miles.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
				Gross.	Nett.		Gross.	Nett.			
	Blackstone.....	25	400,000	.....	.....	.....	.....	.....	.....	We may, perhaps, at some future time be enabled to give the particulars of all these canals. The Chesapeake and Ohio canal is not yet completed to the coal mines, hence its trifling income. The enlargement of the Schuylkill canal has been commenced. The Morris canal was lately sold for one million, about one-fourth of its cost.	
	Bald Eagle Navigation.....	.....	1,000,000	.....	.....	.....	.....	.....	.....		
	Beaver and Sandy, (part).....	.....	.....	.....	.....	.....	.....	.....	.....		
	Charleston, (S. C.).....	184	12,370,470	47,637	.....	.....	.....	.....	.....		
	Chesapeake and Ohio.....	12	300,000	.....	.....	.....	.....	.....	.....		
	Conestota.....	13	.....	.....	.....	.....	.....	.....	.....		
	Delaware and Chesapeake.....	103	3,500,000	279,795	102,221	190,693	120,624	26	31		
	Schuylkill.....	.....	.....	.....	.....	.....	.....	.....	.....		
	Farmington.....	.....	.....	.....	.....	.....	.....	.....	.....		
	James river and Kenhawa.....	.....	.....	.....	.....	.....	.....	.....	.....		
	Middlesex.....	10	200,000	.....	.....	.....	.....	.....	.....		
	Port Deposit.....	43	2,900,000	99,623	53,327	131,491	84,455	.....	.....		
	Delaware and Raritan.....	.....	300,000	.....	.....	.....	.....	.....	.....		
	Southwark.....	45	2,900,000	.....	.....	.....	.....	.....	.....		
	Tide Water.....	80	2,000,000	.....	.....	.....	.....	.....	.....		
	Union.....	101	1,000,000	.....	.....	.....	.....	.....	26½		
	Morris.....	.....	.....	.....	.....	.....	.....	.....	.....		
	Dismal Swamp.....	.....	.....	.....	.....	.....	.....	.....	.....		

CANADIAN CANALS.		Length in miles.	No. of locks.	Lockage in feet.	Size of locks.			Width of canal.		Estimate.	Expended to Sept. 1843.	Income.	
					Length of chamber.	Width.	Depth on mitre sill.	Bottom.	Surface.			1843.	1844.
	The Welland canal.....	.....	.....	.....	.....	.....	.....	.....	.....	3,948,572	2,485,572	61,658	.....
	Main trunk from Port Colborne to Port Dalhousie.....	28	31	323	150	26 1-2	8 1-2	45	81	.....	.....	.....	.....
	Junction branch to Dunville.....	21	1	6	150	26 1-2	8 1-2	35	71	.....	.....	.....	.....
	Broad creek branch to Port Maitland.....	1 1-2	1	6	200	45	9	45	85	.....	.....	.....	.....
	The St. Lawrence canal.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Galops and Port Cardinal.....	2	2	7	200	45	9	50	90	.....	.....	.....	.....
	Rapid Plat.....	4	2	11 1-2	200	45	9	50	90	672,498	973	.....	.....
	Farren's point.....	3-4	1	3 1-2	200	45	9	50	90	.....	.....	.....	.....
	Cornwall, passing the Long Sault rapids.....	11 1-2	7	48	200	55	9	100	150	865,372	1,665,663	.....	.....
	Beauharnois, do. Coteau, Cedars and Cascades road.....	11 1-4	9	82 1-2	200	45	9	80	120	1,190,087	275,426	.....	.....
	Lachine, do. Lachine rapids.....	8 1-2	5	41 1-2	200	45	9	80	120	old canal 1,001,333	400,000	29,288	.....
	Elargement of do.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	61,439	.....	.....
	Total from lake Erie to the sea.....	12	57	525	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Chambly.....	66	9	74	120	24	6	36	60	200,000	440,000	1,409	.....

COAL COMPANIES.		Length in miles.	R. rd.	Canals.	Cost.	1843.		Div. per cent.	1844.		Div. per cent.	Value of stock.	REMARKS.
						Gross.	Nett.		Gross.	Nett.			
	Delaware and Hudson.....	16	108	.....	2,800,000	930,203	196,702	10	.....	.....	.....	130	.....
	Lehigh.....	20	72	.....	6,000,000	.....	.....	.....	.....	.....	.....	31	.....

AMERICAN RAILROADS.											SALES.				
Me.	RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	Previ-ous prices.	Week ending Sept. 15.	
							Gross.	Nett.		Gross.	Nett.			Last	Sales
N. H.	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	101½		100½
Mass.	2 Concord.....	35	750,000									12	65		
	3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	111		
	4 Boston and Maine extension.....	17 1-4	455,703	unfin.											
	5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	118		117½
	6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	111		
	7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	116½		116½
	8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
	9 Charlestown branch.....		280,260						13	34,654	13,971	5½	80		
	10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	107½		107½
	11 Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,835		119		
	12 Nashua and Lowell.....	14 1-2	380,000				84,079		8	94,588	34,944	10	126		
	13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6	102		
	14 Northampton and Springfield.....		172,883	unfin.											
	15 Norwich and Worcester.....	66	2,290,000	900,000	16,535	100	162,336	24,871		230,674	99,464	3	67		69½
	16 Old Colony.....		87,820	unfin.									105		
	17 Stoughton branch.....	4	63,075	unfin.											
	18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	120		
	19 Vermont and Massachusetts.....														
	20 West Stockbridge.....	3	41,516	200		100						4			
	21 Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	98½		97½
	22 Worcester branch to Milbury.....		8,431	506											
	23 Housatonic, (10 months,).....	74	1,244,123							150,000			26		33
Con	24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6	93		
	25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
	26 Stonington, (year ending 1st Sept.,).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29		32
N. Y.	27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0			
	28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109		103
	29 Auburn and Syracuse.....	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
	30 Buffalo and Niagara.....	22	200,000		1,500								100		
	31 Erie, (446 miles,).....		5,000,000										27½		31½
	32 Erie, opened.....	53						48,000		126,020	59,075				
	33 Harlem.....	26	2,250,000	750,000	30,000					140,685	62,399		61		62½
	34 Hudson and Berkshire.....	31	575,613			50				35,029	1,789	0	11½		
	35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	61½		65½
	36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	56½		57
	37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
	38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
	39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117		
	40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
	41 Troy and Greenbush.....	6	180,000										90		
	42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
	43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132		
N. J.	44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956		112		
	45 Elizabethtown and Somerville.....	26	500,000												
	46 New Jersey.....	34	2,000,000										95½		
	47 Paterson.....	16	500,000									6	88½		
Pa.	48 Beaver Meadow.....	26	1,000,000												
	49 Cumberland Valley.....	46	1,250,000												
	50 Harrisburg and Lancaster.....	36	860,000										30		
	51 Hazleton branch.....	10	120,000												
	52 Little Schuylkill.....	29	900,000												
	53 Blossburg and Corning.....	40	600,000												
	54 Mauch Chunk.....	9	100,000												
	55 Minehill and Schuylkill Haven.....	19 1-2	396,117	25,000	7,019	50			12			12	80		
	56 Norristown.....	20	800,000										6½		
	57 Philadelphia and Trenton.....	30	400,000										104		
	58 Pottsville and Danville.....	29 1-2	1,500,000												
	59 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511		25		24½
	60 Schuylkill valley.....	10	1,000,000												
	61 Williamsport and Elmira.....	25	400,000				20,000								
	62 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		15½		15½
Del.	63 Frenchtown.....	16	600,000												
Md.	64 Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		658,620	346,946		48½		
	65 Baltimore and Susquehanna.....	58	3,000,000										2½		
	66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	67 Greensville and Roanoke.....	18	284,433	37,544	2,000	100				25,368	6,074		28		
	68 Petersburg.....	63	969,880	63,000	7,690	100				122,871	72,898	3	77		
	69 Portsmouth and Roanoke.....	78 1-2	1,454,171												
	70 Richmond, Fredericksb'g and Potomac.....	76	800,000							185,243	85,688	6			
	71 Richmond and Petersburg.....	22 1-2	700,000												
	72 Winchester and Potomac.....	32	500,000												
N. C.	73 Raleigh and Gaston.....	84 1-2	1,360,000												
	74 Wilmington and Raleigh.....	161	1,800,000												
S. C.	75 South Carolina.....	136								532,871	140,196	5			
	76 Columbia.....	66	5,671,452		34,410	75	201,464	77,456		328,425	180,704				
Ga.	77 Central.....	190	3,000,000	500,000	22,500	100	227,532	93,190		248,096	147,523				
	78 Georgia.....	147 1-2	2,650,000				248,026	158,207							
	79 Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Ky.	80 Lexington and Ohio.....	40	450,000												
Ohio	81 Little Miami.....	40	400,000												
	82 Mad river.....	40	152,000												
Ind.	83 Madison and Indianapolis.....	56	212,000												
Can.	84 Champlain and St. Lawrence.....	15						12,000		58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.  
 Thursday, October 30, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 19,684 06 tons, and by canal 9,926 18, making 29,609 04 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total.....	323,003
From Schuylkill Haven—total.....	327,970
From Port Clinton—total.....	17,089

Total by railroad.....668,663

BY CANAL.

From Pottsville and Port Carbon—total.....	132,936
From Schuylkill Haven—total tons.....	37,250
From Port Clinton.....	42,553

Total by canal.....212,740

Total by railroad and canal.....880,804

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines, -	163,427
Room run do., -	72,511—225,938
Beaver Meadow railroad and coal co.,	68,549
From Penn Haven—Hazleton coal co.,	60,537
From Rock Port—Buck Mountain coal co.,	19,972

374,996

WYOMING COAL TRADE—total.....146,745

PINE GROVE COAL TRADE—total.....38,809

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—

total tons.....364,878

MOUNT CARBON RAILROAD—total tons.....216,148

MILL CREEK RAILROAD—total.....70,038

SCHUYLKILL VALLEY RAILROAD—total.....93,853

[Miners' Journal.]

WESTERN RAILROAD.—Receipts for week ending

Oct. 19th.

	1845.	1844.
Passengers.....	\$6,825	\$7,338
Freight, etc.....	11,025	9,564

Total.....\$17,875 \$16,902

Net gain this week.....973

Net gain previously since Jan. '45....38,671

Total gain.....39,544

Western Railroad.—Receipts for five weeks past,

in three years:

	1844.	1845.
1843.....	\$18,222	\$20,486
14,837.....	17,544	19,426
14,754.....	17,034	19,500
14,682.....	16,837	17,919
15,544.....	16,902	17,875
73,769.....	86,539	95,205

We have not a doubt but that with reduced fares the increase in 1845 over the previous year would have been as much greater than the increase of 1844 over 1843, as it is now smaller. That is, if the fares had been reduced the increase of 1845 would have been at least \$16,539 instead of 8,539. It is im-

portant to insure an increase of the increase, instead of a decrease of the increase; and this will be more likely to follow reduced, than increased, fares. Such has been the case in England and so it will be in this country.

Norwich and Worcester Railroad.—The earnings for two months have been as follows:

	1844.	1845.
August.....	\$24,856 00	\$22,829 30
September.....	23,475 21	23,201 11
Total.....	48,331 21	46,030 41

The following statement of the business on the Housatonic railroad is from the Bridgeport Standard of 7th inst. We are gratified to know that the track will so soon be relaid with heavy iron; and we hope that the anticipations of the editor may be fully realized, as the people of Bridgeport deserve success for their enterprize in opening a communication so far interior. It has been their misfortune, not their fault, that their road has not been in better repute and more productive.

Receipts of the Housatonic Railroad for September.

Freight.....	\$8,790 84
Passage and mail.....	4,571 89
	\$13,362 73

September, 1844.....11,605 09

Increase.....\$1,756 64

The rapid increase of business on this road, notwithstanding the strong prejudice in the public mind against the plate rail, inclines us to the opinion that the road may ultimately prove profitable to all the stockholders, both old and new—and we recommend to those who hold the old stock, not to be in haste to sell at the present rates. The company will commence laying the H rail in a few days, and will complete it through the whole line early next spring; and if the experience of other roads, where the rail has been changed from plate to H, is any criterion by which to estimate the productiveness of this, the receipts of the Housatonic railroad will, ere long, be sufficient to pay a dividend on the old stock, after paying expenses and 8 per cent. on the new.

The certainty of a permanent road, is giving a new impetus to the business interests of the valley of the Housatonic, the resources of which when developed will be found abundantly sufficient to pay large dividends to the stockholders from the local business alone.

Mohawk Railroad.—The receipts for the week ending 30th September, are as follows:

1844.....	\$2,360 19
1845.....	3,198 90
Increase.....	838 71

Buffalo and Niagara.—Earnings for two months:

	1844.	1845.
August.....	\$3,683 00	\$4,949 38
September.....	2,961 09	4,010 22
Total.....	6,640 09	8,958 60

READING RAILROAD.—A comparative statement of the business of the Philadelphia and Reading railroad, for the second week in Oct., in years 1843, 1844 and 1845:

	1843.	1844.	1845.
Week ending Oct. 14, 1843..	\$13,233 06	8,710 00	
“ “ “ 12, 1844..	15,559 14	11,532 00	
“ “ “ 11, 1845..	28,931 73	20,519 00	

For the Third Week.

Week ending Oct. 21, 1843..	\$14,079 23	9,244 00
“ “ “ 19, 1844..	15,528 93	11,269 00
“ “ “ 18, 1845..	27,539 68	19,584 00

South Carolina Railroad.—The Charleston Courier says: A correspondent furnishes the following statement of the receipts of the railroad since 1842:

Receipts for the entire year of 1842.....	\$381,294
“ “ “ 1843.....	401,878
“ “ “ 1844.....	477,808
“ for three months.....	1845 357,684
Add three months to come, supposed same as last year.....	177,034 534,718

Showing an increase of 1845 over 1842 of \$153,424, instead of \$123,333, and an increase of 1845 over 1844 of \$66,910—and this presmning that the three best months in the year are not to exceed those of last year

Railroad Companies.

We recently addressed a circular to the different railroad companies in the United States, in which we offered to insert their standing advertisements, to occupy one-fourth of a column, and to send them two copies of the Journal, one by mail as published, and the other half bound at the close of the year, for twenty dollars. We have long felt the want of some publication, either weekly or monthly, in which may be found the advertisements of all the railroads and steamboats on the principal routes in the country—where a traveller in New York may ascertain at what time he can arrive at, and depart from, Boston, Portland, Montreal, Buffalo, Detroit, Cincinnati, Philadelphia, Baltimore, Washington, Richmond, Charleston, Savannah and other important points, in one paper and in convenient form. Such a publication we have thought would be exceeding convenient to the multitude of travellers in these days; and, with the view of furnishing such a publication, at an early day, either in, or in connection with, the Railroad Journal; we made this proposition to the railroad companies first, in the belief that they would cheerfully respond to it, as by doing so, they will contribute materially to the future prosperity of the Journal, and at the same time, it is believed, to their own interest, and to the convenience of many travellers.

We have already received authority from the following named companies, to insert their advertisements on the terms proposed, and we confidently anticipate similar orders from most, if not all of the other companies; as we have not yet had a single unfavorable reply. We therefore feel assured that where they can, at so little cost, promote their own interest, and render an important service to their passengers, and at the same time so materially contribute to the permanence and future prosperity of this Journal, they will generally, and we hope universally send in their advertisements, and also the twenty dollars.

The Journal belongs to the cause—not to any individual or company—therefore we feel that we have a just claim after devoting to it so much time and effort, with so little return or benefit, during the past fourteen years—upon every railroad company, engineer and railroad shareholder in the country, for their best efforts to extend its circulation, as it is the only one of the kind in the Union, and was the first established any where, though there are now eight or ten in London, all liberally supported by ADVERTISING.

We desire to return our cordial thanks to the following companies for their prompt and favorable reply; and as cordially desire an opportunity to return thanks to every other company in the country for a similar favor.

Boston and Providence; Boston and Maine; Norwich and Worcester; New York and Erie; Baltimore and Ohio; Baltimore and Susquehanna; Richmond, Fredericksburg and Potomac; Central, Georgia and Lexington and Ohio.

We have the pleasure to add the two following named companies, to the list of yearly subscribers at twenty dollars a year, viz. the READING and the GEORGIA railroads.

Locomotion.—“It appears from the Boston papers, that the number of passengers between Boston and New York, by the different routes, for the month of September last, was 19,314, or at the rate of 231,000 per year.”

We find the above in the Journal of Commerce, and will merely add, a friend at our elbow says it would require 82 post coaches per day carrying 9 passengers each—for every week day in the year, to carry these passengers from and to the steamboats, if there were no railroads! No it would not, as, but for the railroads, they would not be there to be carried—certainly not more than one-third of them,

The same paragraph states that "the number of passengers on the Troy and Greenbush railroad, for 6 weeks ending 5th of August, was 19,334,—equal to 12,890 per month, or 154,000 per year. The number of passengers carried on the Hudson river is about 3000 a day for 8 months, or 720,000 a year."

The same writer well remarks that the above "is all thrown into the shade by the travel on the English roads, viz:—Number of passengers on the Great Western road from London to Bristol, 1844, 1,998,000;—on the London and Birmingham road, for 1844, 1,096,000."

It would require seven hundred and nine post coaches daily, each carrying nine passengers between London and Bristol.

**Western and Atlantic (Ga.) Railroad.**—It will be seen by the advertisement in another page that this road is now open to Cartersville in Cass county, and that it is to be opened still further to Coosa depot on 20th November. We do not find this place on the latest maps and will thank the engineer, Mr. Garnett, to give us its location; and at the same time inform us of the progress he is making towards the Tennessee river; that we may know how soon we can reach Nashville by railroad in that direction.

**Magnetic Telegraph.**—The Journal of Commerce says that "a continuous line of heavy leaden pipe was yesterday laid down across the East river, for the purpose of conveying the electro-magnetic fluid upon the New York and Offing line of Telegraph."

There is a possibility we should think that this leaden pipe will get "hooked" by some of the anchors which plough that ground.

**American Railroad Speed.**—We have been informed that the Express train with the English mails and passengers by the Hibernia came from Boston over the Long Island railroad in 2 hours and 20 minutes running time—a rate of 40 miles per hour. The night being clear, and signal lights being prepared in expectation of the express, the train had a clear track and there was neither accident, obstruction nor danger. The engine was the "Brooks," manufactured by Rogers, Ketchum and Grosvenor, of Paterson, N. J. The managers of the Long Island railroad have predicted from the first that they would attain the speed of 40 miles per hour—and they have done it.

There is no road probably in the country where high speed may be attained with more safety than on the Long Island. They will yet perform it in less than two hours.

The Cleveland, Columbus and Cincinnati railroad company has been organized, by the election of a president, secretary, and board of directors. The Cleveland Herald expresses great confidence that the work will be pushed on to completion.

We take the preceding statement from an exchange paper, not receiving the Cleveland Herald, we are of course unable to have early intelligence of the movements at that important point, will the editor please remove this inconvenience, as we desire to be early apprised of the movements along this important line?

The stockholders of the Boston, Concord and Montreal railroad, will meet in this town, says the Concord N. H. Patriot of October 16th, on Wednesday next, to choose directors, etc.

The Toronto Patriot, we understand—we do not receive it—says that "The more we see on the subject in the various journals that fall under our eye, the more inclined do we feel to the belief that oppo-

site Detroit must be one of the western termini of the projected line."

It appears to us that every intelligent man in the country would arrive at the conclusion "that opposite Detroit must be the western termination" of the main line whatever other termination its branches may have, unless he looked through Toronto glasses. The most direct lines are the lines for travellers and business, by which railroads are sustained, whatever may be the wishes and interests of individuals, companies, or towns.

A convention for the purpose of considering the expediency of reviving the project for constructing a railroad from Sunbury, on the Susquehanna, to Erie, was to be held at Ridgeway, Elk county, on the 21st inst. There is a convention called in Danville for the 29th inst. relative to the proposed construction of a railroad from that place or its vicinity to some point on the Reading railroad, and the Williamsport (Lycoming co.) Gazette, received yesterday, contains the following:

A railroad convention will be held at this place, on Friday the 31st instant, for the purpose of devising ways and means for the construction of a continuous railroad from Philadelphia, by way of the West Branch, to some suitable termination connecting with the public works of New York. It is expected that delegates will be here from Philadelphia and several of the eastern counties, and from the southwestern counties of New York. The citizens of the counties contiguous to the proposed route, who feel an interest in the project, are invited to send delegates to this convention.

We find the preceding in the United States Gazette. It shows that the people of interior Pennsylvania are moving—though we have not seen much indication in Philadelphia, of a spirit of co-operation.

It appears to us that the people of Philadelphia are more disposed to prevent their neighbors from accomplishing important enterprises, even if their own interest would be promoted thereby, than to undertake such as are sure to advance their own immediate as well as prospective interest. The capitalists and business men of Philadelphia ought now to move en masse in favor of a continuous railroad to Pittsburg—and also to connect with the New York and Erie railroad, at Elmira, or Corning, or other suitable point; and the more points of connection through the coal region the better. This do-nothing-ourselves-nor-let-others-do-anything-policy is neither generous nor just; and we hope that more liberal views, and acts will be adopted.

**Railway Meeting.**—The citizens of Middletown, Ct., at a meeting on Saturday last, passed the following spirited resolutions:—

- 1st. That it is the determination of this meeting that a road be built from Middletown to the Hartford and New Haven road.
- 2nd. That a committee be appointed to procure subscriptions to defray the expenses of surveys.
- 3d. That a committee be appointed to procure statistics and direct surveys; with power to appoint a treasurer, draw funds, and to call another meeting.

As a matter of course in due time, similar meetings will be held in every village, in the vicinity of main lines of railroad, where there are facilities for manufacturing purposes, or desirable locations for genteel retired residences. When the principal main lines shall have been constructed, and even before, in many places, the branches, or laterals will be commenced, and, within fifteen years their length or number of miles, will equal, if it does not exceed, that of the main lines.

**Erie Railroad Extension and Receipts.**—The people of Erie, Pa., are about to concentrate their efforts for the construction of a railroad along the lake shore to Dunkirk, where the New York and Erie railroad terminates. From Erie to Cleveland, Ohio, a route has been selected, and by the time our

Erie road is finished, the chain will be complete to Cincinnati.

Of course the period has arrived for the movement of the people in every town and village along the south side of lake Erie, if they desire to retain any portion of the travel between the east and west they must have a road completed from Dunkirk to Cleveland, and thence to Cincinnati and to the Michigan roads, by the time the New York and Erie road is ready for use, or travel between Cincinnati and Chicago, and the Hudson river will nearly all of it pass through Canada, as they are sure to have a railroad at an earlier day.

**Rival Lines in Canada West.**

In a late number we gave it as our opinion that the two lines across Canada to Detroit had agreed upon a common route, and we supposed our authority to be pretty safe. It is with regret we perceive that, at a meeting in Windsor, opposite Detroit, the "Niagara and Detroit rivers railroad company" have determined to bring forward their line in opposition to the "Great Western railroad company." As formerly observed both roads have the same termini, but the latter is to go via Hamilton at the western extremity of lake Ontario. It is not for us to decide on the relative merits of the two lines, but it is for us to say that both parties are bound by every consideration to prevent two lines being built where only one can be supported, or, what would be equally unfortunate, to see the entire project abandoned. The following extract from the prospectus as published in the St. Catharine's Journal, gives the views of the Niagara and Detroit rivers railroad company.

DIFFERENT ROADS.		From Buffalo to Det't	CAPITAL.	Cost of construction in Canada currency and dollars.	Hours required	PASSAGE.	Profit of investment
Great Western railroad . . . . .	215	£1,500,000	£1,059,022 to 14	12	£1 16 9	7 per cent.	
Niagara and Detroit rivers.	222	£750,000	£625,000 to 2,500,000	6	\$7 35 to 25c.	10 per cent.	
Toronto and Huron railroad.	158	No estimate	No estimate		\$3 to 5		

"The Niagara and Detroit rivers railroad shortens the distance, gains near one-half in time and saves an expense to each passenger of from 2 35 to \$4 35. This board would not have objected to unite in one common route from the terminus of the Western Central railway at Detroit, thence in an eastward direction until it diverged in the most direct line to connect Toronto, Hamilton and Berrie; but as those in whom the management of these lines was entrusted deem it advisable to adhere to their respective routes, no objection is urged to their decision."

We do not profess to understand why the cost, speed and fare on the 215 miles of the

"The merits of these respective routes will be best understood by a comparison of the different statements presented by their reports which are condensed in the following table:—"

Great Western company should be nearly twice those of the Niagara and Detroit rivers company which is 222 miles long. Again, the road from Rochester to Lockport will reduce this difference of 23 miles to an inconsiderable amount. But we shall confine ourselves to a single point in the way of suggestion. Believing, as all must, that the American travel is the great object, it by no means fol-

lows that the business of the country is unworthy of notice; and if sufficient inducement can be held out to secure the former while accommodating the latter we should not object to a trifling increase in distance. This subject was pretty fully examined by Mr. Casey in a paper published in this Journal some years since, in which he advocates the route through the heart of the country in preference to the line near the northern shore of lake Erie. On the other hand, the connection of this city with the west by the New York and Erie railroad and the roads on the southern shore of lake Erie, render it of the utmost importance that the line through Canada should be so constructed as to be able to cope with any rival for that portion of the western trade and travel to which it can offer superior facilities; for—unlike the American and Canadian press, politicians and speculators—we have uniformly scouted the idea of diverting or securing "the western trade" to or by any single communication between the Atlantic and the lakes. It is not in our power at present to pursue this topic; but it will unquestionably occupy much of our attention, if prominent men in the United States have taken a deep interest in the Niagara and Detroit rivers line, as appears to be the case from numerous letters from many influential men in Boston, New York, Albany and Detroit, and if it be true as reported to us, that the Great Western railroad company have met with every encouragement in England and have actually enlisted the railway King himself.

#### Baltimore and Ohio Railroad.

We have been favored with a copy of the annual report of the directors of this company for the past year. It is full and explicit, showing the entire cost of the work, its receipts and expenses for the past year, and a tabular statement of the receipts for passengers and tonnage, during each of the past ten years.

In former years when the Journal was published weekly and in its present form, we had ample space to give such reports entire, but for several years past, when the Journal was issued semi-monthly or monthly, and in octavo size, we could not conveniently give as many reports entire as we desired; but having again resumed the large size and frequent publication, we shall be able hereafter to lay before our readers such of the annual reports as are made by companies which give comparative statements of their business for several years past and others containing matters of interest to them.

We now give the nineteenth annual report of the pioneer American railroad company; and we ask for it an attentive perusal. This company have 221 miles of road including the Frederick branch in use, which with all its appendages for transacting a business that has produced a gross income of \$738,703 during the past year, has cost them \$9,423,000. The account current shows a gross amount of receipts of \$12,143,065 81, it is true, but it will be seen that \$3,181,005 11 of state bonds are deposited with the Messrs. Barings of London, *not sold*, and there is also \$40,096 59 of Baltimore city stock "on hand," the balance is cash in hand.

Without the advantage of experience this work was commenced, the first stone laid on the 4th of July 1828, and with the above amount of capital—which would scarcely have paid the legal and parliamentary expenses and land damages, in England, for such a road—it has been put into successful operation. It will be seen by comparing the receipts for the years 1835, 1840 and 1845, in which period they have increased from \$281,312 in 1835 to \$391,069 87 in 1840, and to \$738,603, in 1845, or nearly doubled

in the last five years, and it may with truth be said that they have only now *just begun* to work to advantage; the coal region is just reached and the iron mines opened—a beginning and barely that—made to send the produce of these mines to market.

In the early history of this enterprise, as in all time since, Maryland, it is true, wielded the laboring oar, yet Virginia and Pennsylvania through whose territory, one or both, the road must pass, to reach the Ohio river, yielded a ready and cordial assent; and not only so, but also agreed to contribute largely to its construction, if it should be completed within a specified period. With these pledges of public faith by two neighboring states, gallant Maryland and still more gallant Baltimore, put forth their energies and utmost efforts to accomplish what was then justly considered one of the greatest works of modern times; and under ordinary circumstances the work would have been before this time, completed to the Ohio; but the unexampled revulsion of 1837-8 and 9, compelled the company to suspend operations when they had completed but a little more than one half the distance, though we suppose that nearly or quite two-thirds of the expenditure necessary to carry the work through, has been made, as extensive surveys and examinations of the country west of the present terminus have been made.

It may well be said of this company that they have contributed largely to the cause of railroads in the United States. They have had great experience and have paid dearly for the reputation of being pioneers in the introduction and establishment of a system which will revolutionize the habits of the people and cause the earth to give forth its riches both of soil and minerals, with a far more liberal hand. We may safely say that they have paid millions for their experience; and in the advantages of that experience every railroad company in the country is now largely participating, and yet after many years of great effort, having rode out the storm in which so many foundered—sunk to rise—not yet; and when after having refitted their ship, which had been thrown by a tornado upon an inhospitable coast, they ask to be permitted to recommence their voyage for their port of original destination and for which they have the original papers, they are met, by those who formerly solicited them to make the voyage, and even agreed to defray a part of the expense, with the reply, no! you did not accomplish the voyage within the time specified, therefore we will neither pay what we agreed to nor even allow you to enter our harbor! No, not even though many of our own people desire and will be largely benefited by it. Therefore they are compelled, for the present at least, to suspend their voyage and to make fast to a rock in the midst of the ocean—or rather a mountain in the forest—until more liberal views predominate and more enlightened rulers view the government of those states through whose territory it is desirable to pass, and that time is not distant. The spirit of the age is onward. Railroads tend to enlarge and liberalize the views of mankind. It will be soon seen that the construction of one railroad leads surely to the construction of another, and that to another and so on.

The objection made by "old Virginia"—by this we mean the eastern part of the state—to the termination at Parkersburg, if we understand it, is that it will interfere with the "James river and Kanawha" line of improvement from Richmond to the Ohio river. And the objection of a part of Pennsylvania to its termination at Pittsburg is, that it will interfere with their state works, and also prevent the construction of a railroad direct from Harrisburg to

Pittsburg. These objections may all be valid and just, yet we do not deem them either valid or just, but entirely the reverse. Indeed we have not a doubt but that the early completion of the Baltimore and Ohio railroad through to Parkersburg or other suitable point of termination on the Ohio, would insure the construction of the James river line of improvement, by a railroad, of course, over the mountain, to the Ohio, at an earlier period than it will be made if the Baltimore and Ohio railroad terminates finally at the coal region; and so, on the other hand, if it were to be continued from Cumberland to Pittsburg, it would insure the construction of a continuous railroad from Pittsburg to Philadelphia in less time than it would be otherwise built.

People oftentimes do from example or necessity, what they might not do, even though their interest would be promoted by it, as matter of course or inclination. And it will be in a few years better understood by the mass and the selfish, that the true way to have improvements of this kind, is to encourage, not to resist those who are able and willing to construct them, simply because they will not pass their door. They will learn that one great work induces another, and another, thereby affording eventually the greatest possible accommodation to the greatest number, though every individual may not be equally benefited.

It appears to us, if we may be allowed to express an opinion, that this company has a just claim upon Virginia for the right of way to the Ohio river; the claim of the company, however, weighs as but a feather in comparison with the right of the public—the millions who will pass over it, if properly built to the right point—and we do not hesitate to say that the people of Virginia have too much regard for the general interest and too much respect for individual rights, to stand in the way of the early completion of this noble enterprise, especially when so many of her own citizens on its line will be so much benefited; and more especially as its construction will insure early and successful action on her own main line, from the mouth of the Kanawha to Richmond.

The true policy is to build as many lines as possible between the Atlantic and Mississippi; the more avenues the more trade and travel, and at the lowest rates possible; whereas, with only one or two main lines over the mountains, high rates and poor accommodations are the sure result, as on some of our present Atlantic lines where there is no rivalry. There will be good business for all the lines which the people are willing to pay for; the only difficulty will be to build avenues enough to accommodate the business between the east and the mighty west.

We have by the Great Western our London and Mining Railway Journals to the 8th inst. but we find very little new or interesting. Indeed they are so filled with advertisements that there is no room for anything else. The Railway Times of 4th October has two supplements of 32 pages each, making 96 pages in all, or 2 of tables, 12 of reading and 82 of advertisements!

The prices of iron are much the same as reported by the Hibernia; it will however advance. The meeting of the Staffordshire iron masters was held at Dudley on 26th ult. preparatory to the quarterly meetings, and though strictly private, yet it is known that there was a general feeling for another advance.

It is proposed to build a railway from London to Newcastle expressly for freight; coals to London and miscellaneous freights in return. It is estimated to cost £4,000,000, and to carry 3,000,000 tons of coal.

Mr. Herron's letter of October 11th, in relation

to the wear of railroad iron, the expense of keeping his track in repair, etc., was duly received—and portions of it are in type, but with other articles, crowded out by the Baltimore and Ohio report—which we desired to give entire—but have been obliged to omit the table, showing the business of ten years past, which we shall give next week.

For the American Railroad Journal.

I notice in your last paper, some doubts on the efficacy of Kyanizing, as a method of preserving timber—derived as you think, from notices in the English papers. As one of your subscribers, I would be much obliged if you would look up and publish any facts or opinions on this subject, that may be within your reach. The evidence I have seen, has all been on the other side, and I would be glad to learn the truth of the matter.

Yours &c. —

Besides the above, we are also questioned by Mr. Herron as to our authority for doubting the value of Kyanizing. Besides the discussion in the "*Civil Engineer*," to which we presume the latter gentleman refers, we distinctly remember to have seen a statement in some English journal—we are unable to say which—to the effect, that large quantities of timber prepared in this way, had rapidly decayed. In the mean time, any of our readers who may have seen the same statement or its contradiction, will, we hope, not hesitate to confirm our view, or, if we be in the wrong, to set us right. This is one of those very few cases in which a total defeat is preferable to victory. Some method of increasing the durability of timber, and if possible, its hardness, which should be simple, cheap and efficient, would be of inestimable value in this country, and the almost total neglect with which this subject has been regarded by the managers of our railroads, says as little for their knowledge of their own interests as for their skill and enterprize.

#### Columbus and Cincinnati Railroad.

The editor of the Cincinnati Daily—says that in a recent tour, he twice visited Columbus, the seat of government, where he found numerous evidences of increasing prosperity and rapid growth. After speaking of the numerous public institutions he says that Columbus is probably the best built town of its size in the Union, and that it has the "*largest hotel in cubic feet in the United States.*" We should like to look at it, especially as he says also that its proprietor Mr. McNeil has taken great interest in the railroad from Columbus to Xenia; that:—

"Mr. Medberry, the engineer has just completed his second survey, and located the principal points. The distance is about fifty-two miles, and there are but four variations from a straight line. Between these points, the road will be straight. The country is a plain, and the ascent and descent so small, that it is not easy to conceive of less. The country through which it passes is one of unrivalled beauty and fertility. In many places it is a natural meadow, and there is very little heavy timber. Most of it is fenced in, and there graze thousands of cattle and sheep.—The farmers are rich, and live, as the phrase is, "at home"—casting their eyes, like Abraham, over the broad acres where their cattle, sheep, horses and mules repose on the soft green of velvet meadows—growing fat, to be hereafter exchanged for 'the current money of the merchant.' It is pleasant to live in such a country, and pleasant to look upon such prosperity."

We are fully of this opinion and should like it above all things—especially above the bricks, mortar, dust and filth of a large city—yet here we are in the midst of it.

#### Columbus and Cleveland Railroad

The amount of stock required to organize the company to construct a railroad connecting the cities of Columbus and Cleveland, has been subscribed, and a meeting of the stockholders is to be held, to organize, etc., on the 11th of October. "We do not know (says the Ohio State Journal,) what the prospects are of a speedy commencement and completion of this work, but viewing it as we do, of great importance to the intermediate country and to the whole state, we earnestly hope it may be promptly commenced and vigorously prosecuted. That the extent of travelling and transportation upon it would be very great there can be no doubt, and if judiciously located and substantially and at the same time economically constructed, it seems to us it must prove very profitable stock to the owners. However this may be, that such a road would add many times its cost to the value of property on its line, is a question about which there can be but one opinion. Every acre of wheat through a strip of country 30 miles in width and more than 100 in length, would be worth an additional dollar by the diminished expense of transportation. The road hence to Cincinnati will be done within a year or two. Extend it to Cleveland, and thereby bring Columbus within eight and Cincinnati within fourteen hours of Cleveland, and both within about two days and a half of New York and Boston, and who is bold enough to predict the extent of travelling upon it!—And whatever it might be on the completion of the road, it would go on increasing till the whole Mississippi valley shall be fully peopled and every rood of land in its wide limits sustains its man.

"That this work can be executed we have no doubt, if exertions commensurate with its importance be made, and that they will be made we have strong confidence."

These are our sentiments precisely only the writer does not give the road as much credit as it would be entitled to on account of the increased value of the land—a dollar an acre? yes much more than that average would be added to the value of every acre of land within 15 miles of it, and half a dollar to the next 15 miles on each side. Few people duly appreciate the value of railroads in this respect.—They are none of your periodical friends or servants, but are always ready to serve you with despatch, and at comparatively cheap rates.

#### Lake Erie Railroad.

From Dunkirk to Cleveland, Sandusky and the West.—Having extended our journey from Cincinnati to Columbus and Cleveland, we avail ourselves of the present opportunity to call upon our friends along the lake shore, and to give them an intimation that the Canadians are quite disposed to save them all further trouble in relation to a railroad along the south side of lake Erie, as it is their intention to have an excellent railroad at an early day between Buffalo and Detroit, and between Toronto and Port Sarnia, which will answer all their purposes; and perhaps they may allow the people of Ohio to establish ferries across the lake and avail themselves of the Canadian roads, which they will be

obliged to do in some instances, unless measures are taken to extend the road from Cleveland to the New York and Erie.

#### Atmospheric Railway -- Railway Accidents.

The following article, abridged by the editor of the London Mining Journal, from the Perth and Dundee Advertiser, contains matter of interest to the railway world. If Mr. Pinkus has succeeded in making the improvements therein specified, he is surely entitled to high commendation, and rich reward.

The number of accidents on our railways has characterized them as in some degree hazardous. Parliament has been asked to interpose its authority—coroners have annexed heavy deadends—and the press is constant and earnest in denouncing and advising.—But legislation has only clumsy expedients in its power which may cripple and discourage enterprize; the inquest court wields an antiquated, absurd, and avenging instrument; and the "fourth estate" lengthens, or circumscribes, its efforts as its pages can otherwise permit.

*The public look to the growing lights of science—to the schemes of inventive genius, for the perfecting of the railway wing.* The atmospheric method of propulsion seems to possess the merit of superior safety. The proof of this should, we think, cause its immediate adoption. The old lines may resist it as an expensive innovation, but the promoters of the new ones will no doubt instruct themselves as to the advantages of the scheme. If greater safety on the transit and less expense in the working be the results of their investigations, their own interest, as well as that of the public, will insure its being preferred.—Mr. Henry Pinkus (the first patentee of the invention) has effected a great many improvements on the principle of the Dublin and Dalkey line. The scheme adopted by Messrs. Clegg and Samuda (the Croydon line) is constructed on the same principle. Some eminent engineers have strenuously opposed the atmospheric method of propulsion. Their objections (as appears from the evidence before the commons, 15th May, 1844.) rested principally on the facts of leakage and expense of working; though they all agree in acknowledging the great security of life and limb which it affords. Mr. R. Stephenson, who is at the head of the profession, stated before the committee on the Croydon and Epsom railway; that, in his opinion, "the atmospheric principle's safety is nearly perfect." It remains therefore merely to prove its practicability—that is, that the inordinate loss of power by leakage (equal to 5½ horse power per mile,) and the heavy expense for fixed engines—viz., 300 horse power for six miles—can be overcome and dispensed with. It is said that Mr. Pinkus has accomplished this; and the promoters of our new railways should acquaint themselves with the particulars of his discoveries. We have only space to enumerate them.—1. The long valve is dispensed with; hence the leakage complained of is entirely avoided.—2. A double line of railway requires only a single propelling tube.—3. Instead of engines of 100 horse power, he requires only one of 50 horse power at each terminus.—4. The diameter of the main tube is only one-



half of that used on the present atmospheric lines.—5. The stationary engines are kept working constantly.—6. The column of air in the tube does not move so fast as the train, a portion having been exhausted during intervals by the engines being kept constantly at work.—7. In ascending and descending inclined planes the air in the reservoirs, properly located, is exhausted or compressed, so as to serve as a new power and as a regulator of speed downward. Such are a few of Mr. Pinkus' specifics for the improvement of the acknowledged defects of the atmospheric principle. The cost in first construction is lessened, and also the expense of working, not only by avoiding the great leakage hitherto experienced, but also by the small size of the fixed engines employed. We notice with pleasure the efforts of this gentleman, because to him may belong the honor of making railways, the great invention of the age, as safe as they are useful. Quickness of transit is the crowning feat of the rail; but, if increase of danger go side by side with increase of speed, the public feeling, and, very probably, an act of parliament, would part with the privilege rather than encounter the risk. Mr. Errington, before a committee of the lords, stated that 13 hours between London and Forfar would only be required. But the masses who daily journey on railways would forego the acknowledged advantage of such economy in time were one man's life to be the price of it. If, as is confidently asserted, by those most intimate with Mr. Pinkus' plans, entire safety is to be secured without any diminution of the speed of the rail, then is he to be accounted a general benefactor to society.

#### Baltimore and Ohio Railroad Report. (Continued from page 692.)

These statements show the net earnings for the year ending the 30th ultimo, to be \$95,094 65, nearly six per cent. upon the capital; which added to surplus of the preceding year, amounting to \$11,795 19, make an aggregate of \$106,889 84.

Of this sum, the board divided three dollars per share in April last; and they have determined to divide the same amount for the six months ending the 30th ultimo, payable on and after the 1st of November next.

The sum paid to the state for the six months from the 1st of July 1844, to the 1st of January 1845, being one-fifth of the gross receipts from passengers, amounted to \$17,264 89; and from the first of January 1845, to the first of July 1845, to \$21,434 54, making together \$38,699 43.

It will be observed that if to this sum of \$38,699 43 be added \$33,000, the amount of dividend to be received by the state from the Washington road; \$15,000, the dividend to be received from the main stem; \$1,269 60 regularly remitted to London as the interest on £5,250, the amount of the sterling bonds sold on account of the state's subscription of \$3,000,000—it will be seen that, during the year, the state has received the aggregate sum of \$87,969 03, being nearly nine per cent. upon her investment in both roads.

The slight decrease in the gross receipts

of this road during the past year, as compared with those of the year previous, will be accounted for from the circumstance that numerous political conventions were held in this city during the spring and summer of 1844, which contributed very largely to the extraordinary receipts of the road. As compared with the year 1843, there appears to be a steady increase in the revenue derived from ordinary sources; and it is believed, that the present rates of fare, combined with the fact that the stages, which have heretofore been running in competition with this road, have been withdrawn, will have the effect of materially increasing it for the future.

Complaints having been, for some time, made by the public on account of the rate of fare charged upon this branch, the legislature of Maryland, at its last session, authorized the board to reduce the fare, in its discretion, to a point not below \$1.50 for the entire distance between the cities of Baltimore and Washington; to go into effect on the first of June last. The board feeling the responsibility thereby devolved upon them, for a time hesitated to conform in any degree to the provisions of the law, believing as they did, that the experiment made by low fares upon roads passing through a dense population occupied chiefly in mechanical or commercial pursuits, could not with safety be applied to one which penetrated a district where the population was sparse, and occupied almost entirely with agriculture. It is due, however, to many of the gentlemen of the board to say that they entertained a different opinion; and that, although the deficiency which would occur by the reduction of the fare, might not be made up from increased travel drawn from the immediate line of the road, yet they contended that such increase would occur from other quarters more remote, the inevitable tendency of low fares being to create travel. A majority of the board, at length, consented to make the experiment of a lower rate, and at their regular meeting in July, resolved to reduce the fare to two dollars, both for the through and round trip tickets. The result of this experiment was such as to convince those who had previously doubted, of their error, inasmuch as the revenue, so far from being diminished, was actually increased over that of the corresponding period last year; and that too, while the line of stages, which had existed for some time between the two cities, continued to run with no very sensible diminution of travel. Under these circumstances, the board being, at the same time, sensible that the round trip ticket was, in many instances, made use of for the most fraudulent imposition, caused estimates to be made of what would be the state of the revenue if the fare were reduced to four cents per mile; the round trip discontinued, and the stages withdrawn. These estimates were sufficiently satisfactory to justify the experiment of a further reduction; and accordingly, at their regular monthly meeting in September, it was determined that, from and after the 15th of that month, the fare should be reduced to \$1.60 between the two cities, or at the rate

of four cents per mile, and the round trip ticket to be discontinued. The short time which has elapsed since the adoption of this policy does not afford, perhaps, a sufficient test of its correctness; but, up to this time, the number of passengers has considerably augmented, and the revenue has manifestly increased over that of the corresponding period of last year.

One of the results arising from the reduction of the rate of fare, of by no means inferior consequence, will be found in the fact that one of the most serious objections to granting the right of way on the part of the state of Virginia will be entirely obviated.—So important, indeed, was it considered by the legislature of that state at its last session, that it was made a special condition, in the law passed on that occasion, that the fare on this road should be reduced to the point at which it is now placed.

It is also gratifying to observe, that the bonus accruing to the state will be considerably augmented by the increasing travel over the road, and fully justified the wisdom of the policy which led to the enactment of the law authorizing the reduction.

The condition of the track upon this road is also entirely satisfactory, the cost for repairs is comparatively light, and its general administration, it is believed, will compare favorably with any other road in this country.

#### *Of the further extension of the road to the Ohio river.*

The board have again to express their regret that the obstacles which have heretofore existed to the extension of the road from Cumberland to the Ohio river, still continue. It is true, as the stockholders are aware, that a law was passed by the Virginia legislature, at its last session, authorizing the company to extend its work to the Ohio river, to terminate at the city of wheeling; but the route indicated by that law was considered so impracticable for any useful purpose, and its other conditions are so onerous, that at a meeting of the stockholders, called for its consideration, on the 12th of July last, it was almost unanimously rejected. An effort was also made by the citizens of western Pennsylvania, to procure from the legislature of that state, at its last session, a law authorizing this company to extend its work to the city of Pittsburg, but without success. The citizens of a considerable portion of both these states, seem to be fully awake to the accomplishment of this important object, and will make renewed and more vigorous efforts for that purpose at the next session of their respective legislatures. A convention has recently been held at Greensburg, in Pennsylvania, composed of a large number of delegates from the western portion of that state, which indicated the most decisive spirit upon this subject; and, it is confidently hoped that their efforts will not be unsuccessful.

Indeed, a proper and candid consideration of the subject would, it is submitted, lead to the conclusion that not only the western, but the eastern interest of the state of Pennsyl-

vania, and especially those of Philadelphia, are most seriously involved in it. The construction of a canal leading from Cincinnati through the state of Ohio to lake Erie, has already diverted a very considerable portion of the trade of the valley of the Mississippi from Philadelphia to New York. Merchandize has been transported from the latter place, during the present season, to Cincinnati, at a much lower rate than it would have cost to the same point by way of the Pennsylvania canals and the Ohio river.—The completion of the railroad from Cincinnati to Sandusky, on lake Erie, which is now in active progress, must inevitably divert the stream of travel from the great west to New York and Boston, and it will scarcely be denied that, when it reaches those cities, the inducements which will be held out to merchants in their purchases there, will be quite sufficient to prevent them from going to Philadelphia; whereas, on the other hand, if, by the completion of the Baltimore and Ohio railroad to Pittsburg, the travel is drawn towards Baltimore, whatever benefit may result to her, a very large proportion must undoubtedly accrue to Philadelphia. In this particular at least, the interests of the two cities are identified; and, instead of regarding each other with a jealous distrust, they should be found uniting with hearty and untiring energy against the efforts of their northern rivals—New York and Boston. Other considerations why the best interests of Pennsylvania would be promoted by a liberal policy on her part towards this company, could be adduced; but, at present, they might be considered out of place.

In regard to Virginia, it is hard to believe that she will continue to pursue a policy which, it is believed, is without a parallel in any other of the states of the Union.

New Hampshire has, in three different instances, given the right of way to lines of railroad terminating in Massachusetts. Massachusetts has permitted, in three cases, the extension of lines from cities on the coast of Connecticut and Rhode Island into her limits. New York has allowed the construction of the great western line running from Troy and Albany towards Boston, and has also permitted her great southern route to lake Erie to be tapped at Elmira, in Pennsylvania; thereby forming a connection with Philadelphia. Pennsylvania has, by the Susquehanna and Tide Water canal, and the Baltimore and Susquehanna railroad, permitted a connection to be made by Baltimore with her whole system of public works. Indiana has allowed the Whitewater canal to terminate at Cincinnati. Maryland has, also, given a most signal example of liberality to a great enterprise by permitting the Chesapeake and Ohio canal, which traverses 200 miles of her territory, to terminate in the District of Columbia. And finally, the road leading from Charleston in South Carolina, passing through Georgia, Tennessee, and Kentucky, and looking to Cincinnati as its termination, completes the catalogue. Virginia alone of all the states seems to stand aloof from so liberal a policy, and to regard the appeals of even her own citizens upon this subject with indifference.

If it were possible to draw the trade of the great west to her capital by means of the James river and Kanawha canal, there might, perhaps, be some force in the arguments used for not granting to this company the right of way; but who, that is at all familiar with the growing greatness of the Mississippi valley, can for a moment suppose such a result to be possible?

It is not beyond the range of a brief memory, since almost the entire region of country watered by the Ohio and Mississippi rivers, now teeming with millions of human beings, and rejoicing in the comforts and blessings of civilization, abode in primeval solitude; and, who now can foresee, what will be the resources of this vast region within a few short years to come? As it has been, so will it again be beyond the conception of the most enthusiastic mind.

Enough however, is known to render it a matter of absolute certainty that sufficient will be found to justify the most sanguine anticipations, predicated of all the great schemes of internal improvement of the present day. In this view of the subject, it cannot be doubted that the Virginia legislature, at its next session, will grant the privilege of the right of way, unembarrassed by onerous and oppressive conditions.

To the city of Baltimore, the completion of this work to the Ohio river is an object of the most earnest solicitude.

Since the completion of the lock and dam, navigation on the Monongahela, rendering the communication between Pittsburg and Brownsville expeditious and easy, much the largest portion of the western travel has been diverted from other routes to this city; and during the winter season, when the Pennsylvania and New York canals are closed, this road is beginning to be regarded as the cheapest and most desirable route for the transportation of merchandize, between the Atlantic seaboard and the west.

These results are, however, but the small dust of the balance, compared with those which may be expected when the work is completed to the Ohio river.

The experience of the past gives glorious promise of the future; and, the tide of prosperity, which has already set in upon us, the evidences of which greet us on every hand, will continue to flow with a constantly increasing volume, until Baltimore shall become, what nature originally intended her to be, second to none of the cities of the Union. By order of the board,

SAMUEL JONES, JR.

President pro tempore.

#### Madison and Indianapolis Railroad.

We find the following from the Indiana State Journal to show the progress of business on the Madison and Indianapolis railroad. What they do now however is a mere beginning compared with what will be done when the road shall be completed to Indianapolis, which we hope will be done at an early day—and when it is completed to that point we shall expect to see early movements for its extension towards the lake.

Business during the week ending Oct. 11, 1845.

Outward.—151 passengers; 65,700 lbs.

merchandize; 392 bls. salt; 15 bls. whiskey; 2 bls. tar; 9 bls. molasses; 8,000 shingles; 151 bu. stone coal; 11 half bls. beer; 12 plows:

Inward.—204 passengers; 5,236 bushels wheat; 88 bu. corn; 150 bu. flaxseed; 77 bu. bran; 489 bls. flour; 201 bu. oats; 40,000 ft. lumber; 15 cords wood; 185 empty barrels; 5,000 hoop poles; 5 bls. apples; 96 bu. potatoes; 8,500 lbs. other freight.

There is no material change in the market since last week, except in wheat, which has advanced 3 cents. It is selling to-day at 53. I learn a contract for pork to be slaughtered here was made to-day at \$4 neat—this is a high price, higher perhaps than is warranted.

The passenger cars during the fall and winter season, will leave Madison every day, (Sundays excepted,) at 5½ o'clock a.m., and then leave the depot at 6½ o'clock a.m., and will reach Edinburg at 11 o'clock. Passengers going north, take comfortable coaches at this point, and reach Indianapolis the same day from 6 to 9 o'clock in the evening. Returning, the cars leave Edinburg at 12, and arrive at Madison at 5½ o'clock p.m. Passengers wishing to ascend the Kentucky river or go down the Ohio, can soon after their arrival take the mail boat leaving Madison in these directions. Passengers destined up the river can take the evening line of mail boats at 10½ p.m., or the morning packet at 7 o'clock, and reach Cincinnati in 8 or 10 hours thereafter.

Two locomotives in complete order are in daily operation between Madison and Edinburg.

**WESTERN AND ATLANTIC RAILROAD.** The Western and Atlantic Railroad is now in operation to Marietta, and will be opened to Cartersville, in Cass county, on the 20th of October—and to Coosa Depot, (formerly known as Borough's,) on the 20th of November.

The passenger train will continue, as at present, to connect daily (Sundays excepted) with the train from Augusta, and the stage from Griffin.

CHAS. F. M. GARNETT.

Chief Engineer.

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#### BOSTON COURIER, DAILY, SEMI-Weekly and Weekly.

The Daily edition of the Courier, presents to merchants and others, an extensive medium of advertising. The circulation of the Semi-Weekly Courier (published on Mondays and Thursdays) is believed to be more extensive than that of any other similar Boston Newspaper. This publication embraces all the reading matter of the Daily, the Foreign and Domestic Markets, Review of the Boston Market, Prices current, and Ship News, prepared with great accuracy. The Weekly Courier contains as much of the matter of the daily as can be crowded into a sheet of the same size, without ship news, prices current or advertisements.

Our extensions to obtain and publish authentic information on all topics proper for the columns of a newspaper—the state of trade, the prices of merchandize, the current news of the day, and the political movements in the various sections of the country—will not be abated. The marine department of the Courier has been inferior to none in copiousness or accuracy of detail, and it will be our endeavor to maintain its reputation in this respect.

#### TERMS OF SUBSCRIPTION.

For the Daily Courier, for one year, in advance \$8.00  
For the Semi-Weekly Courier, for one year . . . 4.00  
For the Weekly Courier, for one year . . . . . 2.00

JOSEPH T. BUCKINGHAM.  
EBEN B. FOSTER.

**BOSTON AND MAINE RAILROAD.**

Upper Route. Boston to Portland via, Charlestown, Somerville, Malden, Stoneham, South Reading,

Reading, Wilmington, Ballardvale, Andover, North Andover, Bradford, Haverhill, Atkinson, Plaistow, Newtown, Kingston, East Kingston, Exeter, South Newmarket, Newmarket, Durham, Madbury, Dover, Somersworth, South-Berwick, North Berwick, Wells, Kennebunk, Saco and Scarborough.

Winter Arrangement, 1845 & 6. On and after Monday, October 20th, 1845, Passenger Trains will run daily, (Sundays excepted,) as follows, viz.

Leave Boston for Portland at 7 1/2 a.m. and 2 1/2 p.m. Leave Boston for Great Falls at 7 1/2 a.m., 2 1/2 p.m. and 3 1/2 p.m. Leave Boston for Haverhill at 7 1/2 a.m., 2 1/2 p.m. and 5 p.m. Leave Portland for Boston at 7 1/2 a.m., and 3 p.m. Leave Great Falls for Boston at 6 1/2 a.m., 9 1/2 a.m., and 4 1/2 p.m. Leave Haverhill for Boston at 6 1/2, 8 1/2, and 11 a.m., and 6 1/2 p.m.

Special Train.—A special train will leave Boston for Andover at 11 1/2 a.m., and Andover for Boston at 3 1/2 p.m.

The Depot in Boston is on Haymarket Square. Passengers are not allowed to carry Baggage above \$50 in value, and that personal Baggage, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every \$500 additional value.

CHAS. MINOT, October-20, 1845. 43 1y Super't.

**SPRING STEEL FOR LOCOMOTIVES,**

Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/4 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent, 55a3 Albany Iron and Nail Works, Troy, N. Y.

**TO IRON MANUFACTURERS. THE**

Subscribers, as Agents of Mr. Geo. Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late R. V. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO., ja45 No. 4 Sout Fronth st., Philadelphia, Pa

**MACHINE WORKS OF ROGERS,**

Ketchum & Grosvenor, Paterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work. Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR; a45 Paterson, N. J., or 60 Wall street, N. York.

**FOR SALE AT A SACRIFICE—A LOCO-**

motive Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine. 2 8-horse " " " " 1 Upright Hydraulic Press.

All of which will be sold low, on application to T. W. & R. C. SMITH, Founders and Machinists, Alexandria, D. C.

May 12f

**GEORGIA RAILROAD. FROM AUGUSTA TO ATLANTA—171 MILES.**

This Road in connection with the South Carolina Railroad and

the Western and Atlantic Road now forms a continuous line of Railroad of 360 miles from Charleston to Cartersville, two miles west of the Etowa River in Cass County.

Rates of Freight, and Passage from Augusta to Cartersville.

On Boxes of Hats, Bonnets, and Furniture per foot.....15 cts. " Dry goods, shoes, saddlery etc., per 100 lbs. 85 " " Sugar, coffee, iron, hardware, etc. " 70 " " Flour, bacon, mill machinery etc. " 33 1/2 " " Molasses, per hoghead \$9; salt per bus. . . 22 " Passengers \$9 50; children under 12 years of age and servants, half price. Passengers to Atlanta, head of Ga. Railroad, \$7. German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight payable at Augusta. J. EDGAR THOMPSON, Ch. Eng. and Gen. Agent.

Augusta, Oct. 21 1845. \*44 1y

**NICOLL'S PATENT SAFETY SWITCH**

for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, Reading, Pa.

**GEORGE VAIL & CO., SPEEDWELL IRON**

Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/2 in. to 2 1/2 in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions. ja45 1y

**TO RAILROAD COMPANIES AND MANUFACTURERS**

of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**NORWICH AND WORCESTER RAIL-**

Road. On and after May 22, 1845, Trains will leave as follows, viz:— Accommodation Trains, daily,

except Sunday. Leave Norwich, at 6 a.m., and 4 1/2 p.m. Leave Worcester, at 10 a.m., and 4 1/2 p.m.

The morning train from Norwich, and the morning and evening trains from Worcester, connect with the Boston, Western, and Hartford and Springfield railroads.

New York Train, via Steamboat. Leaves Norwich for Worcester and Boston, every morning except Monday, upon the arrival of the boat from New York, about 2 a.m. Leaves Worcester for Norwich and New York, at 5 1/2 p.m., daily, except Sunday.

New York Train, via Long Island Railroad.—Leaves Norwich about 3 p.m., for Worcester and Boston, daily, except Sunday. Leaves Worcester for Norwich and New York, at 7 1/2 a.m., daily, except Sunday, and arrives in Norwich at 9 1/2.

Freight Trains. Daily, except Sunday. Fares are less when paid for Tickets, than when paid in the cars.

EMERSON FOOTE, 32 1y Superintendent.

**LAWRENCE'S ROSENDALE HYDRAULIC CEMENT.**

This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floors and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE, 142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 32 1y

**SUMMER ARRANGEMENT—FARE REDUCED.**

By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route.

This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

Direct to New Orleans, and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21: whereby the traveller saves \$4 25. Bear in mind that this is the great Southern Mail Line, and the only one that issues a through ticket South. Those who patronize it will save their money and time. Through Tickets from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

Fast Mail Line.—Leave New York at 9 a.m. and arrive in Philadelphia at 3 1/2 p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12 1/2 to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.

Passengers by the above line will arrive at Richmond by 11 1/2 o'clock p.m. and Petersburg, Va. by 2 1/2 o'clock p.m., through to the former city in twelve hours, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those who take the Bay route.

Way Mail Schedule.—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p.m.; arrive in Baltimore at 2 1/2 p.m.; arrive in Washington at 7 p.m. From Philadelphia by steamboat.—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore. STOCKTON & FALLS, 31

**LONG ISLAND RAILROAD.--EVEN-**  
ing Line for Newport and Providence.  
Fare 50 cents.  
Every Tuesday, Thursday and Saturday, from the foot of Whitehall street, at 4 1/2 o'clock and from Brooklyn depot at 5, p.m.  
On the arrival of the train at Greenport, passengers will proceed immediately in the steamer "New Haven," direct. 2t 39

**BOSTON AND PROVIDENCE RAIL-**  
road. Dedham Branch Railroad. Stoughton Branch Railroad.  
Fall arrangement, to commence Monday, September 29, 1845.  
Steamboat train for New York via Stonington, leaves Boston at 4 1/2 p.m.  
Accommodation trains, leave Boston at 8 a.m. and 3 1/2 p.m. Leave Providence at 8 a.m. and 3 1/2 p.m.  
Fare in first class cars, \$1 25  
" second " 85  
Dedham trains, leave Boston at 9 a.m. 3 p.m., and 6 p.m. Leave Dedham at 7 1/2 a.m., 10 1/2 a.m. and 4 1/2 p.m.  
Fare 25 cents.  
Stoughton trains, leave Boston at 12 m. and 4 p.m. Leave Stoughton at 8 a.m. and 2 1/2 p.m.  
Fare 50 cents.  
W. RAYMOND LEE, *Sup't.*  
Sept. 15, 1845. 31 1y

**NEW YORK AND ERIE RAILROAD**  
LINE. For Middletown, Goshen, and intermediate places. Two daily lines each way, as follows:  
For passengers, the new, and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7 1/2 o'clock, A.M., and 5 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4 1/2, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets,  
H. C. SEYMOUR, Superintendent.  
Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale, Carbondale, etc.  
On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc., etc. 31 1y

**BALTIMORE AND SUSQUEHANNA**  
Railroad. The Passenger train runs daily except Sunday, as follows:  
Leaves Baltimore at 9 a.m., and arrives at 6 1/2 p.m. Arrives at York at 12 1/2 p.m., and leaves for Columbia at 1 1/2 p.m. Leaves Columbia at 2 p.m., and leaves York for Baltimore at 3 p.m. Fare to York \$2. Wrightsville \$2 50, and Columbia \$2 62 1/2. The train connects at York with stages for Harrisburg, Gettysburg, Chambersburg, Pittsburg and York Springs.  
Fare to Pittsburg. The company is authorized by the proprietors of Passenger lines on the Pennsylvania improvements, to receive the fare for the whole distance from Baltimore to Pittsburg. Baltimore to Pittsburg.—Fare through, \$9 and \$10.  
Afternoon train. This train leaves the ticket office daily, Sundays excepted, at 3 1/2 p.m. for Cockeysville, Parkton, Green Springs, Owings' Mills, etc.  
Returning, leaves Parkton at 6 and Cockeysville and Owings' Mills at 7, arriving in Baltimore at 9 o'clock a.m.  
Tickets for the round trip to and from any point can be procured from the agents at the ticket offices or from the conductors in the cars. The fare when tickets are thus procured, will be 25 per cent. less, and the tickets will be good for the same and following day in any passenger train.  
D. C. H. BORDLEY, *Sup't.*  
31 1y Ticket Office, 63 North st.

**DAVIS, BROOKS & Co., 30 WALL ST.**  
Have now on hand and for sale,  
200 tons 2 1/4 x 1/2 inch Flat punched Rails, Bars 18 feet each.  
100 tons Heavy Edge Rails, 90 tons per mile.  
30 tons 2 1/4 x 1/2 inch Flat Rails.  
Also—A STEAM PILE DRIVER, built by "Dunham & Co." which has never been used, and cost originally \$5000. s20 2m

**BALTIMORE AND OHIO RAILROAD.**  
MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7 1/2 and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburg and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pitsburgh. Time of arrival at both Cumberland and Baltimore 5 1/2 P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pitsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburg \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.  
WASHINGTON BRANCH.  
Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5 1/2 P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13 1y

**CENTRAL RAILROAD--FROM SAVAN-**  
nah to Macon. Distance 190 miles.  
This Road is open for the transportation of Passengers and Freight. Rates of Passage, \$8 00. Freight—  
On weight goods generally... 50 cts. per hundred.  
On measurement goods ..... 13 cts. per cubic ft.  
On brls. wet (except molasses and oil)..... \$1 50 per barrel.  
On brls. dry (except lime).... 80 cts. per barrel.  
On iron in pigs or bars, castings for mills, and unboxed machinery..... 40 cts. per hundred.  
On hhd. and pipes of liquor, not over 120 gallons..... \$5 00 per hhd.  
On molasses and oil..... \$6 00 per hhd.  
Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE, Gen'l. Sup't. Transportation. 40

**LEXINGTON AND OHIO RAILROAD.**  
Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.  
Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 23 miles. Fare \$1-25.  
On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.  
The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above. 35 1y

**KEARNEY FIRE BRICK. F. W. BRINLEY,** Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to  
James P. Allaire, } New York.  
Peter Cooper, }  
Murdock, Leavirt & Co. }  
J. Triplett & Son, Richmond, Va.  
J. R. Anderson, Tredegar Iron Works, Richmond, Va.  
J. Patton, Jr. } Philadelphia, Pa.  
Colwell & Co. }  
J. M. L. & W. H. Scovill, Waterbury, Con.  
N. E. Sew Co. } Providence, R. I.  
Eagle Screw Co. }  
William Parker, Supt. Bost. and Worc. R. R.  
New Jersey Malleable Iron Co., Newark, N. J.  
Gardiner, Harrison & Co. Newark, N. J.  
25,000 to 30,000 made weekly. 35 1y

**RAILROAD IRON AND FIXTURES.**  
The Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.  
DAVIS, BROOKS & CO., 30 Wall st., N. York. ja45

**OFFICE OF THE NEW YORK AND**  
Erie Railroad Company. No. 50 Wall st. New York. September 13, 1845.

Notice is hereby given to the holders of stock of the New York and Erie Railroad company, that by the terms of the 8th section of the Act of the 14th May, 1845, it is provided that, if within 6 years from the passage of the law the company shall complete a single track from the Hudson river to lake Erie and a branch to Newburgh, in Orange county, then "the said company shall be released from all liability to pay to the state any demand which the state may have against them, with this exception only, that in case any holder or holders of the capital stock of said company heretofore issued and certified, or purporting to be paid in full, shall not within six months from the passage of this act, surrender to the company their stock certificates, and receive or offer to receive therefor, for every two shares of stock heretofore issued, one share of stock to be hereafter issued, then all such stock heretofore issued, and not so surrendered, shall not be subject to the provisions of this law; but the state shall retain the right to claim upon such outstanding stock, and the said company shall pay into the treasury of the state, upon the order of the comptroller, any and all dividends upon such outstanding stock, and the comptroller shall apply the same to the credit of said company, until the state shall receive in such dividends, so much of their said debt of three millions of dollars and the interest thereon, as would be the proportion of such outstanding stockholders to pay, provided the whole debt of three millions of dollars and interest thereon were collected ratably from all the stock of said company now outstanding."

By section 9th, of the same law, it is provided that, "it shall be the duty of the president and secretary of said company, within thirty days after the expiration of the six months mentioned in the last preceding section, to file with the comptroller of the state, a statement of all stocks that shall not have been exchanged in pursuance of the provisions of the last preceding section; and whenever any dividend upon the stock of the said company shall be made, it shall be the duty of the board of directors to notify the comptroller of such dividend, and upon payment of the dividend aforesaid into the treasury, the comptroller shall furnish to said company a receipt for the portion of such dividend belonging to any stock not surrendered and exchanged in pursuance of the last preceding section of this act, and said company shall surrender to the holders of such stock the receipt of said comptroller in lieu of said dividends."

It will be seen that on or before the 14th of November next, each and every holder of the stock of the company must decide whether he will avail himself of the provisions of this law by surrendering his stock and receiving one share for every two shares thus surrendered. With reference to holders who neglect to avail themselves of the provisions of the act, it is made the duty of the company, within thirty days from the 14th of November, "to file with the comptroller a statement of all stocks that shall not have been exchanged" agreeably to the provisions of this act, the dividends on which must be paid into the state treasury, rendering that class of stock practically of no value to the holder. The board of directors consider it their duty to protect the interests of the stockholders by giving all possible publicity to that portion of the law relating to the outstanding stock, that all may have an opportunity for an early compliance with the provisions of the act. By order of the board of directors. 39 8t T. S. Brown, Acting secretary.

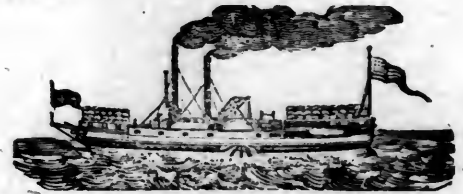
**OFFICE OF THE NEW YORK AND**  
Erie Railroad Company. No. 50 Wall st. New York 4th October, 1845.

Notice is hereby given that the sum of three millions of dollars, required by the law of May 14th, 1845, has been subscribed to the capital stock of this company, and that the books have been closed. The subscribers are required to make a payment of five dollars on each share, at the office of the company, on or before Thursday, the 16th of October inst.

By order of the board of Directors. T. S. Brown, Acting Secretary. 41 2t

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 45.]

THURSDAY, NOVEMBER 6, 1845.

[WHOLE No. 488, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

### RATES OF ADVERTISING.

One page per annum.....	\$125 00
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One square " .....	2 50
One page, single insertion.....	8 00
One column " " .....	3 00
One square " " .....	1 00
Professional notices per annum.....	5 00

### ENGINEERS and MACHINISTS.

J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)  
 TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)  
 ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
 S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
 NORRIS BROTHERS, Philadelphia, Pa.  
 KITE'S Patent Safety Beam. (See Adv.)  
 FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)  
 NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)  
 ROSS WINANS, Baltimore, Md.  
 CYRUS ALGER & Co., South Boston Iron Company.  
 SETH ADAMS, Engineer, South Boston, Mass.  
 STILLMAN, ALLEN & Co., N. Y.  
 JAS. P. ALLAIRE, N. Y.  
 H. R. DUNHAM & Co., N. Y.  
 WEST POINT FOUNDRY, N. Y.  
 PHOENIX FOUNDRY, N. Y.  
 R. HOE & Co., N. Y.  
 ANDREW MENEELY, West Troy. (See Adv.)  
 JOHN F. STARR, Philadelphia, Pa.  
 MERRICK & TOWNE, do.  
 HINCKLEY & DRURY, Boston.  
 C. C. ALGER, Stockbridge Iron Works, Stockbridge, Mass.  
 BALDWIN & WHITNEY, Philadelphia, Pa.

### IRON MERCHANTS and IMPORTERS.

DAVIS, BROOKS & Co., N. Y. (See Adv.)  
 A. & G. RALSTON & Co., Philadelphia, Penn. (See Adv.)  
 THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM.

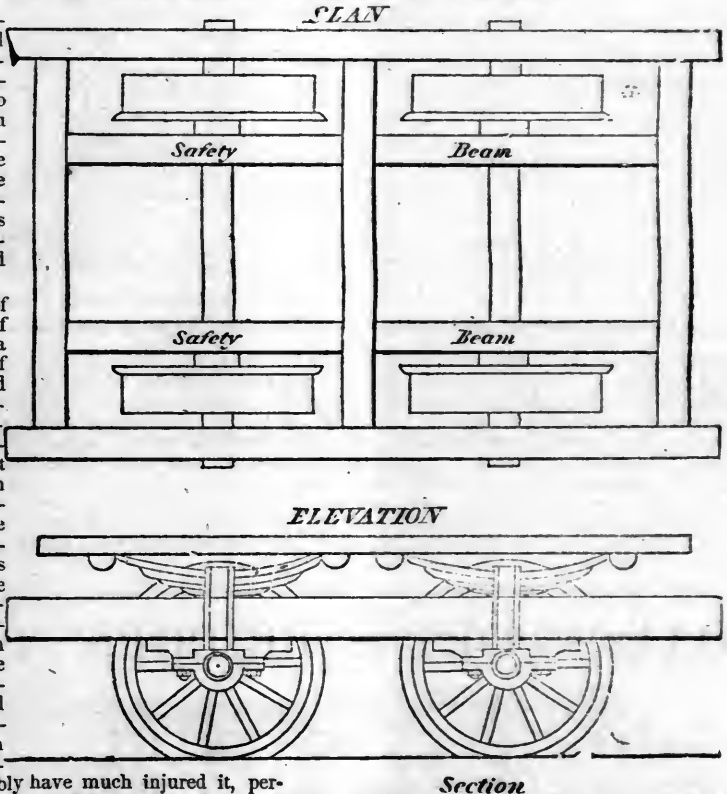
Messrs. Editors.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.  
 Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent, JAMES ELLIOTT, Sup. Motive Power,  
 GEORGE CRAIG, Superintendent, W. L. ASHMEAD, Agent.  
 A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co. Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent. Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brown, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

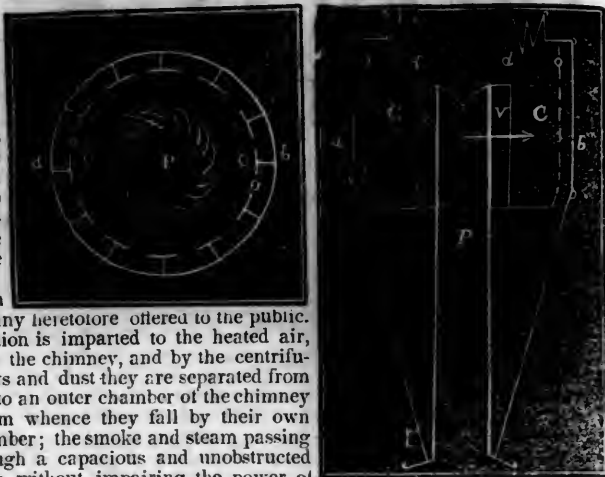
These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. Philadelphia, Pa., April 6, 1844.

\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

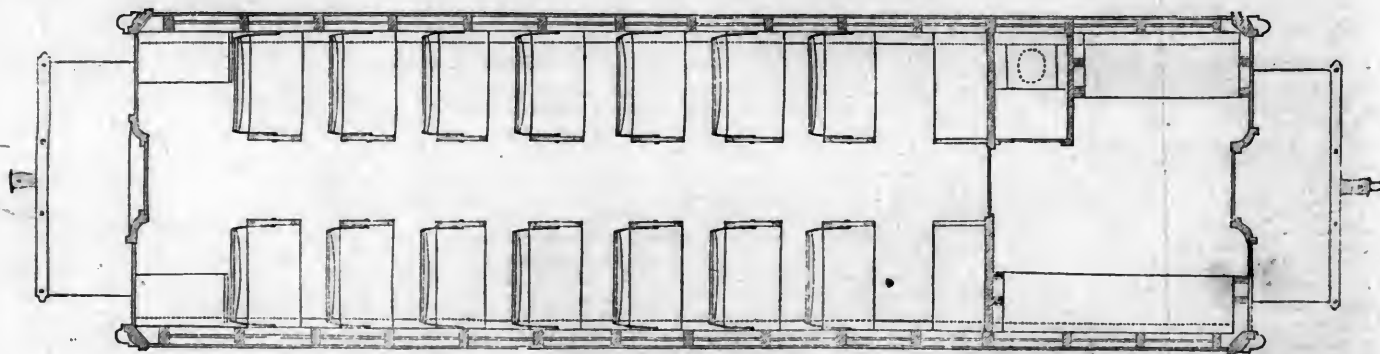


**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

The article is complete in itself, occupies but little space, is perfectly portable, and requires no brick work, not even to stand upon. It is valuable, not only in the saving of time and labor, but in the economy of fuel, as it has been ascertained by accurate measurement, that the saving in that article is fully two-thirds over other methods heretofore in use. They are now for the first time introduced into New York and Boston by the subscriber, who has the exclusive right for the New England states, New York and New Jersey, and are manufactured by

CURTIS & RANDALL, Boston; and by FORCE, GREEN & CO. New York.

**DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.**



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
4 South Front St., Philadelphia.  
Mar. 20tf

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works,  
situated in the town of Newcastle, Del., Locomotive  
and other steam engines, Jack screws, Wrought iron  
work and Brass and Iron castings, of all kinds con-  
nected with Steamboats, Railroads, etc.; Mill Gear-  
ing of every description; Cast wheels (chilled) of  
any pattern and size, with Axles fitted, also with  
wrought tires, Springs, Boxes and bolts for Cars;  
Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders  
will be executed with promptness and despatch.  
Communications addressed to Mr. William H.  
Dobbs, Superintendent, will meet with immediate  
attention.  
**ANDREW C. GRAY,**  
President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important  
improvements in the construction of rails, mode of  
guarding against accidents from insecure joints, etc.  
—respectfully offers to dispose of Company, State  
Rights, etc., under the privileges of *letters patent* to  
Railroad Companies, Iron Founders, and others in-  
terested in the works to which the same relate. Com-  
panies reconstructing their tracks now have an op-  
portunity of *improving* their roads on terms very a-  
vantageous to the varied interests connected with  
their construction and operation; roads having in  
use flat bar rails are particularly interested, as such  
are permanently available by the plan.

**W. Mc. C. CUSHMAN,** *Civil Engineer,*  
Albany, N. Y.

Mr. C. also announces that Railroads, and other  
works pertaining to the profession, may be construct-  
ed under his advice or personal supervision. Ap-  
plications must be post paid.

**TO RAILROAD COMPANIES AND BUILD-  
ERS OF MARINE AND LOCOMOTIVE  
ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

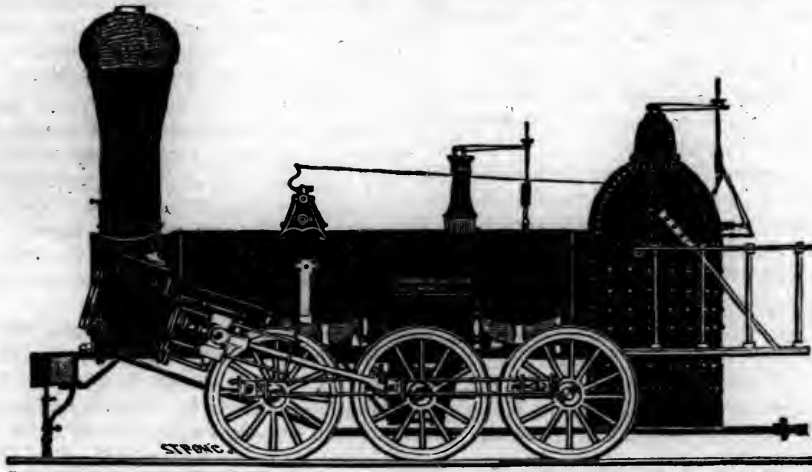
From 4 inches to 1/2 in calibre and 2 to 12 feet long,  
capable of sustaining pressure from 400 to 2500 lbs.  
per square inch, with Stop Cocks, T, L, and  
other fixtures to suit, fitting together, with screw  
joints, suitable for STEAM, WATER, GAS, and for  
LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**

*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descrip-  
tions, viz:

Class 1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
" 2,	14	"	"	"	× 24	" "
" 3,	14 1/2	"	"	"	× 20	" "
" 4,	12 1/2	"	"	"	× 20	" "
" 5,	11 1/2	"	"	"	× 20	" "
" 6,	10 1/2	"	"	"	× 18	" "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion.

Castings of all kinds made to order: and they call attention to their Chilled Wheels  
for the Trucks of Locomotives, Tenders and Cars

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARY-  
LAND AND NEW YORK IRON AND  
Coal Company** are now prepared to make contracts  
for Rails of all kinds. Address the Subscriber, at  
Jennon's Run, Alleghany County, Maryland.

jy451m

**TO IRON MASTERS.—FOR SALE.—MILL  
SITES** in the immediate neighborhood of *Bi-  
tuminous Coal* and *Iron Ore*, of the first quality, at  
Ralston, Lyoming Co., Pa. This is the nearest  
point to tide water where such coal and ore are  
found together, and the communication is complete  
with Philadelphia and Baltimore by canals and  
railways. The interest on the cost of water power  
and lot is all that will be required for many years—  
the coal will not cost more than \$1 to \$1 25 at the  
mill sites, without any trouble on the part of the  
manufacturer; rich iron ore may be laid down still  
more cheaply at the works; and, taken together,  
these sites offer remarkable advantages to practical  
manufacturers with small capital. For pamphlets,  
descriptive of the property, and further information,  
apply to Archibald McIntyre, Albany, to Archibald  
Robertson, Philadelphia, or to the undersigned, at  
No. 23 Chambers street, New York, where may be  
seen specimens of the coal and ore.

**W. R. CASEY,** *Civil Engineer,*

**VALUABLE PROPERTY ON THE MILL  
Dam For Sale.** A lot of land on Gravelly  
Point, so called, on the Mill Dam, in Roxbury,  
fronting on and east of Parker street, containing  
68,497 square feet, with the following buildings  
thereon standing.

Main brick building, 120 feet long, by 46 ft wide,  
two stories high. A machine shop, 47x43 feet, with  
large engine, face, screw, and other lathes, suitable  
to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work bench-  
es, &c.

Work shop, 86x35 feet, on the same floor with the  
pattern shop.

Forge shop, 118 feet long by 44 feet wide on the  
ground floor, with two large water wheels, each 16  
feet long, 9 ft diameter, with all the gearing, shafts,  
drums, pulleys, &c., large and small trip hammers,  
furnaces, forges, rolling mill, with large balance  
wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2  
feet two stories high, with a shed part 45 1/2x20 feet,  
containing a large air furnace, cupola, crane and  
corn oven.

Store house—a range of buildings for storage, etc.,  
200 feet long by 20 wide.

Locomotive shop, adjoining main building, front-  
ing on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of  
Parker st., containing 6000 feet, with the following  
buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two sto-  
ries.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS,** 48  
State st., or to **CURTIS, LEAVENS & CO.,** 106  
State st., Boston, or to **A. & G. RALSTON & Co.,**  
Philadelphia. ja45

**CYRUS ALGER & CO.,** South Boston Iron  
Company.

**The Iron Trade in England.**

The following article from the London Mining Journal of October 4th in relation to the iron trade, sustains fully the accounts by the Hibernia. There can be no doubt we think, but that there are abundant inducements for our capitalists to engage in the manufacture of iron. Indeed we must make it or do without it, in the quantities that we shall require it.

"The great demand that is now making for iron for railway operations is giving an *animus* to mining enterprize in Scotland. Several new iron works were commenced in the spring, and have progressed so rapidly, that it is expected that some new brands of pig iron will soon be brought into the market.—At Kinnell, there are four furnaces already completed, and arrangements are making to have them blown in in the course of this month, or early in next. It appears that it is not more than six or seven months since the foundation was first laid down, and now the building is finished—a rapidity scarcely known in the iron trade. Those of Eglinton and Lugar are also progressing rapidly to completion, and will be in blast at nearly the same time as the above. It will be some time longer before any of the works in Fifeshire can come into operation; there is no doubt, however, but that in the spring of 1846 there will be a vast quantity of metal produced by them. There are, besides these, two other new iron works, for the purpose of supplying parties who have hitherto been the purchasers of iron pigs, and will shortly be finished. The iron trade generally throughout Scotland is greatly improving, and never had the masters a finer prospect of a golden harvest than for the next three to five years. A meeting of the iron masters of South Staffordshire, preparatory to the general quarterly meetings, was held at Dudley, on Thursday the 26th ult. These preliminary meetings are strictly private, and all that is known is, that they are all in favor of another rise; and there is very little doubt that, at their quarterly meetings that will be held during the course of the present month, an understanding will be entered into for the fixing of the prices for this year. In the meantime, it is satisfactory to state, the iron mining masters, from one end of the country to the other, never were so busy, and the greater part of them have more orders even than they can well supply. The progress of railways is giving an extraordinary impetus to mining enterprize, as we have not only to look to the present extensive contracts that are being entered into for the lines passed last session, many of which are being laid down with locomotive speed, but the numerous schemes that will be brought before parliament in February next, and in 1847, will create such a demand, that the iron masters must now put their shoulders to the wheel.

"This new era in the iron trade, which could not have been anticipated twenty years ago, has had the beneficial effect of giving employment to thousands, not only miners, but the workers in forges and furnaces, and in fact, every branch connected with the production of this most requisite metal. There is every probability that there will be a great advance

in iron, not only for railways, but the progress making in iron steam ship building, which is now so much in favor, and will eventually become much more so, as several very extensive contracts have recently been entered into for various parts of the globe—Russia, Belgium, the Levant, India, and South America. The successful result of the manufacture of galvanized iron is also likely to make an extraordinary demand for this article, not only for the covering of railway termini, warehouses, etc., but for country residences, as well in this country as abroad in the tropical climates. This invention is one that is making a most rapid progress. Iron ore abounds in this country, and, added to the vast quantity of coal to work it, there is, certainly, no chance of a scarcity of metal, if there are only sufficient furnaces at work to supply the market, and this the iron masters must do, not only for their own interest, but the necessity they will be placed in to meet their increasing and rapid contracts.

**Foreign Railway and Canal Intelligence.**

We find the following items in the London Railway Express of Sept. 19th.

The capital required for the projected lines advertised during the past week, exclusive of colonial and continental schemes, and for British lines alone, amounts to the enormous sum of £59,000,000.

The Midland railway company are, we understand, having the electric telegraph laid down upon their lines between Rugby and York, so that it will only require the wires to be extended from London to Rugby, and from York to Newcastle, Berwick, Edinburgh, and Glasgow, to make every event of importance known in the capitals of either kingdom and their chief seats of commerce a few seconds after its occurrence.

**London and Birmingham.**—In consequence of the numerous accidents, the London and Birmingham have ordered chronometers to be made, with the view to their being placed in the hands of all the guards along the line, so as to establish uniformity of time.

A meeting of the proprietors of the Regent's canal company is to be held for the purpose of determining on the construction of a railway on the line of the canal.

At a meeting of the Somersetshire canal proprietors, just held, resolutions were unanimously adopted for converting the canal into a railway. A committee was appointed with power to negotiate for the sale of the canal to other companies.

**Express Trains.**—On the Manchester and Birmingham a leading carriage is attached to the engine, in which the guard sits, and is thus protected from the keen air. The carriage is laden with about three tons of iron, to prevent the train from oscillating, the cause of accidents it is surmised by some connected with express trains on other lines.

The Rev. F. H. Maberly, of Stowmarket, has lately obtained a patent, for the united kingdom, for a railway break (applicable to other carriages, etc.) constructed upon the most simple, improved, and scientific princi-

ples, by which every carriage of a whole train may be easily, safely, and almost instantaneously stopped. And if this break is applied in all parts, it will be the means of preventing the fearful effects of the concussions which are of such frequent occurrence upon railways, as well as of preventing the carriages being thrown off the line by oscillation or otherwise, while, by this invention, there is protection especially provided for the engineer.

**Railway Accidents.**—"In 1842 and 1843" says the London Railway Express "48,000,000 passengers were carried on the railways in England, with the loss of *only two* lives by accident!"

There is good sense and much truth in few words in the following article from the Halifax Morning Post.

**The St. Lawrence and Atlantic Railroad.**

The mania for speculating in foreign railroads is to us inconceivable. There is an Alto-Donro railroad—and a hopeful project for a railroad across all the parallel sierras of Spain between Madrid and the bay of Biscay. We say nothing of the great "Vertebral railway" which is to wind its serpentine length, throwing out as many branches as a centipede, through the whole of Europe and Asia. We should have thought that the experience of Spanish bonds and Spanish legions might have deterred from Spanish railroads. But there are still fools to build *chateaux en Espagne*.

Even by the rooks and pigeons who gamble in such projects, it is admitted that English railroad security is—as they say at Lloyd's—class A. 1. If so, English colonial railroad security ought to rank A. 2. This, at least is certain with regard to the West Indian and British North American colonies. They are subject to British jurisdiction; and thanks to the steam mails, the course of post with these colonies, is now not much longer and far more certain and regular, than the course of post with some parts of Scotland, within the memory of man. A friend of ours arrived in London 'tother day from Goderich—the far west of Canada west—by New York in 19 days: the same friend not much more than 29 years ago, was 13 days sailing from Edinburgh to London. The capital invested in railroads in these colonies is quite at hand; and an appeal to English law is open to its owner.

Take as an illustration of our point, the projected railroad for connecting Montreal with the ocean at Portland by the most direct route. We select two groups of United States railroads—one in New England, the other in the state of New York—to show the returns upon such investments. In the New England group, we find the actual dividends to be:—Lowell, 8 per cent.; Eastern Massachusetts, 7; Eastern Maine, 7; Maine, 6; Nashua 8. In the New York group, the actual dividends are:—Mohawk and Hudson, 7 per cent.; Utica and Schenectady, 11; Utica and Syracuse, 11. The local circumstances of the districts through which these railways pass are closely analogous to, or rather strictly identical with, those of the districts through which the projected St. Lawrence and Atlantic railway are to pass. The New England lines



we have quoted are supported almost exclusively by local traffic. The St. Lawrence and Atlantic has the same terminus as two of them (Eastern Maine and Eastern Massachusetts,) and a branch line will connect it with the other two. (Lowell and Nashua.) The returns on these lines afford a fair criterion of what it will yield from local traffic alone. *But the St. Lawrence and Atlantic will be the channel of a great transit commerce; the direct, during the whole year, and for a great part of it the only channel of communication with the ocean from Canada East and a great portion of Canada West.* The two highest of the New York lines quoted, may therefore, perhaps be regarded as affording a more probable estimate of the returns of the St. Lawrence and Atlantic. There will be no fear of 'reputation' in this enterprise: Canada is a British territory, and the company is incorporated by the Canadian legislature, and has its head-quarters at Montreal. The sea-board terminus of the railroad is only 11 or 12 days sail from Liverpool.

The names on the directory are a satisfactory proof of the estimate that has been formed of the prospects of this undertaking by some of our most eminent and prudent merchants. And—a circumstance on which we lay a great stress; the scheme originated in the province, and has been warmly received there; a large proportion of the shares having been taken by residents. It is an enterprise in which no such expenditure as parliament entails upon English railroads, before a single step can be taken towards the works, is to be feared, for the company has already been incorporated by the provincial legislature.—The whole of the sums subscribed will be usefully expended.

*The St. Lawrence and Atlantic railroad is a legitimate mercantile speculation; and one of those enterprises which, by adding to the interests which the colony and mother country have in common, strengthens and perpetuates the union between them.*

#### Travel on the Leading Routes.

*Low fares—Passion of the American for travelling.*

The amount of travel in all directions, is very heavy. The boats on the lakes are more overrun, both with passengers and freight, than at any time since 1836. Though the number of steamers and propellers has more than quadrupled since then, the cry is still for more, to meet the demands of the heavy emigration, and the large mercantile travel of this very active year. It is not the travel of mere hordes of spectators, as was the case in '36, but rather men seeking a new home, who go with the determination to live by their labor. Such is sound business travel.

We understand also that the travel on the railway between here and Buffalo, was never heavier. It is a steady tide, which flows on without a cessation from day to day.—The trains that come to our city, are uncommonly full. The business of 1844 was good, but this is better. The travel increases in volume until it reaches the Hudson, where it sweeps down with the swell of an ava-

lanche. Six steamboats, most of them of the largest class, daily depart for New York, capable of accommodating 3000 passengers. Besides, there are other steamboats, that ply daily to Catskill, Hudson, and Poughkeepsie.

When the travel reaches New York it spreads into the great Southern route or the Eastern route to Providence and Boston.—The Boston Advertiser gives the following statistics:

*Travel between New York and Boston.*—The number of passengers by railroads and steamboats, between New York and Boston, in the month of September, by the several routes passing through Providence, and through Worcester and Norwich, was 19,314.

In the month of August, the number was 22,000, which was the greatest number of passengers between New York and Boston in any one month; while the passengers up and down the Hudson will average over 100,000 in every month. This fact is sufficient to manifest the preponderating travel on the Hudson river over any other route in the United States. South of New York, and on the Philadelphia line, the travel is unusually heavy; but we have no data before us to determine the amount. Previous returns have shown that the travel was heavier than on the Boston route; but the rate of fare is so high, \$3 and \$4 on the line between New York and Philadelphia that it materially checks the tide. Probably 30,000 per month is the full average. At a low fare, with the two largest cities in America at its extremes, the travel could easily be trebled. South of Philadelphia the travel is increasing largely on the great southern line. The fare has been lately reduced 50 per cent. between Philadelphia and Washington, and the result even now adds greater profits to the companies, while it undeniably advantages the public.

South of Washington and throughout all the southern states, the travel is greater than last year, though the increase is not so great as in the northern states. On the Mississippi, Ohio and Missouri rivers, it is hardly necessary to say that the travel must increase.—These mighty rivers, water a country where production springs up under the very touch of civilization. The number of steamers on the western rivers is increasing, but we perceive, as we have long since apprehended, that passengers go up the Ohio and Mississippi, rather than down that river to New Orleans. Chicago, Cincinnati and Pittsburg draw them in that direction, because from thence, it is easier and cheaper to get to New York. The gradual extension of all the lines of railways and canals, from the Atlantic seaboard into the western and southwestern states, is having the effect of drawing the travel by the great northern routes to the seaboard. Thus these artificial rivers and roads have entered into a direct and successful competition with the Mississippi and the Ohio. These new ties widen and strengthen the commercial ascendancy of New York. Yet most fortunately it does not weaken New Orleans, for the extent of country yet dependent upon that city is enormous. The fertile vallies of the Arkansas, the Red and

the Missouri rivers would build up twenty cities as large as New Orleans.

In looking over what we have written, we find we have made no allusion to the internal travel of New England. As might be expected, this is large beyond all precedent, particularly on those lines where low fares predominate. There is but one exception, and that is the western. The receipts for passengers have fallen off, while that of freight is steadily increasing. The fare between here and Boston (\$5,) is too high, while the freight tariff is very low. We have reason to believe that in a few months, low fares will rule on the western railway. It is said that \$3 will be the rate between here and Boston. The competition of the Hudson river must be met, or it will be impossible to retain business.

The increase of the local travel in New England, has naturally produced that strong, pervading railway feeling, which has excited the more surprise, as the eastern people are noted for their calculating coolness. But there is "method in their madness!" New England contains a dense population, and manufacturing prevails in every town.—Therefore experience has shown that routes pay there that would starve in other states.—A superior economy as well as system in their management, enables them to thrive, as we may say, in any weather.—*Albany Argus.*

#### Elmira and Williamsport Railroad.

The subscription of \$3,500,000 to the stock of the New York and Erie railroad having placed beyond a contingency the early construction of that work, and of a railroad connecting it with Seneca lake and the northern line of railroads, it seems to us that the great importance to the citizens of Elmira of the completion of the Elmira and Williamsport road, must be manifest. The many advantages the New York and Erie railroad will possess over the northern chain, will doubtless secure a larger proportion of the travel from the great west to New York, and make Elmira a point of much importance, if the peculiar position she will occupy is properly improved. If the Southern road is completed it will open an avenue for the travel going south, which cannot but prove a great thoroughfare. Elmira would then be a point where great thoroughfares cross each other, and where the travel must leave one to take the other. This of itself, if there were no other consideration, would make the construction of that road of vast importance to the future prosperity of our village. But the travel would be a matter of secondary importance in comparison with that of the freighting business, which the commerce between the states of New York and Pennsylvania would cause. If the construction of that road has heretofore been deemed of much importance by our citizens, how much more important does the certainty of the construction of the other roads we have mentioned make it? The burthen which our citizens will be called upon to bear to secure their construction will be light, and will leave their entire energies to be turned to securing that of the Elmira and Williamsport road. It will not be necessary for the citi-

zens of Elmira to furnish all the means to construct it. Other interests are largely at stake which will freely contribute their assistance, if a demonstration is made which appears to have any of the elements of success. And if there were no other interests which are at stake, the connection of the work with the others which are certain to be constructed, would give it an importance which would procure friends and assistance if thoroughly known and appreciated. The position in which Elmira stands in relation to the road, makes it the duty of her citizens to take such measures as will concentrate the efforts of all who are interested in the road. To do this is the work of time. Its commencement ought not to be delayed. If the efforts of all interested could be concentrated, we think that not a doubt would exist as to the possibility of providing the means for building the road. The possibility of being able to do so would richly compensate for the effort.—*Elmira Republican*.

#### Woonsocket and Dedham Railroad.

Thus we see the people of New England constantly projecting new lines of railroad. No sooner is one line decided upon than another is agitated. Here we find a new line, to commence at Woonsocket on the line of the proposed Providence and Worcester road, and designed to traverse the country intermediate between the Boston and Providence and the Boston and Worcester roads, or to connect with the Worcester road at some point; thus will they continue to add one road after another until every village of any considerable business in New England, has its railroad facilities.

"We learn, says the Boston Traveller, from the Norfolk American, the particulars of a meeting held in Dedham on the 14th inst. in behalf of the proposed railroad from Woonsocket, R. I., to Dedham. Statements were made to the meeting, in reference to the increase of business and travel on the contemplated route. In the towns of Waterford, Blackstone, and the immediate vicinity of Woonsocket, the business in raw materials and exports was said to have increased 25 or 30 per cent., within twelve months; and the travel even more. So in Bellingham, Medfield and Medway, there had been a great increase. Routes had been surveyed from Woonsocket to Medway, and from thence, in two directions, to Dedham—viz: through Medfield and west Dedham; and through north Wrentham, Walpole, and the Neponset river; the former being the most direct, and the latter of easier and less expensive construction, and affording a larger amount of business. It was stated that the citizens of Woonsocket, since the Providence and Worcester railroad had been decided upon, were in favor of the route through Dedham to Boston, as the most direct, in preference to the one which has been talked of to strike the Worcester railroad at Framingham. A suggestion was made as to an independent route, leading directly to Boston through west Roxbury, Jamaica Plain and Brookline; and in order to test the feelings of the meeting upon this proposition, Mr. J. N. Brewer, of Roxbury, offered the following resolution:

"Resolved, That, in the opinion of this meeting, it is expedient to construct a railroad from Woonsocket, through Medway village, direct to Dedham; thence through west Roxbury—the best route to Boston.

"It was said by those who advanced this resolution, that an independent road would best command the attention of the capitalists; that a new and separate depot would afford better accommodations; the profits arising from railroads are greatest on those portions nearest the city; and that the number of passengers that are carried at the present time to Boston, amount to 30,000 annually from Brookline, 15,000 from Brighton through Brookline, and 6,000 from west Roxbury; to say nothing of Jamaica Plain. The matter was finally referred to a committee, with instructions to cause the route from Dedham to Boston to be surveyed. A committee of which Hon. Luther Metcalf is chairman, was directed to procure statistics of the several towns on the route from Woonsocket to Dedham, revise the surveys, and collect funds to defray expenses of prosecuting the subject before the next legislature."

#### Commercial Advantages of Railway and Telegraphic Speed.

It is readily acknowledged that the news by the Great Britain is of the highest importance to the grain growing interests of the whole Union. The advance in all bread-stuffs is so decided that present prices may afford a profit where none was realized before. It is clear that to reap this just advance, it is vital to the producer that he should have timely information of the foreign news.

At this season of the year, when transactions are very heavy, and when the farmer is naturally bringing his whole crop to market, it is of the first moment to him that he should be at once aware of the change in the market. When the advance is large the difference of the few days in getting his information may thus make it to him a matter of profit or loss on his whole crop.

We consider it safe to say that the construction of the railway between Boston and Buffalo will make a difference of at least three days in the time of transmitting the late very important foreign intelligence.—The express trains on the railway will scatter the tidings far and wide through the western states, at least three days before the farmer would have heard of it without a railway to Buffalo. He will thus reap the fair and full price to which the intelligence entitles him.

The ordinary grain purchases in the course of three days, at this active business season of the year, in the states of Ohio, Indiana, Illinois, Michigan and Wisconsin, are enormous. Hundreds of thousands of bushels of wheat daily change hands. When we state that the wheat crop of 1845 in those states alone, is, at least 30,000,000 of bushels, the magnitude of the daily transactions can be somewhat appreciated, and therefore, the advantage that will insure to the producer by gaining three days in his knowledge of a great change in market.

Thus, the speculator or merchant will not

reap all the profit on this great rise in the produce of the country. It will go into the hands of those who deserve it, because they have won it by their labor, for every patriot must be proud to see those who work, reaping the just reward of their toil.

Though forestalling cannot always be prevented, yet the speed of railways, and still more clearly, of the magnetic telegraph, will limit the power of these mere speculative operations. When the magnetic telegraph is in full operation from New York and Boston to the remote extremes of the Union, the foreign intelligence can be so quickly transmitted, and will at once (for no combination can be extensive enough to suppress it) be so widely diffused among the producers that it will be almost impossible to make extensive speculations after the arrival and before the news is spread through the country.

Speculation will still exist, but it will rather be that legitimate kind which springs from the sagacity of perceiving the true result with the data open to all, and not that unfair kind which is based upon the possession of important intelligence unknown to any but the operators themselves.—*Albany Argus*.

*Brady's Bend Iron Works.*—The Pittsburgh American has the following respecting these extensive works:

These magnificent works, we are happy to learn, are now in most successful operation. There are two coke furnaces in blast, making a regular yield of 80 tons each per week.—Two more furnaces are nearly completed, intended either for charcoal or coke, for which 100,000 bushels of charcoal is prepared and ready, and contracts made for 300,000 bushels more.

Their rolling mill is also in full operation, working 16 furnace fires, and making 100 tons of finished iron per week.

The company have lately furnished 3,600 tons of railroad iron for the Mad river railroad; for the Miami road 850 tons, for which 1000 tons more are now negotiating. They have also a contract for 1,700 tons for the Sandusky and Mansfield city road, of which 800 tons have been furnished. These facts may give an idea of the importance of these works to western Pennsylvania. They are owned by a company in Boston, of which Messrs. Pray, Waterston and Co., we believe, are principals.

Of course, Bostonians are *thar*, but why not *Philadelphians*? Can any one tell us? Perhaps it is not yet known in Philadelphia that there is good *ore* and *coal* in the mountains of Pennsylvania:

*The Burnt Aqueduct Rebuilt.*—We are gratified at being able to state, says the Pittsburgh Gazette, that the burnt aqueduct on the Juniatta has been rebuilt, and that boats now pass as usual. We derived the intelligence by the following letter, received on Saturday:

*Huntington, Oct. 10, 1845.*—The water was put into the aqueduct yesterday afternoon. Several light boats have passed through; the levels are yet low, but by to-morrow (Friday) morning, loaded boats will pass. I have no fears but it will answer the purpose for this season.  
Yours, &c. B.



		AMERICAN RAILROADS.											SALES.		
RAILROADS.		Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on hare	1843. Income.		Div. per cent.	1844. Income.		Div. per cent.	Previous prices	Week ending Sept. 15. Last Sales	
							Gross.	Nett.		Gross.	Nett.			Last	Sales
Me.	1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6	101½	100½	
N. H.	2 Concord.....	35	750,000									12	65		
Mass.	3 Boston and Maine.....	56	1,485,461				173,745	68,499	6	233,101	86,401	6½	111		
	4 Boston and Maine extension.....	17 1-4	455,703	unfin.											
	5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8	118	117½	
	6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	111		
	7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	116½	116½	
	8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
	9 Charlestown branch.....		280,260						13	34,654	13,971	5½	80		
	10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8	107½	107½	
	11 Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,835		119		
	12 Nashua and Lowell.....	14 1-2	380,000				81,079		8	94,588	34,944	10	126		
	13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6	102		
	14 Northampton and Springfield.....		172,883	unfin.											
	15 Norwich and Worcester.....	66	2,290,000	900,000	16,535	100	162,336	24,871		230,674	99,464	3	67	69½	
	16 Old Colony.....		87,820	unfin.									105		
	17 Stoughton branch.....	4	63,075	unfin.											
	18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8	120		
	19 Vermont and Massachusetts.....														
	20 West Stockbridge.....	3	41,516	200		100						4			
	21 Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	98½	97½	
	22 Worcester branch to Milbury.....		8,431	506											
	23 Housatonic, (10 months).....	74	1,244,123							150,000			26	33	
Con	24 Hartford and New Haven.....	33	1,100,000	100,000	10,000	100						6	93		
	25 Hartford and Springfield.....	25 1-2	600,000	400,000	2,000	100									
	26 Stonington, (year ending 1st Sept.).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29	32	
N. Y.	27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033	0			
	28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109	103	
	29 Auburn and Syracuse.....	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
	30 Buffalo and Niagara.....	22	200,000		1,500								100		
	31 Erie, (446 miles).....		5,000,000										27½	31½	
	32 Erie, opened.....	53						48,000		126,020	59,075				
	33 Harlem.....	26	2,250,000	750,000	30,000					140,685	62,399		61	62½	
	34 Hudson and Berkshire.....	31	575,613		50					35,029	1,789	0	11½		
	35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996	0	61½	65½	
	36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	56½	57	
	37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455	0			
	38 Schenectady and Troy.....	20 1-2	640,800				28,043			32,646	6,365	0			
	39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117		
	40 Tonawanda.....	43	727,332				76,227			11,177	75,865	5			
	41 Troy and Greenbush.....	6	180,000										90		
	42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,562	9,971	2½			
	43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8	132		
N. J.	44 Camden and Amboy.....	61	3,200,000				682,532	383,880		784,191	404,956		112		
	45 Elizabethtown and Somerville.....	26	500,000												
	46 New Jersey.....	34	2,000,000										95½		
	47 Paterson.....	16	500,000									6	88½		
Pa.	48 Beaver Meadow.....	26	1,000,000												
	49 Cumberland Valley.....	46	1,250,000												
	50 Harrisburg and Lancaster.....	36	860,000										30		
	51 Hazleton branch.....	10	120,000												
	52 Little Schuylkill.....	29	900,000												
	53 Blossburg and Corning.....	40	600,000												
	54 Mauch Chunk.....	9	100,000												
	55 Minehill and Schuylkill Haven.....	19 1-2	396,117	25,000	7,019	50			12			12	80		
	56 Norristown.....	20	800,000										6½		
	57 Philadelphia and Trenton.....	30	400,000										104		
	58 Pottsville and Danville.....	29 1-2	1,500,000												
	59 Reading.....	94	9,457,570	7,447,570	40,200	50				97,613	312,511		25	24½	
	60 Schuylkill valley.....	10	1,000,000												
	61 Williamsport and Elmira.....	25	400,000				20,000								
	62 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000		15½	15½	
Del.	63 Frenchtown.....	16	600,000												
Md.	64 Baltimore and Ohio, (1st Oct.).....	188	7,623,600				575,235	279,402		658,620	346,946		48½		
	65 Baltimore and Susquehanna.....	58	3,000,000										2½		
	66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	67 Greensville and Roanoke.....	18	284,433	37,544	2,000	100				25,368	6,074		28		
	68 Petersburg.....	63	969,880	63,000	7,690	100				122,871	72,898	3	77		
	69 Portsmouth and Roanoke.....	78 1-2	1,454,171												
	70 Richmond, Fredericks'g and Potomac.....	76	800,000							185,243	85,688	6			
	71 Richmond and Petersburg.....	22 1-2	700,000												
	72 Winchester and Potomac.....	32	500,000												
N. C.	73 Raleigh and Gaston.....	84 1-2	1,360,000												
	74 Wilmington and Raleigh.....	161	1,800,000												
S. C.	75 South Carolina.....	136								532,871	140,196	5			
	76 Columbia.....	66	5,671,452		34,410	75	201,464	77,456		328,425	180,704				
Ga.	77 Central.....	190	3,000,000	500,000	22,500	100	227,532	93,190		248,096	147,523				
	78 Georgia.....	147 1-2	2,650,000				248,026	158,207							
	79 Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Ky.	80 Lexington and Ohio.....	40	450,000												
Ohio	81 Little Miami.....	40	400,000												
	82 Mad river.....	40	152,000												
Ind.	83 Madison and Indianapolis.....	56	212,000												
Can.	84 Champlain and St. Lawrence.....	15						12,000		58,000	24,000	110			

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.

Thursday, November 6, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 20,094 09 tons, and by canal 10,500 00, making 30,677 17 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total	332,958
From Schuylkill Haven—total	337,502
From Port Clinton—total	17,696

Total by railroad..... 688,158

BY CANAL.

From Pottsville and Port Carbon—total	139,572
From Schuylkill Haven—total tons	39,293
From Port Clinton	42,553

Total by canal..... 221,420

Total by railroad and canal..... 909,578

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines, -	163,427
Room run do, -	62,511—225,938
Beaver Meadow railroad and coal co.,	68,549
From Penn Haven—Hazleton coal co.,	60,537
From Rock Port—Buck Mountain coal co.,	19,972

WYOMING COAL TRADE—total	374,996
PINE GROVE COAL TRADE—total	151,745
MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons	38,809
MOUNT CARBON RAILROAD—total tons	376,415
MILL CREEK RAILROAD—total	221,815
SCHUYLKILL VALLEY RAILROAD—total	74,110
	93,853

[Miners' Journal.]

WESTERN RAILROAD.—Receipts for week ending Oct. 19th.

	1845.	1844.
Passengers.....	\$6,629	\$6,320
Freight, etc.....	12,481	11,294
Total.....	\$19,100	\$17,614
Net gain this week.....		1,486
Net gain previously since Jan. '45.....		39,644
Total gain.....		41,130

READING RAILROAD.—A comparative statement of the business of the Philadelphia and Reading railroad, for the week ending October 25th, 1845, as compared with the corresponding week last year.

Week ending Oct. 25, 1844..	\$18,129 34.13,534 02
" " " 25, 1845..	27,868 00.19,355 10

Earnings of the eastern division of the New York and Erie railroad for the month of Oct., 1845, were:	
From freight.....	\$8,912 56
From passengers and mail.....	6,709 07

Total.....	15,621 65
Same time last year.....	15,094 60

Increase..... \$527 03

Railroad Winter Freight.—The several railroad companies have agreed upon the price of freight from Buffalo to Albany through the winter. The following are the rates from the principal points, including toll:

	Flour bbl.	Pork & Beef cwt.
From Buffalo to Albany.....	115 cts.	66 cts.
From Rochester to ".....	88 "	50 "
From Auburn to ".....	61 "	35 "
From Syracuse to ".....	53 "	30 "
From Utica to ".....	37 1/2 "	23 "

Merchandise, manufactures, poultry, leather etc. ect., at about the same rates per cwt. as pork and beef. Those rates are much lower than last year.

Gloucester Railroad.—We understand that the railroad from Beverly to Gloucester (now in process of construction by the Eastern railroad company) is progressing rapidly, and that it will in all probability be completed by the 1st of July next.

Cheshire Railroad.—The Claremont Eagle states that a meeting was held in that town on Monday, and \$57,000 subscribed to the capital stock of Cheshire railroad, upon the condition that it runs through Claremont, to unite with the Central road at Chase's Island.

The Great Western Railroad.—We learn that Mr. Commissioner Ewart has returned from London, and reports that the entire stock of the Great Western railroad has been subscribed for in London, and the first instalment paid. The stock was above par at Hamilton.

The above paragraph from the Hamilton Gazette is in accordance with information received by us some days since, and we trust it may prove true, as we deem the early construction of a railroad across the peninsula of great importance to this city and to the northwestern states.

We publish in this number an able communication from W. R. Casey, Esq., C. E., in relation to this work. Mr. Casey is a gentleman of science and experience in his profession; of mature judgment and a close observer of men and things; exceedingly cautious in expressing opinions until he has thoroughly investigated and maturely considered the subject in all its bearings; when he is frank and fearless in their expression and clear and forcible in argument in their support, yet always candid and courteous to though severe upon, an opponent; his opinions therefore will be esteemed good authority in this matter; especially as they were formed and committed to paper at an early period and placed in the hands of an eminent gentleman in Canada as early as the year 1837, and given to the public in the April number of this Journal in 1840 and now, after more than eight years, reiterated with entire confidence in their correctness.

Those who know Mr. Casey, will place much confidence in his judgment and entire confidence in the candor and integrity of his opinions, indeed those who know him best are fully aware that the honor of his profession and the importance of locating and constructing works of this kind, as to afford the greatest possible benefit to the greatest number, for the least amount of expenditure, always takes precedence of his own or any other individual or local interest. So high, indeed, is our estimate of his judgment and opinion, that we always feel quite easy and well satisfied with our own if we find them sustained by his.

He was the first to come out against the entire system of government works here as well as in Canada. Time has fully corroborated the accuracy of his views as regards the state of New York and we fear that a very few years will only too truly prove that he has not underrated the evils which will be entailed on the province by their neglect of his admonitions enforced as they were, by that best of all arguments, a most successful example.

The Press.

We desire to acknowledge in a proper manner, the courtesy and liberality of the conductors of the press, and especially those whose papers we receive in exchange for the Journal.

For several years after the commencement of this Journal, its course was onward—onward—with a smooth track—few curves and no heavy grades—but a change came over the whole scene, and the Railroad Journal was thrown once entirely from the track; and lay for several months out of service, it was however repaired and put again to service, but the injury received by its mishap and other causes, too well understood to require to be named, seemed still to prevent it from "keeping up to time," which, in railroad matters, is of all things most disastrous; another change, however, we are gratified to be able to say, is now taking place, and the Railroad Journal begins sensibly to feel its influences—and for this favorable change we are much indebted to the courtesy and liberality of the conductors of the press, who have so generally and so kindly inserted our recent circular, and called the attention of those to it who are interested in railroad matters.

We are calling now upon ALL the railroad companies in the Union, as companies, to sustain the Journal by advertising in it, as they do in the newspapers—and thus enable us to present to travellers, a Railway, Steamboat, Canal Packet and Stage Coach ADVERTISER, or DIRECTORY, in connection with the Railroad Journal. It appears to us that a sheet of this kind, in which the traveller will find a notice of the mode, and the hour, of leaving, and the rates of fare between each important point in the country, will be found exceedingly convenient to all; and it is our intention, if we meet with suitable encouragement from the railroad companies, in reply to our recent circular to them, to publish such a sheet in connection with the Railroad Journal, and while we make our profound acknowledgements for past civilities and kindness towards the Railroad Journal generally, and ourselves especially, we venture to solicit a favorable recommendation of this appendage to the Journal and especially that the attention of Railroad Companies, Steamboat managers, Canal Packet owners and Stage proprietors be called to it.

Late European News.

The Caledonia has arrived, bringing London dates of the 18th, and Liverpool of the 19th ult.—We have our regular files of the Railway and Mining journals, to the 18th inclusive, from which we learn that the movement is still onward in railroad matters.

The iron trade is unusually brisk and prices were advancing. The meeting in Birmingham on the 9th October, was attended by gentlemen from nearly all the iron works of Staffordshire, Shropshire and Warwickshire, and some even from Wales.—Much interest was excited and after very little debate an advance of £1 per ton was decided on. In the Mining Journal of the 18th, we find the following:—

"English iron continues in extensive demand, but without any alterations from the quotations in last week's Mining Journal. Several large transactions have taken place in railway iron, and makers are now asking £12 and upwards. Scotch pig iron is not so good; sellers at 92s. 6d. cash. Welsh and Staffordshire pig iron has been delt largely in at higher rates. Foreign iron is more inquired for, but holders are not disposed to sell at present, expecting better prices."

We find several articles of interest which we are obliged to omit until our next, as we have already more in type than we have room for; they will not lose their interest however, by a week's delay.

**Locomotives Wanted.**

We find in the London Railway Record, of October 15th, the following statement, viz:

The London and Birmingham company advertise that they are "desirous of contracting for delivery, on the railway, at the earliest possible period, of *twenty* passenger, and *ten* freight engines, of the greatest power that may advantageously be employed, being not less than 1,000 square feet of evaporating surface."

Here is a fine opportunity for our friends at Paterson, Philadelphia and Newcastle, to show their skill.

**Georgia Railroad.**

The information in the advertisement of the Georgia and the Western and Atlantic railroads which will be found in this number of the Journal, will be very acceptable to travellers who desire to pass through that region. It now behoves those interested in the Central road, the Monroe, Georgia and the Montgomery and West Point, Alabama railroads, to urge on the repair and completion of the road from Macon to Atlanta, in order to avail themselves of the advantages of a connection with the State road towards the Tennessee river, and the Georgia road to Augusta and Charleston; and also those interested in the roads from Charleston to Atlanta, as well as from Savannah to Macon, will find it for their interest to aid in the early construction of that short and only remaining link, from Griffin on the Monroe road, to West Point, a distance, if we recollect, of about 65 miles—yet to be constructed, but not yet commenced—to open a steam communication, by railroads and steamboats between Bangor in Maine and New Orleans.

That much abused road, "the Monroe"—which felt under the auctioneers hammer, a few months since, together with its *other leg*, by which a connection is to be formed with the Montgomery road and steamboats on the Alabama river—is yet to play a very important part as a connecting link between four other important roads, viz: between the road from Charleston to Atlanta, and the road from West Point to Montgomery, and eventually to Mobile; and also between the Central road, from Savannah to Macon, and the West Point and Montgomery road, and also with the Western and Atlantic road, from Atlanta to the Tennessee river, and at no distant day to Nashville and the Mississippi river at some point. Thus it will be seen that the "Monroe, Georgia, railroad," which has probably received more curses than its unfortunate shareholders received coppers from it, is about to become one of the most important and useful, and we hope profitable roads in the country. Let its owners complete it in the most substantial, and manage it in the *best possible* manner; by which they will merit, and insure a liberal return for their investment. They now have every inducement to exert themselves to complete these connections, so desirable not only to the travelling and business community, but also to those interested in the railroads now in use, who have, for so many years struggled to complete their noble works.

We have often felt called upon to commend the efforts of the people of Georgia to the notice, and imitation of the people of other states; and it now affords us much real pleasure to congratulate them upon their success, and the near approach of their works to completion. We hope to be better acquainted with them before another summer.

**Pittsfield and North Adams Railroad.**

We are informed that Frederick Harback, esq., has been appointed engineer of this road, which is to extend from Pittsfield to North Adams Massachu-

setts—about 20 miles—and ultimately to Williams-town, Bennington, Whitehall and north to Burlington Vermont. If this first link shall be made, and we presume it will be, as they are not in the habit, in Massachusetts, of commencing an enterprise of this kind until they have counted the cost—the entire chain will be sure to be completed, thus securing an important feeder to the Western railroad; and, what is of far greater importance to the people of Vermont, giving them, when at Pitsfield, a choice of the Boston or New York markets, at about the same distance, by the Housatonic or the Albany—that is to be—railroad, or by the Western and Worcester roads.

Boston has now decidedly the advantage over New York, in this matter—having a first rate road ready for it—whereas New York has much yet to do before she gets ready to compete, at Pitsfield, for it.

How is this to effect the Rutland and Bellows Falls line?

For the American Railroad Journal.

**Some Remarks,**

On the Great Western Railroad, C. W. By W. R. CASEY, C. E.

As this project is now receiving the attention its importance merits with every prospect of success, unless defeated by local jealousies or interests, some remarks on its peculiar advantages may not be without interest to the readers of the *Journal*. A communication on this subject appeared in this *Journal* (April 1840) quoted and condensed from "an unpublished memoir written in 1837, in which year a copy was given to the Hon. John Hamilton of Queenston, U. C." There are at this moment two companies having substantially the same end in view—the diversion of the travel from lake Erie to a railway across the Canadian peninsula to Detroit. These are the Niagara and Detroit rivers railroad company and the Great Western railroad company. I had been assured that a compromise had been effected and that the road would have two termini at the east—Hamilton on Ontario and Buffalo on lake Erie—but as this appears to be incorrect, a discussion of the comparative merits of the rival lines will necessarily take place. During the last eight years I have bestowed much attention on this greatest of all engineering works yet projected in Canada and time has only served to confirm the opinions committed to paper in 1837. It was then observed:

"The aim of this paper, is to place in their true light the objects and advantages of the Great Western railway. It does not profess to embrace all the merits of the question, but it is an attempt to bring forward the more prominent and the very peculiar advantages offered by this route to the city of New York, and some of the most flourishing parts of the west. It does not dwell on the beneficial effect the road must have on the general prosperity of the province—and especially on that part through which it will pass, for this is much better understood by the permanent residents of the country—but it investigates the claims of the Great Western railway to rank as an important link in the *best* chain of communication between the west and the waters of the St. Lawrence and the Hudson.

"These two rivers may be considered as the grand feeders of the Great Western railroad. By the former it will receive travellers and emigrants from both provinces, as

well as from the northern parts of New York and of the eastern states embarking on the St. Lawrence and on lake Ontario; by the latter, travellers and emigrants from all parts of the world, by the way of New York.—Now, it is obvious that the Western railroad is the best possible route for the former, and it remains to be shown, that it offers the quickest, easiest, cheapest and earliest route to the country west of Sandusky for all travellers by the Hudson, whether they take the direct route across Ontario, or continue on the New York railroads to the Falls."

Now as one line has its eastern terminus at Bertie opposite Buffalo on the waters of lake Erie, 222 miles from Detroit, and as the other has its eastern terminus on the waters of lake Ontario 200 miles from Detroit, it is obvious that there cannot even be an attempt at rivalry for the trade and travel of the latter inland sea. Independently of the above difference in distance, the line terminating at Buffalo must be extended to Ontario which would make it nearly 50 miles longer than the line via Hamilton. But the Canadians have comparatively little trade on lake Erie; it is true that considerable quantities of American produce pass from one lake to the other in British vessels, but the actual trade of the province is principally confined to lake Ontario and will probably remain so, as there are no important places above the Falls; should any such arise, they will assuredly be on or near railways to Ontario.—With this brief but general view the reader will understand the grounds on which I stated (Mem. 1837):

"In comparing the routes by Bertie and Hamilton they have been considered only as valuable to travellers by the St. Lawrence and Hudson rivers, and even in this point of view, the superiority of the latter is evident, but it would be preposterous to overlook the vast advantages which a railway through the heart of the peninsula would confer on the province, as compared with the benefits to be derived from a road skirting the northern shore of lake Erie. The route by Bertie sacrifices the shipping of Ontario, opens the least possible extent of country and is anything but Canadian in its objects, though it is readily admitted, that it will find favor with the inhabitants of Buffalo and perhaps with some of the railroad companies to the westward of Syracuse."

To the loss of all Canadian business must be added that of northern New York and New England via Ogdensburg. Should the contemplated railway to the latter place be constructed, there would be another powerful argument in favor of a terminus on Ontario and as near as possible to Detroit. Indeed these are the distinguishing characteristics of the line to Hamilton—it completes the communication by steam from Ontario to Detroit by the *shortest* route. As regards one of the two "grand feeders"—the St. Lawrence—the Great Western is not only the better line, but the best possible. Then again the way business of the finest part of the province is already considerable, is rapidly increasing and though now a secondary consideration, may, ere long, rival the through trade in importance. It is with these great and, as I believe, irresistible advantages in its favor, that the Great Western enters the lists to compete for the business of the other "grand feeder"—the Hudson.

If we suppose the western travel to go via Buffalo to Detroit and that a branch be made to Hamilton

—the least favorable supposition for the Great Western line—then will the distance be increased about 23 miles. If we assume that part of the American travel will go by Ontario, the point of divergence will be Syracuse and the distance 395 miles via Hamilton, against 400 via Buffalo. This difference is insignificant; but there are 160 miles less of railway via Hamilton than via Buffalo, hence the latter will be the more economical route and, for some years to come, the more expeditious. A line direct from Rochester via Lockport would connect Rochester and Hamilton by a nearly straight line, and thus reduce the difference in distance of the two routes from Rochester to Detroit, via Buffalo and via Hamilton, to a mere trifle. It is probable also that a line below the ridge or "mountain" would be more productive than one from Buffalo to Hamilton keeping on the upper table.

At the present time, however, it is useless to discuss what *might* be done; the great question is how *can* we with the least possible expenditure render a railway across Canada most productive, not some years hence, but as soon as completed? A railway from Hamilton to Detroit would now take the "lion's share" of the western travel if constructed, as it ought to be, so as to average 30 miles per hour, and so as to be adapted to that velocity.

In the paper on the Great Western railroad and subsequently in another on the "spring trade" via the great lakes, I have endeavored to show the vast importance of the route via lake Ontario to the cities of New York and Boston, giving them as it does, an earlier communication in the spring with Detroit than can be had by any route to lake Erie, not only through New York but even through Pennsylvania. The extreme variations in the opening of lake Erie, and the early period at which we may confidently depend on the navigation of lake Ontario, present advantages for the transportation of early freight which will ultimately become one of the principal features in the business of the Great Western railroad. It also possesses a minor advantage which may be briefly alluded to; freight destined for American or Canadian ports on the St. Clair river or lake Huron may be shipped at some point on the Thames, as high up as it may be convenient to strike that river and thus the cost of transportation over 50 or 60 miles of railway will be saved; again, descending to lake Ontario, western produce might be carried 140 miles from the waters of St. Clair to the former lake at rates which might occasionally tempt from the present cheap but circuitous route via the Detroit river, lake Erie and the Welland canal.

We may compare the merits of the rival lines in another manner. Instead of considering the Hudson and the St. Lawrence as the "grand feeders," we will divide the sources of business thus:

1. The travel and trade of Canada.
2. The travel and trade of New England, via lake Champlain and Ogdensburg, of that part of New York near the waters of Ontario and the St. Lawrence as well as all light and valuable early and late freight from New York and Boston for a rich district of the western states.
3. The present western travel taking the Albany and Buffalo line to the eastward of Syracuse.

Now suppose both lines in operation: then the Great Western being *sure* of the two first can compete for the third under such advantageous circumstances as will certainly enable it to divert a large portion at Syracuse.

Again, the line from Buffalo to Detroit, having no connection with Ontario and being merely a

competing line with the boats of lake Erie may be obliged to carry at such low rates as to prevent dividends for the first few years at least, however ultimately successful: every improvement in steam navigation renders the boats of Erie more formidable rivals to both lines, but these same improvements on Ontario directly aid the Great Western in competing with the route via Buffalo either by lake or railroad to Detroit. In fact the latter line of railway has to compete with both lakes: the Great Western, on the contrary, derives much of its importance from the position of lake Ontario with a navigation almost uninterrupted and certainly always free during the entire season of business and travel.

However opinions may differ on certain points, it is notorious, that the Niagara and Detroit rivers railroad "opens the least possible extent of country and is anything but Canadian in its objects" and that it does not accommodate the travel of a large portion of New England and New York. The Great Western is Canadian, offers the greatest facilities to the business of the northern districts of New York and New England, avails itself fully of the peculiar advantages of Ontario and, thus prepared for the struggle for the *other* part of the western travel, throws the gauntlet to the superb steamer of Erie, a more formidable foe than most persons imagine and one who has never yet put forth his strength.

I conclude with another extract from the *Journal* 1840.

"The Great Western railway will offer the cheapest and quickest route, because it will be shorter than any other—the easiest, because the night will be passed in steamboats, and the earliest, because Ontario and the western part of Erie open long before the eastern. However long its completion may be delayed, it will, when completed, become, at once, the great western thoroughfare, for its advantages over any other route which can be projected, are owing to natural causes which no competition can affect"

#### Engineers' Club.

The following extract from a letter received at this office, has too much truth in it to be hid away in our pigeon holes, we therefore give it a place in the *Journal*, in the hope that it may be useful to the cause; and that it may induce action in favor of the early formation of an INSTITUTION OF CIVIL ENGINEERS in this country.

The project was spoken of, and movements made in relation to it, several years since; but at that time the members of the profession were too busy to devote their time, and since the revulsion, they have had too little to do, to feel any interest in such a society, consequently nothing has been done. But now, when a brighter day is dawning upon us, which will, we hope, light every member of the profession to active and profitable employment, is the time for efficient movements for the establishment of an institution, where may be collected and preserved full, or partial, but accurate accounts, or descriptions of the different works constructed by the profession in this country.

This journal will be always open to those who put forth a hand in furtherance of such a cause—and we now call upon those gentlemen who have heretofore been active, and also upon others, to give us their views upon it.

"There has, indeed, been a *crisis* in railroad affairs since 1840—no profession has suffered anything like the engineering, and I had almost despaired of ever

seeing it again upon an honorable footing; to have confessed ones self to be an *engineer*, was almost tantamount to a refusal, when employment was sought, and even now, we see important works placed in the hands of incompetent, rather than competent men, because it is supposed by many, that an *educated* person cannot, in the nature of things, be a *practical* one.

"As an engineer, I shall be happy to contribute my mite towards the support of your *Journal*, so far as my humble abilities will admit. There are elements enough in this country to support half a dozen journals *well*, but so long as we are denied a place among the honorable professions, and considered as we are, by many, as the mere tools of speculative directors; we must be content to let all past experience and history of our internal improvements sink into oblivion."

"Very respectfully and truly yours."

#### Cast Iron Crank Axles for Locomotives.

We are often called upon to yield up some old and generally received opinion—yet we do not always, more than others, yield opinion to experience—by the constant innovations made by original and vigorous minds, called into action by the great and growing subject of the day, *railroads*.

The following communication, gives important information, which should be *known* to all interested; yet so closely are we wedded to the opinion that "pot mettle" will break, that we must say it should be adopted with great caution on passenger trains—though it may be introduced on slow freight trains with propriety—until it has been thoroughly tested.

We have entire reliance upon the statements made in the communication, as we know the parties who have made this experiment, and we shall be gratified to know that the cause will be as much benefited by it, as it is to be by the use of "*cast iron chilled drivers*," introduced first, we believe upon this road by the same gentleman.

We hope this improvement—if it be one—will be tested on other roads, and we feel assured that Mr. Millholland will cheerfully furnish such details as will enable those desirous to make a trial, to avail themselves of the advantage of his experience.

For the American Railroad Journal.

As every improvement that will reduce the cost of transportation on railroads, is of interest to a large class of the readers of your *Journal*, I give you the result of an experiment that has been tried on the Baltimore and Susquehanna railroad, and thus far successfully. It is the substitution of a *cast iron crank axle*, for the wrought or faggoted iron one, on locomotives.

An engine with a cast iron crank axle has been running regularly on the road since the 15th June last; the greater part of the time with the burthened trains, but for upwards of 7 weeks, with a passenger train. The axle was cast by Mr. J. Watchman of this city, of the best cold blast "Maryland" iron, and weighed before it was turned, 1,150 lbs., costing at 6 cents per lb., \$69. The cost of turning was not more than half that of turning for the same engine, a wrought iron crank axle, which weighed 1,164 lbs. and cost in the rough, \$291. The cast iron axle is somewhat larger in the journals than the wrought iron, and is heavier in the cranks, although the wrought iron one weighs more in the rough, in consequence of the redundant quantity of iron left on the latter when it comes from the forge, and which is to be taken off by the lathe.

The locomotive was constructed at Lowell, but has been much improved by alterations made in the shop of the railroad company. It has two bearings on the crank axle, outside of the wheels, and four inside; of which the two nearest the wheels carry a

portion of the weight, so that the weight on the journals outside, is in some measure relieved by the inner bearings. The engine has an additional pair of wheels behind the boiler, so that if any accident should happen to the crank axle, the wheels behind the boiler will support the engine, and prevent further damage. The entire weight of the engine, is 25,800 lbs.; weight on crank axle 14,000 lbs.; on the wheels behind the boiler 3,300 lbs., and on the truck, 8,500 lbs. When required, the weight resting on the hinder wheels, can be transferred to the driving wheels by a contrivance which is attached to the frame of the engine for that purpose, and which is frequently brought into requisition on a slippery rail, and sometimes on ascending grades under ordinary circumstances.

In no part of the cast iron axle, are the journals turned up to a square corner. A fillet is left on them, and the journals on the crank are turned concave. The same rule is adopted with much advantage in turning wrought iron axles.

A few evenings since, the engine with the cast iron crank axle, was, together with its tender, thrown entirely off the track, by a large hog getting under the wheels behind the cow-catcher—no damage having been done to any part of the engine, it was thus shown that the cast axle can bear without injury the sudden and violent strain to which it was subjected by this accident, as well as the wrought iron crank axle. There is therefore good reason for believing that this improvement, which will so materially reduce the cost of replacing a broken crank axle, may with perfect safety be introduced into general use.

The credit of this improvement is due to Mr. James Millholland, the intelligent superintendent of machinery of the Baltimore and Susquehanna railroad company, who was also the first to introduce that of using cast iron chilled driving wheels of large diameter, which has since been adopted on several other roads, and which makes a great saving in the cost of repairs of engines. C.

Baltimore, October 27 1845.

For the American Railroad Journal.

OFFICE BUCK MOUNTAIN COAL }  
COMPANY, Philadelphia, October 25, 1845. }

Dear Sir:—I observe that our road is omitted in your published list. It is 4 miles in length and cost \$72,000. It strikes the Lehigh river at the distance of 15 miles above Mauch Chunk.

Respectfully yours,

L. R. KEEMLE, Secretary.

We are much obliged to the secretary for the above communication. It is precisely what we desire to obtain from every company in the Union; and the more full the details, the more acceptable to us. Will he oblige us by giving the gross and net income and dividends for 1843, 1844 and 1845?

Now our hand is in, we will give a general and earnest invitation to each company, and engineer, and superintendent of a railroad in the country to furnish us with the statistics of their road, that we may be able to enlarge and correct our table of American railroads. Do not hesitate to tax us with the postage upon letters containing such information, especially if they at the same time, contain a year's subscription to the Journal, which is only three dollars.

We commend most cordially to the early subscribers, to the Railroad Journal who have not received it for some years past, the following pithy extract from a letter to the editor, which is as follows:

D. K. MINOR—DEAR SIR:

"Yours of the 14th inst., is received, also, the mis-

sing numbers I wrote for, and three numbers of the present volume.

"Enclosed are twenty dollars for the set, as you wrote me—from July 1840, to January 1846."

We hope there are "a few more of the same sort left." There is more pith in the preceding extract from a letter received by us, from a subscriber who discontinued the Journal in 1840, than is usually found in our letters. It is directly to the point, and too good a joke to keep, especially when the example set is so good; and, as we have "a few more of the same sort left" which will be much more useful in the hands of the profession and others, who have the early volumes, than upon our shelves, we ask who "speaks next?" Do not be bashful, send us a similar communication of equal pith and point, and we will send you the volumes of the RAILROAD JOURNAL, half bound, from July 1840, to January 1846, and the previous volumes back to July 1838, if desired, at the same rate.

A very few sets only can be furnished as far back as 1838—and we should be both pleased and benefitted by an early disposition of them, as in this case, to complete a set commenced many years since.

The following extracts from a letter from Mr. Herron will be perused with interest.

"I went to Phoenixville on the 3d October, and paid the two laborers, who have been employed upon my track, for their last three months work, that is, for July, August and September, during which time, more than 300,000 tons of coal passed over it, besides freight and passengers, etc., which exceeds six years use of a track of the Columbia railroad; the wages of the men amounted to \$134 63 $\frac{1}{2}$ , to which add \$3 19, for repairs of tools, and welding a switch bar, making \$137 81 $\frac{1}{2}$ , as the whole cost of labor and tools. There are two "switches" or "turn-outs" on my track near Phoenixville, on which the "frogs," or cast iron crossings, were removed, by the above two laborers, and replaced by new ones, which work is included in the above, although not necessarily a part of the three miles 450 feet of track. \* \* \* You might have made another inquiry in regard to the Lowell iron, that is, to know if it was originally good, or if it was the British cinder iron, of which we have had such quantities sent to this country.

"I am sanguine that the pure American mine iron rails, when they get into use, and are properly laid, will do three or four times the service that can be obtained from even good British iron, such as is sent us in rails. But there will also be great choice as to the most suitable American iron for the purpose. \* \* \* You will not fail to perceive that your ingenious addition of the timber string pieces has changed the conditions of the question altogether, and that you are supposing a timber track in all its essential parts, upon which I have expressed no opinion whatever.

"I can inform you, however, that I saw the small blocks of wood accompanied, I think, by railway felt, introduced between the rails and granite sills on the Lowell road in 1841, and the result would seem to show that this expedient was not sufficient."

#### Railway Speculations in England.

In our number for 23d October, we made a few remarks in relation to the present disposition in England, for investments and speculations in railways; and said "there appears great apprehension in some quarters, that sad disasters are to follow the present

railway rage, or mania, as it is termed; but we do not so apprehend." We closed our remarks by saying that "there is little danger of a crisis in railway affairs so long as they are built with the surplus capital of the country, and pay a better rate of interest than most other kinds of investment."

To these remarks of ours, the editor of the Sun very courteously replies as follows:

"We fear our able contemporary is over sanguine. Is English capital so vast that it can furnish five hundred millions of dollars for one enterprize within two years, without disastrous results to those interested in other enterprizes or securities from which that capital must be withdrawn? Even supposing all the roads to be well located, the sudden change in modes of conveyance, in the value of stock, in prices of human food, in rates of transportation, in the wages of labor, in the cost of manufacturing, and other effects consequent upon the opening of the projected railways, imply transitions without a parallel in any age or nation, in their rapidity, the great value of the interests involved and the number of people interested. Our interests may not be seriously affected, by the results of the speculation, for we never occupied a safer position as to our currency and freedom from European monetary influences. But speculations are contagious, and it is our duty to discourage any policy that would draw us into the tornado now circling around our European relations with fearful portent. Every new enterprize therefore should be well considered, and our ability to carry it on carefully measured by our means and the productiveness of the investment.—The rapid accumulation of New England capital, invested in well located roads and profitable manufacturing, enables our eastern friends to carry on gigantic projects from year to year, which the agricultural states of the Union cannot equal, but which they might have surpassed long ago, had they, like Massachusetts, followed those pursuits, by which mechanical genius and the rules of trade every where now appropriate to themselves the largest share of the fruits of agricultural labor, without the hazards or the toil of cultivation; and the agriculturist, since he abandoned the better principle of primitive ages—when his domestic manufactures went hand in hand with his present isolated occupation—has lost all power of competition. Hence the danger to other states, of attempting to follow the example of either New England or Old England in the outlay of capital, while neglecting their plans for accumulating it. When the "re-annexation" of agriculture and manufactures is accomplished—and there never were greater facilities for "a treaty" than now exist in the United States—then, and not till then, will venerable agriculture cease to be the vassal of her younger sister. Then she may carry railroads to every nook and corner of our land.—But not before."

It is possible that the apprehension of the editor is well founded. There might perhaps be reason for it, if there were any grounds for the question propounded in his second sentence, viz: "Is English capital so vast that it can furnish five hundred millions of dollars, for one enterprize, within two years, without disastrous results to those interested in other enterprizes, or securities from which the capital is to be drawn?" But as there is not, as will be seen by the following statement, any just cause for the question, there are no good reasons, in our opinion, for serious apprehension of disaster so long as the expenditures are made within the kingdom, and, as we said before, from "the surplus capital of the country," and in works which



"pay a better rate of interest than most other kinds of investment."

By referring to the Railroad Journal of October 2nd, No. 40, page 626, the editor will find an able article from the London Mining Journal on the "iron trade," in which he will find the statement that "the number of miles for which railway acts were passed last session, is 2841," and a little farther on, the same writer says that "we are justified in supposing that not less than 2000 miles of railway will be sanctioned by parliament next year, and at least 1000 miles in the year following." He then says, "allowing three years for completion, one-third of each of these quantities" must be provided for "in each year after the passing of the acts of parliament."

Accordingly, capital must be provided for the construction of 5841 miles of railroad within five years, and it will be, according to this writer, required in the following amounts:—allowing £15,000, or about \$75,000, per mile, for the first year 947 miles, or \$71,025,000; for the second year, 1,614 miles and \$121,050,000; for the third year, 1,947 miles and \$146,025,000; for the fourth year, 999 miles and \$74,925,000; and for the fifth year, 334 miles and \$25,050,000—or total in five years \$438,075,000, instead of "five hundred millions in two years" as intimated by the editor of the Sun. Now if this be a fair statement, and we must say that we consider it marked not only with great candor, but also with a thorough knowledge of the subject—who will pretend that there will not be ample surplus capital to carry out the system in England, even if parliament should continue to charter from 1,000 to 1,500 miles each year, until every town of any considerable business in the kingdom has its railway facilities? and, so long as parliament sets its face against lines got up merely as rivals to those already granted—and all mere speculative plans and projects, and only grants those lines which are required now, or are necessary to develop the resources of some region not yet accommodated by such facilities, or calculated to reduce the expenses of living to the masses in the cities, and large towns, and at the same time promote the interests of the same class in the agricultural and mineral regions of the country—there need be no apprehension, we imagine, of disaster from this large extension of the new system, and enormous investment of capital.

If this amount of capital, in addition to what is usually wasted for such purposes, were to be expended in useless show, dress, jewelry, plate, high living and dissipation;

or to be wasted in bloody wars, most of it being sent out of the country to pay for cutting the throats, not only of their enemies, but also of their own people, by tens and hundreds of thousands; or if it were loaned to foreign nations, and expended by them in public works, or murderous wars, without either paying the interest, or refunding the principal, then might disaster and ruin be apprehended—but, so long as it is judiciously expended at home, in works which enhance the value of property in the country, in a few years to an amount far greater than the entire outlay of capital as is usual with railroads, and furnishes increased demand, and of course a better compensation for the labor of the country, and at the same time reduces the cost of living, and increases to the laborer the hours for labor, and consequently to a considerable extent, reduces the poor rates, though it enables the property holder to pay even higher taxes, we cannot see why there need be apprehension of disaster.

We have said so long as parliament sets its face against lines merely rival, or speculative, we have no fear of disaster in consequence of these large investments in railroads; yet it is not only possible, but probable, that many people will be ruined by dabbling in schemes of speculators; in a species of gambling and robbery which is always carried on in densely populated places, not only in England and France, but also, and to an equal extent, comparatively, in this country, and especially in this city, where there are not only hundreds, but thousands of men whose whole aim, study and prayer—if they make any—is to devise some scheme by which they may possess themselves of the property of others, without giving an equivalent. It is also possible and even probable, that parliament may be misled by interested parties, and those parties may even be of its own body—as designing men often get into parliament, as well as into other public bodies—expressly for the purpose of promoting their own interest, even if need be, at the public, or any bodies' expense except their own; but this class of works, we have reason to believe, will be comparatively small; and much the greatest proportion of those which are sanctioned by parliament will be works of merit, designed to develop the resources, and promote the prosperity of some region of the kingdom, whose relative advantages have not yet been properly improved, or have been changed by improvements in other sections; thus constantly working to equalize the business facilities of the country, by elevating the depressed—rather than by depressing those who are interested in existing works.

The last arrival, the *Hibernia*, brought us information which shows conclusively to our mind—however it may appear to others—that while parliament holds a tight and honest rein over the numerous and noisy applicants, and sanctions none which will injuriously interfere with those already sanctioned; and only such as it is shown by good evidence, will promote the permanent interest of some region of country not now accommodated by a railway, there will be far more benefit than injury resulting from the largest extension possible of the system in England. Indeed it may be said, and truly, according to the following statement from one of the late English papers, that the annual increase in the value of the present railway property alone—to say nothing of the other property—of England, which arises solely from the increased business, and reduced expenses upon the various railways now in use, is sufficient to construct over one thousand miles of railroad a year, even at the enormous cost of \$75,000 per mile.

The statement above referred to, is, we believe, from the London Railway Chronicle, and is in substance, as follows, viz:

"The revenue from the railroads of England, in the months of July and August, amounted to £1,362,127, an increase of £207,630, as compared with the receipts of July and August 1844. It is estimated that the increase this year of the gross revenue of the railroads will be over £1,000,000, nearly the whole of which will be clear profit, as on most of the lines the working expenses have been economized. If however, a quarter of a million is allowed for increased expenses, there will still be left £800,000, or about \$4,000,000, as the clear increase of net profit for the year 1845."

Now this £800,000 or \$4,000,000 of increased clear net income, from the railways of England, is a fair rate of interest, in England, upon £20,000,000, or \$100,000,000, which will therefore be the actual increase in the value of the railway property of England during the year 1845, and will of itself be sufficient to construct, as we said before, over one thousand miles of railroad per annum.

And we are fully of the opinion that, when Great Britain has invested one thousand millions pounds sterling in railways, within her own territory—which she will have done before the year 1860—or within fifteen years from this time—she will be much better able to carry on a vigorous warfare against the nations of Europe either singly or combined, than if she had not invested a dollar in them, and we are also of the opinion that there may yet be constructed at least ten thousand miles of railroad in that kingdom, within the next ten years, which would not only, not depreciate the value of those now chartered, but would largely increase their business and income, and at the same time increase the value of other property in the kingdom, and promote the comfort of the millions, to an amount much greater than the entire cost.

It is possible that we may be all wrong in our estimate and opinion, but we ask our readers, and especially the editor of the Sun, to look back this day sixteen years, and compare the utmost anticipations of the wise men

of England, when they assembled at Liverpool to witness the unheard of—and by many *unlooked for*—performance of the locomotive engine which was to haul *twenty tons*, on a *level railway*, at the astonishing speed of *ten miles an hour!* It was at that trial that one of the first railway accidents occurred, and one of England's *truly great men*, Mr. HUSKISSON, lost his life; and it was at that trial that the engineers and mechanics of England achieved a victory of far greater importance than that of Waterloo, or indeed of *all the victories of all her warriors* combined! After contemplating the wonderful performance of that day, let us trace the progress of improvements which have been made up to the present period; and then look forward a quarter of a century! Who can realize the improvements and changes which are sure to follow in the paths of railroads and the magnetic telegraph!

*Syracuse, Courtland and Binghamton Railroad.*—The Binghamton Republican has the following:

"The stock of the New York and Erie Railroad, thanks to the energy and perseverance of the president and directors of the company, is all subscribed; and measures, we are assured, will at once be taken to prosecute the work. Indeed, we learn from a source which we think entitled to credit, that the commissioners to locate the road in this county, have accepted their appointment, and will enter upon the discharge of their duties the present fall.

In view of these facts, we think a move should be made to revive the act authorizing the construction of the Syracuse, Courtland and Binghamton railroad. If the New York and Erie railroad is constructed, and all fears upon that subject have been dispelled, there can be no doubt that money subscribed to make the branch to Syracuse, and thence to Oswego, would prove a profitable investment. It is admitted on all hands, that a more favorable route for a railroad, cannot be found in the state; and in no other way can lake Ontario be so easily or so directly connected with the city of New York.—Now, emphatically, is the time to revive the project, and we call upon the friends of the measure, in Courtland and Onondaga, to be prepared to carry the question before the next legislature."

And the Syracuse Western State Journal, has the following:—

"Had we not better talk about a *plank road* from this place to Courtland?"

By no means, we say—not a word about a "*plank road*." We "go the whole" for a railroad on that line, as whatever gets on to it, will be sure to reach New York before it does Boston.

#### Atlantic and St Lawrence Railroad.

The board of directors and other officers recently elected to manage the affairs of this railroad company, says the Portland Advertiser, are steadily and laboriously at work in prosecuting this great enterprise.

"Parties of engineers have been for some weeks past in the field, and we believe that no proper effort is spared to hasten the move-

ment as rapidly as could be desired, under the circumstances.

"Recent accounts from England, in reference to the stock of the Canada side of the road, are very encouraging. We understand that letters were received from the agent, by the Hibernia (at Boston, on Sunday last,) in which he speaks of very favorable success, in disposing of the stock. In the first instance, there was an apparent eagerness to obtain this stock, which it was readily perceived, rested very much upon merely speculative designs. The terms of the charter, however soon enabled the agent to sift out and scatter the jobbing and gambling applicants, and now that the merits of the enterprise, are become known to real capitalists, they are properly appreciated. We anticipate, from the accounts that have reached us, that Mr. Galt will complete his immediate mission at an early day."

We have not doubted the success of Mr. Galt's mission.

#### Southern, Michigan, Railroad.

The Monroe Advertiser says that the receipts on the Southern railroad for the month of Sept. 1845, for freight and passengers, are about \$4,000, or 50 per cent. increase, over any previous month since the road was built, being at the Monroe depot office

	\$3,593 39
Adrian "	1,270 12
Hillsdale "	2,790 92

Total for September 1845, \$12,654 43

The above revenue is derived principally from the transportation of freight; and to enable this road to do a business equally as profitable to the state as that of the Central road, a. that is wanting is a line of steamboats between Monroe and Buffalo. With such a line, and such we trust will be formed next spring, as many passengers would go over the Southern, as over the Central road. The accommodations and facilities would be quite as good—the distance considerably less, and the travel to Chicago and in that direction sooner performed.

We find it exceedingly difficult to obtain any accurate information in relation to the Michigan railroads. Will some gentleman there furnish us with such information as will enable us to add them to our list of railroads? It is but a small matter to those who have the documents, yet very important to us.

#### Railroad Meetings.

At Albion, Orleans county New York, a meeting was held, says the Niagara Democrat, on the 22nd October, in favor of the extension of the railroad from Lockport through Albion to Rochester.

At Detroit, Michigan, a large meeting was held on the 24th ult., in relation to the contemplated railway in Canada, between the Niagara river and Detroit. The committee appointed at a previous meeting of the citizens of Detroit, to confer with the citizens of Buffalo, and the directors of the Great Western railroad at Hamilton, was read, accepted and ordered printed.

The committee from Detroit, Messrs. E. A. Brush and C. G. Hammond, in connection

with the Buffalo committee, Messrs. E. Waldron, B. D. Coe, G. B. Rich, Wm. Ketchum and Oliver Lee, addressed a joint letter to the directors of the Great Western road at Hamilton, in which they say in relation to the two companies. "It appears that both companies have precisely the same objects, and also that the people whom they represent, not being interested in property on either line, can have no other interest than that of the most direct and shortest line, with the least elevation and depression, on which passengers may be conveyed from point to point, in the least possible time;" and believing that the common interest of all parties would be promoted by establishing "one best line" and thereby avoid conflicting interests and local rivalry—they request the Great Western company to propose a plan by which the two companies can be united on terms of reciprocity, and intimate that the directors of the Niagara and Detroit river's company will accede to any reasonable proposition for the construction of one common line, which shall unite Bertie, Hamilton and Detroit.—This proposition was deemed by a minority of the directors—in the absence of their associates—as "reasonable, proper and expedient."

From the report of the committee, it would appear that a union of interests and efforts are likely to be effected between these two companies—a result exceedingly desirable for the interest of all parties—but especially for those who travel.

**WESTERN AND ATLANTIC RAILROAD.** The Western and Atlantic Railroad is now in operation to Marietta, and will be opened to Cartersville, in Cass county, on the 20th of October—and to Coosa Depot, (formerly known as Borough's,) on the 20th of November.

The passenger train will continue, as at present, to connect daily (Sundays excepted) with the train from Augusta, and the stage from Griffin.

CHAS. F. M. GARNETT.

Chief Engineer.

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**BOSTON COURIER, DAILY, SEMI-Weekly and Weekly.**

The *Daily* edition of the Courier, presents to merchants and others, an extensive medium of advertising. The circulation of the *Semi-Weekly* Courier (published on Mondays and Thursdays) is believed to be more extensive than that of any other similar Boston Newspaper. This publication embraces all the reading matter of the *Daily*, the Foreign and Domestic Markets, Review of the Boston Market, Prices current, and Ship News, prepared with great accuracy. The *Weekly* Courier contains as much of the matter of the *daily* as can be crowded into a sheet of the same size, without ship news, prices current or advertisements.

Our exertions to obtain and publish authentic information on all topics proper for the columns of a newspaper,—the state of trade, the prices of merchandise, the current news of the day, and the political movements in the various sections of the country—will not be abated. The marine department of the Courier has been inferior to none in copiousness or accuracy of detail, and it will be our endeavor to maintain its reputation in this respect.

#### TERMS OF SUBSCRIPTION.

For the *Daily* Courier, for one year, in advance \$8.00  
For the *Semi-Weekly* Courier, for one year... 4.00  
For the *Weekly* Courier, for one year..... 2.00

JOSEPH T. BUCKINGHAM.  
EBIN B. FOSTER.

**BOSTON AND MAINE RAILROAD.**

Upper Route. Boston to Portland via, Charlestown, Somerville, Malden, Stoneham, South Reading, Reading, Wilmington, Ballardvale, Andover, North Andover, Bradford, Haverhill, Atkinson, Plaistow, Newtown, Kingston, East Kingston, Exeter, South Newmarket, Newmarket, Durham, Madbury, Dover, Somersworth, South Berwick, North Berwick, Wells, Kennebunk, Saco and Scarborough.

Winter Arrangement, 1845 & 6. On and after Monday, October 20th, 1845, Passenger Trains will run daily, (Sundays excepted,) as follows, viz.

Leave Boston for Portland at 7½ a.m. and 2½ p.m. Leave Boston for Great Falls at 7½ a.m., 2½ p.m. and 3½ p.m. Leave Boston for Haverhill at 7½ a.m., 2½, 3½ and 5 p.m. Leave Portland for Boston at 7½ a.m., and 3 p.m. Leave Great Falls for Boston at 6½ a.m., 9½ a.m. and 4½ p.m. Leave Haverhill for Boston at 6½, 8½, and 11 a.m., and 6½ p.m.

Special Train.—A special train will leave Boston for Andover at 11½ a.m., and Andover for Boston at 3½ p.m.

The Depot in Boston is on Haymarket Square. Passengers are not allowed to carry Baggage above \$50 in value, and that personal Baggage, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every \$500 additional value. CHAS. MINOT, October 20, 1845. 43 ly Super't.

**SPRING STEEL FOR LOCOMOTIVES,**

Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1½ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent, ja5a3 Albany Iron and Nail Works, Troy, N. Y.

**TO IRON MANUFACTURERS. THE**

Subscribers, as Agents of Mr. Geo. Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late R. v. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO., ja45 No. 4 Sout Fronth st., Philadelphia, Pa

**MACHINE WORKS OF ROGERS,**

Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work. Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

**FOR SALE AT A SACRIFICE--A LOCOMOTIVE**

Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine. 2 8-horse " " " " 1 Upright Hydraulic Press.

All of which will be sold low, on application to T. W. & R. C. SMITH. Founders and Machinists, Alexandria, D. C. May 12th

**GEORGIA RAILROAD. FROM AUGUSTA**

TO ATLANTA—171 MILES. This Road in connection with the South Carolina Railroad and the Western and Atlantic Road now forms a continuous line of Railroad of 360 miles from Charleston to Cartersville, two miles west of the Etowa River in Cass County.

Rates of Freight, and Passage from Augusta to Cartersville.

On Boxes of Hats, Bonnets, and Furniture per foot..... 15 cts. " Dry goods, shoes, saddlery etc., per. 100 lbs. 85 " " Sugar, coffee, iron, hardware, etc. " 70 " " Flour, bacon, mill machinery etc. " 83 " " Molasses, per hogshead \$9; salt per bus. . . . . 22 " Passengers \$9 50; children under 12 years of age and servants, half price.

Passengers to Atlanta, head of Ga. Railroad, \$7. German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions, Freight payable at Augusta. J. EDGAR THOMPSON, Ch. Eng. and Gen. Agent.

Augusta, Oct. 21 1845. \*44 ly

**NICOLL'S PATENT SAFETY SWITCH**

for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, Reading, Pa.

ja45

**GEORGE VAIL & CO., SPEEDWELL IRON**

Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1½ in. to 2½ in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions. ja45ly

**TO RAILROAD COMPANIES AND MANUFACTURERS**

of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**NORWICH AND WORCESTER RAILROAD.**

On and after May 22, 1845, Trains will leave as follows, viz:— Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4½ p.m. Leave Worcester, at 10 a.m., and 4½ p.m.

The morning train from Norwich, and the morning and evening trains from Worcester, connect with the Boston, Western, and Hartford and Springfield railroads.

New York Train, via Steamboat. Leaves Norwich for Worcester and Boston, every morning except Monday, upon the arrival of the boat from New York, about 2 a.m. Leaves Worcester for Norwich and New York, at 5½ p.m., daily, except Sunday.

New York Train, via Long Island Railroad.—Leaves Norwich about 3 p.m., for Worcester and Boston, daily, except Sunday. Leaves Worcester for Norwich and New York, at 7½ a.m., daily, except Sunday, and arrives in Norwich at 9½.

Freight Trains. Daily, except Sunday.

Fares are less when paid for Tickets, than when paid in the cars.

EMERSON FOOTE, 321y Superintendent.

**LAWRENCE'S ROSENDALE HYDRAULIC CEMENT.**

This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floods and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE, 142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 32 ly

**SUMMER ARRANGEMENT--FARE REDUCED.**

By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

Direct to New Orleans, and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great Southern Mail Line, and the only one that issues a through ticket South. Those who patronize it will save their money and time. Through Tickets from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

Fast Mail Line.—Leave New York at 9 a.m. and arrive in Philadelphia at 3½ p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12½ to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.

Passengers by the above line will arrive at Richmond by 11½ o'clock p.m. and Petersburg, Va. by 2½ o'clock p.m., through to the former city in twelve hours, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

Way Mail Schedule.—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p.m.; arrive in Baltimore at 2½ p.m.; arrive in Washington at 7 p.m. From Philadelphia by steamboat.—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore. STOCKTON & FALLS.

**LONG ISLAND RAILROAD.--EVEN-**  
ing Line for Newport and Providence.  
Fare 50 cents.

Every Tuesday, Thursday and Saturday, from the foot of Whitehall street, at 4 1/2 o'clock and from Brooklyn depot at 5 p.m.

On the arrival of the train at Greenport, passengers will proceed immediately in the steamer "New Haven," direct.

**BOSTON AND PROVIDENCE RAIL-**  
road. Dedham Branch Railroad. Stoughton Branch Railroad.

Fall arrangement, to commence Monday, September 29, 1845.

Steamboat train for New York via Stonington, leaves Boston at 4 1/2 p.m.

Accommodation trains, leave Boston at 8 a.m. and 3 1/2 p.m. Leave Providence at 8 a.m. and 3 1/2 p.m.

Fare in first class cars, \$1 25  
" second " 85

Dedham trains, leave Boston at 9 a.m. 3 p.m., and 6 p.m. Leave Dedham at 7 1/2 a.m., 10 1/2 a.m. and 4 1/2 p.m.

Fare 25 cents.  
Stoughton trains, leave Boston at 12 m. and 4 p.m. Leave Stoughton at 8 a.m. and 2 1/2 p.m.

Fare 50 cents.

W. RAYMOND LEE, *Sup't.*  
Sept. 15, 1845. 31 1y

**NEW YORK AND ERIE RAILROAD**  
LINE. For Middletown, Goshen, and intermediate places. Two daily lines each way, as follows:

For passengers, the new, and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7 1/2 o'clock, A.M., and 5 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4 1/2 P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets,

H. C. SEYMOUR, Superintendent.

Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghampton, Owego, Port Jervis, Honesdale, Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc.

**BALTIMORE AND SUSQUEHANNA**  
Railroad. The Passenger train runs daily except Sunday, as follows:

Leaves Baltimore at 9 a.m., and arrives at 6 1/2 p.m. Arrives at York at 12 1/2 p.m., and leaves for Columbia at 1 1/2 p.m. Leaves Columbia at 2 p.m., and leaves York for Baltimore at 3 p.m. Fare to York \$2. Wrightsville \$2 50, and Columbia \$2 62 1/2. The train connects at York with stages for Harrisburg, Gettysburg, Chambersburg, Pittsburg and York Springs.

Fare to Pittsburg. The company is authorized by the proprietors of Passenger lines on the Pennsylvania improvements, to receive the fare for the whole distance from Baltimore to Pittsburg. Baltimore to Pittsburg.—Fare through, \$9 and \$10.

Afternoon train. This train leaves the ticket office daily, Sundays excepted, at 3 1/2 p.m. for Cockeysville, Parkton, Green Springs, Owings' Mills, etc.

Returning, leaves Parkton at 6 and Cockeysville and Owings' Mills at 7, arriving in Baltimore at 9 o'clock a.m.

Tickets for the round trip to and from any point can be procured from the agents at the ticket offices or from the conductors in the cars. The fare when tickets are thus procured, will be 25 per cent. less, and the tickets will be good for the same and following day in any passenger train.

D. C. H. BORDLEY, *Sup't.*  
Ticket Office, 63 North st.

**DAVIS, BROOKS & CO., 30 WALL ST.**  
Have now on hand and for sale,  
200 tons 2 1/4 x 1/2 inch Flat punched Rails, Bars 18 feet each.  
100 tons Heavy Edge Rails, 90 tons per mile.  
30 tons 2 1/4 x 1/2 inch Flat Rails.

Also—A STEAM PILE DRIVER, built by "Dunham & Co." which has never been used, and cost originally \$5000. s20 2m

**BALTIMORE AND OHIO RAILROAD.**  
MAIN STEM. The Train carrying the Great Western Mail leaves Bal-

timore every morning at 7 1/2 and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Browns-

ville and Pitsburgh. Time of arrival at both Cumberland and Baltimore 5 1/2 P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5 1/2 P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13 1y

**CENTRAL RAILROAD--FROM SAVAN-**  
nah to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight. Rates of Passage, \$8 00. Freight—

On weight goods generally... 50 cts. per hundred.  
On measurement goods..... 13 cts. per cubic ft.  
On brls. wet (except molasses and oil).....\$1 50 per barrel.  
On brls. dry (except lime)... 80 cts. per barrel.  
On iron in pigs or bars, castings for mills, and unboxed machinery..... 40 cts. per hundred.  
On hhd. and pipes of liquor, not over 120 gallons.....\$5 00 per hhd.  
On molasses and oil.....\$6 00 per hhd.  
Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE, 40 Gen'l. Sup't. Transportation.

**LXINGTON AND OHIO RAILROAD.**  
Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1-25.

On Sunday but one train; 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above.

**KEARNEY FIRE BRICK. F. W. BRINLEY,** Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire, } New York.  
Peter Cooper, }  
Murdock, Leavirt & Co. }  
J. Triplett & Son, Richmond, Va.  
J. R. Anderson, Tredegar Iron Works, Richmond, Va.  
J. Patton, Jr. } Philadelphia, Pa.  
Colwell & Co. }  
J. M. L. & W. H. Scovill, Waterbury, Con.  
N. E. Screw Co. } Providence, R. I.  
Eagle Screw Co. }  
William Parker, Supt. Bost. and Worc. R. R.  
New Jersey Malleable Iron Co., Newark, N. J.  
Gardiner, Harrison & Co. Newark, N. J.  
25,000 to 30,000 made weekly. 35 1y

**RAILROAD IRON AND FIXTURES.**  
The Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO.,  
30 Wall st., N. York. ja45

**OFFICE OF THE NEW YORK AND**  
Erie Railroad Company. No. 50 Wall st. New York. September 13, 1845.

Notice is hereby given to the holders of stock of the New York and Erie Railroad company, that by the terms of the 8th section of the Act of the 14th May, 1845, it is provided that, if within 6 years from the passage of the law the company shall complete a single track from the Hudson river to lake Erie and a branch to Newburgh, in Orange county, then "the said company shall be released from all liability to pay to the state any demand which the state may have against them, with this exception only, "that in case any holder or holders of the capital "stock of said company heretofore issued and certified, or purporting to be paid in full, shall not within six months from the passage of this act, surrender to the company their stock certificates, and receive or offer to receive therefor, for every two "shares of stock heretofore issued, one share of stock "to be hereafter issued, then all such stock heretofore "issued, and not so surrendered, shall not be subject "to the provisions of this law; but the state shall retain the right to claim upon such outstanding stock, "and the said company shall pay into the treasury of "the state, upon the order of the comptroller, any and "all dividends upon such outstanding stock, and the "comptroller shall apply the same to the credit of "said company, until the state shall receive in such "dividends, so much of their said debt of three millions of dollars and the interest thereon, as would be "the proportion of such outstanding stockholders to "pay, provided the whole debt of three millions of "dollars and interest thereon were collected ratably "from all the stock of said company now outstanding."

By section 9th, of the same law, it is provided that, "it shall be the duty of the president and secretary of said company, within thirty days after the "expiration of the six months mentioned in the last "preceding section, to file with the comptroller of "the state, a statement of all stocks that shall not "have been exchanged in pursuance of the provisions of the last preceding section; and whenever "any dividend upon the stock of the said company "shall be made, it shall be the duty of the board of "directors to notify the comptroller of such dividend, "and upon payment of the dividend aforesaid into "the treasury, the comptroller shall furnish to said "company a receipt for the portion of such dividend "belonging to any stock not surrendered and exchanged in pursuance of the last preceding section "of this act, and said company shall surrender to "the holders of such stock the receipt of said comptroller in lieu of said dividends."

It will be seen that on or before the 14th of November next, each and every holder of the stock of the company must decide whether he will avail himself of the provisions of this law by surrendering his stock and receiving one share for every two shares thus surrendered. With reference to holders who neglect to avail themselves of the provisions of the act, it is made the duty of the company, within thirty days from the 14th of November, "to file "with the comptroller a statement of all stocks that "shall not have been exchanged" agreeably to the provisions of this act, the dividends on which must be paid into the state treasury, rendering that class of stock practically of no value to the holder. The board of directors consider it their duty to protect the interests of the stockholders by giving all possible publicity to that portion of the law relating to the outstanding stock, that all may have an opportunity for an early compliance with the provisions of the act. By order of the board of directors. 39 8t T. S. BROWN, Acting secretary.

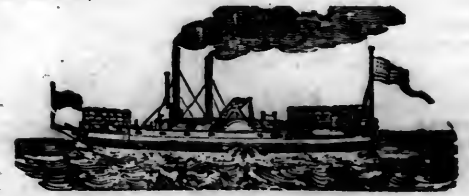
**OFFICE OF THE NEW YORK AND**  
Erie Railroad Company. No. 50 Wall st. New York 4th October, 1845.

Notice is hereby given that the sum of three millions of dollars, required by the law of May 14th, 1845, has been subscribed to the capital stock of this company, and that the books have been closed. The subscribers are required to make a payment of five dollars on each share, at the office of the company, on or before Thursday, the 16th of October inst.

By order of the board of Directors.  
T. S. BROWN, Acting Secretary. 41 2t

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 46.]

THURSDAY, NOVEMBER 13, 1845.

[WHOLE No. 489, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

### RATES OF ADVERTISING.

One page per annum.....	\$125 00
One column ".....	50 00
One square ".....	15 00
One page per month.....	20 00
One column ".....	8 00
One square ".....	2 50
One page, single insertion.....	8 00
One column ".....	3 00
One square ".....	1 00
Professional notices per annum.....	5 00

### ENGINEERS and MACHINISTS.

- J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)
- TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)
- ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)
- S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)
- NORRIS, BROTHERS, Philadelphia, Pa.
- KITE'S Patent Safety Beam. (See Adv.)
- FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)
- NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)
- ROSS WINANS, Baltimore, Md.
- CYRUS ALGER & Co., South Boston Iron Company.
- SETH ADAMS, Engineer, South Boston, Mass.
- STILLMAN, ALLEN & Co., N. Y.
- JAS. P. ALLAIRE, N. Y.
- H. R. DUNHAM & Co., N. Y.
- WEST POINT FOUNDRY, N. Y.
- PHENIX FOUNDRY, N. Y.
- R. HOE & Co., N. Y.
- ANDREW MENEELY, West Troy. (See Adv.)
- JOHN F. STARR, Philadelphia, Pa.
- MERRICK & TOWNE, do.
- HINCKLEY & DRURY, Boston.
- C. C. ALGER, Stockbridge Iron Works, Stockbridge, Mass.
- BALDWIN & WHITNEY, Philadelphia, Pa.

### IRON MERCHANTS and IMPORTERS.

- DAVIS, BROOKS & Co., N. Y. (See Adv.)
- A. & G. RALSTON & Co., Philadelphia, Penn. (See Adv.)
- THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

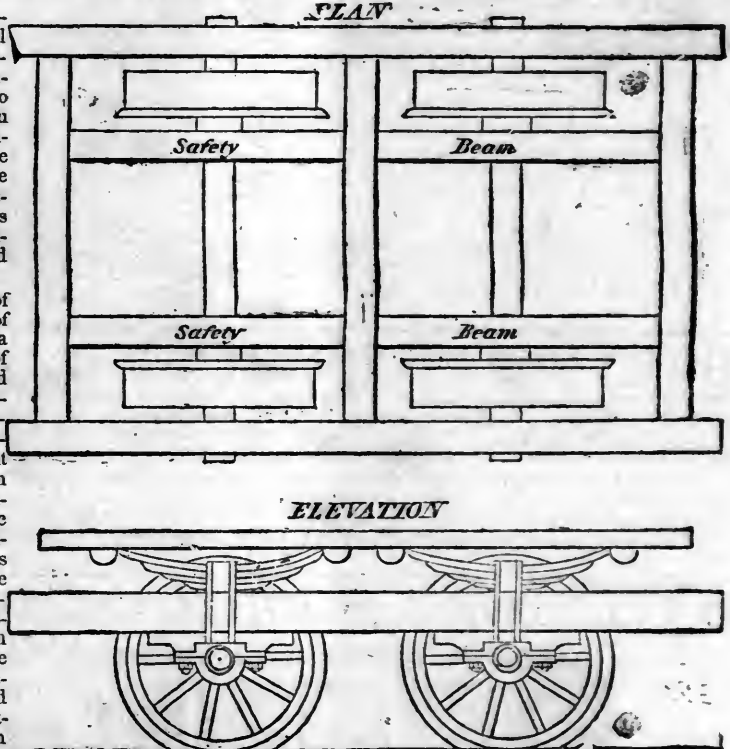
The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



ELEVATION

Section

**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y.  
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co. Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand.

ja45

### FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Mc-tive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabeth-town and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. P. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

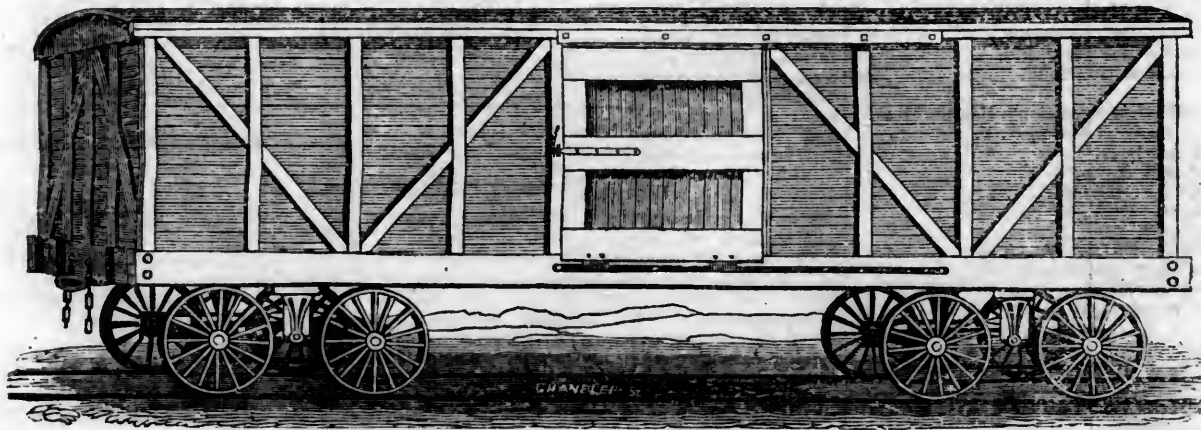


**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

The article is complete in itself, occupies but little space, is perfectly portable, and requires no brick work, not even to stand upon. It is valuable, not only in the saving of time and labor, but in the economy of fuel, as it has been ascertained by accurate measurement, that the saving in that article is fully two-thirds over other methods heretofore in use. They are now for the first time introduced into New York and Boston by the subscriber, who has the exclusive right for the New England states, New York and New Jersey, and are manufactured by

CURTIS & RANDALL, Boston; and by FORCE, GREEN & CO. New York.

## DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern, and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del. Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gear- ing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

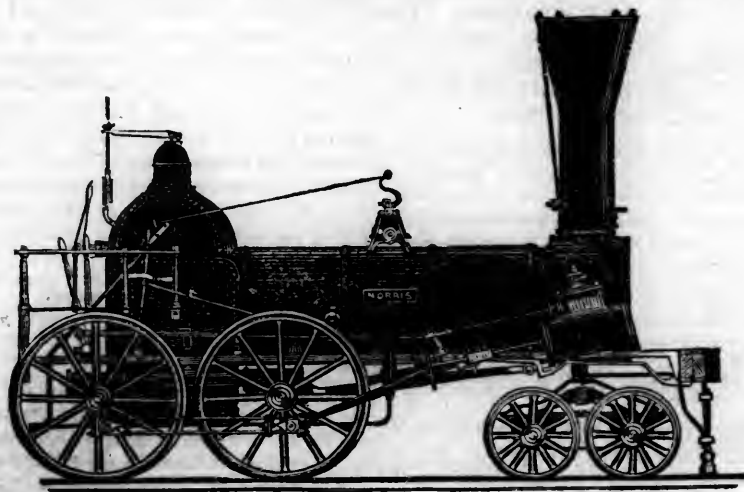
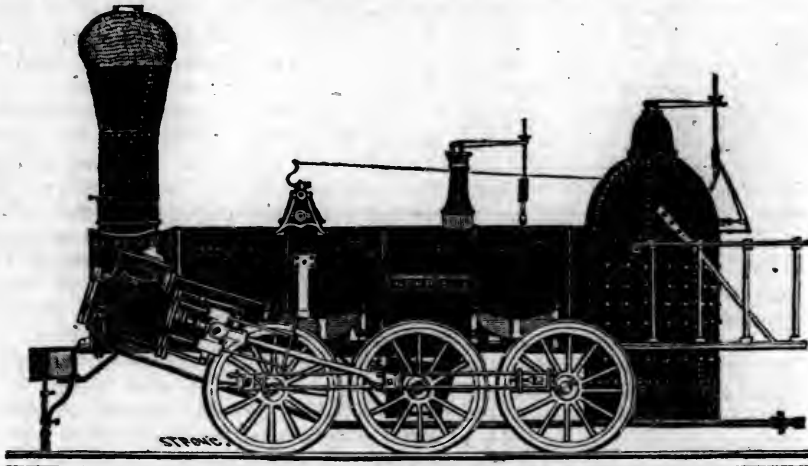
From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**

*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	Number	Diameter of Cylinder	Stroke
1	15 inches	20 inches	20
2	14	"	24
3	14 1/2	"	20
4	12 1/2	"	20
5	11 1/2	"	20
6	10 1/2	"	18

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.

**WILLIAM YOUNG,**  
President.

jj451m

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of Bituminous Coal and Iron Ore, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets descriptive of the property, and further information apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, a No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing:

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48 State st.,** or to **CURTIS, LEAVENS & CO., 106 State st., Boston,** or to **A. & G. RALSTON & Co., Philadelphia.**

**CYRUS ALGER & CO.,** South Boston Iron Company.

## Railway Traffic.

Certainty of increase under judicious management. We recently published a concise description of the *Belgian railways* and their management; a part of which has been republished in Herapath's Journal, showing that there is a general desire, even in England, to know what is doing, and how it is done, in relation to railways in other countries. We now give a further statement of operations on the Belgian railways up to 1st of September—showing a regular increase in the receipts of over 100,000 francs per month, and in August 160,000 francs, over corresponding months last year.

Thus it will be in our country, especially when our railroads are managed upon a uniform and judicious system, which has for its object to afford the greatest possible accommodation to the public, for the lowest rates of charge which will insure liberal and increasing returns to the shareholders.

"*L'Independance*, Belgian paper, contains the following interesting statistics connected with the working of railways in Belgium:

"The traffic returns of the railways in Belgium, from the month of August have been most satisfactory. The progressive improvement in the receipts has continued in a very marked manner, and actually exceeds all previous calculation. In August 1844, the total receipts amounted to 1,205,000 francs; in the corresponding month of the present year, there has been an increase of 160,000 francs, in the following proportions, namely, 80,000f. on the passenger traffic, 7,000f. on personal luggage, and 73,000f. on the goods' traffic. A greater improvement, under similar circumstances, and with the same tariff, could scarcely be hoped for.—The difference between the returns of July and August, is 140,000 francs in favor of the latter, almost the whole of which sum (180,000f.) is derived from the passenger traffic, the remainder is made up of 14,000f. on the luggage, and 18,000f. on the goods' traffic, although there was a decrease in the quantity, as well as in the weight of the merchandise. In July, 353,256 passengers travelled by railway, inclusive of the transport of military and special trains; in August, the number rose to 368,489, or 25,000 more, during very bad weather and a very unfavorable season for travelling. The present month is, of all the months of the year, that in which foreign travellers most move about, and in which our own tourists generally avail themselves of the season for their expeditions; and taking into consideration that these two classes of passengers are for the most part, first and second class passengers, it is curious to observe the distribution of the passenger traffic; thus in June, the proportion of the number of passengers of the first class, was 11 per cent.; in July, it rose to 12 per cent., and in August, to 14½ per cent. on the total number carried. The proportion of second class passengers was, in June, 24½ per cent., in July 27½ per cent., and in August 30½ per cent.; and, consequently, the third class passenger traffic fell from 64½ per cent. to 59½, and from that to 54½ per cent. in the same months. It is not improbable that the continuance of the rains had some effect in producing these results, by driving the third class passengers into the second class carriages,

and in like manner operating on the second class traffic to the first class carriages.

"The movement of foreign travellers and the 'season' for watering places, have in like manner, produced a rise in the average return of each passenger. Thus for the first class passengers, for the months of June, July and August, the average returns are 4f. 30c., 4f. 58c., and 4f. 82c.; for the second class, 2f. 35c., 2f. 51c., and 2f. 61c.; but with regard to the third class traffic, which is principally confined to short distances, the variation is trifling. The returns are—1f. 09c., 1f. 08c., and 1f. 15c. The average returns on the gross number of passengers is as follows: 1f. 76c., in June, 1f. 92c. in July, and 2f. 13c. in August.

The following table shows the returns for eight months in 1844 and 1845:

	1844.	54c.	1845.	57c.
January.....	648,204f.	99	753,870f.	27
February.....	665,334	88	687,262	30
March.....	769,582	52	956,005	68
April.....	901,430	27	987,103	70
May.....	970,266	02	1,037,599	04
June.....	983,665	66	1,061,119	66
July.....	1,092,023	50	1,225,646	82
August.....	1,205,166		1,365,393	

Total.....7,235,674f. 35c. 8,074,001f. 04c.

"Thus it will be seen that the improvement in the returns is constant and well diffused; that it manifests itself in every month, and its continuance can scarcely be doubted. The receipts of the present, exceed those of last year by 838,326f. 69c., or eleven and a half per cent.; whilst the budget of ways and means shows only an increased expenditure (under this head) of 3½ per cent. The gross receipts, which were, in 1844, 11,230,000f., and which, it was calculated, would run up to 11,600,000f., will in all probability, this year, amount to 12,500,000f. The average return per kilometre, which, from 1837 to 1840, was below 16,000f., and from 1841 to 1843, 18,000f., was 20,000f. in 1844, and will exceed 22,000f. in 1845."

## Newcastle and London Coal Railway.

This important projected railway, appears to have been taken hold of in earnest. The distance from Newcastle to London is 280 to 300 miles; and the capital is put at £5,000,000, which gives from £17,000 to £18,000 per mile. The construction of such a road, will reduce the cost of coal to consumers in and about London, and along its line, full 20 per cent. or at least £1,000,000, per annum, and its entire cost in five years, even in competition with good ship navigation. The Mining Journal says:

"Among the many schemes which are being daily brought before the public, for the investment of capital, we observe, during the past few days, one of a most important nature, and which, if carried out, must lead to the most beneficial results, to the inhabitants of the metropolis and its environs, as well as the whole southeastern part of the island, and the coal proprietors of Northumberland and Durham. This is no less than the construction of a railroad through the whole distance from Newcastle-upon-Tyne to London—an undertaking which, though at first sight appears of very considerable magnitude, involving the outlay of £5,000,000, would doubtless repay, with handsome interest, the

investment of the capital. It is not intended that this shall be a passenger line, but to be constructed solely for the transit of coal and heavy merchandize. Under these circumstances, such rapid speed would not be required as for passenger trains, and consequently the working expenses would be proportionally less. When the present situation of the coal trade in London is considered, the severe fluctuations, particularly during winter, to which the cost of this necessary article of consumption is subject, and the high price which it always maintains in the market, under such circumstances, there appears to be an absolute necessity for some means of conveyance, whereby a regular supply of coal can always be obtained, and the price in consequence kept at a steady figure. The arrival of the colliers in the Thames, is a matter at present, of the greatest uncertainty—dependant on the winds and state of the weather—while the easing the pool from the crowded state in which it now is, would, in itself, be a subject of the greatest benefit to the general commercial traffic of the port of London. On the completion of such a line, trains travelling at about fifteen miles an hour, would perform a journey in a day and night, while the colliers are from two to six weeks on their passage.—Wall's-end coals could be supplied in the London market 20 per cent. at least, under the present prices, and the formation of such a means of conveyance would prevent all competition with the midland collieries,—the Newcastle coal being so much preferred by the London consumer, for its cleanliness, the Staffordshire and Lancashire coals producing a white ash, which spreads over everything in the vicinity of the fire-place. The calculation as to the return is easily ascertained—as, at the same rate as the London and Birmingham company charge per ton per mile, 2,000,000 tons of coals alone would pay the working expenses of the line, and this is only half the importation annually into London alone, leaving the remainder, and the goods and intermediate traffic, as profit to the shareholder, which is estimated at ten per cent. on the capital of £5,000,000.

## Mineral Railways.

It may be both interesting and instructing to our readers to know some of the important uses to which railways are applied in England. It will show conclusively their utility, and importance, in developing the resources of a country. The Mining Journal has the following exceedingly appropriate remarks on the subject, and the annexed list of roads, with a list of articles of which their principal traffic is composed. It will also show that railways may be profitable, even for the transportation of the heaviest, most bulky, and least valuable articles.

"The vast influence which the universal construction of railways will have on the development of the mineral riches of the earth, has, perhaps, never entered the minds of many who are thoroughly conversant with the details of their several routes: yet little doubt is there but that many household luxuries—at present denied not only to the poor, but even many of the middle classes—will come into very general use; among these



are marble for side tables, mantel pieces, washstands, etc., slates for paving, roofing, shelves and safes for provisions, and numerous other productions of the mineral kingdom, will find, in every direction, markets alike numberless and insatiable. These productions of Nature's beneficent arrangements have hitherto lain in useless profusion, only attainable by the wealthy, from the excessive cost of transit; but when the districts are traversed in every direction by railways, renewed energy will be instilled into the owners of mineral property, and these products raised and distributed among the community, giving employment to the immediate neighborhoods, dispensing comfort, and increasing the civilization of mankind in general. It is an interesting subject to notice the peculiar minerals which each of our projected railways will aid in more general distribution; and we have selected the following, stating the productions likely to form a large proportion of their traffic, viz:

"Ambergate, Nottingham, and Boston, coal, lime, gritstone; Bridgewater and Minehead, lias lime, slate, and copper ore; Bradford, Manchester, and Liverpool, building stone, coal, etc.; Bedfordshire, Hertfordshire, and Essex, chalk, and chalk rag; Colebrook, Swansea, copper, iron; Cumberland Union, coal, lead, slates, flagstone; Derbyshire, Staffordshire, and Worcestershire, coal, lead, iron, stone; Dudley, Madely, and Iron Bridge, iron; Direct London and Holyhead, silver, lead, copper, slate, stone; Erewash Valley, coal, ironstone, etc.; Great Eastern and Western, iron, coal, anthracite, copper, lime, salt; Great Welsh Central, lead, copper, silver, slate; Huddersfield and East and West Coast, coal, stone, limestone; Irish West Coast, beautiful marbles, lead, iron, slate, and a hard close grained gritty flag stone; Isle of Man, lead, copper, iron, lime, granite, marble, manganese, pottery clay, etc.; Lincolnshire and Eastern Counties, coal from Yorkshire and Derbyshire; Leicester and Birmingham, coal, iron stone, manganese, granite and lime; Leicester, Ashby-de-la-Zouch and Stafford, canal coal, lead, iron, granite, limestone and slate; Manchester, Buxton and Matlock, coal, lime, building stone, marble and lead; Nottingham, Ambergate, and Manchester, coal, lime, gritstone, limestone; Oxford and Worcester extension, coal, ironstone, and limestone; Rhondda and Ely Valleys, coal, ironstone and limestone; Shropshire Mineral, coal, lime, and iron; Staffordshire and North Midland, coal, lime, lead, zinc, iron, marble, etc.; Tean and Dove Valley, coal, iron, and lime; Wear Dock and Railway, coal; Welsh South Midland, produce of great Welsh iron works, coal, etc.; Welsh Midland, coal, lime, iron, copper, tin, zinc, etc.

*New Motive Power.*—The London Mining Journal has the following notice of what it terms a *new motive power*.

"After the numerous attempts which have been made to introduce carbonic acid as a moving power—not one of which, we believe, has ever been carried out to the satisfaction of the inventors—Mr. Talbot has so matured an apparatus for its employment,

and so satisfied is he of its success, that he has already secured a patent for its use.—We are not at present in a position to describe the details of his engine, but our scientific readers will understand the enormous power at command, when it is understood that, by chemical frigorific means, the acid is brought to a temperature very much below the freezing point of Fah. (32 deg.), and may, consequently, be said to be in a frozen state, and when a portion of this is admitted below the piston of an engine, and the temperature raised, a force is exerted far greater than from steam, while the enormous weight of furnace, boiler, etc., is dispensed with; it is true that a vessel of sufficient strength is necessary to contain the expansive fluid, and of corresponding weight, but as its capacity need be so much less than that of a boiler of the steam engine, the perfection of this apparatus will probably revive the investigation into the means of navigating the air; hitherto the great obstacle to the success of imitating the feathery tribe has been the great weight of apparatus for sufficient motive power—but, in the carbonic acid engine, we have a power superior to all others, while the apparatus necessary for its employment is comparatively light. We shall watch with interest the publication of the specification."

*Locomotive Condensing Engine.*—We take the following also from the same Journal.

"A model was exhibited at the Royal Cornwall Polytechnic society, of a new locomotive engine, which promises to be of considerable importance; it is the invention of a working man, named John Thomas, of Cornwall, in Cornwall. In this engine the boilers and pistons are the same as in ordinary locomotives, the novelty being in having a complete and efficient condensing apparatus attached, for which he is about taking out a patent. By this arrangement, it is calculated that there is a gain of 28 lbs. per inch, over the high pressure locomotive; a lower pressure of steam in the boiler will produce the same effect. The boiler is fed with hot water from the condensed steam, causing a further saving of fuel, and when once filled, it thus requires but a very small quantity to keep up the supply; less weight of water and fuel is required to go double the distance; by the complete condensation of the steam, all that noise is avoided which has hitherto prevented steam coaches on common roads, and is a great nuisance on the railway; the waste of steam is so little, that steamboats might take a sufficient supply of fresh water to last several days. These are some of its advantages, and the model when at work, proved its superiority; but, as the inventor is about to take out a patent, he is not at present in a position to favor us with a detailed description.

*Anthracite Railroad Iron.*—The Philadelphia Ledger says: "A T rail, 18 feet long weighing 50 pounds per lineal yard, manufactured by the 'Montour iron company,' at Danville, Pa., with anthracite coal alone, has been received for the exhibition of the Franklin Institute, Philadelphia. This is one of the first rails manufactured in America or in

Europe of anthracite iron, and, so far as we can judge of the quality from an inspection of the bar, taking it into consideration also that it is pure mine iron, from the celebrated Montour's ridge ore without any admixture of cinder iron, we think there is every probability that it will be found to render much better service than the imported English rails. It is also a highly creditable specimen of American mechanical skill in heavy manufactures. We congratulate Pennsylvania on this new source of wealth, which, we doubt not, in addition to supplying our own railroads will soon become an article of export. Thus Pennsylvania, like Sparta of old will pay off her debts with her iron coin."

"We have seen at this place another of the rails manufactured by the same company, for the Harrisburg and Lancaster railroad, which is said by those competent to judge, to be superior to any imported rail ever used in this country.

"It is said that the French government is making arrangements to import railroad iron from the United States."

We take the above from the Harrisburg Argus. We have also seen beautiful samples of this iron in Wall street and concur with the editor that they are in appearance superior to any imported railway bars we have ever seen. The only unfavorable part of the whole matter is that *enough* such cannot be obtained as *soon as wanted*, therefore there is not much prospect that railroad iron will be shipped to France soon from this country. We wish we could make here *one-half* the quantity we shall need during the next three, or even five years.

*Right of Way.*—We find the following paragraph in the Harrisburgh (Pa.) Telegraph on the 5th instant:

"*Baltimore and Ohio Railroad.*—The section of our state in favor of granting the right of way to the Baltimore and Ohio railroad company to extend their road to Pittsburgh, will be represented with great strength of talent as well as numbers in our legislature. At the late election the people were thoroughly aroused to that object, and particular attention was paid to selecting men of talents to carry out that measure—and we are satisfied that a much stronger force will be found in favor of the project than is anticipated by its opponents—and there is strong probability of its being carried, if we are correctly informed."

It is to be hoped that the above prediction may prove true, not only for the interest of Baltimore but also for permanent interest of Philadelphia. Philadelphia only requires to be thoroughly aroused to the importance of *her own action*, to insure the construction of a railroad, not only to Pittsburgh but also to lake Erie, and thus having more far reaching avenues for business than any other city in the Union. It will however require powerful medicines to give her proper tone and action; and we hope she will take it with a good grace; especially as it will completely renovate her system and make what she ought to be, one of the greatest manufacturing cities in the world.





AMERICAN RAILROADS.												SALES.		
RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on hand.	1843. Income.		Div. per cent.	1844. Income.		Div. per cent.	Previous prices.	Week ending Sept. 15.	
						Gross.	Nett.		Gross.	Nett.			Last.	Sales.
Me.	1	Portland, Saco and Portsmouth.	50	1,200,000			89,997	47,166	7	131,404	62,172	6	101½	100½
N. H.	2	Concord.	35	750,000								12	65	
Mass.	3	Boston and Maine.	56	1,485,461			178,745	68,499	6	233,101	86,401	6½	111	
"	4	Boston and Maine extension.	17 1-4	455,703	unfin.									
"	5	Boston and Lowell.	26	1,863,746			277,315	144,000	8	316,909	147,615	8	118	1 7½
"	6	Boston and Providence.	41	1,886,135	none.	18,600	233,388	110,823	6	282,701	156,109	6	111	
"	7	Boston and Worcester.	44	2,914,078			40,141	162,000	6	428,437	195,163	7½	116½	116½
"	8	Berkshire.	21	250,000	not stated			17,500	7	17,737				
"	9	Charlestown branch.		280,260					13	34,654	13,971	5½	80	
"	10	Eastern.	54	2,388,631			279,563	140,595	6	337,238	227,920	8	107½	107½
"	11	Fitchburg.	50	1,150,000	just op'd					42,759	26,835		119	
"	12	Nashua and Lowell.	14 1-2	380,000			84,079		8	94,588	34,944	10	126	
"	13	New Bedford and Taunton.	20	430,962			50,671	24,000	6	64,998	24,000	6	102	
"	14	Northampton and Springfield.		172,883	unfin.									
"	15	Norwich and Worcester.	66	2,290,000	900,000	16,535	162,336	24,871		230,674	99,464	3	67	69½
"	16	Old Colony.		57,820	unfin.								105	
"	17	Stoughton branch.	4	63,075	unfin.									
"	18	Taunton branch.	11	250,000				20,000	8	96,687	20,000	8	120	
"	19	Vermont and Massachusetts.												
"	20	West Stockbridge.	3	41,516	200	100						4		
"	21	Western, (117 miles in Mass.)	156	7,686,202	4,686,202	30,000	573,882	284,432		753,753	439,679	3	98½	97½
"	22	Worcester branch to Milbury.		8,431	506									
"	23	Housatonic, (10 months.)	74	1,244,123						150,000			26	33
Con	24	Hartford and New Haven.	38	1,100,000	100,000	10,000	100					6	93	
"	25	Hartford and Springfield.	25 1-2	600,000	400,000	2,000	100							
"	26	Stonington, (year ending 1st Sept.)	48	2,600,000	650,000	13,000	100	113,889		154,724	79,845		29	32
N. Y.	27	Attica and Buffalo.	31	336,211			45,896	7,522		73,248	48,033	0		
"	28	Auburn and Rochester.	78	1,796,342	200,000	14,000	100	189,693	112,000	237,667	152,007	6	109	103
"	29	Auburn and Syracuse.	26	766,657			133½	86,291	27,334	96,738	52,544	6	116	
"	30	Buffalo and Niagara.	22	200,000		1,500							100	
"	31	Erie, (446 miles.)		5,000,000									27½	31½
"	32	Erie, opened.	53					48,000		126,020	59,075			
"	33	Harlem.	26	2,250,000	750,000	30,000				140,685	62,399		61	62½
"	34	Hudson and Berkshire.	31	5,561,521		50				35,029	1,789	0	11½	
"	35	Long Island.	96	1,310,521	392,340	29,846				153,456	58,996	0	61½	65½
"	36	Mohawk and Hudson.	17	1,317,893	400,000	10,000	100	69,948	58,780	79,804	45,763	0	56½	57
"	37	Saratoga and Schenectady.	22	1,303,658				42,342	3,000	34,666	8,455	0		
"	38	Schenectady and Troy.	20 1-2	640,800			28,043			32,646	6,365	0		
"	39	Syracuse and Utica.	53	1,115,897	none.	16,000	62½	163,701	72,000	192,061	120,992	8	117	
"	40	Tonnawanda.	43	727,332				76,227		11,177	75,865	5		
"	41	Troy and Greenbush.	6	180,000									90	
"	42	Troy and Saratoga.	25	475,801			44,325	21,000		38,502	9,971	2½		
"	43	Utica and Schenectady.	78	2,163,165	none.	20,000	100	277,164	180,000	331,932	199,094	8	132	
N. J.	44	Camden and Amboy.	61	3,200,000				682,832	383,880	784,191	404,956		112	
"	45	Elizabethtown and Somerville.	26	500,000										
"	46	New Jersey.	34	2,000,000									95½	
"	47	Paterson.	16	500,000								6	88½	
Pa.	48	Beaver Meadow.	26	1,000,000										
"	49	Cumberland Valley.	46	1,250,000										
"	50	Harrisburg and Lancaster.	36	860,000									30	
"	51	Hazleton branch.	10	120,000										
"	52	Little Schuylkill.	29	900,000										
"	53	Blossburg and Corning.	40	600,000										
"	54	Mauch Chunk.	9	100,000										
"	55	Minehill and Schuylkill Haven.	1-2	396,117	25,000	7,019	50					12	80	
"	56	Norristown.	20	800,000									6½	
"	57	Philadelphia and Trenton.	30	400,000									104	
"	58	Pottsville and Danville.	29 1-2	1,500,000										
"	59	Reading.	94	9,457,570	7,447,570	40,290	50			597,613	343,511		25	24½
"	60	Schuylkill valley.	10	1,000,000										
"	61	Williamsport and Elmira.	25	400,000			20,000							
"	62	Philadelphia and Baltimore.	93	4,400,000			43,043	200,000			210,000		15½	15½
Del.	63	Frenchtown.	16	600,000										
Md.	64	Baltimore and Ohio, (1st Oct.)	188	7,623,600			575,235	279,402		558,620	346,946		48½	
"	65	Baltimore and Susquehanna.	58	3,000,000									2½	
"	66	Baltimore and Washington.	38	1,800,000			177,227	71,691		212,129	104,529		84	
Va.	67	Greensville and Roanoke.	18	284,433	37,544	2,000	100			25,368	6,074		28	
"	68	Petersburg.	63	969,880	63,000	7,690	100			122,871	72,898	3	77	
"	69	Portsmouth and Roanoke.	78 1-2	1,454,171										
"	70	Richmond, Fredericksbg and Potomac.	76	800,000						185,243	85,688	6		
"	71	Richmond and Petersburg.	22 1-2	700,000										
"	72	Winchester and Potomac.	32	500,000										
N. C.	73	Raleigh and Gaston.	84 1-2	1,360,000										
"	74	Wilmington and Raleigh.	161	1,800,000										
S. C.	75	South Carolina.	136			34,410	75			532,871	140,196	5		
"	76	Columbia.	66	5,671,452			201,464	77,456		328,425	180,704			
Ga.	77	Central.	190	3,000,000	500,000	22,500	100	227,532	93,190	248,096	147,523			
"	78	Georgia.	147 1-2	2,650,000			248,026	158,207						
"	79	Montgomery and West Point.	89	500,000	170,000		100			35,000	15,000			
Ky.	80	Lexington and Ohio.	40	450,000										
Ohio	81	Little Miami.	40	400,000										
"	82	Mad river.	40	152,000										
Ind.	83	Madison and Indianapolis.	56	212,000										
Can.	84	Champlain and St. Lawrence.	15					12,000		58,000	24,000	110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Thursday, November 13, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 22,095 13 tons, and by canal 9,056 03, making 31,151 01 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total .....	344,172
From Schuylkill Haven—total .....	347,537
From Port Clinton—total .....	18,543

Total by railroad..... 710,253

BY CANAL.

From Pottsville and Port Carbon—total.....	144,928
From Schuylkill Haven—total tons.....	41,322
From Port Clinton.....	46,079

Total by canal..... 232,330

Total by railroad and canal..... 942,584

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines, -	166,679
Room run do., -	64,774—231,453
Beaver Meadow railroad and coal co.,	69,751
From Penn Haven—Hazleton coal co.,	62,071
From Rock Port—Buck Mountain coal co.,	20,569

383,844

WYOMING COAL TRADE—total .....

PINE GROVE COAL TRADE.—total.....

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....

MOUNT CARBON RAILROAD—total tons.....

MILL CREEK RAILROAD—total.....

SCHUYLKILL VALLEY RAILROAD—total.....

[Miners' Journal.]

WESTERN RAILROAD.—Receipts for week ending November 1.

	1845.	1844.
Passengers.....	\$5,947	\$5,538
Freight, etc .....	13,484	10,485
Total .....	\$19,431	\$16,023
Net gain this week .....		3,408
Net gain previously since Jan. '45.....		41,130

Total gain..... 44,538

READING RAILROAD.—A comparative statement of the business of the Philadelphia and Reading railroad, for the week ending October 25th, 1845, as compared with the corresponding week last year.

Week ending Oct. 25, 1844. ..	\$18,129	34,13,534	02
“ “ “ 25, 1845.. ..	27,868	00,19,355	10

Canal Tolls.—The following statement from the Albany Atlas, in relation to the canal tolls, is given in precisely the form such reports should be always given; as it enables those who read it to give to each its due. We should like however to see one

other item added to it, viz. the amount of salaries paid to “collectors and their clerks, inspectors,” lock tenders, etc., on each canal. Will the editor of the Atlas please make this addition to his next monthly statement and send us his paper in exchange for the Journal?

“The amount collected for tolls in the month of September, over and above the salaries of collectors and their clerks, inspectors, etc., is as follows, viz:

Erie canal .....	\$334,158	96
Champlain .....	5,488	54
Oswego.....	7,806	02
Cayuga and Seneca.....	4,267	31
Chemung .....	2,605	88
Crooked lake.....	166	14
Chenango .....	2,515	49
Genesee valley .....	2,838	41
Oneida lake .....	36	39
Seneca river.....	40	70

\$359,923 84

Tolls for September, 1844..... 299,449 45

\$60,474 39

This shows an increase in the month of September, 1845, over the same month in 1844, of \$60,474, 39. The increase is a fraction more than 20 per cent.

We have received a “Circular letter to the stockholders of the Western railroad corporation upon the fares and income of 1845.” It is well known that there has been a falling off in the passenger receipts for the through travel. This is ascribed to the rivalry by the sound, by which route passengers were carried from Boston to Albany via New York for \$2 to \$2 50. Doubts are expressed as to the possibility of carrying over the Western railroad at such rates without ruining the work, though it is said at the close of the letter,

“Should the extreme low rates of fare on the river and sound continue, and become a permanent arrangement for the next season, it may be necessary and best, to meet it, by running a special train for through passengers, at very low rates; provided it can be done without an essential interference with the way business. Whether this can be done with benefit, or without loss to the stockholders, is in the minds of a majority of the board, doubtful; but they are united in the opinion that the experiment should be tried.”

The letter is signed by George Bliss and William Jackson, Esqrs., a committee of the directors and both gentlemen well known in the railway world, who appear quite satisfied with the conclusions at which they have arrived—though we are not, and shall therefore refer again to their circular.

The English, not satisfied with 8 or 10 Railway Journals whose labors are devoted exclusively to that cause, are adding a sort of supplement to other papers. Thus the Economist, a very able weekly publication, tacks on an additional sheet which it calls the “Railway Monitor.” An article from a late number has been copied into many of our newspapers and will undoubtedly be perused with much interest, as it gives a condensed and general review of all railways either in existence or chartered. In another number we find an article commencing as follows:

“The Construction of Railways by Governments or Private Enterprise.—It has long been a subject of grave political and economical discussion, how far it is desirable that the government of a country should undertake or interfere with, matters of industry and even public national improvements. In some of the old European states, and in France in particular, every employment and occupation is less or more under the particular surveillance of the state, from the internal management of a boarding school to the construction of a railway.”

The Monitor then observes, further on:

“To appreciate fully the comparative advantages of the two systems, we have only to look to England

and America on the one hand, where everything has been left, as much as possible, to private enterprise, and to the continental countries, where everything has been retained, as far as practicable, under the direct superintendance and management of the state. Whether we look to the extent to which great improvements have been carried, or to which they minister to the convenience and advantage of the public, the contrast is very striking.

“Our attention is called to this subject by the present extraordinary state of the public mind in regard to railway undertakings, and by the fact that it has with many become a question of grave doubt whether the advantages of the system adopted by us are not more than overbalanced by its evils. We will not deny, much as we place an implicit faith in the ultimate advantages of free competition in all matters, that there are apparent serious evils connected with our system, from which that of state regulation, pursued on the continent, is free. But we believe the disadvantages of our system will be found either more apparent than real, or, at least, that they are more than counterbalanced by other advantages.”

The writer obviously labors under the misapprehension that all has been left to private enterprise here as in England, in place of which the great line of railway of the state of New York executed by private enterprise is not permitted to enter into competition with the Erie canal, a government work.—He may therefore add to the other evils of the system, monopolies of the most odious character.—This whole subject has been thoroughly discussed in the columns of this Journal during the last six years, the system is pretty nearly abandoned as regards the continuation of old or the commencement of new works in all the states, and the policy of selling out will not improbably be broached in New York and Michigan the coming sessions. Pennsylvania, Illinois and Indiana have already disposed of some of their works and Canada is alone at this moment engaged in carrying on large works by government. That country possesses one railway 15 miles long which has been in use upwards of nine years and, during that period, private enterprise has slept. It is now, however, awakening and we have no fear that the results will not confirm the accuracy of the conclusions at which the “Monitor” has arrived. We send a few numbers of the Journal which will perhaps be of interest as containing facts which show the immeasurable superiority of private enterprise over government jobbing—of good faith over repudiation; for it is to the latter that we are indebted for that stain on our national character which no amount of “glory” can wipe out.

“The Iron Times” is another large railway paper of which we have been shown one number. It contains a well reasoned article on the so called “railway mania” in England and we very much fear that many people will not live to enjoy the pleasure of seeing that country in our “glorious” condition, A.D. 1837. A few hundred gamblers may be ruined but the nation is advancing in wealth and power more rapidly and on a better basis than during any former period. We hope to see some little of this “mania” here, where it may be truly said railways excite scarcely any interest—so little, that, had the directors of the Erie merely offered the stock to the public, as in England, they would have secured no subscription worthy of notice.

LONDON RAILWAY RECORD.—We would call the attention of our readers who desire more particular and general accounts of English railway matters, to the advertisement of the Railway Record in our advertising columns. This excellent Journal is conducted by John Robertson, Esq., A.M., who has been connected, we understand, with the railway press

from its commencement. We receive it regularly and find it ably conducted, and shall frequently draw largely upon it, in aid of our own labors. Specimens of it may be seen at this office and it can be obtained through Adams & Co., or Harnden & Co., or Wiley and Putnam. Or we will, on receipt of the money, order it for our friends at a distance, if they desire it.

Copies, also of Herapath's Railway Journal, the Railway Chronicle, the Railway Express, Railway Times and the Mining Journal may be seen at our office, for all of which orders will be forwarded to oblige those who may desire to obtain them.

#### Kyanizing.

We have been favored with the following remarks from a well known and experienced engineer.—They contain the first definite information on the results of experience on railways in this country which we have as yet met with, though we cannot doubt that others might do something towards establishing the value of this process. The timber referred to—spruce—decays very rapidly as we well know; hence it would appear that the process of Kyanizing has in this instance been submitted to a very severe test. If such information follow the expression of our doubts on any project connected with the management or construction of railroads, we shall hereafter be found very frequently calling in question the value of such propositions.

For the American Railroad Journal.

In a recent number of the Journal, I notice some brief remarks touching Kyanizing. Herewith you have a fact supporting the advantage and success of the process, which you may use in any way you judge best.

In 1843 I prepared 1,400 spruce cross-ties by immersion in a solution of sulphate of copper. One of these days when sufficient time has elapsed, you shall know the result.

The Taunton and New Bedford railroad company, in Massachusetts, prepared in the spring and summer of 1840, about 1,700 spruce cross-ties, 7 feet long, 6x6 inches, by Mr. Kyan's process. During the past summer, 1845, they were carefully inspected and no evidence of decay was perceptible; a single stick selected indiscriminately, was taken out of the track with a view to a critical examination. It was split open and presented as sound an appearance in every respect as new wood. The spike holes were as sound and the wood as elastic as the first day the spikes were driven. Spruce is probably the least durable wood which could be selected for track, and it cannot be questioned that without being submitted to some preserving process it would rot in the situation of a cross-tie, in five years. The writer of this article has watched the history of Kyanizing with much interest, and does not recollect any authentic statement of its failure, while he has seen a great many of its success.

L.

#### Wear and Tear of Railroad Iron.

We agree fully with the writer of the letter from which we take the following extract. "Reliable information" on this subject is of great importance and we therefore desire to receive from each railroad company in the Union, such information on this subject as they may have acquired by experience, up to the close of the current year; giving the shape, weight per yard, number of years in use, character of traffic, amount in tons which has passed over it in each year, present condition of the rails, etc.; in short, any facts which may tend to establish truth.—He says:

"I suggest that you procure reliable information in regard to wear and tear of rails. This is an important subject, and wrong impressions are calculated to do great injury in the cause of internal improvement, arresting, perhaps, their progress. In the number of 16th ult., I see you had a short and good article; may be I shall follow it up; but I am so much occupied, that I have little time to spare from regular duties."

We will only say that we esteem it certainly as one of the "regular duties" of every engineer and superintendent of a railroad, to furnish the facts which they may have learned by their experience on this important subject for publication in the Railroad Journal; we hope they will acknowledge us to be good judges.

#### Lexington and Ohio Railroad.

This railroad though one of the early ones commenced in the country, has made no progress towards completion for several years past. Its early projectors were not successful in completing it through to Louisville, though they expended a large amount of money, \$250,000, on the line between Frankfort its present, and Louisville its intended western terminus. It will be recollected that we published in a recent number of the Journal, (July 17th,) a statement of the expenditures upon the entire line and an estimate of the cost of completing the road through from Frankfort to Louisville and relaying the track from Lexington to Frankfort, thus making it in fact a new road. The estimate was made by an engineer of great experience, W. R. McKee, Esq., the present engineer, and one of the lessees of the road, who is well acquainted with the ground and condition of the line. His estimate is \$1,820,320, or \$19,575 per mile, for 93 miles.

There can be little doubt, in our mind, of the productiveness of this road when completed through to steamboat navigation at Louisville; and we would call upon the people of Kentucky to put forth a very small portion of their energy and public spirit for the completion of this their only work of improvement except their excellent turnpikes, at all calculated to develop her resources and enable her people to compete successfully with those of other states. If it was a war to acquire territory, which they do not need, instead of an expenditure to improve that which they now have and sadly neglect, there would be no difficulty in raising an amount of money in Kentucky within one year which would make this entire line equal to the best railroad in the Union. And not only so, they would not only raise the money but they would go themselves and fight the peaceable citizens of Mexico, if once the banner was raised, sacrificing their health, lives and fortunes to acquire more territory and extend the power of political demagogues, when not a hand would lift a pickaxe or

a spade and scarcely a dollar be contributed to complete this important work begun and partly completed to improve the great natural advantages of their noble state.

The time has arrived for the people of Kentucky to unite in the completion of this road to Louisville and not only so, but also to extend it eastward towards Virginia, there connect with the contemplated great work from the mouth of Guyandotte to Richmond or still higher up to connect at Parkersburg, where it must eventually come, with the Baltimore and Ohio railroad. These two roads united will bring through Kentucky for more than 250 miles a portion of the immense travel between the seaboard and the great west. They must not, however, be content with this; they must also construct another line either to Nashville or to Knoxville, or better still, to both places, and thus open an easy and cheap communication with the states of Tennessee, Alabama, Georgia and South Carolina, who need and must have large quantities of her products, even if they get them by the way of New Orleans and the capes of Florida, a distance nearly as great and twice as hazardous as a voyage to Europe. To us here it seems strange indeed, that no movements have been made in Kentucky towards the completion of this and the commencement of other lines of railroad, when we see so clearly what would be their influence upon the development of her abundant resources and prosperity. If the people of Kentucky would raise \$500,000 a year for three years, then \$750,000 a year for three years, and then a million of dollars a year for four years, and expend the whole amount, \$7,750,000, judiciously, within the ten years, in the construction of railroads in the direction indicated by us above, or otherwise, as may be more desirable, the property of the state would increase in value to an amount equal to twice the cost of the railroads, over and above what it will increase without them; or in other words, if the value of property in the state under the ordinary course of events will increase, during the next ten years thirty millions of dollars, construct four hundred miles of railroad at the cost of ten millions and the property in the state will increase fifty millions of dollars in value! Let the prominent, able and leading men of the state come forward and set the example, not only by subscribing to the capital but also by enlightening the people upon the value of such works and also by giving the proper and necessary attention to getting them under way, to carrying them forward and there will be no difficulty in raising the amount requisite to construct five hundred

miles of railroad in Kentucky within ten years thus conferring greater benefits upon the people than in any other way possible.

Adopt this course, and by the time the main line shall be completed from Louisville through Lexington to the Virginia line near Guyandotte, or to the Ohio still higher up, the people of Indiana will take it up opposite Louisville and carry it forward to Vincennes, and the people of Illinois and Missouri, to Vandalia and St. Louis; thus giving Kentucky the benefit of a share of the millions to be scattered by the countless multitudes who will pass between St. Louis—a mighty city yet to be—and the seaboard.

It is only for the people of Kentucky to will it, and they may have it. Will they do so?

We give annexed, a statement of the receipts and expenditures during the past 2½ years, upon the 28 miles of road now in use, and leased for a term of years to Messrs. McKee and Swigert for \$17,000 a year.

RECEIPTS.	Sept. 1843.		March 1844.		Sept. 1844.		March 1845.		Sept. 1845.		Total.	
	Dollars.	Cents.	Dollars.	Cents.	Dollars.	Cents.	Dollars.	Cents.	Dollars.	Cents.	Dollars.	Cents.
Freight	11,203	70	11,805	25	10,319	31	10,063	38	14,464	06	57,826	70
Passengers	10,565	15	11,027	18	9,813	81	9,036	64	13,036	64	54,077	90
All other sources	604	89	540	23	333	28	796	23	476	56	2,745	92
Total	22,373	74	23,372	99	20,466	40	20,465	73	27,971	26	114,650	12
<b>EXPENDITURE.</b>												
Repairs of road	760	28	1,663	44	1,700	45	1,431	81	2,683	46	8,139	44
Machine shop	904	87	1,510	18	1,779	65	1,220	94	7,513	21	7,513	21
Drayage	525	07	1,052	85	869	76	1,243	94	1,381	22	5,381	22
Damage	45	60	137	52	98	41	45	06	327	78	654	37
Wood	706	20	999	75	1,468	64	2,040	46	662	37	5,877	42
Oil	.....	.....	553	46	149	86	.....	.....	223	32	926	64
Horses	.....	.....	888	86	1,044	14	575	63	336	50	2,845	13
General expenses	2,334	92	1,356	76	774	56	604	04	592	33	5,662	61
Wages	2,345	61	3,261	57	4,142	32	3,066	67	3,257	00	16,073	17
Hack hire	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	479	75
Rent of road	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	42,500	00
Total	16,122	55	19,924	39	20,527	79	18,733	55	20,744	68	96,052	96

**Watertown and Cape Vincent Railroad**

The following extract from a letter received at this office shows that substantial evidence has been given by the people along the line of this contemplated road, of their intention to have it constructed. We hope they may be successful in their intended application in the cities.

"We are actively engaged in our railroad project, but it requires time to satisfy the people of its importance to them. We shall shortly have \$300,000 of the stock taken in this county, and \$200,000 on the line of the road in Oswego and Oneida counties. When

this is accomplished we shall give the cities an opportunity to take the balance of the stock. Our Canadian neighbors have already commenced a survey of their road, beginning where our's terminates at Cape Vincent, and to continue west until it strikes the road from the head of the lake to Detroit. The stock for this last road is all taken in England, and it was once settled to construct it from Toronto to Port Sarnia, but the last account from England is, that it is to be made from Hamilton to Detroit. I enclose a map that you may see the different routes."

**Railroad Meetings.**

"A meeting of the inhabitants of Canandaigua, says the Ontario Repository, was held at Blossom's hotel, for the purpose of taking efficient means to complete a continuous line of railroad between the cities of Rochester and Philadelphia, Nicholas G. Chesebro was appointed chairman, and Henry O. Hayes, secretary. M. H. Sibley, Esq., and Mr. Jared Wilson were appointed delegates to the Williamsport, Pa., railroad convention on the 31st October."

A meeting was also held at Elmira in relation to the same subject, the proceedings of which we give at some length.

This is moving in the right quarter in an important matter. We brought this subject prominently before our readers in No. 36, or 4th of September last, and endeavored to show that this route—from Baltimore, as well as from Philadelphia to Canandaigua—is really one of the most important unfinished lines in the country. When completed, it will be one of the most direct, and the distance from Baltimore to Canandaigua will not much, if any, exceed 285 miles, while by the way of Philadelphia and New York it is 550 miles. It also passes through some of the most fertile and richest mineral regions in the State, abounding in water power. But this is not all, it will form a connecting link between more important lines than any other road of its length in this country if not in the world. Its parallel cannot be found. At Baltimore it will connect with the great southern line through Washington, and the great western, to Cumberland and the Ohio. At Harrisburg it will connect with the line from Philadelphia to Pitsburgh, and at Williamsport with the contemplated line from Philadelphia to lake Erie at Erie—at Elmira, or Corning, or both, it will intersect the New York and Erie railroad from New York to lake Erie, and at Canandaigua with the railway from Portland, Boston and Albany to Buffalo, and at Rochester with the steamboats on lake Ontario, thus, in a distance of less than 300 miles, connecting directly with seven—instead of five, as we said in our former article—of the longest lines and great-

est thoroughfares in this Union; and accommodating a vast number of travellers, between the north and the south, by a saving of at least—if we call this route 300 miles, and the other 550 miles, allowing 15 miles per hour, and three cents per mile fare, with one cent a mile for expenses on each route—sixteen hours in time and ten dollars in money, and avoid riding a part of one night. That is to say, let two persons leave Baltimore at 9 A. M. One going by the way of Philadelphia, New York and Albany, to Canandaigua, and the other by the way of York, Harrisburgh and Williamsport, the latter would reach there in twenty hours for \$12, while the other would be thirty-six hours and forty minutes, and he would, at the same rate per mile as the other, pay twenty-two dollars!

But we will not pursue this subject farther now, as we shall probably soon refer to it again, and more at length, when we receive the proceedings of the two conventions, one at Danville on 29th, and the other at Williamsport on 31st ult., when we may go more into detail.

"Railroad Convention at Cleveland.—By a circular from a committee appointed by the citizens of Toledo, we learn that a railroad convention is to be held at this place on Thursday of next week, to take into consideration the importance of uniting Buffalo and Toledo by railroad, so as to divert the travel from the northeastern states to the northwest from passing through the British provinces."

So says the Cleveland Plaindealer. It is time for the people along the contemplated line from Buffalo to Cleveland, Sandusky and Toledo, to move in this matter. We have repeatedly called their attention to it within the last three or four years, knowing that efficient movements would soon be made on the Canada side. Those movements have been made—the stock is said to have been taken in England, and the road will surely be constructed, opening the most direct route possible from lake Ontario, from Rochester and Buffalo, to Detroit and the west; therefore it is quite time for those interested in the line on the south side of the lake to be moving.

**St. Louis and Chicago or St. Joseph's Railroad.**

When will the citizens of Illinois and St. Louis give us an opportunity to add this road to our list? It is becoming a matter of too much importance for them to let it remain thus quiet. The following remarks in the St. Louis New Era, of the 21st October, should lead the people of that region to early action. The people of St. Louis must move soon and vigorously, or the main line westward will cross the Mississippi far above

them, whereas there should be a *concentration* of the four great lines from the Atlantic at St. Louis, viz: from Savannah and Charleston through Nashville; from Baltimore through Virginia, southern Ohio, Indiana and Illinois; from Philadelphia to Pittsburgh, and through central Ohio, Indiana and Illinois; from New York, by the New York and Erie railroad, northwestern Pennsylvania, northern Ohio, Indiana and Illinois; and from Boston, through New York, Canada West, Michigan, a corner of Indiana to Chicago, and thence to Galena, or St. Louis, or both!!!

This, we are fully aware is laying out work upon a large scale; and many will smile at what they may be pleased to term "the editor's enthusiasm," but whether they smile in incredulity or in approval—or whether they doubt or believe, it matters not—as certain as the tide of emigration continues to set westward, just so certain will great thoroughfares be constructed, from the points on the Atlantic here designated, to the Mississippi river—at some point—and we hesitate not to say that, in our opinion, no point on that noble river presents so many claims to be made the *common termination* as St. Louis. There is one important recommendation, however, for such a termination, to which we have seen no evidence that the people of St. Louis have any just claims. Do they ask us to "name it?" If they do we will tell them—*action! ACTION!!*

"Galena and Chicago Railroad.—The Chicago Journal urges that steps be taken to construct a railroad from that place to Galena. The route lies over a level fertile country that will sustain a dense population and yield a vast amount of agricultural produce. It would also terminate in the richest lead region in the world, and would form a close connection between the valley of the Mississippi river and the lakes. A liberal and advantageous charter was granted for this road some years ago, and is still in force, and under it a road might now be constructed.

"The Journal states that if such a road were made it would carry to Chicago much lead, and a large agricultural trade that now goes from Rock river to St. Louis. This is probable; and it should remind the people of St. Louis of the necessity and propriety of constructing other roads and improvements so as to concentrate as much trade at this point as is practicable, and thus make amends for whatever we may lose by the laudable enterprize of other portions of the country. If other towns and cities put forth their energies in the construction of railroads for their own benefit, and St. Louis shall lie inactive and do nothing, she will lose that prominent position which she has acquired and to which she is entitled by her superior natural advantages.

"It would be well for the capitalists and

property holders of St. Louis to consider the propriety of aiding in the construction of a road from Chicago or St. Joseph's so as to strike the Mississippi near to this place. The first link in this line of communication would be the railroad from Alton to Springfield."

#### The Monroe, Georgia, Railroad.

We find the following in the Macon Messenger of the 23d of October. It is much to be hoped that the investigation will be *thorough, final and short*; and that no delay will be allowed in the commencement of operations and the completion of the road. This road occupies too important a position and the people of Georgia, and Alabama have too deep an interest in its construction to have it long delayed. It would be much better to make a present of it to any company that will complete it thoroughly and *manage it well*, than to have it remain longer in its present condition; and then to Macon and Savannah an early settlement of the matter is of the utmost importance.

"From certain unmistakable indications which have made their appearance within a few days, in our city, we have every reason to believe, that an immediate impulse will be given to a movement, in which we all have a deep interest. We allude to some direct action on the part of the company, who a few months since purchased the Monroe railroad. A feverish anxiety has been manifested on the part of our citizens, and by a number of correspondents in other counties, whose communications for prudential reasons we have withheld, at the tardiness which has been exhibited by these northern gentlemen in consummating their negotiation. These gentlemen are now here with their counsel, making an investigation of the whole affair. They are capitalists, of ample means, and with a strong desire to lay hold of the undertaking; which if they do, the road will be put in thorough repair, laid down with new iron, and immediately completed to its terminus.

"Our citizens should entertain no apprehension of their ability or inclination to carry out their part of the contract. We learn from a reliable source, that they are ready, and even anxious, to pay the price at which the road was bid off by their agent, so soon as they are satisfied they can get an indisputable title to it. There is a great deal of street gossip about it, and many wise predictions as to the result of the deliberations of the parties. But the simple fact is, as we have stated. If these gentlemen are advised by their counsel, who are lawyers of our own state, and of high reputation, that the decree made at the last term of our Superior Court, will give them a full and sufficient title, and that by the purchase they will not be involved in litigation—they will at once pay down the money, consummate the bargain, and apply their means to the immediate prosecution of the work. A few days will remove the anxiety of the public, and give us the result of their investigation, which is now in progress."

#### Alton and Springfield Railroad.

The following article, bearing directly upon the necessity of constructing the above road, we take from the Sangamon Journal of the 9th inst. We commend it to the attention of

all capitalists, as well as others under whose observation it may fall. Every day develops stronger reasons why this chain of intercommunication should be carried into practical operation, and removes doubts from the minds of sceptics as to the productiveness of the stock.

We regret that neither of the papers at the seat of government, have expressed their views as to the feasibility of holding a convention on the first Monday of December next, in Springfield, to consult upon, and devise some method by which this work may be put under contract. Letters received in this city, from heavy capitalists in Boston, whose attention has been directed to the construction of railroads in the west, with a view of eventually connecting this fertile valley with the seaboard, assure us that should a portion of the stock be taken out here the residue will readily be disposed of at the east. All that it wants is *concert of action among ourselves*, and a proper agent to visit the eastern cities. A convention would secure both of these results:

The large amount of merchandize brought to our country the present season, has induced us to make a statement below of some of the prominent business features of our city:

Amount of capital annually employed in milling operations.....	\$650,000
Manufacturing (milling, distilling, foundry, etc).....	150,000
Pork and beef packing, average.....	60,000

Amount of exports:—	\$860,000
Flour manufactured.....	20,000 bbls.
Wheat, equal to.....	5,000 "
Pork, bacon and beef, equal to.....	15,000 "

In addition to which, as many as 100,000 bushells of wheat are conveyed from the immediate vicinity to St. Louis and Alton by the producer.

While our neighbors in the north are enjoying the prospect of new and increased facilities to a good market, in the completion of the Illinois and Michigan canal, it becomes us, the inhabitants of this portion of the state, to cast about and discover how we may create some sure and commodious avenue for the transmission of the fast increasing products of our soil, and those necessaries for which they are to be exchanged; and in the absence of reliable water courses, we know of nothing that so well merits favor as suggestions which we have from time to time heard concerning the practicability and expediency of a railroad from Jacksonville and this city, to Alton, on the Mississippi river.

It is unquestionable that roads of greatest extent have been commenced under auspices less favorable, than would attend the construction of this, which have afterwards proved most profitable investments—for, when we consider the amount of capital invested in mercantile and manufacturing purposes here, and at Jacksonville, which, at the lowest calculation, exceeds one and a half millions of dollars, per annum; especially as the principal exports of this region are of the heavier sort wheat, corn, pork and beef—exceeding in weight ten thousand tons—it cannot be denied that such an undertaking promises most fairly to adventurers in this kind of business.—The advantage which would accrue to our farmers, is not easily realized, and would not



probably be credited except upon an attentive examination of the subject.

A bushel of wheat, which now costs in transportation to St. Louis, at least 15 cents in the most favorable condition of our rivers and roads, and affording by the latter route even at that price an inadequate recompense to the carrier, could be placed in Alton, where it would be quite as well situated with regard to market, for 8 cents per bushel, at the most; and the same may be said with reference to all other produce of the country, which would be a difference directly into the pocket of the grower. Furthermore, all the commissions attending sales would then be retained within the limits of our state, and tend to the advancement of our own mercantile interest, as under those circumstances Alton would soon be to us, what St. Louis is now—a depot for our imports as well as our exports—and incidental to this, the rivalry for our custom which would naturally spring up between them, would necessarily operate much to our advantage in the purchase of coffee, sugar, etc. for home consumption.

With these considerations before us, we cannot be too early in making efforts, for consummating a project fraught with so much advantage to our interests.

#### Williamsport and Elmira Railroad.

Public notice was given in the papers of the village of Elmira, that the citizens of Elmira and vicinity would meet on Saturday, the twenty-fifth inst., at the Eagle tavern, to consider and interchange views relative to the completion of the Williamsport railroad, from Ralston to this place, and thus connect the improvements of the two great States, New York and Pennsylvania. At the appointed time and place, large numbers of the citizens interested in this noble project assembled, and among them were seen the most active, intelligent and enterprising part of the population of this part of the valley of Chemung.

The meeting was called to order by the Hon. Samuel G. Hathaway, Jr., who stated to the assemblage in detail the object of the meeting, and the advantages that would result to this village and vicinity, by the rapid completion of this great connecting link between the two states—he also remarked upon and showed that Elmira was not the only place of large business that would be materially benefitted by the completion of this long contemplated work—Geneva, Canandaigua and Rochester, and the large villages east of Geneva, filled with their iron, coal, and hardware merchants and dealers, who furnish western New York with these staples of the state of Pennsylvania, would also be very much benefitted, and ought to be interested in a communication that would enable them, with little expense and inconvenience, to supply themselves with this part of the necessary industry of Pennsylvania and the natural wealth of her hills, the scene of her coal mines.

And on his motion, Dr. James Hepburn, of the village of Elmira, was made president; William Hoffman, of the town of Elmira, vice president; and on motion of Chester B.

Evans, Esq., George B. Wood, of the village of Elmira, was appointed secretary.

The meeting being thus organized, remarks of an intelligent character were submitted to the assembly by Simeon Benjamin, the president, W. R. Hopkins and C. B. Evans, Esq., and which created an interest for this work, more ardent, and better timed, than has of late been suggested or felt among the people here, in relation to this improvement. The certain prospect of the speedy completion of the New York and Erie railroad seems to have aroused the enterprize of our people to the utility and bearing of this great channel leading into the domestic wealth of a sister state, and the effects such a work will have upon the property and business intercourse of southern and western New York, with the rich factories of industry in northern, and the central portion of Pennsylvania; and after the free interchange of opinions on this subject, of an intelligent and enlightened character—it was resolved, on motion of Silas Haight, that a committee of thirty citizens be selected by the meeting to attend, and meet the citizens of Pennsylvania, in the convention in relation to this work, to be held at the borough of Williamsport in the state of Pennsylvania on the 31st inst.; and thereupon the meeting selected and appointed the following persons delegates in pursuance of said resolution:—

Simeon Benjamin, James Hepburn, Silas Haight, J. D. Baldwin, Warren Mills, Wm. Maxwell, I. B. Gregg, Wm. Hoffman, John Hamlin, Dr. E. L. Hart, W. R. Hopkins, Wm. Post, Mordeica Ogden, Jared Arnold, George Sly, S. G. Hathaway Jr., Wm. M. Gregg, Isaac H. Reynolds, T. S. Satterlee, Ezra Canfield, James Dunn, John L. Smith, Nathaniel Johnson, P. C. Ingersoll, Doct. Foote, B. B. Payne, W. R. Judson, Daniel Stevens, Samuel Patridge, Noah H. Robinson.

On motion of Simeon Benjamin, it was *Resolved*,—Each delegate hereby appointed, be authorized and requested, in case he is unable to attend, to procure a substitute to attend in his place.

Col. Hathaway hoped that the delegates who should be unable to attend, would be active in procuring some suitable person to represent them in the said convention, as it was desirous to have as large a number as possible, to represent the feelings and interest felt in the completion of this work by the citizens of this village and vicinity.

It was *Resolved*, on motion of Col. Hathaway, that a committee of correspondence in relation to this improvement be appointed by the president, to consist of three persons.

The chair, after consultation, announced as such committee, Samuel G. Hathaway Jr., Chester B. Evans, and Geo. B. Wood.

On motion of Warren Mills, it was *Resolved*, That these proceedings be signed by the officers of this meeting, and published in the village papers.

James Hepburn, president; Wm. Hoffman, vice president; George B. Wood, secretary.

*Williamsport Railroad.*—We are gratified to see that the citizens of this village are tak-

ing a warm interest in the completion of the above work. The attendance at the meeting a week ago this evening was respectable.—We think that Elmira is more deeply interested in this work than in any other which has been projected. We hope that the first demonstration will be followed up, and that no effort will be released until entire and complete success has been attained. The present moment is propitious. The warm feelings of the Pennsylvania friends of the road, should be met with a corresponding feeling on the part of its New York friends. If concert of action is secured, the road will be built.

*Boston and Montreal Railroad.*—A full, harmonious, animated, and confident meeting says the N. H. Patriot of October 30th, of stockholders in this road—(a continuation of the Concord road through Sanbornton, Meredith, Plymouth and Haverhill, to the line of Vermont)—was held at the Town Hall, in this town, on Wednesday last, composed of gentlemen residing along the entire line of the road; from Bath, Lyman, etc., north of its northern termination in New Hampshire; and from Boston, Portsmouth, Derry, etc., etc. Hon. Josiah Quincy, of Rumney, appointed chairman, and Hon. Charles Lane, of Meredith, secretary. The meeting then adjourned to 2 o'clock, p.m.

*Afternoon.*—Mr. Hibbard, of Bath, reported a code of by-laws, which, after some modification, were unanimously adopted.

A committee was appointed, composed of Messrs. Goodall, of Bath; Swazey, of Haverhill; Morse, of Rumney; Russell, of Plymouth; Beman, of Meredith; Cate, of Northfield; French, of Concord; Train, of Boston; Thom, of Derry; and Moulton, of Lyman; to report to the meeting the names of seven individuals, suitable, in the judgement of the committee, to be the directors of the road.

The committee reported the following list who were nearly unanimously elected, as follows:—Timothy Farrar and E. H. Derby, of Boston; Josiah Quincy, of Rumney; Joseph A. Gilmore, of Concord; Zenas Clement, of Sanbornton; Stephen C. Lyford, of Meredith; and Zebina Newell, of Bath.

The following resolve undergoing slight modification, was adopted with entire unanimity:

*Resolved*, That the board of directors of the Boston, Concord and Montreal railroad be hereby instructed, so soon as the route shall be in the proper state of preparation, to receive proposals for constructing the railroad from Concord to Connecticut river, at Wells river, or the mouth of the Ammonoosuc river, in the north part of Haverhill; but to close no contracts for said construction, till a sufficient and available amount of stock shall have been subscribed to complete the substructure to that place, as estimated by the engineer; and then to contract, as soon as may be, for the construction of such substructure.

The utmost harmony characterized the entire proceedings of the assembly. All who took part in discussion, did it in a spirit clearly evincing that, while the friends of this route are disposed to enter into no controversy with

those of other roads, they are determined to conduct their own operations forward to entire completion.

This looks very like going ahead, and we have much confidence in the success of the enterprise, and shall be gratified to see their notice to contractors.—We shall be sure to insert it with a flourish if it is sent to us in time, which they will surely do if they know their own interest: at least we think so.

**"Columbus and Cleveland Railroad.**—A large public meeting has been held at Millersburgh, Holmes county, which resolved to tender and solicit an examination of the tract from Wooster to Mt. Vernon through Millersburgh, for the road. The advantages of this route are very favorably set forth, in various aspects, and, in the event of that route being selected, they propose that the county of Holmes subscribe to \$30,000 of the stock.—The counties along the route selected ought to come forward and subscribe liberally to the stock."

The people of Holmes county must subscribe more than \$30,000, if they would have the road come their way, that amount would not build more than 2 to 2½ miles. That would do; that amount would hardly pay the interest on the increased value which the road would give to the property of the county.

**Cleveland and Pittsburgh Railroad.**—The commissioners and stockholders of the Cleveland and Pittsburgh railroad company will hold a meeting at Ravenna on the 29th inst. for the purpose of electing officers and organizing the company. The important work we have every assurance will be taken hold of with spirit, and pushed through.

Col. S. Dodge has for some weeks past been engaged in making a survey of the route between Cleveland and Wellsville, and we understand will complete the survey to this city to-day. The route is found to be very feasible, the grade light, and the road one of easy and cheap construction.—*Cleveland Herald.*

Cleveland is truly waking up. A railroad to Columbus and Cincinnati, another to Pittsburgh, for which the surveys are now making.

**Mexican Gulf Railway.**—From the following, which we find in the New Orleans Picayune of 3d November, we learn that New Orleans is beginning again to put forth her energies in the way of railroads. We like this—and would ask, when will they resume their great work, the New Orleans and Nashville railroad? Will the Picayune please inform us? It is quite time.

"Among the various improvements of public importance going on in and about this city at present, we take pleasure in alluding to that of the Mexican Gulf railway, commenced some years since, and now going ahead bravely. We look upon this work as one of the most important ever undertaken in our city or state, and rejoice at the prospect of its final completion. Not only is it important in a commercial point of view, but when finished it will afford facilities for the finest game and fish markets in any city of the south, besides conveniences for fine bathing and the enjoyment of the breezes of the gulf.

"This road is now open a distance of seventeen miles, and by reference to the advertisement in another column, it will be seen that on and after Thursday next, an extra train of cars will leave the depot every Thursday at 12 M., going as far upon the new road as Millaudon's canal, opening to lake Lery, and affording the finest hunting grounds for sportsmen.

"Besides this, thousands of our citizens who have never visited the sugar estates during the grinding season, may be accommodated with a sight of the interesting process of making sugar, as the road runs along through several very extensive and productive plantations. We are only astonished, in fact, that a work of such acknowledged importance should have been permitted so long to lie dormant."

**Reduced Fares.**—The directors of the Richmond and Fredericksburg railroad company have adopted a table of reduced rates of travel on that road, which is to go into effect on the first of December. In connection with this action the following resolution was passed by the board:

"Resolved, That the board, in trying the experiment of the above rates, have done so in conformity with the opinion of the committee of citizens of Fredericksburg and others, who believed the reductions therein made on the present rates will increase the receipts of the company from its local travel, but if the result should be to impair these receipts, it will be the duty of the board to revise the rates now adopted, and to make such changes in the same as may seem to be called for by the interest of the stockholders."

We are gratified to see the growing disposition at the south to test the theory of low fares, and we trust they will not find it necessary to raise them again.

**A Fact for Farmers.**—At a late railroad meeting in New Hampshire, Governor Hubbard pointed out a striking contrast between the valleys of the Connecticut and of the Merrimack within that state. The latter valley is penetrated by a railroad connecting it with a market—the former is not, as yet. He said:

"That while the farms in the rich and fertile valley of the Connecticut were gradually diminishing in value, those on the banks of the Merrimack, between Concord and Nashua, have increased in value over thirty-three per cent."

This is a fact, not for farmers only, but for all who study the great rules of public economy. If this enhancement of landed values in one section were the necessary cause of depressions elsewhere, there would be nothing gained for the general wealth. But if all can be raised together and nearly alike, without increasing the public burdens for that purpose, the addition to the common prosperity is a result to be sought by every sound statesman and public leader.—*Portland Adv.*

The shrinking of the paper on which engravings have been printed to such an extent as to produce serious difficulties, has recently been determined by the fact that, on preparing a railway in England, it was found that the engraved chart gave the elevation at a particular place at 413 feet, while the actual levelling proved to be 422 feet; and the plate itself was found to correspond with the latter measurement.—This discrepancy was ascertained to have originated from the practice of hanging the printed sheets on a line in a damp state, when the gravitation prevented the horizontal from being so great as the vertical contraction. This contraction was found to be often equal to one in 40, and even 1 in 36, or 3 feet in 200 in the longitudinal, and 5 feet in 200 in the vertical direction. This is an important fact for engineers and engravers in certain cases.

**Brady's Bend Iron Works,** near Pittsburgh, support eighteen hundred persons, including women and children. These works manufacture little else than railroad iron, for which there is a constant demand.

**WESTERN AND ATLANTIC RAILROAD.** The Western and Atlantic Railroad is now in operation to Marietta, and will be opened to Cartersville, in Cass county, on the 20th of October—and to Coosa Depot, (formerly known as Borough's,) on the 20th of November.

The passenger train will continue, as at present, to connect daily (Sundays excepted) with the train from Augusta, and the stage from Griffin.

CHAS. F. M. GARNETT.  
Chief Engineer.

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**NEW YORK AND HARLEM RAILROAD COMPANY.**—Winter Arrangement:

On and after Monday, November 3d, the cars will run as follows: Leave City Hall for Harlem (125th street), Morrisiana, Fordham, Williams' Bridge, Hunt's Bridge, Underhill's Road, Tuckahoe, Hart's Corners, and White Plains—7:30 and 10:30 a.m., and 1 and 3:30 p.m.

Extra trains for Yorkville, Harlem, Morrisiana, Fordham, and Williams' Bridge, leave 27th street 7 a.m. for Williams' Bridge. Leave City Hall 9 a.m. (to Harlem only) and 11:30, 2:30, and 4:30 p.m. for Williams' Bridge.

Leave White Plains for City Hall—8:10, 11:10 a.m., and 1:45, 4:10 p.m.

Leave Tuckahoe for City Hall—8:20, 11:20 a.m., and 1:55, 4:20 p.m.

Leave Williams' Bridge for City Hall—7:45, 8:45, 11:45 a.m. and 12:45, 2:15, 3:45, 4:45, and 5:45 p.m.

Leave Morrisiana for City Hall—8:10, 9:10, and 10 a.m., and 12:10, 2:40, 4:10, 5:10, and 6:10 p.m.

The freight train will leave City Hall at 12:45 p.m. and leave White Plains at 11:10 a.m. All freight must be at the City Hall between the hours of 10:30 a.m. and 12:30 p.m. The White Plain trains will stop, after leaving the City Hall, only at the corner of Broome street and the Bowery, Vauxhall Garden and 27th street.

An extra car will precede each train, 10 minutes before the time of starting from the City Hall, and will take up passengers along the line.

The City Hall and 27th street line will run every 6 minutes from 7:30 a.m. to 8 p.m.

The City Hall and 27th street night line will run every 20 minutes from 8 to 12 o'clock.

On Sundays the trains will be regulated according to the state of the weather. ly 46

**THE LONDON RAILWAY RECORD,** Edited by Mr. JOHN ROBERTSON, A. M., (connected from the commencement with the Weekly Railway press of England.)

The *Railway Record* is acknowledged to be the leading English Railway Journal, and is published twice a week in London, namely on Wednesday and Saturday. It contains copious and correct reports (by special reporters) of all railway meetings in the United Kingdom; ample Share Lists and Traffic Tables, showing the length, cost, capital and selling prices in the principal markets, with Editorial articles on the leading Railway topics of the day. The *Railway Record* contains also, a complete resume of French, Belgian and other foreign Railway affairs.

Subscriptions 13s. per quarter, to be transmitted in advance to Messrs. Dawson and Sons, Ca<sup>o</sup> st. London. Office 153 Fleet street, London. 46

**BOSTON COURIER, DAILY, SEMI-Weekly and Weekly.**

The *Daily* edition of the Courier, presents to merchants and others, an extensive medium of advertising. The circulation of the *Semi-Weekly* Courier (published on Mondays and Thursdays) is believed to be more extensive than that of any other similar Boston Newspaper. This publication embraces all the reading matter of the Daily, the Foreign and Domestic Markets, Review of the Boston Market, Prices current, and Ship News, prepared with great accuracy. The *Weekly* Courier contains as much of the matter of the daily as can be crowded into a sheet of the same size, without ship news, prices current or advertisements.

Our extensions to obtain and publish authentic information on all topics proper for the columns of a newspaper,—the state of trade, the prices of merchandise, the current news of the day, and the political movements in the various sections of the country—will not be abated. The marine department of the Courier has been inferior to none in copiousness or accuracy of detail, and it will be our endeavor to maintain its reputation in this respect.

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**BOSTON AND MAINE RAILROAD.**

Upper Route. Boston to Portland via, Charlestown, Somerville, Malden, Stoneham, South Reading, Reading, Wilmington, Ballardvale, Andover, North Andover, Bradford, Haverhill, Atkinson, Plaistow, Newtown, Kingston, East Kingston, Exeter, South Newmarket, Newmarket, Durham, Madbury, Dover, Somersworth, South Berwick, North Berwick, Wells, Kennebunk, Saco and Scarborough.

Winter Arrangement, 1845 & 6. On and after Monday, October 20th, 1845, Passenger Trains will run daily, (Sundays excepted,) as follows, viz.

Leave Boston for Portland at 7½ a.m. and 2½ p.m. Leave Boston for Great Falls at 7½ a.m., 2½ p.m. and 3½ p.m. Leave Boston for Haverhill at 7½ a.m., 2½, 3½ and 5 p.m. Leave Portland for Boston at 7½ a.m., and 3 p.m. Leave Great Falls for Boston at 6½ a.m., 9½ a.m. and 4½ p.m. Leave Haverhill for Boston at 6½, 7½, and 11 a.m., and 6½ p.m.

Special Train.—A special train will leave Boston for Andover at 11½ a.m., and Andover for Boston at 3½ p.m.

The Depot in Boston is on Haymarket Square. Passengers are not allowed to carry Baggage above \$50 in value, and that personal Baggage, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every \$500 additional value. CHAS. MINOT, October 20, 1845. 43 1y Super'l.

**SPRING STEEL FOR LOCOMOTIVES,**

Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1½ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent, 75a3 Albany Iron and Nail Works, Troy, N. Y.

**TO IRON MANUFACTURERS. THE**

Subscribers, as Agents of Mr. Geo. Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO., ja45 No. 4 South Front st., Philadelphia, Pa.

**MACHINE WORKS OF ROGERS,**

Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work. Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

**FOR SALE AT A SACRIFICE—A LOCO-**

motive Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine. 2 8-horse " " " " 1 Upright Hydraulic Press.

All of which will be sold low, on application to T. W. & R. C. SMITH, Founders and Machinists, Alexandria, D. C. May 12th

**GEORGIA RAILROAD. FROM AUGUSTA TO ATLANTA—171 MILES.**

This Road in connection with the South Carolina Railroad and the Western and Atlantic Road now forms a continuous line of Railroad of 360 miles from Charleston to Cartersville, two miles west of the Etowa River in Cass County.

Rates of Freight, and Passage from Augusta to Cartersville.

On Boxes of Hats, Bonnets, and Furniture per foot..... 15 cts. " Dry goods, shoes, saddlery etc., per 100 lbs. 85 " " Sugar, coffee, iron, hardware, etc. " 70 " " Flour, bacon, mill machinery etc. " 33½ " " Molasses, per hogshead \$9; salt per bus. ... 22 " Passengers \$9 50; children under 12 years of age and servants, half price. Passengers to Atlanta, head of Ga. Railroad, \$7. German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight payable at Augusta. J. EDGAR THOMPSON, Ch. Eng. and Gen. Agent.

Augusta, Oct. 21 1845. \*44 1y

**NICOLL'S PATENT SAFETY SWITCH**

for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, ja45 Reading, Pa.

**GEORGE VAIL & CO., SPEEDWELL IRON**

Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1½ in. to 2½ in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wrot. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wrot. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions. ja45 1y

**TO RAILROAD COMPANIES AND MAN-**

ufacturers of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa. 31

**NORWICH AND WORCESTER RAIL-**

Road. On and after May 22, 1845, Trains will leave as follows, viz:—

Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4½ p.m. Leave Worcester, at 10 a.m., and 4½ p.m.

The morning train from Norwich, and the morning and evening trains from Worcester, connect with the Boston, Western, and Hartford and Springfield railroads.

New York Train, via Steamboat. Leaves Norwich for Worcester and Boston, every morning except Monday, upon the arrival of the boat from New York, about 2 a.m. Leaves Worcester for Norwich and New York, at 5½ p.m., daily, except Sunday.

New York Train, via Long Island Railroad.—Leaves Norwich about 3 p.m., for Worcester and Boston, daily, except Sunday. Leaves Worcester for Norwich and New York, at 7½ a.m., daily, except Sunday, and arrives in Norwich at 9½.

Freight Trains. Daily, except Sunday. Fares are less when paid for Tickets, than when paid in the cars.

EMERSON FOOTE, Superintendent. 32 1y

**LAWRENCE'S ROSENDALE HYDRA-**

lic Cement. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floors and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE, 142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 32 1y

**SUMMER ARRANGEMENT—FARE REDUCED.**

By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

Direct to New Orleans, and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great Southern Mail Line, and the only one that issues a through ticket South. Those who patronize it will save their money and time. Through Tickets from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

Fast Mail Line.—Leave New York at 9 a.m. and arrive in Philadelphia at 3½ p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12½ to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C.; at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.

Passengers by the above line will arrive at Richmond by 11½ o'clock p.m. and Petersburg, Va. by 2½ o'clock p.m., through to the former city in twelve hours, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those who take the Bay route.

Way Mail Schedule.—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p. m.; arrive in Baltimore at 2½ p.m.; arrive in Washington at 7 p.m. From Philadelphia by steamboat.—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore. STOCKTON & FALLS.

**BOSTON AND PROVIDENCE RAILROAD.** Passenger Notice. Winter Arrangement. On and after Monday, Nov. 3, the Passenger

Trains will run as follows: For New York—night line, via Stonington.—Leaves Boston every day, but Sunday, at 4 1/2 p.m.

Accommodation trains, leave Boston at 8 a.m. and 3 1/2 p.m., and Providence at 8 a.m. and 3 1/2 p.m.

Dedham trains, leave Boston at 9 a.m., 3, 5 1/2 and 10 p.m. Leave Dedham at 8 and 10 1/2 a.m., and 4 1/2 and 7 p.m.

Stoughton trains, leave Boston at 12 m. and 4 p.m. Leave Stoughton at 8:20 a.m. and 2 1/2 p.m.

All baggage at the risk of the owners thereof. N.B. The last train to and from Boston and Dedham, will be omitted in case of a severe snow storm.

W. RAYMOND LEE, Sup't. 31 1/2

BRANCH RAILROAD and STAGES Connecting with the Boston and Providence Railroad.

Stages connect with the Accommodation trains at the Foxboro' Station, to and from Woonsocket. At the Seekonk Station, to and from Lonsdale, R. I. via Pauckett. At the Sharon Station, to and from Walpole, Mass. And at Dedham Village Station, to and from Medford, via Medway, Mass. At Providence, to and from Bristol, via Warren, R. I.—Taunton, New Bedford and Fall River cars run in connection with the accommodation trains.

NEW YORK AND ERIE RAILROAD LINE. For Middletown, Goshen, and intermediate places. Two daily lines each way, as follows:

For passengers, the new, and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7 1/2 o'clock, A.M., and 5 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4 1/2 P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets,

H. C. SEYMOUR, Superintendent.

Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale, Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaft, Montrose, Friendsville, Lenox, Brooklyn, etc.

31 1/2

**BALTIMORE AND SUSQUEHANNA RAILROAD.** The Passenger train runs daily except Sunday, as follows:

Leaves Baltimore at 9 a.m., and arrives at 6 1/2 p.m. Arrives at York at 12 1/2 p.m., and leaves for Columbia at 1 1/2 p.m. Leaves Columbia at 2 p.m., and leaves York for Baltimore at 3 p.m. Fare to York \$2. Wrightsville \$2 50, and Columbia \$2 62 1/2. The train connects at York with stages for Harrisburg, Gettysburg, Chambersburg, Pittsburg and York Springs.

Fare to Pittsburg. The company is authorized by the proprietors of Passenger lines on the Pennsylvania improvements, to receive the fare for the whole distance from Baltimore to Pittsburg. Baltimore to Pittsburg.—Fare through, \$9 and \$10.

Afternoon train. This train leaves the ticket office daily, Sundays excepted, at 3 1/2 p.m. for Cockeysville, Parkton, Green Springs, Owings' Mills, etc.

Returning, leaves Parkton at 6 and Cockeysville and Owings' Mills at 7, arriving in Baltimore at 9 o'clock a.m.

Tickets for the round trip to and from any point can be procured from the agents at the ticket offices or from the conductors in the cars. The fare when tickets are thus procured, will be 25 per cent. less, and the tickets will be good for the same and following day in any passenger train.

D. C. H. BORDLEY, Sup't.

Ticket Office, 63 North st.

**DAVIS, BROOKS & Co., 30 WALL ST.**

Have now on hand and for sale, 200 tons 2 1/4 x 1/2 inch Flat punched Rails, Bars 18 feet each.

100 tons Heavy Edge Rails, 90 tons per mile. 30 tons 2 1/4 x 1/2 inch Flat Rails.

Also—A STEAM PILE DRIVER, built by "Dunham & Co." which has never been used, and cost originally \$5000.

s20 2m

**BALTIMORE AND OHIO RAILROAD.** MAIN STEM. The Train carrying the Great Western Mail leaves Bal-

timore every morning at 7 and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburg. Time of arrival at both Cumberland and Baltimore 5 1/2 P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5 1/2 P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13 1/2

**CENTRAL RAILROAD-FROM SAVANNAH TO MACON.** Distance 190 miles.

This Road is open for the transportation of Passengers and Freight. Rates of Passage, \$9 00. Freight—

On weight goods generally... 50 cts. per hundred. On measurement goods..... 13 cts. per cubic ft.

On brls. wet (except molasses and oil).....\$1 50 per barrel. On brls. dry (except lime).... 80 cts. per barrel.

On iron in pigs or bars, castings for mills, and unboxed machinery..... 40 cts. per hundred.

On hhd. and pipes of liquor, not over 120 gallons.....\$5 00 per hhd. On molasses and oil.....\$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE, Gen'l. Sup't. Transportation.

**LEXINGTON AND OHIO RAILROAD.**

Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 25 miles. Fare \$1 25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above.

35 1/2

**KEARNEY FIRE BRICK. F. W. BRINLEY, Manufacturer, Perth Amboy, N. J.**

Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire, Peter Cooper, Murdock, Leavitt & Co. } New York.

J. Triplett & Son, Richmond, Va. J. R. Anderson, Tredegar Iron Works, Richmond, Va.

J. Patton, Jr. } Philadelphia, Pa. Colwell & Co. }

J. M. L. & W. H. Scovill, Waterbury, Con. N. E. Screw Co. } Providence, R. I. Eagle Screw Co. }

William Parker, Supt. Bost. and Worc. R. R. New Jersey Malleable Iron Co., Newark, N. J. Gardiner, Harrison & Co. Newark, N. J.

25,000 to 30,000 made weekly. 35 1/2

**RAILROAD IRON AND FIXTURES.**

The Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO., 30 Wall st., N. York.

**OFFICE OF THE NEW YORK AND Erie Railroad Company. No. 50 Wall st. New York: September 13, 1845.**

Notice is hereby given to the holders of stock of the New York and Erie Railroad company, that by the terms of the 8th section of the Act of the 14th May, 1845, it is provided that, if within 6 years from the passage of the law the company shall complete a single track from the Hudson river to lake Erie and a branch to Newburgh, in Orange county, then "the said company shall be released from all liability to pay to the state any demand which the state may have against them, with this exception only, "that in case any holder or holders of the capital "stock of said company heretofore issued and certified, or purporting to be paid in full, shall not within six months from the passage of this act, surrender to the company their stock certificates, and receive or offer to receive therefor, for every two "shares of stock heretofore issued, one share of stock "to be hereafter issued, then all such stock heretofore "issued, and not so surrendered, shall not be subject "to the provisions of this law; but the state shall retain the right to claim upon such outstanding stock, "and the said company shall pay into the treasury of "the state, upon the order of the comptroller, any and "all dividends upon such outstanding stock, and the "comptroller shall apply the same to the credit of "said company, until the state shall receive in such "dividends, so much of their said debt of three millions of dollars and the interest thereon, as would be "the proportion of such outstanding stockholders to "pay, provided the whole debt of three millions of "dollars and interest thereon were collected ratably "from all the stock of said company now outstanding."

By section 9th, of the same law, it is provided that, "it shall be the duty of the president and secretary of said company, within thirty days after the expiration of the six months mentioned in the last preceding section, to file with the comptroller of the state, a statement of all stocks that shall not have been exchanged in pursuance of the provisions of the last preceding section; and whenever "any dividend upon the stock of the said company "shall be made, it shall be the duty of the board of "directors to notify the comptroller of such dividend, "and upon payment of the dividend aforesaid into "the treasury, the comptroller shall furnish to said "company a receipt for the portion of such dividend "belonging to any stock not surrendered and exchanged in pursuance of the last preceding section "of this act, and said company shall surrender to "the holders of such stock the receipt of said comptroller in lieu of said dividends."

It will be seen that on or before the 14th of November next, each and every holder of the stock of the company must decide whether he will avail himself of the provisions of this law by surrendering his stock and receiving one share for every two shares thus surrendered. With reference to holders who neglect to avail themselves of the provisions of the act, it is made the duty of the company, within thirty days from the 14th of November, "to file "with the comptroller a statement of all stocks that "shall not have been exchanged" agreeably to the provisions of this act, the dividends on which must be paid into the state treasury, rendering that class of stock practically of no value to the holder. The board of directors consider it their duty to protect the interests of the stockholders by giving all possible publicity to that portion of the law relating to the outstanding stock, that all may have an opportunity for an early compliance with the provisions of the act. By order of the board of directors.

39 8c T. S. Brown, Acting secretary.

**NEW YORK AND ERIE RAILROAD**

Company. The Stockholders of this company are hereby notified that an instalment of Five dollars on each share of the new stock, on which not more than five dollars has been paid, is required to be paid at the office of the company, No. 50 Wall street, on or before Wednesday, the 10th day of December next. By order of the board of Directors.

NATHANIEL MARSH, Secretary. New York November 5, 1845.

N.B. Subscribers at or near Newburgh are requested to make payment to Thomas C. Ring, Esq. Cashier of the Powell Bank.

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# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 47.]

THURSDAY, NOVEMBER 20, 1845.

[WHOLE No. 490, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

### RATES OF ADVERTISING.

One page per annum.....	\$125 00
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One column ".....	8 00
One square ".....	2 50
One page, single insertion.....	8 00
One column ".....	3 00
One square ".....	1 00
Professional notices per annum.....	5 00

### ENGINEERS and MACHINISTS.

- J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)  
 TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)  
 ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
 S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
 NORRIS, BROTHERS, Philadelphia, Pa.  
 KITE'S Patent Safety Beam. (See Adv.)  
 FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)  
 NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)  
 ROSS WINANS, Baltimore, Md.  
 CYRUS ALGER & Co., South Boston Iron Company.  
 SETH ADAMS, Engineer, South Boston, Mass.  
 STILLMAN, ALLEN & Co., N. Y.  
 JAS. P. ALLAIRE, N. Y.  
 H. R. DUNHAM & Co., N. Y.  
 WEST POINT FOUNDRY, N. Y.  
 PHOENIX FOUNDRY, N. Y.  
 R. HOE & Co., N. Y.  
 ANDREW MENEELY, West Troy. (See Adv.)  
 JOHN F. STARR, Philadelphia, Pa.  
 MERRICK & TOWNE, do.  
 HINCKLEY & DRURY, Boston.  
 C. C. ALGER, Stockbridge Iron Works, Stockbridge, Mass.  
 BALDWIN & WHITNEY, Philadelphia, Pa.

### IRON MERCHANTS and IMPORTERS.

- DAVIS, BROOKS & Co., N. Y. (See Adv.)  
 A. & G. RALSTON & Co., Philadelphia, Penn. (See Adv.)  
 THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM. PLAN

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

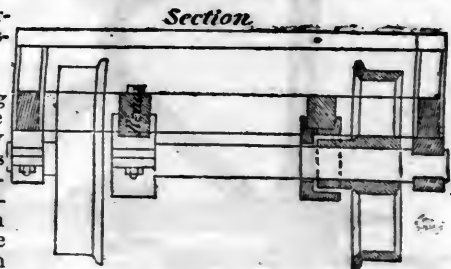
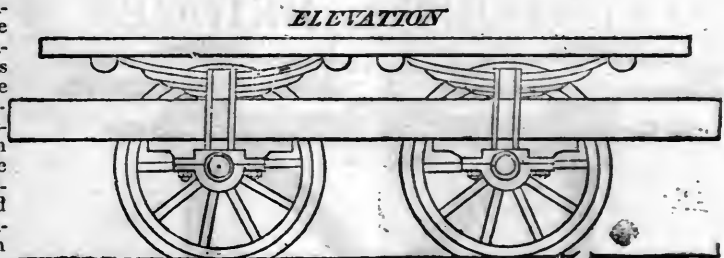
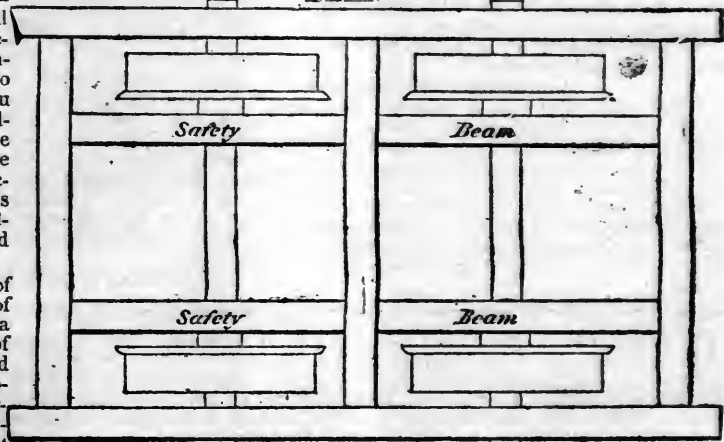
The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
 GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,  
 W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed.

JOHN F. WINSLOW, *Agent.*

Albany Iron and Nail Works, Troy, N. Y.  
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, *Agent.*

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*.\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

### FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

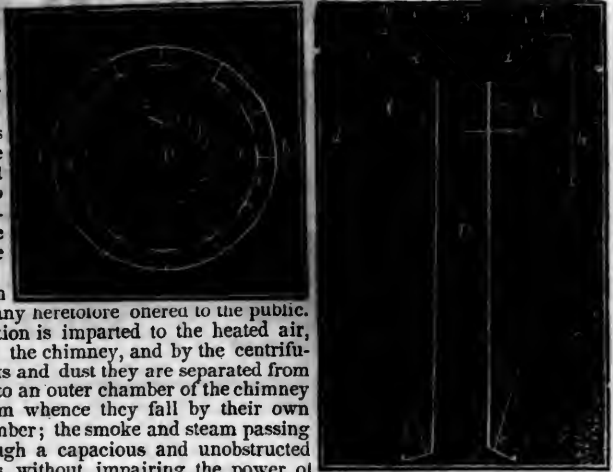
These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

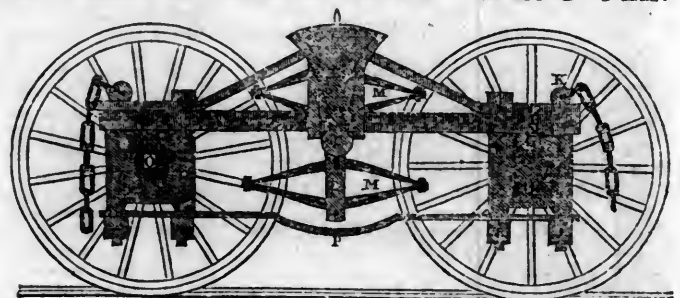
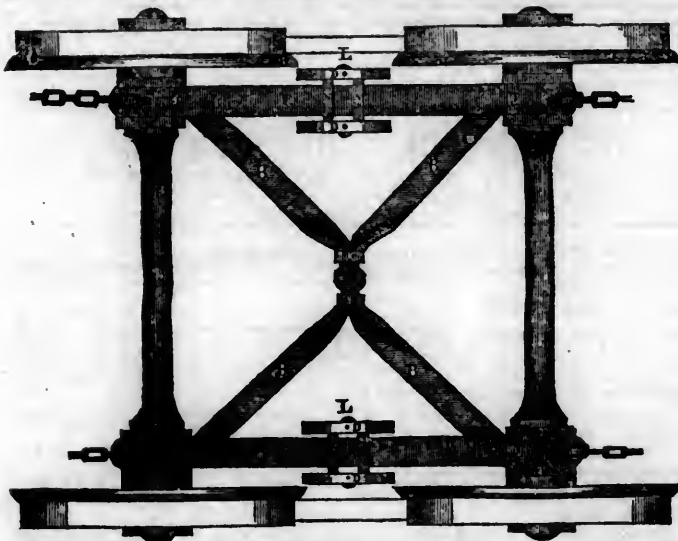
N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\*.\* The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45



**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

## DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.



DAVENPORT & BRIDGES' IMPROVED PATENT IRON TRUCK FOR RAILROAD CARS, is presented above, and the attention of Railroad Companies is respectfully invited to the following description of their justly-celebrated invention.

These Trucks are adapted as well for eight-wheeled passenger cars as for baggage and freight cars, giving to each a more agreeable and easy motion than any other Truck heretofore constructed or in use. They are simple in their construction, combining strength and great durability, although weighing at least twelve hundred pounds less than the common Trucks. Besides these excellences, by reason of the elasticity of the braces, B, B, B, B, as seen in the drawing, and the other peculiarities of construction, made for inside or outside bearing, the weight is equalized upon all the wheels, and yet any one

may be raised so as to pass any inequality on the rails without lifting either of the other wheels from the track, thus rendering it almost impossible to run a car off. Being bound, and having as it were but four joinings, they are protected from injury by lateral strains, and in case of damage are easily repaired.

These excellences have been fully tested by use, for a long time, on the Eastern, the Fitchburg and Long Island railroads; and for proof of the above stated superiority of these Trucks over all others, we refer to the experience of those who have used and run them.

CAMBRIDGEPORT, April 1, 1845.

DAVENPORT & BRIDGES.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS,** etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN,** Civil Engineer,  
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

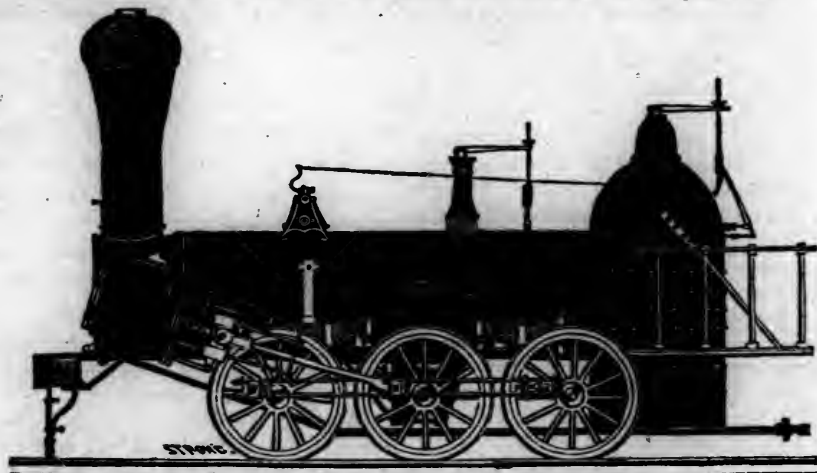
From 4 inches to 1 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLOES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**

*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
"	2,	14	"	"	×	24	"
"	3,	14½	"	"	×	20	"
"	4,	12½	"	"	×	20	"
"	5,	11½	"	"	×	20	"
"	6,	10½	"	"	×	18	"

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.

**WILLIAM YOUNG,**  
President.

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY,** Civil Engineer,

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS,** 48 State st., or to **CURTIS, LEAVENS & CO.,** 106 State st., Boston, or to **A. & G. RALSTON & Co.,** Philadelphia.

**CYRUS ALGER & CO.,** South Boston Iron Company.

**Railroad Convention at Danville, Pa.**

The convention was permanently organized by the appointment of the following officers:

**President**—Charles Frailey, of Schuylkill.  
**Vice Presidents**—Thomas Taggart, of Lycoming; Philip Rhale, Union; Dr. Phineas Jenks, Bucks; Wm. Ayres, Dauphin; Geo. A. Colham, Warren; Mathias S. Richards, Berks; ——— Worrel, Clearfield; Dr. G. N. Eckert, Schuylkill; Ashbel G. Ralston, Philadelphia; Ignatius Garner, Elk; John White, Philadelphia county; Henry Brevoort, Columbia; Robert Park, Chester; J. Taggart, Northumberland; Wm. C. Toby, Allegheny.

**Secretaries**—E. O. Jackson, Schuylkill; V. Best, Columbia; H. B. Masser, Northumberland; Thomas Struthers, Warren; Robert Frick, Northumberland.

After the president returned thanks, Mr. Joseph Sanderson, of Philadelphia, rose and said, that as he had been among the original projectors of the Danville and Pottsville railroad, he wished to state the objects for which it had been commenced, and, if possible, to show the additional reasons for its completion. He said the trade of the state, it was now evident, was not dependant upon its *lumber* and its agricultural produce. The developments of time had exhibited a mineral wealth that far exceeded our previous notions of importance, and the researches had thrown open fields, that emphatically invited the industrious and the enterprising to partake of the treasure. In the short space of twenty years, our views had materially changed—our agricultural and commercial notions had extended to a manufacturing policy, that promised a richer and much more glorious reward. And now, when the public mind was filled with the evidences of a well directed measure—with the developments that have followed, and are still presenting themselves on every side of us—with the certainty that the wealth of Pennsylvania lies as much under the surface as upon it—it would not be difficult to realize the advantages of improvements that conduct us to the treasures that lie within our territory. The fact also that the raw material of the country was south of the Hudson, that the mineral developments were as yet in Pennsylvania, that the cheapest and best propelling power in the world is the production of the region through which our work passes, that the agricultural produce necessary to sustain us was the staple of our state, that the population, the climate and the market, were among the objects that contribute to our importance, and now, to enable us to enjoy the advantages we actually possess, we have only to inquire into our resources, and to appropriate them to our use. The rich and luxuriant harvest drawn from Schuylkill county is an illustration of our position. The anxiety of our neighbors on every side of us to secure the avenues and maintain a monopoly, is not less encouraging: and when we look at the inexhaustible stock of coal, iron ore, timber, and all the elements for a manufacturing district at the connection with the Susquehanna, at the junc-

tion of the North and West branches—with Williamsport, Blossburg, and the great Erie road itself—with the interior iron counties, and eventually with Erie and Pittsburg, we can readily realize the objects for which this work was commenced, and now behold the urgent and emphatic reasons for its completion.

But, he continued, should any one doubt the business in prospect, let him look at the trade of Schuylkill county, at the coal trade of 1825, *exactly twenty years ago*, when 5,000 tons were carried to market and broke up all engaged in the business; at 1830, which produced 89,984 tons, and advanced the price of land from \$5 to \$100 per acre; then at 1835, when 335,686 tons were disposed of; at 1840, when 452,291 tons were not equal to the demand, and now at 1845, when over one million will be taken by the consumers; then let him look at the importance of this trade to the city—to the operatives, who have retained over three millions of dollars for their enterprize, and last, not least, to the consumers, who, by the construction of the Reading railroad, will this year save over two millions of dollars, from the prices they have hitherto paid for their supply. This business, however, only in its initiatory progress, and when connected, as it must be, with the great coal and iron region of the Mahanoy, with the iron trade of Montour's hill, that has risen so rapidly into importance, and with the various objects which are every day presenting themselves, there could be no doubt of the profits of the investment.

Mr. Donaldson next took the floor, and stated that two years ago we had two anthracite furnaces in blast. Now we had twenty-seven in successful operation, producing over 200,000 tons of metal per annum, and consuming over 500,000 tons of coal. About 40 rolling mills had also gone into operation during the same period, and when we contemplate this rapid and unexampled increase, which, according to the nature of things, must continue, there can be no doubt of the provision that will be necessary to accommodate the trade. At present the product of the furnaces was over 16,000 tons per annum, but when the business of some half dozen others in the neighborhood was added, the average would not be less than 30,000, and the consumption of coal not less than 100,000 tons. To this may be added again the business of the rolling mill and foundries, which would make the business of Danville worth looking after, and give importance to the work which was now under consideration. The facilities presented for a connection with Williamsport and Elmira roads, and the fact that all this trade was shut from the market during the winter, left but little doubt of the necessity of providing the means for carrying it to market. But without going into the particulars, or of calculating the advantages to be derived from the completion of the Danville and Pottsville railroad, he said it was clear that the Reading railroad, and Schuylkill navigation company, with all their present and prospective advantages, would not

be able to accommodate the trade. This fact, he continued, is most emphatically presented in the operations of the past, and if we estimate the prospective increase, and look at the present business of the day, there can be no doubt, that if half the zeal was exhibited in defining and in making manifest our resources, *that there is to traduce and degrade the character of these works*, the condition of their stock in the market would present a different aspect. But time is ever interfering with the selfishness of men, and presenting barriers to their schemes that ultimately show their weakness; and while we contemplate with regret the narrow and contracted sphere of the selfish, we must avoid the rock upon which they stumble, and after observing the current of human wants, trim our sails for the extension.

Mr. Higgins, Mr. Tams and others addressed the convention equally to the point, and with great force, but it is not necessary for us to give more of the speeches than to show the general grounds upon which the convention place the claims of this work to immediate action. We give the resolutions passed, and shall take another opportunity to give our views upon it in connection with another line—we mean that from Williamsport to the interior of New York.

John Cooper, Esq., of the committee on resolutions, reported the following, which were adopted unanimously:

Whereas the vast importance to our agricultural, commercial and manufacturing interests of a continuous railroad line of communication between Philadelphia and lake Erie is employing the thoughts and engrossing the attention of every reflecting man of business among us; longer, then, to delay action on this momentous subject would argue indifference on our part to our own future welfare as individuals, and utter disregard of the prosperity of the commonwealth to which we owe allegiance as citizens. Therefore,

**Resolved**, That this convention decidedly recommend an extension of a railroad either from Danville or Sunbury, as may hereafter be found to be most advantageous, to Williamsport and thence to lake Erie by the route of the Sunbury and Erie road; that this convention is deeply impressed with a sense of the vast importance of thus opening an avenue for conducting the immense commerce of our inland seas, so rapidly augmenting, to the Atlantic seaboard, with reciprocal trade from the cities there, and especially from Philadelphia, and also of opening a passage for the products of the farm, the forest and the mines in the northwest region of Pennsylvania, hitherto neglected in the bounty and improvements of the commonwealth.

**Resolved**, That this convention from various diligent and careful examinations, have received a very decided conviction that the immediate commencement and early completion of a railroad from the town of Danville to the Shamokin coal fields, and thence to



form a connection with the Reading railroad at Pottsville, ought to and does receive the cordial and earnest support of each and every member of this convention; that it is a work offering assurance of great public benefit and of investment highly profitable to the capitalists who engage in its construction, connecting, as it will the great iron region of Columbia county, as well as the extensive coal fields of Shamokin with the city of Philadelphia by a continuous line of railroad.

*Resolved*, That this convention cordially recommend a connection to be formed as early as practicable, between Williamsport and Elmira or Corning, as may be found most eligible; by extending the railroad from Ralston; that the completion of the work would be mutually advantageous to our own state and to the state of New York, prejudicial to no section of Pennsylvania, and profitable to the stockholders.

*Resolved*, That it be recommended to the legislature of Pennsylvania to incorporate a company to construct a railroad from Danville to Williamsport, by the way of Milton, on the most practicable route, in pursuance of the first resolution, and also an act extending the time for the commencement and completion of the railroad from Sunbury to Erie.

*Resolved*, That we consider the prosperity of our state as identified with the present tariff, and we highly approve the suggestion, which has been made through our own public prints, of calling county meetings throughout the state for the purpose of choosing delegates to represent them about the 1st of December next at a general convention to meet at Harrisburg, in order to furnish congress when assembled, with the voice of Pennsylvania on this all absorbing subject.

*Resolved*, That a committee of five be appointed to superintend the publication of the proceedings of the convention, and that the friends of the improvements above designated be requested to present statements, embracing such facts and arguments as they may think proper, in relation to the proposed railways, to be published with the proceedings of the convention.

The president then appointed V. Best, H. B. Masser, Robert Faries, Thomas Struthers and Dr. Eckert on the foregoing committee.

#### Railroad Convention.

At a railroad convention convened pursuant to previous notice, assembled at the first presbyterian church, in the borough of Williamsport, Pa., on the 31st October, ult., 1845.

On motion of W. C. Ellis, of Lycoming. The meeting was called to order by appointing Hon. J. B. Anthony, of Williamsport, chairman, *pro tem.*; and P. J. Mallory, of Corning, secretary, *pro tem.*

A large number of delegates from the several counties of New York and Pennsylvania, appeared and presented their credentials.

A committee was appointed to select the proper officers, when the convention adjourned until 2 o'clock.

The convention assembled at 2 o'clock, p.m., pursuant to adjournment, and the names of the following persons were reported by the

nominating committee, as officers of the convention, viz:

*President*.—Hon. Joseph B. Anthony.

*Vice Presidents*.—Dr. Erastus L. Hart, Elmira; Thomas Struthers, Warren; A. G. Ralston, Philadelphia; Jared Wilson, Hon. Mark H. Sibley, Canandaigua; Samuel Dickinson, Samuel W. Morris, Tioga; J. L. Smith, Southport; Elijah Sexton, Millport; J. R. Coolback, Wellsburg; Lawrin Mallory, Corning; J. W. Pomeroy, Bradford county; Apollas Woodward, Samuel H. Lloyd, Geo. Crane, and Robert Faries, Lycoming county.

*Secretaries*.—P. J. Mallory, Corning; William Maxwell, Elmira; William C. Toby, Pittsburg; C. D. Eldred; Williamsport; John P. Donaldson, Tioga.

The president tendered his acknowledgments for the honor conferred by his appointment to preside.

The convention was then ably addressed by W. C. Ellis, of Lycoming, on the manner of proceeding to the consideration of business.

Mr. Wilson, of Canandaigua, offered the following resolution:

*Resolved*, That this convention view with deep interest, the measures contemplated for effecting a junction of the improvements in the state of New York with those in Pennsylvania, and that it will afford a cordial support in accomplishing an object of such vital importance to the interests of both communities.

Which was discussed by Mr. Hopkins, of Elmira, Mr. Knox, of Tioga, Mr. Cobham, of Warren, Mr. Packer of Locoming, and Mr. Sibley, of Canandaigua; and was then unanimously adopted.

After which the convention adjourned to meet again at 7 o'clock, evening.

The convention assembled pursuant to adjournment, when,

On motion of S. Benjamin, of Elmira, the following resolution was unanimously adopted:

*Resolved*, that this convention is decidedly in favor of a continuous railroad from the city of Philadelphia, to connect with the New York and Erie railroad, (by way of Williamsport) at the most practicable point, and that we will use all proper means to effect such connection.

*Resolved*, That a committee of three be appointed to go to the legislature of Pennsylvania next winter, to advocate the granting permission to the New York and Erie railroad company to build their railroad through the counties of Pike and Wayne, in the state of Pennsylvania, provided said company shall grant the privilege of connection therewith to the Williamsport and Elmira railroad company, and to the Corning and Blossburg railroads.

The president appointed the following persons as such committee—William F. Packer, Robert Faries, W. C. Ellis.

Mr. Faries offered the following resolution, which was unanimously adopted:

*Resolved*, That a committee be appointed to prepare an address to the people of Pennsylvania and New York, on the important matters which have been presented to the consideration of this convention, which shall also be charged with the publication of the proceedings of this body.

The following persons were appointed as such committee—Robert Faries, Wm. Cox Ellis, Francis C. Campbell, John W. Maynard, Robert Fleming, Wm. F. Packer. Chas. Lloyd.

On motion of Mr. Sibley,

A committee of 15 persons were appointed as a corresponding committee, and the following persons were agreed to. Mr. Sibley, of Canandaigua; Col. Pomeroy, of Troy; Samuel W. Morris, Mr. Coolbaug, of Wellsborough; Wm. Maxwell, Dr. Jas. Hepburn, A. S. Divan, of Elmira; George White, of Williamsport; A. G. Ralston, of Philadelphia; Mr. Hudson, of Geneva; P. J. Mallory, of Corning; Wm. M. McCay, of Bath; Jas. H. Gulick, of Blossburg; Col. H. W. Bostwick, of Corning.

On motion it was *Resolved*, that the thanks of the members of the several delegations, composing this convention, be respectively tendered to the trustees of the first presbyterian congregation of Williamsport, for the use of this church, and the accommodations they have received.

On motion the convention adjourned *sine die*.

*Cleveland and Pittsburg Railroad*.—Col. Dodge has made, as we learn from the Pittsburg Gazette, a report of the survey which has just been completed, making the distance 96½ miles; estimating the cost for bar rail at \$882,223, and for the T or U rail \$400,000 additional, and establishing the entire practicability of the route.

Col. Dodge is to commence the survey of the route from Wellesville via Big Yellow creek, in the course of the present month.

*The Caledonian Canal*.—This important national undertaking, the first of its class in Europe, after much hesitation on the part of government, is at length receiving the repairs and improvements so long desiderated, on a scale of magnitude which will go far to realize the designs originally contemplated by the great Telford. Originally, it was intended that the width of the water surface should be 120 feet, the bottom width 50 feet, and the depth 20 feet, so as to admit the largest vessels that trade between Liverpool and the Baltic, West Indiamen of average size, and frigates of 32 guns when fully equipped.—But so much was said in parliament against expense, estimates exceeded, jobbing, and so forth, that the engineer was constrained to complete the canal in a hurried and insufficient manner. The contractors, Messrs. Jackson and Bean, who are favorably known for their skill and experience in this department of engineering, have been allowed 3 years for the completion of tasks requiring a large outlay of public money; and, from the satisfactory progress already made, there is reason to hope that the canal will be re-opened from sea to sea at the time appointed. The total length of the canal is 60 miles, 23 miles of which are formed by art, and the remainder by connecting and rendering subservient to commercial purposes a great natural basin, enriched in one sense, as well as beautified, by the ample waters of loch Ness, loch Oich, and loch Lochy.





AMERICAN RAILROADS.

NAMES OF RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	1845.		Div. per cent.
						Income.	Nett.		Income.	Nett.		Income.	Nett.	
Maine. 1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6			
N. Ham. 2 Concord.....	35	750,000									12			
Mass. 3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½			
4 Boston and Maine extension.....	17½	455,707	unfin.											
5 Boston and Lowell.....	26	863,744				277,315	144,000	8	316,909	147,615	8			
6 Boston and Providence.....	41	1,886,137	none.	18,600	100	233,388	110,823	6	282,701	156,109	6			
7 Boston and Worcester.....	44	1,914,078				40,141	162,000	6	428,437	195,163	7½			
8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
9 Charlestown branch.....	22	290,260						13	34,654	13,971	5½			
10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8			
11 Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,835				
12 Nashua and Lowell.....	14½	380,000				84,079		8	94,588	34,944	10			
13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
14 Northampton and Springfield.....		172,883	unfin.											
15 Norwich and Worcester.....	66	2,290,000	9 0,000	16,535	100	162,336	24,871		230,674	99,464	3			
16 Old Colony.....		87,820	unfin.											
17 Stoughton branch.....	4	63,075	unfin.											
18 Taunton branch.....	11	250,000						8	96,687	20,000	8			
19 Vermont and Massachusetts.....														
20 West Stockbridge.....	3	41,516	200		100						4			
21 Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000		573,882	281,432		753,753	439,679	3			
22 Worcester branch to Milbury.....		8,431	506											
23 Housatonic, (10 months).....	74	1,244,123							150,000					
Conn. 24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6			
25 Hartford and Springfield.....	25½	600,000	400,000	2,000	100									
26 Stonington, (year ending 1st Sept.).....	48	2,600,000	650,000	13,000	100	113,889			154,721	79,845				
N. York. 27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033				
28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6			
29 Auburn and Syracuse.....	26	766,657				86,291	27,334		96,738	52,544	6			
30 Buffalo and Niagara.....	22	200,000		1,500										
31 Erie, (446 miles).....		5,000,000												
32 Erie, opened.....	53						48,000		126,020	59,075				
33 Harlem.....	26	2,250,000	750,000	30,000					140,685	62,399				
34 Hudson and Berkshire.....	31	575,613			50				35,029	1,789				
35 Long Island.....	96	1,510,211	392,340	29,846					153,456	58,996				
36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763				
37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455				
38 Schenectady and Troy.....	20½	640,800				28,043			32,646	6,365				
39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8			
40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
41 Troy and Greenbush.....	6	180,000												
42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8			
N. Jersey 44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956				
45 Elizabethtown and Somerville.....	26	500,000									6			
46 New Jersey.....	34	2,000,000												
47 Paterson.....	16	500,000												
Penn. 48 Beaver Meadow.....	26	1,000,000												
49 Cumberland Valley.....	46	1,250,000												
50 Harrisburg and Lancaster.....	36	860,000	645,929									77,538	9,988	
51 Hazleton branch.....	10	120,000												
52 Little Schuylkill.....	29	900,000												
53 Blossburg and Corning.....	40	600,000												
54 Mauch Chunk.....	9	100,000												
55 Buck Mountain.....	4	72,000												
56 Minehill and Schuylkill Haven.....	19½	396,117	25,000	7,019	50			12			12			
57 Norristown.....	20	800,000												
58 Philadelphia and Trenton.....	30	400,000												
59 Pottsville and Danville.....	29½	1,500,000												
60 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511				
61 Schuylkill valley.....	10	1,000,000												
62 Williamsport and Elmira.....	25	400,000				20,000								
63 Philadelphia and Baltimore.....	93	1,400,000				43,043	200,000			210,000				
Delaware 64 Frenchtown.....	16	600,000												
Maryl'd 65 Baltimore and Ohio, (1st Oct.).....	188	7,742,410	1,153,709			575,235	279,402		658,620	346,946		738,603	374,762	3
66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		208,813	95,094	6
67 Baltimore and Susquehanna.....	58	3,000,000												
68 Wrightsville, York and Gettysburg.....	12½	500,000												
Virginia 69 Greensville and Roanoke.....	18	284,433	37,544	2,000	100				25,368	6,074	3			
70 Petersburg.....	63	969,880	63,000	7,690	100				122,871	72,898	6			
71 Portsmouth and Roanoke.....	78½	1,454,171												
72 Richmond, Fredericksb'g and Potomac.....	76	800,000							185,243	85,688				
73 Richmond and Petersburg.....	22½	700,000												
74 Winchester and Potomac.....	32	500,000												
N. Car. 75 Raleigh and Gaston.....	84½	1,360,000												
76 Wilmington and Raleigh.....	161	1,800,000									5			
S. Car. 77 South Carolina.....	136													
78 Columbia.....	66	5,671,452		34,410	75									
Georgia 79 Central.....	190½	3,000,000	500,000	22,500	100	201,464	77,456		532,871	140,196				
80 Georgia.....	147½	2,650,000				227,532	93,190		328,425	180,704				
81 Montgomery and West Point.....	89	500,000	170,000		100	248,026	158,207		248,096	147,523				
Kent'ky 82 Lexington and Ohio.....	40	450,000							35,000	15,000				
Ohio 83 Little Miami.....	40	400,000												
84 Mad river.....	40	152,000												
Indiana 85 Madison and Indianapolis.....	56	212,000	50,000			22,110	8,639	8	39,031	10,065	9½	24,984	3,280	
Canada 86 Champlain and St. Lawrence.....	15						12,000		58,000	24,000				

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Thursday, November 20, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 21,651 00 tons, and by canal 8,586 14, making 30,247 14 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total	445,756
From Schuylkill Haven—total	357,005
From Port Clinton—total	19,152

Total by railroad..... 731,914

BY CANAL.

From Pottsville and Port Carbon—total	150,354
From Schuylkill Haven—total tons	42,976
From Port Clinton	47,585

Total by canal..... 240,917

Total by railroad and canal..... 972,832

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.	
Summit mines, -	171,898
Room run do., -	67,500
Beaver Meadow railroad and coal co.,	71,011
From Penn Haven—Hazleton coal co.,	64,440
From Rock Port—Buck Mountain coal co.,	21,713

WYOMING COAL TRADE—total	396,571
PINE GROVE COAL TRADE—total	159,745
MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons	41,731
MOUNT CARBON RAILROAD—total tons	399,045
MILL CREEK RAILROAD—total	235,330
SCHUYLKILL VALLEY RAILROAD—total	81,770
[Miners' Journal.]	103,375

WESTERN RAILROAD.—Receipts for week ending November 8.

	1845.	1844.
Passengers.....	\$5,897	\$4,997
Freight, etc.....	13,563	9,435
Total.....	\$19,458	\$14,432
Net gain this week.....		5,026
Net gain previously since Jan. '45.....		44,538

Total gain..... 49,564

READING RAILROAD.—A comparative statement of the business of the Philadelphia and Reading railroad, for the week ending November 8th, 1845, as compared with the corresponding week last year.

	1844.	1845.
Passengers, freight, etc....	\$16,578-93	\$30,928-13
Coal transported, tons.....	12,443	21,897

Canal Tolls.—Amount of tolls received on all the canals during the month of October in each of the following years:

1839.....	\$263,678
1840.....	345,216
1841.....	359,992
1842.....	354,977
1843.....	381,838
1844.....	384,542
1845.....	493,178

Excess of tolls in October 1845, over the corresponding month in 1844, \$108,636: And \$209,500 more than in October, 1839.

The flour and wheat brought to tide water in October 1841, and October 1845, is as follows:

	Flour.	Wheat.
1845.....	445,191 bbls.	482,273 bus.
1844.....	366,807 " "	307,944 " "

Increase. 78,384..... 174,329  
 Reducing the wheat to flour, and it makes the increase in October this year over last, equal to 113,249 barrels of flour.

The merchandize going from tide water in October 1845, amounted to 55,613,000 pounds—and in October 1844, to 49,137,900 pounds: Increase in October this year over last, 6,476,400 pounds.

Canal Tolls.—Amount of tolls received on all the New York state canals, in each of the following years, viz:

	1st week in Nov.	Total to 7th Nov.
1839.....	\$64,306	\$1,476,063
1840.....	82,060	1,612,586
1841.....	82,240	1,874,725
1842.....	82,769	1,599,294
1843.....	97,813	1,924,483
1844.....	96,298	2,238,712
1845.....	116,680	2,365,958

Albany Atlas.

Our Table of American Railroads.—We shall endeavor to correct this table by the annual reports and other means as they come to hand, and shall be obliged to those having the data for correcting us, if they will promptly point out any error into which we may fall from not being able always to determine precisely what is the cost of the work, nor what proportion is chargeable to stock paid and what to loans. We aim to state the facts in each individual case, but find it exceedingly difficult in many cases to obtain any statement from authority on which we can rely—not being able to visit them personally—and our circulars asking information of general interest, even when post paid, are not in many cases answered.

We have made material alterations in the figures opposite several roads, in this number, and shall be greatly obliged to parties interested, for corrections if they detect errors.

Harlem Railroad.—The earnings of the Harlem railroad for the month of October, were, we understand, \$17,255 74, showing an increase of \$5,947 52 over the same month of last year. Contracts have been made for the completion of the road to Somers, twenty-four miles beyond White Plains, and a large number of men are at work upon it. The cost of the extension of the road is put down, as we learn, at \$20,000 a mile. This is quite too low. The road destined to compete with the Hudson river, between this city and Albany, should be constructed in the very best manner, that high speed may be attained with entire safety. Will \$20,000 per mile construct such a road on this route? Will the engineer please enlighten us?

Kyanizing.—We made a material error in the article signed L, on this subject, in our last. In speaking of the number of cross-ties prepared we make the writer say "1,400" and "1,700," whereas it should be fourteen thousand and seventeen thousand. The error is not material so far as it concerns the effect of the process, but we like always to give our friends full credit for all they do and especially so in a matter of this importance.

Branch Roads and Stage Lines Connecting.—We desire to obtain an account of the connecting lines of stages with each railroad in the country. By referring to the advertisement of the Boston and Providence railroad company, in this number, may be seen an approximation to what we seek, though it does not go quite as far as we wish. We wish to give the different lines, the distance to its place of

destination, usual fare, and the principal hotels, at the termini of the route. Our object is to publish these lists in connection with each railroad advertisement for the convenience of those who wish to visit those places. Will the gentlemen in charge of the different railroads, or some one of their conductors, oblige us with such a statement? If they will we will endeavor to reciprocate the favor. The sooner we receive the list the more useful and satisfactory it will be.

Coal and Iron.—The Resources of Pennsylvania.—

The remarks of Mr. Sanderson, of Philadelphia, made at the Danville railroad convention, which will be found in this Journal, are to the point. Mr. Sanderson was one of the early advocates of railroads in Pennsylvania. He takes a comprehensive and just view of the resources of that great state, and sees the necessity of concert of action and energy to develop them; but unfortunately for himself, he, like some others we could name, is in advance, by many years, of those around him who would be most benefited, and who hold the purse strings. He may predict, and give the best possible reasons for his views and quote past experience, as he does in these remarks, yet the million cannot reason of the future from the past. There are really but few who realize justly that "what has been may be again" and even more so, and thus profit by their sagacity. Of this exceedingly small number is Mr. Sanderson; at least, he comes within the few who reason justly in relation to the future prospects of the country, though he may not profit by it as he ought and as we hope he may in the management of his excellent hotel—the "Franklin House,"—in Philadelphia, where the traveller will find good fare at all hours and at reasonable rates.

Madison and Indianapolis Railroad.—"We are informed that the directors, at their late meeting in Madison, unanimously voted to direct the purchase of the heavy  $\Omega$  rail for the road between Edinburgh and Indianapolis."

We agree fully with the editor of the State Sentinel that this is good policy; make a good road in the first place if you can, and as will be learned from the Journal, there can be no difficulty in doing so while the earnings of the road enable the company to pay from 8 to 10 per cent. dividend upon the new capital, or that portion furnished by individuals. The state, it will be seen, receives no dividend under seven years, upon the amount expended under its management, consequently those who finish and manage it will derive large returns for their investment; we hope, therefore, that they will be encouraged to extend the road beyond the capital, towards the lake.

Postoffice Arrangement.—We notice by the Washington Union, says the Ledger, that a contract has been concluded between the postoffice department and the Wilmington railroad company, by which the carriage of the mail between this city and Baltimore is secured to the company to the end of the present mail contract period, at the maximum price allowed by law; the railroad company agreeing to run an extra line between ten o'clock at night and six o'clock in the morning, thus materially expediting the mail, and securing to the company a large and certain yearly revenue.

We are also informed, says the same paper, that the receipts for tolls on the Chesapeake and Delaware canal, last week, was rising \$4,100. The receipts for the corresponding week last year were \$1,600. Difference in favor of the week for this year, \$2,500. Though there is an increased business through this canal, the increase last week is hardly a fair criterion of the business doing—the late drought having forced more than the usual amount of business into last week.

The following letter is very acceptable. Its contents are exceedingly appropriate, especially at this time, as it not only supplies a deficiency and corrects an error in one table—that of American railroads—in which our readers take a deep interest, but it also enables us to supply a manifest deficiency and to correct an awkward error on another table, which we often find it somewhat difficult to do to our taste; the writer will therefore please accept our thanks for this evidence of his sagacity in foreseeing and for his prompt action in providing the means to supply deficiencies and fill blanks; if it were not for our diffidence, we should say to the reader, who has not already done so, “go and do thou likewise.”

RAILROAD OFFICE, }  
Madison, Ind., Nov. 4, 1845. }

For the American Railroad Journal.

That the Madison and Indianapolis railroad may stand right in your table of American Railroads, I submit the following as its present condition, which should be inserted at the proper place, No. 85.

Length, 56 miles; cost, \$1,746,907.68—\$1,561,798.72 expended by the state—and \$185,108.96 expended by the company; loans and debts, \$50,000; income 1843, gross, \$22,110.23, net, \$8,638.70; dividend, 8 per cent.; 1844, gross, \$39,031.14, net, \$10,055.05; dividend, 9½ per cent.

Note.—The state derives no dividend for seven years, if the company finish the road in three years. One-third the net profit will then belong to the state.

The receipt for the present year will be at least \$60,000. The remaining 30 miles of the road [making in all 86 miles] are now under contract; the grading is about half done and we are confident that the road will be completed in about 15 months.

Enclosed is five dollars which with that already advanced will pay for two copies of the Railroad Journal, which you will please send to me for the next year, commencing first January.

Yours respectfully, S. M.

We give the following extracts from Mr. Herron's recent letter, preliminary to the description of his track, which will be given in our next, as it came too late to hand for this number.

There passed over it, as will be seen, 800,000 tons of coal in a year and five days from its completion.

“I send you by Adams & Co.'s express, for insertion in the Journal, a small stereotype plate of my railway track, with an accompanying article, referring to the cut, and descriptive of it, as laid upon the Reading railroad.

For the American Railroad Journal.

“The article, you will perceive, gives the dimensions and quantity of materials used, details of cost and particulars regarding the sublimated timber, its cost, etc., etc., not hitherto published. \* \* \*

“I have had the stereotype cut ready for some time, but have delayed the publication until the magic number of 800,000 tons of coal had actually passed over it. This has taken one year and five days to accomplish.

“Your doubts about Kyanizing are likely to elicit some highly important facts on the subject, that may be of lasting benefit to the country. We want facts, well authenticated facts, for or against, with responsible names vouching for them. All who furnish correct circumstantial information on the subject, are truly public benefactors.”

#### Foreign Correspondence.

We have the pleasure of giving another interesting letter from our Paris correspondent. It will be seen from this letter that the “company Rothschild”

had the ability to “swallow up” all its competitors for the line to Belgium, and thus walk over the course. It will also be seen that such is the reputation of this house, the shares went up immediately to 900 francs, their par value being 500 francs.

The views of the writer in relation to the influence of railroads upon man, are sound and practical. He says truly that “it is by the constant contact of the people with each other that they will learn how to know each other and appreciate what is best and most conducive to human happiness.”

We ask the special attention of those of our readers who have the management of that department to the inquiries of the writer in relation to the cost of working railways in this country. He desires to compare the expenses of management in the different countries; and when we inform them that it is to the writer of this letter—Major Poussin, formerly a member of the U. S. Eng. corps—to whom they are indebted for the work on the Belgian railways, upon which we have drawn so liberally during the past summer, we trust they will furnish us with the details in full sought by him. If each annual report of each company contained those details there would be great economy introduced into the management of our numerous railroads. Economy is often learned by comparison. Almost every company will be able to learn something new and perhaps, also, to communicate something to others; at all events much of interest and utility will result from the general adoption of such a system of reports.

(Foreign correspondence of the Railroad Journal.)

PARIS, RUE RICHER, }  
September 11th, 1845. }

MY DEAR SIR: I have just returned to Paris, after an absence of two months, and found at home your letter of July 24th, together with a file of your valuable Journal, for which I return you my best thanks.

The most important news about railways at this time is the late adjudication of the line from Paris to Belgium, for a term of 38 years to the Company Rothschild, which has succeeded by its irresistible power and influence to swallow up five competing companies, so that the Company Rothschild presented itself alone to obtain the concession of the line. The shares went up immediately after the government decision in favor of M. Rothschild, to 900 francs, they being worth at par 500 francs.

A small branching to Fampaun was conceded to the Company O'Neill for 37 years and some months.

In a few weeks we shall have a more important adjudication, that of the line from Paris to Lyons and the Strasbourg line.

The number of companies already formed for these lines is large, and continues to increase, so great is the people's favor for railway shares, and indeed for all sorts of shares; for we have seen in these later days new societies formed for objects of the most doubtful character.

It is most likely that the same combination of companies will take place in respect to the Lyons and Strasbourg lines or for the Northern, and that the house of Rothschild will extend its powerful grasp over the main arteries of the country. This appears to me the unavoidable conclusion of the present competition between rival companies.

Our great line to Belgium will not be completely opened through from Paris to Lille until May next, for there remains some work yet undone which will occupy all the winter to complete. Next spring, consequently, we may safely calculate on seeing this great line of communication between the metropolis of France, Belgium and the German states,

fairly established, to the great convenience of travelers, but particularly to the great advance of civilization and rational liberty.

I have no doubt that the new system of communication by steam on land and on water will do much more for real practical liberty than all the best theories in the world. It is by the constant contact of the people with each other that the people will learn how to know each other, and appreciate what is best and most conducive to human happiness.

European railways differ little in their construction, either in France, England, Belgium, Germany, or Italy; the system of construction is all over the same; the only difference is in the weight of the rails. Heavy rails, say 32 kilograms per metre, is becoming now generally adopted on account of the rigidity it presents, and the better stability of locomotives in passing on such structure. Cross-ties of wood is the usual mode of understructure, and, in some cases, string pieces are also adopted. The nature of the wood and the mode of using it differ in each country according to the resources of the land as to timber. Essays of cross-ties of iron have been made, but without any advantage. Various schemes of preserving timber have likewise been resorted to, but do not prove completely efficient.

As to the machinery, it is all over the same, viz: heavy and powerful locomotives of the English or American models. The American model of Norris' establishment is becoming more and more justly appreciated, and consequently is in fair demand.

American wagons, accommodating 60 or 90 persons, are also becoming of use. Such carriages are to be met with on German railways and in Belgium. I am myself in favor of long carriages resting on 8 wheels.

Atmospheric systems of locomotion continue to occupy the scientific world, but has not made, up to this date, much practical progress.

I am about experimenting a new system of this description within a few days, and will let you know the result.

My late work on Belgium, as well as all my other works on the United States, are to be found at Mr. Bossange's, New York.

The report sent by you was charged letter postage.

Those reports contain none of the information I am desirous of obtaining, to wit: cost of fuel, quantity consumed, cost of repairs of locomotives per ann. materials and labor, number of miles run, number of trains, number of engines employed, men employed. In a word, I should like to ascertain correctly whether the working of an American railroad is cheaper or dearer than with us? Very truly yours,

LE MAJOR G. T. POUSSIN.

The Baltimore and Ohio Railroad,  
And the opposition of Virginia to its extension.

It may be recollected by our readers that, in republishing the 19th annual report of this company, in the Journal of 30th ult., we commented freely, though not discourteously, upon the opposition of Virginia and Pennsylvania, to a renewal of the right of way to the Ohio. In the course of those comments we made the following remarks, viz:

“The objection made by ‘old Virginia’—by this we mean the eastern part of the state—to the termination at Parkersburg, if we understand it, is that it will interfere with the ‘James river and Kanawha’ line of improvement from Richmond to the Ohio river. And the objection of a part of Pennsylvania to its termination at Pittsburgh is, that it will inter-

fare with their state works, and also prevent the construction of a railroad direct from Harrisburg to Pittsburg. These objections may all be valid and just, yet we do not deem them either valid or just, but entirely the reverse. Indeed we have not a doubt but that the early completion of the Baltimore and Ohio railroad through to Parkersburg or other suitable point of termination on the Ohio, would insure the construction of the James river line of improvement, by a railroad, of course, over the mountain to the Ohio, at an earlier period than it will be made if the Baltimore and Ohio railroad terminates finally at the coal region; and so, on the other hand, if it were to be continued from Cumberland to Pittsburg, it would insure the construction of a continuous railroad from Pittsburg to Philadelphia in less time than it would be otherwise built.

"It appears to us, if we may be allowed to express an opinion, that this company has a just claim upon Virginia for the right of way to the Ohio river: the claim of the company, however, weighs as but a feather in comparison with the right of the public—the millions who will pass over it, if properly built to the right point—and we do not hesitate to say that the people of Virginia have too much regard for the general interest and too much respect for individual rights, to stand in the way of the early completion of this noble enterprise, especially when so many of her own citizens on its line will be so much benefited; and more especially as its construction will insure early and successful action on her own main line, from the mouth of the Kanawha to Richmond.

"The true policy is to build as many lines as possible between the Atlantic and Mississippi; the more avenues the more trade and travel, and at the lowest rates possible; whereas, with only one or two main lines over the mountains, high rates and poor accommodations are the sure result, as on some of our present Atlantic lines where there is no rivalry.—There will be good business for all the lines which the people are willing to pay for; the only difficulty will be to build avenues enough to accommodate the business between the east and the mighty west."

Which were copied by the Baltimore American, of 2d inst., with the following in approval, viz:

"THE RAILROAD JOURNAL, reviewing the last annual report of the Baltimore and Ohio road, has some just and sensible observations worthy of particular attention in our sister states, Pennsylvania and Virginia. It speaks of the early beginning of our great enterprise—of the cordial assent of Virginia and Pennsylvania to the passage of the road through their territory—of the difficulties which the company had to encounter from its being a pioneer work in the progress of which experience and knowledge in the construction of railroads had to be purchased dearly, and of the further difficulties caused by the commercial revulsions of 1837, 1838 and 1839.

"We quote the following passages from the Journal's article, with the remark that this is the language and these the views of an impartial observer whose comprehensive knowledge on the subject of which he treats is not likely to be perverted by prejudice."

The Richmond Whig, of the 5th inst., copies that portion of our article republished by the Baltimore American, and probably from that paper, as a paragraph of some importance in the argument is omitted, and also as we have not the benefit and pleasure of an exchange with the "Whig," though we have sent the Journal to it for several weeks together, at three or four different periods within the last fourteen years, but never received a paper in return—and comments upon it with its usual ability and courtesy. But that our readers may have the benefit of its remarks, we give them in full, and we believe correctly, though there

may be a comma too much or too little, as we had to copy them with pencil in a public reading room. They are as follows, viz:

"COMMENTARY.—Fine reasoning this! How will it promote the Pennsylvania railroad from Philadelphia to Pittsburg, now in agitation, for Baltimore to reach Pittsburg first, by her railroad, and tapping the Ohio trade at that place, carry it to Baltimore? And how pray, is it to promote the completion of the railroad from James river to Guyandotte, that Baltimore reaching the Ohio first at Parkersburg has tapped the trade of the river at that point, and trained it off to Baltimore? More absurd and undemonstrable propositions were never addressed to the common sense of two great communities, and they are so plainly so, that the Railroad advocate does not bring forward one single argument plausible or unpalatable, to sustain them. It contents itself with the mere assertion of them, as if its authority was enough, without argument, to overthrow the plainest deductions of reasoning and the force of self-evident facts.

"Virginia and Pennsylvania have heretofore refused to be duped by this reasoning, and we have no doubt will continue to refuse.

"The 'just claim' alluded to, (which however was no just claim at all) has already been granted by Virginia. The Baltimore company have the right of way to the Ohio at Wheeling. But reversing the adage that 'beggars have no right to be choosers' and the other one, that you 'should not look a gift horse in the mouth,' she arrogantly claims the right to select her own Terminus on the Ohio, not merely disregarding the interests of the Virginia works, but with the view to supplant them. We hope it will never be submitted to."

It is possible that the editor of the Whig might not have been quite as severe if he had read the whole of the article from which the extract was made; and more especially if he had been familiar with the course of the Journal for years past; and it is even possible—though not very probable, since the editor of the Richmond Whig says otherwise—that there may be some truth in the assertion, even without argument to sustain it, that the completion of the Baltimore and Ohio railroad to the Ohio at Parkersburg, or Pittsburg, or even to both places, might facilitate the construction of the other works alluded to in those states.

It is well known to those who have been in active life during the past 25 years, that neither Pennsylvania nor Virginia have moved in the construction of a public work until an example had been set them, nor indeed until they were driven into it in self-defense—or, rather, to sustain their relative position with other states; and we might not be far wrong in saying that they probably never would have been leaders in such measures. It is better, however, we cheerfully admit, to follow in a good cause than never to engage in it, and we therefore concede to them much credit for what they attempted to do—even though neither have been very successful in their efforts.

The time has now arrived, however, when our public works are to be resumed, and it is much to be hoped that those states which have been unsuccessful in their efforts will profit by their past errors.

The people, the business community, desire, and must have, facilities for travel and transportation. Neither Boston, New York, Baltimore, nor even Richmond, nor, indeed, all of them combined, constitute the people.—These cities, large and prosperous as they are, are only drops in the great waters—or form but a small part of the business community of this country; and, indeed, the present population of the country is only in the infancy of its growth. Where then will be its power at manhood? even at the close of another half century? very far beyond the Alleghenies; yet the products of its industry must be brought over, or around those mountains, and its supplies from the seaboard have also to reach their destination by one or another of the different channels of communication now in use or to be formed. The difficulty is to be in constructing them in a proper manner, as fast as they will be required. It is important, therefore, that those which will afford the best facilities, to the greatest number of people, in the shortest period of time, on the most favorable terms, and at the least outlay of capital should be first undertaken and completed. It is not the construction of works designed especially, or even mainly, to benefit a particular city, or section of a state, which should be first undertaken; but rather those which will benefit the masses, by opening easy communication between important points, revive the industry and confidence of the people; and thus develop the resources of the greatest extent of country. Such are the works that Virginia needs—and such works she may have if she sets herself about it in earnest; yet it is not to be effected by an attempt to bring the whole of the ascending trade on the Ohio to Richmond—by prohibiting the approach of other works to the Ohio between the mouth of the Kanawha and Pittsburg—or even Wheeling. Let the people of Virginia construct their main work from the present termination, or other suitable point near, of their James river canal, over the mountain, to, or near the mouth of the Guyandotte. Our present opinions are decidedly in favor of the southern route. They may be erroneous, if so we desire to be set right. This line once completed to the canal at, or in the vicinity of Lynchburgh, and ultimately to Richmond, then may the people of that city begin to realize their anticipations. Whatever leaves the Ohio upon this line, destined for the northern and eastern states, or middle and eastern Virginia, will be most certain to pass through Richmond; but if the main line reaches as far north as Staunton, a large amount of its business will pass down the valley, and of course to Baltimore. It strikes us therefore that, if the distance, the grades and the curves—for after all the instruments, and not the towns or villages,

should decide the route—on the southern route are as favorable as those on the northern, it should, as a matter of interest to Virginia, be adopted. The business on this line from the Ohio river to the Atlantic, will pass over about 450 miles of Virginia territory; and thus afford facilities to as many of her citizens as any one line in the state can; yet a very large portion of them will not be directly—though they will be indirectly—benefitted by it; therefore other lines should be constructed, wherever they can be, for the benefit of those who cannot use this line. There will eventually be a line, we have not a doubt, up the valley, an extension of the Winchester and Potomac, and there will be numerous branches connected with the main lines, yet none of them are likely to reach up into the northwestern counties, unless the Baltimore and Ohio shall be allowed to reach them in its course to Parkersburg.

In granting leave for the construction of works of this kind, it is an easy matter for legislators to say where it shall be laid, and where terminate; yet it is oftentimes exceedingly difficult to make the instruments agree with the legislature; and so, we imagine, it will prove in the permission given this company to terminate at Wheeling. There has been too much of this kind of engineering in this country. The best route should always be selected for great thoroughfares between important points, instead of consulting the interest of a few individuals, or any particular place. The route to Parkersburg is said to be much the most favorable, and it is in a good direction for the extension of the line through the interior of Ohio; it will also accommodate a much larger number of the citizens of Virginia than if it terminates at Wheeling; while the distance from the mouth of Guyandotte to Parkersburg is such as to give to the lower, or Richmond route, a decided advantage in relation to all business destined for lower Virginia, and an equal chance for much that is destined for more northern points. It will hardly be contended, we imagine, that the business of northwestern Virginia, at and above Parkersburg, will descend the Ohio, and pass over the road to Richmond, it will be much more likely to ascend and pass over the Pennsylvania works, whereas, if the Baltimore road was completed, it would accommodate a large number of the citizens of Virginia, and make a large amount of the business on the Ohio, which cannot be "trained" off to Richmond, tributary still to a portion of her citizens, instead of driving it around them to Pittsburg.

We said in our remarks that "we have not a doubt but that the early completion of the Baltimore and Ohio road to Parkersburg, or other suitable point of termination on the Ohio, would insure the construction of the James river line, at an earlier period than it will be made if that work stops at Cumberland;" and we now reiterate the assertion, notwithstanding the editor of the Whig says it is "absurd and undemonstrable." It is exceedingly doubtful whether Virginia could be brought to the sticking point, at this time, in a matter of this magnitude, unless they

were, in a measure, driven to it by other states; but as other states progress, Virginia will begin to talk—when they have actually taken possession of her soil, and begin to improve the general interest, then you will see them stir about. In this way we imagine the interest of the main line will be promoted and the work advanced, by the completion of the Baltimore and Ohio road to Parkersburg, without interfering materially, if at all, with its business from Guyandotte. It appears to us, therefore, that the true policy of Virginia is to construct her main line, and as many branches as she can, and at the same time let other people, who will do so, expend their capital, and construct all the railroads they please, within her borders—the more the better.

If we may be allowed to express another opinion, we would merely say that the course of the people of Virginia, who oppose the progress of the Baltimore and Ohio company, participates more of the disposition of "the dog in the manger," than does that of the company of "beggars being choosers," or of "looking a gift horse in the mouth." The completion of the work will undoubtedly benefit the company by increasing their business: it will also be of immense advantage to the people of that region of the country, quite as much as to the company, therefore the company confers as much benefit as it will receive; while the opposition of the people of eastern Virginia neither benefits themselves nor any others. They act, it seems to us, from the mistaken impression that the prosperity of others is just so much taken from them—whereas, we feel assured that the competition would arouse them to action, and thus be of incalculable benefit, rather than injury to them—and with these abiding impressions, we hope wiser counsels will prevail, and the "just claims" to a right of way conceded. We shall refer to this subject again.

#### Mad River and Lake Erie Railroad.

We have received the annual report of the directors, together with a report from Wm. Durbin, Jr., superintendent, and from R. M. Shoemaker, Esq., chief engineer of this company, to the stockholders, made at their annual meeting, held at Bellefontaine on the 20th of October last, from which we learn that the entire line is under contract, and to be completed to Springfield by the first of August next; at which period it is expected that the Little Miami railroad will be completed to the same point, thus opening a railroad communication from lake Erie, at Sandusky city, to Cincinnati.

The timely aid of \$300,000 obtained by this company in Boston on loan for ten years, will enable them to so far complete the road as to be able to raise the balance \$293,354, on loan, or on the bonds of the company.

It is truly gratifying to learn that this old acquaintance of ours—whose first introduction to the readers of this Journal was on the 11th of February, 1832, now nearly fourteen years!—is progressing rapidly towards completion.

The charter was granted January 5th, 1832—the first meeting of the commissioners was held at Bellefontaine on the 22d February, when it was resolved to open the books for subscription on the 3d Monday of May following. Thus it will be seen by its

friends that we have its early history on record, and we hope to enjoy the pleasure of recording the events of that day, when the cars shall run through from the lake to Cincinnati—and, possibly, of witnessing the desired event. We give the reports of the superintendent and engineer in full, that they may be on record for future reference. As we now find much convenience and advantage in being able to refer to the early volumes of the Journal, so, at some future day, may others to those of the present period, even if we do not.

We also publish a list of the directors chosen for the ensuing year.

#### Report of the Superintendent, To the President and Directors of the Mad River and Lake Erie Railroad Co:

GENTLEMEN:—I submit the following brief statement of this department of your road, for the fiscal year ending 18th October, 1845.

The total receipts have been

For 6269 passengers.....	\$5,925 06
" freight.....	18,383 36
" mail.....	675 63

Total..... \$24,984 05

This embraces an estimate of the probable amount of the last week's receipts, which is set down at \$500. The receipts are \$7,718 73 less than those of the preceding year.—This is attributable to a general failure of the wheat crop in the northern counties.

The expenditures have been

For machinery.....	\$9,970 05
" wages and expenses of transportation.....	6,368 57
" repairs of road, bridges, culverts etc.....	5,345 76

Total..... \$21,704 38

Under the head of "machinery" is included the cost of building passenger and freight cars—a commodious stone building 63 by 125 feet for car shop, smith shop, and finishing shop—another stone building 50 by 24 feet, for a stationary, engine, lathes, etc. Under this head is also included the ordinary repairs of locomotives, cars, etc. The item of "wages and expenses of transportation," embraces the salary of superintendent for two years—wages of the conductor, clerk, enginemen, firemen, porters, laborers at water stations, fuel, oil, and all other expenses incident to transportation. "Repairs of railroad" includes cost of sills, sleepers, rails, spikes, tools, wages of men employed in keeping up the repairs of the track, repairing and rebuilding culverts, opening ditches, etc., etc.

The track between Bellevue and Tiffin, 23 miles, which has now been in use nearly five years, will require rebuilding next season.—Most of the rails and cross ties are so far decayed as to render them unsafe for another year's business. Contracts have been entered into for a large portion of the materials necessary for its re-construction, to be delivered at suitable points on the road during the coming winter and spring. It is proposed to use two sills on each side of the track, each 5 by 8 inches, laid side by side and breaking joints at the centre. This will be equal to a single sill 5 by 16 inches. The cross-sleepers will be 8 feet long, 9 inches wide at the base, 9 inches high, 3 inches wide at top laid 3 feet apart from centre to centre. The rails will be of white oak timber 6 by 9 inches, surmounted with an oak scantling 3 by 1½ inches, on which the iron bar will be spiked.



This will be a much heavier structure than the one it is intended to replace, and is estimated to cost \$1,400 per mile. 14 miles of this division are laid with an iron rail plate only 2½ by ½ inches; this iron is too light to sustain heavy freight trains, without constant repairs; a permanent and substantial railway can only be secured by using a much heavier bar than any now laid down on your road.

The first 15 miles of the road from Sandusky city to Bellevue, will likewise require thorough repairs next season. It is not proposed to rebuild this division until the company can provide heavier iron to supply the place of the present light bar, which is but 2½ by ½ inches of a very inferior quality, and having been in use upwards of eight years, is much worn and broken.

The heavy drafts made on the earnings of the road prior to June last, to meet contractors' estimates south of Tiffin and other liabilities of the company, together with the cost of additional machinery, shops, etc., left too small a sum at our disposal to keep the track in as good condition as it should have been. The whole amount expended during the last two years in repairing track, rebuilding several large culverts, opening ditches, repairing water stations, sidings, etc., average but \$120 per mile per annum, and this too on a wooden road built in 1840 with the light iron bar before described. This sum was wholly inadequate to keep the road in good adjustment, and far below the amount annually expended per mile on the best iron roads in the country. Additional water stations will be required next year—at least one between Sandusky and Bellevue, and another between Bellevue and Republic.

The machinery has been increased within the last year, and materials procured for a large additional number of freight cars to be built this winter. Provision has been made for a sufficient number of platform cars to transport the iron for your road south of Tiffin, and a new locomotive has also been received for the same purpose. As your business next year will require additional motive power, I suggest the propriety of contracting at an early day for at least 4 new locomotives.

I have heretofore urged the necessity of taking early measures to provide suitable depot buildings at Sandusky city, and I would again beg leave to bring that subject to your notice. The company now own the entire block of water lots between Lawrence and McDonough streets, giving them 330 feet front on Water street and Sandusky bay, and is the only suitable site they now hold for depot purposes. It is of primary importance that proper buildings should be erected somewhere in Sandusky next season for receiving and discharging passengers and freight and for sheltering cars. Passengers are now taken up and set down on the public street, which is inconvenient to us and in inclement weather extremely uncomfortable to them. The subject is again earnestly commended to your favorable consideration.

Greater regularity has been observed in the arrival and departure of trains the past than

in any preceding year, since the opening of the road.

No accident resulting in injury to any person, has occurred since my last report. Respectfully submitted.

WM. DURBIN, JR, *Sup't.*

In compliance with the resolution of the board of directors, I herewith submit an estimate of the amount required to complete and equip the entire line of road to Springfield, viz:

To complete the superstructure from Carey to Kenton .....	\$34,112 00
To complete the superstructure and grade from Kenton to Bellefontaine .....	98,372 07
To complete the superstructure and grade from Bellefontaine to Urbana .....	37,121 00
To complete the superstructure and grade from Urbana to Springfield .....	78,395 00
To 4 miles of the side track at \$1920 per mile .....	7,680 00
To 3618 tons railroad iron at \$66 per ton, delivered .....	238,788 00
To 150,000 lbs. of spikes at 5½ cents per pound .....	8,250 00
Add for depots and water stations .....	8,500 00
	\$511,218 07
Add 3 per cent. for engineering and contingencies .....	15,336 54
Amount required to finish road .....	\$526,554 61
The amount required to equip the road is estimated at .....	106,800 00
Total .....	\$632,354 61

The whole length of the line is 134 miles viz:

From Sandusky city to Tiffin, 37½ miles—finished.

From Tiffin to Carey, 16 miles—superstructure laid ready for the iron.

From Carey to Kenton, 24 miles—graded and superstructure partly laid, to be finished by the first of May, 1846.

From Kenton to Urbana, 41<sup>2</sup>/<sub>10</sub> miles—all work under contract and progressing well, to be completed by the first of June, 1846.

From Urbana to Springfield, 14<sup>2</sup>/<sub>10</sub> miles—work all under contract to be finished the first of August, 1846. On this division the work is just getting fairly under way.

The curves and grades on the entire line, are exceedingly favorable for both rapid and heavy transit.

The minimum radius of curvature is 2000 feet, and the maximum of grade is 40 feet per mile.

There is 0-20 miles of curve of	2,000 ft. rad.
" 4-11 " " "	2,000 to 4,000 "
" 7-78 " " "	4,000 to 6,000 "
" 3-91 " " "	6,000 to 10,000 "

Total 16-00 miles of curves or one mile of curved line to 8<sup>2</sup>/<sub>10</sub> miles of straight line.

The grades are arranged as follows:	
11 812 miles	level.
37 297	0 to 10 feet per mile.
46 244	10 to 20 " "
23 275	20 to 30 " "
15 372	30 to 40 " "
-----134 000 miles.	

The superstructure being built is of heavy and substantial material; it consists of a sill 7 by 14 inches, cross-ties 9 inches base, 9 inches high and 3 inches wide on top, and a wooden rail 8 by 8 inches surmounted with a ribbon 1½ by 3½ inches in the centre of the rail to receive the iron. The iron rail plate is to be 2½ by ¾ inches. The timber used is

all of the best and most durable quality found in the country.

This track will sustain a much heavier traffic and be more durable than any heretofore constructed on the line.

The above estimates are based upon the contract prices and calculated quantities and will no doubt be found sufficient to cover the entire cost of completing and equipping the road. Respectfully submitted.

R. M. SHOEMAKER, *Engineer.*

After the reading of the reports they were accepted and approved. The stockholders then proceeded to the election of directors for the ensuing year which resulted in the choice of the following named gentlemen, viz:

C. L. Boalt, L. G. Harkness, Huron co.; F. M. Follet, Erie co.; John Carey, Wyandotte co.; A. McConnell, Hardin co.; A. Ransom, Seneca co.; I. S. Gardner, Logan co.; S. Keener, Champaign co.; W. Hunt, Clark co.

The stockholders then adjourned. Anson Howard, *Chairman*; W. Lawrence, *Secy.*

The Sandusky Clarion says that "It is understood the railroad office will be removed to Sandusky city, that John Carey, one of the new directors will be elected president, and a Mr. Flynn, formerly cashier of the Norwalk bank, will be secretary and treasurer. I. S. Gardner, is the director selected in Logan county, and is favorably known as a first rate business man. Robert Patterson, will no longer be the secretary and treasurer. He has served the railroad in various capacities for thirteen years with an ability and fidelity that has given universal satisfaction.

Wm. Hunt, the late president of the board has managed the affairs of the company, so as to promote its interests and reflect honor upon himself. Never have officers deserved more richly the approbation of those interested in the road.

*Western and Atlantic Railroad.*—The governor of Georgia has the following remarks in his late message in relation to this road.

"In the execution of the law of the last legislature relative to the Western and Atlantic railroad, I have not been enabled to sell or complete it. The proposition to sell was met by no corresponding offer to buy. The terms, which were in some respects limited to executive discretion, were published in several gazettes of the state, and intended to secure equal privileges to the two branch railroads connecting with the State road. It is the part of honorable duty, if at any period the state should sell this road, that those branch roads should be placed on a basis of perfect equality. But whether sold or retained, hastened or delayed in its progress, it should be regarded as the fixed policy of the state, that its ultimate completion must be effected toward the termini originally designated. The necessity and wisdom of this work, notwithstanding the wasteful outlays of money upon it, will be illustrated—and are now in process of being illustrated—by alleviating distress which may arise from natural or artificial causes, and developing new sources of wealth, which, in its expansion, will mitigate taxation.

"The report of the chief engineer is herewith submitted, which shows that 52 miles of the road are now in successful operation, and that the income from it for the first month, and at a distance of 20 miles only, has been \$1,200. Other and important facts are stated in the report, which will doubtless commend themselves to your consideration. \* \* \*

"However advantageous the immediate extension of the road to Cross Plains may be, an increase of the public debt cannot now be recommended. To hasten slowly was once the remark of successful ambition. Its force should not now be lost upon us, when we have profitable examples of reasonable delay in other enterprises of like character, and as heavy burthens are overlaying the public credit. If the extension be urged, it should be made upon the funds and credit of the road, with a limitation that a certain amount shall not be exceeded—and that too at periods when the work may be done economically and advantageously to the state."

"**Railroads.**—A very extensive ledge of most beautiful granite is now opening in this town on the Batchelder (late Thompson) farm, says the Keene Sentinel, within half a mile of the railroad line. The contractor for the very extensive masonry near Branchville, will probably save \$2,000 by this discovery. The side hill is now covered with the blocks already excavated. Mr. Britton is the contractor. Messrs. Parmelee & Co. are erecting their villages of shanties near the 'Surry Summit,' and along the line beyond, and will this week put in the spade, shovel and pickaxe in earnest."

The people of New Hampshire, as well as of every other state in the union, will make many important discoveries, little dreamed of before, when they construct railroads. Railroads are truly "mineral roads," which point out hidden treasures to those who use them rightly. They will develop sources of wealth to the people where barrenness was only found before.

The Claremont Eagle says "that the good people in Claremont and on the line are wide awake on the subject of extending the Cheshire road on the east side of the Connecticut to the present location of the Central road at Chase's island, near Windsor bridge. There is much to be said in favor of the east side of the river, thus far viewing the connection of the Central and Cheshire roads as a settled question. A river road from the mouth of White river to Westmoreland, is all important to the towns in this valley. A large and spirited meeting, it appears, took place at Claremont on Monday evening, 27th ult., when \$41,000 were conditionally subscribed, and \$16,000 the next day, that the road pass through their village. The estimated expense of continuing the Cheshire from the north line of Charlestown to Windsor, is estimated at only \$160,000. There must be a new charter in this case, or an extension of the Cheshire charter."

The people of Charlestown, Claremont and Cornish must bestir themselves if they would not be left on "the other side of the river"—a position which would not be at all agreeable to them. There is no

time to be lost. Let them apply for a charter at the next session of the legislature.

"**Monroe, Georgia Railroad.**—Daniel Tyler advertises in the Macon Messenger of the 30th ult., for proposals 'to furnish the rails and cross-ties, to relay the entire road from Macon to the intersection with the state road in DeKalb county. Terms of payment, cash.'

"The Messenger says: 'The road is sold; and now belongs to those who have the ability, as well as the disposition to carry out the designs of the projectors of this undertaking.'

"The road will be put in first rate order. The rails and the cross-ties will be made new; heavy iron will be substituted for the unsubstantial material now in use; new engines and cars will be provided; and the much abused and repudiated Monroe railroad, will be renewed, and made what we all have long wished it to be."

We are gratified in being able to announce the final consummation of this sale. We now look for prompt action on the part of the purchasers to complete the road from Macon to its connection with the state road; and we hope, also, a branch to West Point.

It affords us much pleasure to receive, and publicly, to the following letter, which we take from Augusta Chronicle of 13th instant.

Marietta, Nov. 1st, 1845.

"As it will serve to relieve the anxiety of the friends of Messrs. Garnett, Stockton and Highsmith, who were injured by an accident on the State road, on the 21st ult., I will thank you to state that all three of the sufferers are doing well.

G. F. M. Garnett, Esq., the state engineer, who had his thigh bone broken, is rapidly recovering; Mr. Wm. Stockton, the assistant engineer, who had the calf of his leg wounded, is also doing very well, and Mr. Highsmith, whose foot was so much injured as to make it necessary to amputate the leg below the knee, is now considered out of danger.

Very respectfully, your obedient servant,  
THEODORE S. GARNETT.

"**Portsmouth, New Market and Concord Railroad.**—At a meeting of the grantees of this road and their associates at New Market, on Tuesday last, George W. Ela, Esq., of Concord, was chosen president of the corporation, and James W. Emery, Esq., of Portsmouth, clerk.

At a meeting of the grantees of the Portsmouth, New Market and Exeter railroad, at the same place, on the same day, Alexander Ladd, Esq., of Portsmouth, was chosen president of the corporation, and James W. Emery, Esq., of Portsmouth, clerk.

These two corporations, it will be recollected, are authorized by law to unite their interests and become one company, under the corporate name of the Portsmouth and Concord railroad, and we are informed that such is the design. In furtherance thereof, we are informed, that in the provisional organization, a board of managers, or directors, were chosen, comprising the same individuals in each corporation, as follows:

Alexander Ladd, Richard Jenness, James W. Emery, John P. Lyman, Wm. P. Jones Alfred W. Haven, Portsmouth; George W. Ela, David Davis, Concord; Joseph Cilley, Nottingham; David Pecker, Raymond; Wm. Plumer, Jr., Epping; Gardner Towle, Lee.

We are also informed that the engineer, Mr. T. G. Carter, under whose superintendence the surveys have been made, presented his plans and profiles of the different lines surveyed, which were quite satisfactory, entirely answering the anticipations of those interested in this important enterprise.

It is understood that measures were taken to further the work as rapidly as possible.—*Statesman.*

"**Gloucester Railroad.**—We understand that the railroad from Beverly to Gloucester [now in process of construction by the Eastern railroad Company] is

progressing rapidly, and that it will in all probability be completed by the 1st of July next. It will form a new era in the history of the very pleasant and good old town of Gloucester, and help to make it one of the most fashionable watering places in the country. We learn that the brick hotel is already undergoing improvements and additions, in anticipation of the benefits of the railroad.

"**Portland and Augusta Railroad.**—Mr. Hayward, the engineer, has nearly completed his location and survey of this road. He will be in Augusta in a few days to say just whose houses shall be torn down, whose gardens cut up, and where the grand depot shall be. We beg him to spare our shanty and the "old oak" that shelters it.—*Augusta Banner.*

We are authorized to say that the grading, masonry and superstructure for the entire route of the extension of the Fall river railroad, to the junction with the Old Colony, in Braintree, was contracted for on the 4th inst., on favorable terms, to be completed on the first day of August next; thus completing the contracts, for one more line to Boston, through the densely populated and thriving manufacturing villages of Norfolk and Bristol counties. Peter Thacher, Jr., & Co., and others, are the contractors.—*New Bedford Mercury.*

"**Old Colony Railroad.**—On Saturday, the 8th inst., the directors and stockholders of this corporation, with a large number of invited guests, made an excursion to Plymouth, to celebrate the opening of the road, it being the first time that a train of cars has run the whole distance. They left the station at south Boston soon after ten o'clock, with two engines drawing thirteen cars, and four hundred and fifty passengers; at the different stations on the road, which are thirteen in number, other gentlemen joined the company, and by the time they arrived at Plymouth, which was in two hours and a half, the party consisted of about eight hundred in the whole.—Among the guests were the Hon. John Quincy Adams, Daniel Webster, the venerable Judge Davis, of this city, John Davis, of Worcester, several of the clergy, the presidents and directors of other railroad corporations.

Thus the people of Boston and of Massachusetts are opening new arteries from the heart to the extremities in every direction. So will it be eventually in connection with all our large cities and states. The right spirit is rising in New York and in Philadelphia—and, indeed, throughout the country.

"**Albany and Troy to Buffalo, Winter Arrangement.**—The third run of cars from Buffalo to Troy and Albany, has been taken off. The trains now leave Syracuse as follows: two a day east and west. For the east at 7 A. M. and 8 P. M., connecting with the boats on the Hudson, both at Troy and Albany.—For the west at 7 A. M. and 6 P. M. The cars arrive at Syracuse from the east at 6½ A. M. and 5½ P. M., from the west at 6 A. M. and 7½ P. M.

**NEW YORK AND ERIE RAILROAD** Company. The Stockholders of this company are hereby notified that an instalment of Five dollars on each share of the new stock, on which not more than five dollars has been paid, is required to be paid at the office of the company, No. 50 Wall street, on or before Wednesday, the 10th day of December next. By order of the board of Directors. NATHANIEL MARSH, Secretary.

New York November 5, 1845.

N.B. Subscribers at or near Newburgh are requested to make payment to Thomas C. Ring, Esq. Cashier of the Powell Bank. 4t 46

**WESTERN AND ATLANTIC RAILROAD.** The Western and Atlantic Railroad is now in operation to Marietta, and will be opened to Cartersville, in Cass county, on the 20th of October—and to Coosa Depot, (formerly known as Borough's,) on the 20th of November.

The passenger train will continue, as at present, to connect daily (Sundays excepted) with the train from Augusta, and the stage from Griffin.

CHAS. F. M. GARNETT.

Chief Engineer.

**BOSTON AND MAINE RAILROAD.**

Upper Route. Boston to Portland via, Charlestown, Somerville, Malden, Stoneham, South Reading, Reading, Wilmington, Ballardvale, Andover, North Andover, Bradford, Haverhill, Atkinson, Plaistow, Newtown, Kingston, East Kingston, Exeter, South Newmarket, Newmarket, Durham, Madbury, Dover, Somersworth, South Berwick, North Berwick, Wells, Kennebunk, Saco and Scarborough.

Winter Arrangement, 1845 & 6. On and after Monday, October 20th, 1845, Passenger Trains will run daily, (Sundays excepted,) as follows, viz. Leave Boston for Portland at 7 $\frac{1}{2}$  a.m. and 2 $\frac{1}{2}$  p.m. Leave Boston for Great Falls at 7 $\frac{1}{2}$  a.m., 2 $\frac{1}{2}$  p.m. and 3 $\frac{1}{2}$  p.m. Leave Boston for Haverhill at 7 $\frac{1}{2}$  a.m., 2 $\frac{1}{2}$ , 3 $\frac{1}{2}$  and 5 p.m. Leave Portland for Boston at 7 $\frac{1}{2}$  a.m., and 3 p.m. Leave Great Falls for Boston at 6 $\frac{1}{2}$  a.m., 9 $\frac{1}{2}$  a.m. and 4 $\frac{1}{2}$  p.m. Leave Haverhill for Boston at 6 $\frac{1}{2}$ , 8 $\frac{1}{2}$ , and 11 a.m., and 6 $\frac{1}{2}$  p.m.

Special Train.—A special train will leave Boston for Andover at 11 $\frac{1}{2}$  a.m., and Andover for Boston at 3 $\frac{1}{2}$  p.m.

The Depot in Boston is on Haymarket Square. Passengers are not allowed to carry Baggage above \$50 in value, and that personal Baggage, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every \$500 additional value. CHAS. MINOT, October 20, 1845. 43 1y Super't.

**SPRING STEEL FOR LOCOMOTIVES,**

Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 $\frac{1}{2}$  to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent, j5a3 Albany Iron and Nail Works, Troy, N. Y.

**TO IRON MANUFACTURERS. THE**

Subscribers, as Agents of Mr. Geo. Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO., ja45 No. 4 South Front st., Philadelphia, Pa

**MACHINE WORKS OF ROGERS,**

Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work. Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

**FOR SALE AT A SACRIFICE—A LOCO-**

motive Engine, 4 wheels and Tender. Cylinders 10 in dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine. 2 8-horse " " " " 1 Upright Hydraulic Press.

All of which will be sold low, on application to T. W. & R. C. SMITH. Founders and Machinists, Alexandria, D. C.

May 12th

**GEORGIA RAILROAD. FROM AU-**

GUSTA to ATLANTA—171 MILES. This Road in connection with

the South Carolina Railroad and the Western and Atlantic Road now forms a continuous line of Railroad of 360 miles from Charleston to Cartersville, two miles west of the Etowa River in Cass County.

Rates of Freight, and Passage from Augusta to Cartersville.

On Boxes of Hats, Bonnets, and Furniture per foot..... 15 cts. " Dry goods, shoes, saddlery etc., per 100 lbs. 85 " " Sugar, coffee, iron, hardware, etc. " 70 " " Flour, bacon, mill machinery etc. " 33 $\frac{1}{2}$  " " Molasses, per hogshead \$9; salt per bus. .22 " Passengers \$9 50; children under 12 years of age and servants, half price.

Passengers to Atlanta, head of Ga. Railroad, \$7. German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight payable at Augusta. J. EDGAR THOMPSON, Ch. Eng. and Gen. Agent.

Augusta, Oct. 21 1845. \*44 1y

**NICOLL'S PATENT SAFETY SWITCH**

for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrongly by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, ja45 Reading, Pa.

**GEORGE VAIL & CO., SPEEDWELL IRON**

Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 $\frac{1}{2}$  in. to 2 $\frac{1}{2}$  in thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wrot. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wrot. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions. ja45 1y

**TO RAILROAD COMPANIES AND MAN-**

ufacturers of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa. 31

**NORWICH AND WORCESTER RAIL-**

Road. On and after May 22, 1845, Trains will leave as follows, viz:—

Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4 $\frac{1}{2}$  p.m. Leave Worcester, at 10 a.m., and 4 $\frac{1}{2}$  p.m.

The morning train from Norwich, and the morning and evening trains from Worcester, connect with the Boston, Western, and Hartford and Springfield railroads.

New York Train, via Steamboat. Leaves Norwich for Worcester and Boston, every morning except Monday, upon the arrival of the boat from New York, about 2 a.m. Leaves Worcester for Norwich and New York, at 5 $\frac{1}{2}$  p.m., daily, except Sunday.

New York Train, via Long Island Railroad.—Leaves Norwich about 3 p.m., for Worcester and Boston, daily, except Sunday. Leaves Worcester for Norwich and New York, at 7 $\frac{1}{2}$  a.m., daily, except Sunday, and arrives in Norwich at 9 $\frac{1}{2}$ .

Freight Trains. Daily, except Sunday. Fares are less when paid for Tickets, than when paid in the cars.

EMERSON FOOTE, Superintendent. 32 1y

**LAWRENCE'S ROSENDALE HYDRA-**

lic Cement. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floods and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE, 142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 32 1y

**SUMMER ARRANGEMENT—FARE**

REDUCED.

By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

Direct to New Orleans, and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great Southern Mail Line, and the only one that issues a through ticket South. Those who patronize it will save their money and time. Through Tickets from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

Fast Mail Line.—Leave New York at 9 a.m. and arrive in Philadelphia at 3 $\frac{1}{2}$  p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12 $\frac{1}{2}$  to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C. at 6 a.m.

Passengers by the above line will arrive at Richmond by 11 $\frac{1}{2}$  o'clock p.m. and Petersburg, Va. by 2 $\frac{1}{2}$  o'clock p.m., through to the former city in twelve hours, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

Way Mail Schedule.—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p.m.; arrive in Baltimore at 2 $\frac{1}{2}$  p.m.; arrive in Washington at 7 p.m. From Philadelphia by steamboat.—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore.

STOCKTON & FALLS.

**BOSTON AND PROVIDENCE RAILROAD.** Passenger Notice. Winter Arrangement. On and after Monday, Nov. 3, the Passenger Trains will run as follows:

For New York—night line, via Stonington. Leaves Boston every day, but Sunday, at 4 1/2 p.m. Accommodation trains, leave Boston at 8 a.m. and 3 1/2 p.m., and Providence at 8 a.m. and 3 1/2 p.m. Dedham trains, leave Boston at 9 a.m. 3, 5 1/2 and 10 p.m. Leave Dedham at 8 and 10 1/2 a.m., and 4 1/2 and 7 p.m. Stoughton trains, leave Boston at 12 m. and 4 p.m. Leave Stoughton at 8:20 a.m. and 2 1/2 p.m. All baggage at the risk of the owners thereof.

N.B. The last train to and from Boston and Dedham, will be omitted in case of a severe snow storm. W. RAYMOND LEE, *Supt.* 31 1/2

**BRANCH RAILROAD and STAGES CONNECTING with the Boston and Providence Railroad.**

Stages connect with the Accommodation trains at the Foxboro' Station, to and from Woonsocket. At the Seekonk Station, to and from Lonsdale, R. I. via Pawtucket. At the Sharon Station, to and from Walpole, Mass. And at Dedham Village Station, to and from Medford, via Medway, Mass. At Providence, to and from Bristol, via Warren, R. I.—Taunton, New Bedford and Fall River cars run in connection with the accommodation trains.

**NEW YORK AND ERIE RAILROAD LINE.** For Middletown, Goshen, and intermediate places. Two daily lines each way, as follows:

For passengers, the new, and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7 1/2 o'clock, A.M., and 5 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4 1/2, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets.

H. C. SEYMOUR, Superintendent. Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc. 31 1/2

**BALTIMORE AND SUSQUEHANNA Railroad.** The Passenger train runs daily except Sunday, as follows:

Leaves Baltimore at 9 a.m., and arrives at 6 1/2 p.m. Arrives at York at 12 1/2 p.m., and leaves for Columbia at 1 1/2 p.m. Leaves Columbia at 2 p.m., and leaves York for Baltimore at 3 p.m. Fare to York \$2. Wrightsville \$2 50, and Columbia \$2 62 1/2. The train connects at York with stages for Harrisburg, Gettysburg, Chambersburg, Pittsburg and York Springs.

Fare to Pittsburg. The company is authorized by the proprietors of Passenger lines on the Pennsylvania improvements, to receive the fare for the whole distance from Baltimore to Pittsburg. Baltimore to Pittsburg.—Fare through, \$9 and \$10.

Afternoon train. This train leaves the ticket office daily, Sundays excepted, at 3 1/2 p.m. for Cockeysville, Parkton, Green Springs, Owings' Mills, etc.

Returning, leaves Parkton at 6 and Cockeysville and Owings' Mills at 7, arriving in Baltimore at 9 o'clock a.m.

Tickets for the round trip to and from any point can be procured from the agents at the ticket offices or from the conductors in the cars. The fare when tickets are thus procured, will be 25 per cent. less, and the tickets will be good for the same and following day in any passenger train.

D. C. H. BORDLEY, *Supt.* Ticket Office, 63 North st. 31 1/2

**DAVIS, BROOKS & Co., 30 WALL ST.** Have now on hand and for sale, 200 tons 2 1/2 x 1/2 inch Flat punched Rails, Bars 18 feet each.

100 tons Heavy Edge Rails, 90 tons per mile. 30 tons 2 1/2 x 1/2 inch Flat Rails.

Also—A STEAM PILE DRIVER, built by "Dunham & Co." which has never been used, and cost originally \$5000. 320 2m

**BALTIMORE AND OHIO RAILROAD.** MAIN STEM. The Train carrying the Great Western Mail leaves Bal-

timore every morning at 7 1/2 and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5 1/2 P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH. Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5 1/2 P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13 1/2

**CENTRAL RAILROAD-FROM SAVANNAH to Macon.** Distance 190 miles.

This Road is open for the transportation of Passengers and Freight. Rates of Passage, \$8 00. Freight—On weight goods generally... 50 cts. per hundred. On measurement goods... 13 cts. per cubic ft. On brls. wet (except molasses and oil)... \$1 50 per barrel. On brls. dry (except lime)... 80 cts. per barrel. On iron in pigs or bars, castings for mills, and unboxed machinery... 40 cts. per hundred. On hdds. and pipes of liquor, not over 120 gallons... \$5 00 per hhd. On molasses and oil... \$6 00 per hhd. Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE, 40 Gen'l. Supt. Transportation.

**LEXINGTON AND OHIO RAILROAD.** Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1-25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above. 35 1/2

**KEARNEY FIRE BRICK.** F. W. BRINLEY, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire, } New York.  
Peter Cooper, }  
Murdoek, Leavitt & Co. }  
J. Triplett & Son, Richmond, Va.  
J. R. Anderson, Tredegar Iron Works, Richmond, Va.  
J. Patton, Jr. } Philadelphia, Pa.  
Colwell & Co. }  
J. M. L. & W. H. Scovill, Waterbury, Con.  
N. E. Screw Co. } Providence, R. I.  
Eagle Screw Co. }  
William Parker, Supt. Bost. and Worc. R. R.  
New Jersey Malleable Iron Co., Newark, N. J.  
Gardiner, Harrison & Co. Newark, N. J.  
25,000 to 30,000 made weekly. 35 1/2

**RAILROAD IRON AND FIXTURES.** The Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO., 30 Wall st., N. York. 346

**NEW YORK AND HARLEM RAILROAD Company.**—Winter Arrangement.

On and after Monday, November 3d, the cars will run as follows: Leave City Hall for Harlem (125th street,) Morrisiana, Fordham, Williams' Bridge, Hunt's Bridge, Underhill's Road, Tuckahoe, Hart's Corners, and White Plains—7:30 and 10:30 a.m., and 1 and 3:30 p.m.

Extra trains for Yorkville, Harlem, Morrisiana, Fordham, and Williams' Bridge, leave 27th street 7 a.m. for Williams' Bridge. Leave City Hall 9 a.m. (to Harlem only) and 11:30, 2:30, and 4:30 p.m. for Williams' Bridge.

Leave White Plains for City Hall—8:10, 11:10 a.m., and 1:45, 4:10 p.m.

Leave Tuckahoe for City Hall—8:20, 11:20 a.m., and 1:55, 4:20 p.m.

Leave Williams' Bridge for City Hall—7:45, 8:45, 11:45 a.m. and 12:45, 2:15, 3:45, 4:45, and 5:45 p.m.

Leave Morrisiana for City Hall—8:10, 9:10, and 10 a.m., and 12:10, 1:10, 2:40, 4:10, 5:10, and 6:10 p.m.

The freight train will leave City Hall at 12:45 p.m. and leave White Plains at 11:10 a.m. All freight must be at the City Hall between the hours of 10:30 a.m. and 12:30 p.m. The White Plain trains will stop, after leaving the City Hall, only at the corner of Broome street and the Bowery, Vauxhall Garden and 27th street.

An extra car will precede each train, 10 minutes before the time of starting from the City Hall, and will take up passengers along the line.

The City Hall and 27th street line will run every 6 minutes from 7:30 a.m. to 8 p.m.

The City Hall and 27th street night line will run every 20 minutes from 8 to 12 o'clock.

On Sundays the trains will be regulated according to the state of the weather. 1y 46

**THE LONDON RAILWAY RECORD,** Edited by Mr. JOHN ROBERTSON, A. M., (connected from the commencement with the Weekly Railway press of England.)

The *Railway Record* is acknowledged to be the leading English Railway Journal, and is published twice a week in London, namely on Wednesday and Saturday. It contains copious and correct reports (by special reporters) of all railway meetings in the United Kingdom; ample Share Lists and Traffic Tables, showing the length, cost, capital and selling prices in the principal markets, with Editorial articles on the leading Railway topics of the day. The *Railway Record* contains also, a complete resume of French, Belgian and other foreign Railway affairs.

Subscriptions 13s. per quarter, to be transmitted in advance to Messrs. Dawson and Sons, Ca<sup>o</sup> st. London. Office 153 Fleet street, London. 46

**BOSTON COURIER, DAILY, SEMI-Weekly and Weekly.**

The Daily edition of the Courier, presents to merchants and others, an extensive medium of advertising. The circulation of the *Semi-Weekly Courier* (published on Mondays and Thursdays) is believed to be more extensive than that of any other similar Boston Newspaper. This publication embraces all the reading matter of the Daily, the Foreign and Domestic Markets, Review of the Boston Market, Prices current, and Ship News, prepared with great accuracy. The *Weekly Courier* contains as much of the matter of the daily as can be crowded into a sheet of the same size, without ship news, prices current or advertisements.

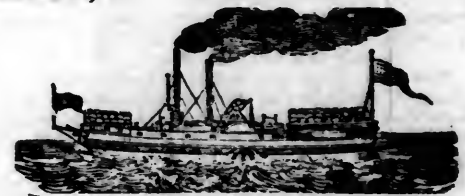
Our extensions to obtain and publish authentic information on all topics proper for the columns of a newspaper,—the state of trade, the prices of merchandise, the current news of the day, and the political movements in the various sections of the country—will not be abated. The marine department of the Courier has been inferior to none in copiousness or accuracy of detail, and it will be our endeavor to maintain its reputation in this respect.

TERMS OF SUBSCRIPTION. For the Daily Courier, for one year, in advance \$8,90 For the Semi-Weekly Courier, for one year... 4,90 For the Weekly Courier, for one year... 2,00

JOSEPH T. BUCKINGHAM. EBIN B. FOSTER.

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 48.]

THURSDAY, NOVEMBER 27, 1845.

[WHOLE No. 491, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

### RATES OF ADVERTISING.

One page per annum.....	\$125 00
One column ".....	50 00
One square ".....	15 00
One page per month.....	20 00
One column ".....	8 00
One square ".....	2 50
One page, single insertion.....	8 00
One column ".....	3 00
One square ".....	1 00
Professional notices per annum.....	5 00

### ENGINEERS and MACHINISTS.

- J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)
- TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)
- ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)
- S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)
- NORRIS, BROTHERS, Philadelphia, Pa.
- KITE'S Patent Safety Beam. (See Adv.)
- FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)
- NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)
- ROSS WINANS, Baltimore, Md.
- CYRUS ALGER & Co., South Boston Iron Company.
- SETH ADAMS, Engineer, South Boston, Mass.
- STILLMAN, ALLEN & Co., N. Y.
- JAS. P. ALLAIRE, N. Y.
- H. R. DUNHAM & Co., N. Y.
- WEST POINT FOUNDRY, N. Y.
- PHENIX FOUNDRY, N. Y.
- R. HOE & Co., N. Y.
- ANDREW MENEELY, West Troy. (See Adv.)
- JOHN F. STARR, Philadelphia, Pa.
- MERRICK & TOWNE, do.
- HINCKLEY & DRURY, Boston.
- C. C. ALGER, Stockbridge Iron Works, Stockbridge, Mass.
- BALDWIN & WHITNEY, Philadelphia, Pa.

### IRON MERCHANTS and IMPORTERS.

- DAVIS, BROOKS & Co., N. Y. (See Adv.)
- A. & G. RALSTON & Co., Philadelphia, Penn. (See Adv.)
- THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

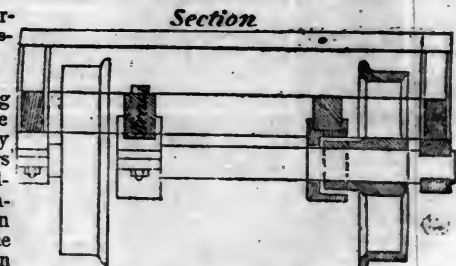
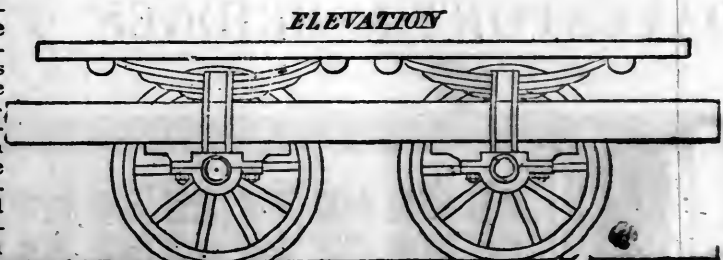
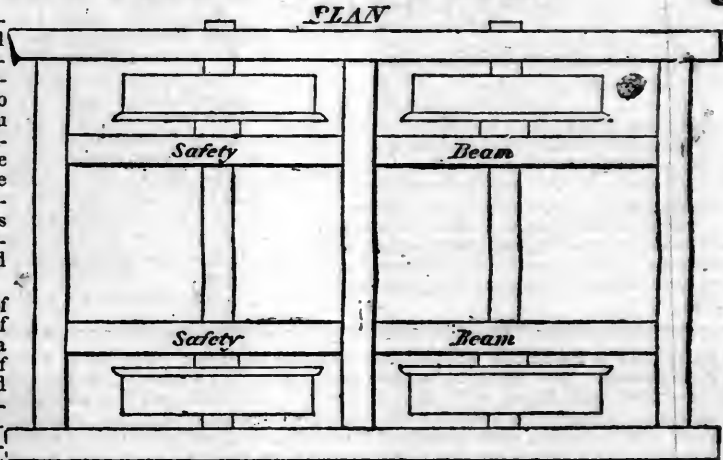
JOHN FRAZER, Agent,

GEORGE CRAIG, Superintendent,

JAMES ELLIOTT, Sup. Motive Power,

W. L. ASHMEAD, Agent.

A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. **JOHN F. WINSLOW, Agent.**

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

**HENRY BURDEN, Agent.** Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved **SPARK ARRESTER**, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

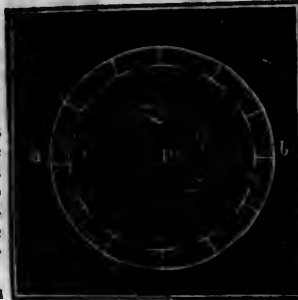
These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. McKee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fick, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. **FRENCH & BAIRD.** Philadelphia, Pa., April 6, 1844.

\*\*\* The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45



**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

**DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.**



**DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEFORD, MASS.** Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern, and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS**—etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

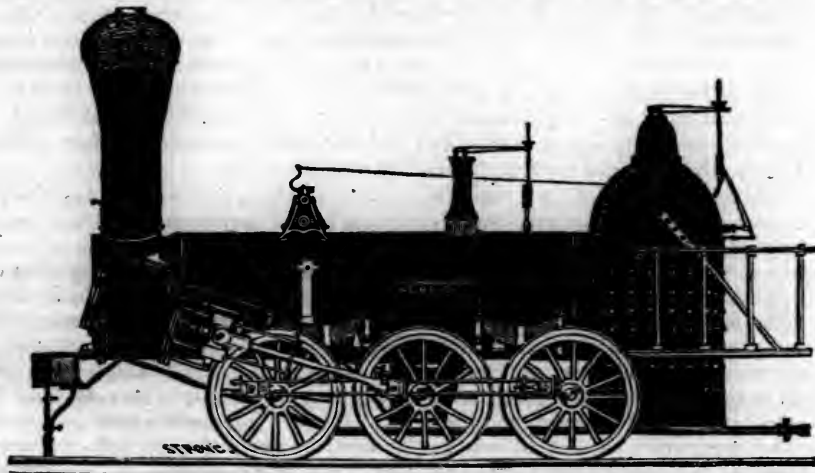
From 4 inches to 4 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER Flues.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**

*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	15 inches Diameter of Cylinder,	× 20 inches Stroke.
" 2,	14	" " " × 24 " "
" 3,	14½	" " " × 20 " "
" 4,	12½	" " " × 20 " "
" 5,	11½	" " " × 20 " "
" 6,	10½	" " " × 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.  
**WILLIAM YOUNG,**  
President.

jj451m

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Biluminous Coal and Iron Ore*, of the first quality, at Ralston, Lycoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet; containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48 State st.,** or to **CURTIS, LEAVENS & CO., 106 State st., Boston,** or to **A. & G. RALSTON & Co., Philadelphia.**  
ja45

**YRUS ALGER & CO., South Boston Iron Company.**

**Sunbury, Erie and Pittsburgh Railroad.**

The following article published in a recent number of the United States Gazette contains matter of interest in relation to the proposed railroads from Philadelphia to Erie and to Pittsburgh.

This plan proposes a line in common, "a main stem," from Philadelphia to Ridgeway in Elk county—that is the Reading and other roads in continuation—and from Ridgeway to Erie and to Pittsburgh distinct lines.

The distance from Ridgeway to Pittsburgh is said to be about 110 miles, and the grades exceedingly favorable, not exceeding 12 feet to the mile. The distance to Erie is not given but it will not probably vary much from 120 miles.

About 200 miles of this line passes through a region abounding in bituminous coal and iron of the best quality, from which it may always have both business and fuel.

We give this communication entire, long as it is, in connection with the proceedings of a meeting held at Toledo, Ohio, on 25th October and another at Cleveland, on the 8th inst., in relation to a railroad from Buffalo, along the south shore of lake Erie, through Erie, Cleveland, Sandusky, and Toledo to Chicago. These projects are intimately connected, and may well be grouped, and considered together. They are of vast importance to the regions of country through which they pass, and which they connect, and deserve, as they will most surely receive the early and decided action of all parties interested.

Philadelphians and particularly those engaged in commercial business, must be convinced of the want of a connection with the lakes of the northwest and the Ohio river of the west, by some means. Business is flowing eastward. New York and Boston during all the commercial convulsions of the few past years, have not neglected to keep the avenues of trade in "perpetual motion" but have also formed new throughfares through which the rich and varied products of the west are poured into their markets, in vast quantities, adding largely to the wealth of thousands in their cities, and to the states of which they are the metropolis.

We commend their vigilance, but why should Philadelphia be so lethargic? It is a fact, that her commerce is annually decreasing by reason of the energy of N. York and Boston and Baltimore, in furnishing a cheap and speedy means of transportation, to and from the great west. Philadelphians open your purses, open your eyes to your geographical position, take the map of your state, in your hands and examine the route of the railroad that heads this article—Philadelphia and Pottsville are joined by a railroad, not equalled in the United States for permanency, and soon will be by a canal admitting steam vessels of two hundred tons burden. Pottsville at a small cost can be connected with Sunbury, by finishing the Danville and Pottsville railroad. From Sunbury the route of the Erie and Pittsburgh railroad, passes up the West Branch of the Susquehanna (at Williamsport uniting with the Elmira railroad) to the mouth of the Sinnemahoning, up this river to the head of Elk creek, down Elk to Jacob's Mill, one mile above Ridgeway, situated at the confluence of Elk creek and Clarion river—at this point, a branch to Pittsburgh might di-

verge which would be about 110 miles long, descending the whole distance, and having no grade exceeding 12 feet in a mile. From Ridgeway the line to Erie passes up the valley of the Clarion to Johnsonburg, and then takes the west fork and continues to its head, which rises near the south branch of the Teonista—from thence following the Teonista to Cranberry swamp from which the water flows into Teonista creek, and also into the Allegheny river two miles above Warren. At Warren the Allegheny is crossed and followed to the mouth of the Brokenstraw—up the valley of this stream and its tributary Harris creek, to a summit between it and Mills' branch of French creek. The line then continues down this to Big French creek, and by the valley for three miles to Le Boeuff creek near Waterford, and from this in nearly a straight line to Le Boeuff summit, at the head of Walnut creek, flowing into lake Erie, from which summit it descends to lake Erie harbor by an easy grade.

Of this route Mr. Miller, engineer of the Sunbury and Erie railroad, in his report to the managers says:—"It appears that the whole distance from Sunbury to Erie is 283 miles, and in this distance are five summits, two of which, Cranberry swamp and Le Boeuff are of small consequence; that the total amount of rise and fall from the surface water of lake Erie, to that of the Sunbury dam is 4301 feet—all of which may be advantageously overcome by locomotive power, and that it is in no case necessary to increase the length of the line to attain this rate of acclivity; that on 5-6ths of the road, no grade exceeds 33 feet per mile, on 3-4ths none exceed 20 feet per mile, and on 2-3ds none over 12 feet per mile occurs. The steep grades are confined to four places, and except that of Erie are in positions where bituminous coal abounds, and thus extra locomotive power may be used with advantage." In this place we will state for the information of those unacquainted with the fact that this line continues about 200 miles, through a country abounding in coal and iron ore of excellent quality—this with the other advantages this route has over the roads of our northern or southern rivals (such as a shorter and easier road) will enable a company to carry passengers and freight, not only cheaper but more rapidly than any other in the United States. We refer again to Mr. Miller. "It will not of course be expected that, an accurate estimate can be made of the cost of such a work from the preliminary examinations alone—from as careful calculation, however, as I am able to make from the existing data, aided by experience I have had in constructing similar works in a similar country. I believe that in order to finish it with a double track of heavy iron rails including turnouts, stations, warehouses, machine shops, land damages and engineers' expenses, the sum of \$9,508,000, or \$33,000 per mile will be required." The cost of a single track with turnouts and all contingencies at this rate would be about \$7,000,000. The branch to Pittsburgh would be for the extra distance through a bituminous coal region, and the rich iron coun-

try of western Pennsylvania. This road at \$33,000 per mile will cost \$4,950,000, or a single track, about \$3,000,000. Mr. Miller estimates that 100 passengers carried daily for 340 days in a year, in each direction at a toll of two cents a mile, and 50,000 tons of freight each way per annum, at two cents per ton per mile, will pay the repairs and superintendence, and yield an income of more than 8 per cent. on the investment, supposing no profit whatever be made on transportation.

The advantage of this connection over all other routes, is that there are no steep grades, no short curves, no high bridges, cheap fuel, by reason of the abundance of mineral coal—and that Philadelphia may thus be connected with the lakes and Pittsburgh—and thus secure a share of their commerce, by less railroad than any other route; to connect Sunbury with Erie, will require 283 miles, branch to Pittsburgh by Sinnemahoning—110 miles—together 393 miles. What if this distance is a few miles greater than the Juniata route, still it will require less road to be made to connect Philadelphia with both Pittsburgh and the lakes, and less money than to complete that one connection.

Any one acquainted with the resources contiguous to our northwest lakes, and large rivers of the west, will not doubt a moment that the trade and travel pouring into this road, will fully compensate the stockholders, who embark in the enterprise. It is estimated that 800,000 passengers are now annually passing between the eastern and western states, of this number an able writer in the "Railway Journal" states, 400,000 pass through Buffalo, the remainder seek the east by the line on the Monongahela, and the Baltimore and Ohio railroad. Finish this road, and the majority of this vast number will pass over it. The tonnage that annually passes east and west by some means, burdens even thought by its weight. During 1844, \$8,000,000, worth of flour and wheat were brought into Buffalo, alone, seeking an eastern market; this is but one item of the vast catalogue of the commerce of the northwest, but from it, the rest can, in some measure be judged. A northern statesman estimates "the lake region within the United States, at 280,000 square miles, and adds it is twice as large as France, and about six times that of England, having 180,000,000 of acres arable land, and a large part of surpassing fertility." Bordering the Ohio and Mississippi, is the most extensive tract of fertile land known in the world, thousands on thousands of people are added annually to the millions who inhabit that fair region.

Who can conceive the prospective extent of that population, who can conjecture the amount in tons, or the value in dollars of the commerce between that population and the east. Going east we shall have the surplus produce of 12,000,000 busy and industrious people. Going west, we shall have all the luxuries and necessaries for that population. Those of the east will get their bread from the west, and we of the east will supply their wearing fabrics and other products of every sort, of every mechanic and manufacturer.—



This commerce and the multitude who must travel in consequence, we will say will seek this route, because it is the nearest to the Atlantic, of any practicable way, grades easier, fully as cheap, and all tending to furnish speedy and low transit. There is 2400 feet less rise and fall than on the New York and Erie railroad, our northern rival, and about 4000 feet less than the Baltimore and Ohio railroad, our southern rival for the Ohio trade; we have no grades but those admitting locomotives with heavy trains, and without extra power, while our rivals will be compelled to have their road over the steepest of ours, 33 feet per mile.

It is said Philadelphians have never known the value of their position in regard to the west, and that generally little is known of the importance of that trade: this should not be, now is the time to secure to this city, commerce without stint, a trade that during this generation will realize more wealth to Philadelphia and the people of our state by ten times than the cost of the means by which it is to be secured.

**Atmospheric Railway.**

We find the following remarks, in relation to experiments made on the Croydon railway, in the London Railway Record of 1st inst. They are, we think, well calculated to convince those who have been sceptical—and may possibly induce those, who have been compelled to acknowledge the advantage of the system, on high grades and short lines, to think that possibly they may, after all, yet be brought into use on "long lines," as well as short ones.

We shall endeavor to keep our readers apprised of the progress of the system.

**The Croydon Atmospheric Railway.**

The Croydon atmospheric railway, which last week was specially worked for that portion of the community most interested in railway matters, has been continued at work daily, and the public at large have been allowed to gratify their curiosity by travelling with trains at stated periods of the day.

The result of all the workings which have hitherto been considered by the company and Mr. Samuda as experimental, for the purpose of training the men in the efficient discharge of their duty, has been of the most satisfactory nature. As far as the public case is concerned, the matter is now set at rest. The far superior speed, the increased luxury of travelling, and the absence of all apprehension of danger during the rapid transit of trains, must determine that point.

The local circumstances of the line are peculiarly favorable for the institution of a comparison between the rival modes of locomotion; and the engineer of the atmospheric line has availed himself of that circumstance to satisfy the public practically of the superiority of his system over that of his rival.

We allude to the fact of the Dover and Brighton railways running parallel to the Croydon atmospheric line for nearly the whole of the distance at present worked; thus affording the locomotive and atmospheric trains an opportunity of running side by side.

To catch or overtake "an express" train, which only one month since would have been

regarded as a fable, is now the almost daily practice on the atmospheric line.

The usual plan of operation is for the atmospheric train to remain at rest until the quick train of the rival line has passed at full speed, and then getting into motion from a state of rest, the atmospheric train finds but little trouble in outstripping the other. These "racing" trains have continued the trial of their strength during the whole of the past and present week, and must by this time have satisfied those who have watched the result, that the superior speed claimed for the atmospheric has been in no way overstated by its advocates. On Thursday last a trial of speed took place between the Dover quick train, consisting of five passenger coaches, drawn by the "White Horse of Kent" (a most powerful locomotive engine, made by Stephenson & Co., and regarded as the pattern card of engines supplied from that celebrated locomotive manufactory,) and an atmospheric train, consisting of seven passenger coaches. The atmospheric slacked its speed and allowed the locomotive train to pass at full swing, and then taking up the chase, passed its adversary in less than two miles, and continued its course till its fiery friend was lost sight of in the distance!

The comfort is as prominent a feature as the speed; and ladies, instead of dreading the open carriages, as on locomotive lines, are to be found riding in the leading carriages of the train, so free from all annoyance is even this exposed situation on an atmospheric line.

The result of the application of the atmospheric system on this railway is one of such deep interest to shareholders, and the advantages of the system, and beneficial influence it will exert on railway property, so little understood generally, that we shall take another opportunity of entering on these matters more fully. In the mean time we recommend all interested in railways to go and see and judge for themselves.

**Cattawissa Railroad.**

We perceive, says the U. S. Gazette, that there is to be a meeting of the stockholders of the Cattawissa railroad company, in this city on the first day of December, on the subject of the road, its means, location and probable advantage. The Blumesburg Democrat says:

"We understand that the stock has lately changed hands, and that the road is soon to be completed to the Susquehanna river. The road has been purchased by a company of wealthy gentlemen on account of the intrinsic merits of its location, and as the cheapest and only feasible route from Philadelphia to the Susquehanna river, and from thence to lake Erie, and not like other projects we wot of, for the purpose of merely advancing the interest of land speculators, stock jobbers and obscure villages, which have nothing more to recommend them than puffs of wind, hills, valleys, tunnels, and inclined planes. The road is already graded for about forty miles from the Susquehanna river, and requires but about nine miles more grading to con-

nect it with the Little Schuylkill railroad, and thus make a continuous railroad from Philadelphia city to the Susquehanna river, emptying into the heart of the iron region. The company have also a charter for, and surveyed, a route up Little Fishing creek, to Williamsport, a distance of about forty miles, which passes through a valuable iron and coal region, without any very deep cuttings, tunnels or inclined planes. This portion is to be commenced as soon as the road is completed to the river at Cattawissa.

This road, if we understand the matter, is designed to connect the little Schuylkill railroad with the Susquehanna at, or near, the mouth of Cattawissa river, and it will thus be nearly parallel to, and not very distant from, the Pottsville and Danville railroad—but in no way competing with it for the coal trade, we believe, as it penetrates another range of valleys, north and west from Port Clinton, on the Reading road, and to which it will become an important feeder.

**Wabash and Erie Canal.**—At a public meeting of the citizens of Evansville, Ind., on the 4th inst., resolutions were adopted expressing their sense of the great importance to the citizens of Indiana of the early completion of the Wabash and Erie canal, and urging upon the legislature the adoption of such measures as will secure the desired effect. Also the following resolution was adopted:

**Resolved,** That the interest of our foreign bondholders, is inseparably connected with our own; and that if, by the payment of 2 per cent. interest on the present indebtedness of the state, they will advance to her a sum sufficient to complete this work, and take the proceeds of the canal, or the lands given by congress, for its completion, as their security for the repayment of the loan, this meeting do earnestly recommend such plan to the consideration of the legislature; as by its adoption, the general welfare of the state, can be certainly and permanently secured, and her honor placed above reproach.

**River Railroad.**—We understand [says the Westchester Herald] that the engineers under the direction of John B. Jervis, Esq., are actively prosecuting their labors on their work, and have reached this county on the east bank of the river—with very favorable prospects of an easy and successful route for the proposed road.

The Harlem company's contractors are also engaged in breaking ground on their route as far north as Putnam line; and are locating their laborers.—We shall note the progress of each company as they advance.—*Poughkeepsie Telegraph.*

We learn from the Belknap Gazette that the directors of the B. C. and M. railroad are receiving proposals for the grading and masonry of the entire road from Concord to Wells river, and are hoping to be able to close favorable contracts very shortly for the whole work. Several companies are ready to contract on very favorable terms.

**Atlantic and St. Lawrence Railroad.**—We learn that letters are received here by the last steamer, announcing that the subscription to the stock of the Canadian part of the road, was nearly completed, and the advance paid.

The annual meeting of the Wilmington and Raleigh [N. C.] railroad company was held on the 13th inst. The receipts of the year ending 1st October, 1845, were as follows:

From railroad.....	\$161,484 11
“ steamboats.....	127,009 34
	288,493 45
The expenditures were.....	212,094 20

76,399 25

Governor Dudley was re-elected president, and consented to serve.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working, in pounds, for six months, as stated in latest balance sheets.	Dividends as last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
						Per share.	Per cent. per annum.				
Arboath and Fortar.....	15	102,000	35,000	138,870		0	12 6 2	10 0	25	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	30,261	53,203	1 5 0	2 10 0	100	Barnsley Junction.....	200,000
Brandling Junction.....	23	161,700	305,470	481,152				4 10 0	50	Belfast and Ballymena.....	385,000
Bristol and Gloucester.....	37	400,000	211,000	657,825				nihil.	30	Blackburn and Accrington.....	400,000
Chester and Birkenhead.....	14	750,000	143,170	518,983	5,856	13,148	0 10 0	2 0 0	50	Birk. and Ches. Junction.....	1,000,000
Dublin and Drogheda.....	31	450,000	150,000	582,254				nihil.	60	Bolt., Wigan and Liverpool.....	800,000
Dublin and Kingston.....	6	200,000	152,200	349,736			9 0 0	0 0 0	160	Caledonian.....	1,800,000
Dundee and Arbroath.....	16	100,000	49,445	153,416	2,989	6,993	1 5 0	5 0 0	25	Cambridge and Lincoln.....	1,250,000
Durham and Sunderland.....	18	169,350	124,055	270,392	9,889	17,703		nihil.	50	Chattham and Portsmouth.....	5,000,000
East County and North and East.....	86	1,443,200	341,155	3,931,905	47,385	118,726	1 6 6		100	Chester and Wrexham.....	120,000
Edinburgh and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1 5 0	5 0 0	50	Churnet valley.....	1,800,000
Glasgow, Paisley and Ayr.....	51	937,500	1,071,258	12,416	12,416	36,736	1 5 0	5 0 0	78	Direct Northern to York.....	4,000,000
Glasgow, Paisley and Greenock.....	22	650,000	216,666	797,613	11,830	23,447	0 5 0	2 0 0	25	Dublin and Belfast.....	950,000
Grand Junction.....	104	2,478,712		2,503,671	84,300	195,080	0 0 0	0 0 0	100	Dundee and Perth.....	250,000
Great North of England.....	45	969,000	581,017	1,307,487	12,201	36,189	0 0 6	0 0 0	100	Edinburg and Northern.....	800,000
Great Western.....	221	4,650,000	3,679,343	7,445,689	143,279	410,016	1 0 0	8 0 0	80	Ely and Bedford.....	270,000
Hartlepool.....	15	438,000	155,510	719,305				8 0 0	100	Glogow, Dum. & Carlisle.....	1,300,000
Leicester and Swannington.....	16	140,000		140,000	2,207	6,317	1 5 0	5 0 0	50	Gr. South and West Ext.....	1,200,000
Liverpool and Manchester.....	32	1,209,000	497,750	1,785,000	61,885	141,252	0 0 0	0 0 0	100	Gt. Grimby and Sheffield.....	600,000
Llanelly.....	27	200,000	44,000	221,624			1 0 0	2 0 0	87	Harwich and E. coun. Jun.....	160,000
London and Birmingham.....	302	6,874,976	9,288,845	6,614,095	96,413	456,997	5 0 0	0 0 0	100	Huddersfield & M. rl. & cl.....	600,000
London and Blackwall.....	3	804,000	266,000	1,768,851	15,978	23,870	0 3 0	1 0 0	10	Kendal and Windermere.....	125,000
London and Brighton.....	56	1,935,000	705,000	2,637,753	30,490	130,156	1 10 0	6 0 0	50	Leeds and Dewsbury.....	100,000
London and Croyden.....	8	550,000	229,000	761,885	7,583	10,545	0 8 0	4 0 0	14	Leeds and Thirsk.....	900,000
London and Greenwich.....	3	759,383	333,300	1,040,930	15,193	28,933		nihil.	13	Liv. Ormskirk and Preston.....	660,000
London and South Western.....	92	2,222,100	630,100	2,604,405	89,439	190,631	2 0 0	10 0 0	41	London and Portsmouth.....	1,750,000
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	13,397	58,162	1 0 0	5 0 0	40	London and York.....	5,000,000
Manchester and Bolton.....	10	778,100	197,730	773,743	8,565	21,140	2 2 0	4 10 0	93	Londonderry & Enniskillen.....	500,000
Manchester and Leeds and Hull.....	87	2,937,500	943,932	3,921,593	46,653	156,761		8 10 0	60	Lynn and Ely.....	200,000
Midland railway.....	179	5,158,900	1,719,630	6,279,838	75,227	276,129	3 0 0	6 0 0	100	Manchester, Eury and Ross.....	300,000
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	46,745	5 0 0	5 0 0	100	Manchester and Buxton.....	250,000
Newcastle and Darlington.....	23	500,000		405,728			1 0 0	8 0 0	21	Mullingar and Athlone.....	
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466	6 9 0	6 0 0	50	Newcastle and Berwick.....	700,000
North Union.....	39	739,201	308,306	1,028,593	24,788	37,794	2 10 0	6 5 0	100	Richmond & W. End June.....	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415			0 16 0	8 0 0	20	Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000			31,247	91,171		8 0 0	20	Sheffield and Lincolnshire.....	650,000
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066		4 0 0	50	Shrewsbury and Gd. Jufo.....	400,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876		nihil.	87	Shrew. Wolv. Dudley & B.....	900,000
South Eastern.....	88	2,996,000	1,530,277	3,461,172	69,288	139,042		3 1 4	33	Trent Valley.....	900,000
Taff Vale.....	30	465,000	195,000	595,089	9,115	22,092	1 17 7	3 15 0	100	West London Extension.....	61,000
Ulster.....	25	519,150	29,000	348,626	5,401	13,856	0 15 0	5 1 8	32	West Yorkshire.....	1,000,000
Yarmouth and Norwich.....	20	187,500	62,500	230,036	5,186	10,008	1 0 0	5 0 0	20	Whitehaven and Maryport.....	100,000
York and N. Mid. and Leeds and Selby.....	28	1,062,500	167,500	1,107,146	31,349	75,474	2 10 0	10 0 0	50	FRENCH RAILWAYS.	

ENGLISH STEAM AND MISCELLANEOUS COMPANIES.

Steam and Miscellaneous.						NAME OF COMPANY.						
NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10		15 1/2	Loughborough.....	70	142 1/2	142 1/2	70	1140	
Anti Dry Rot.....	10,000		18 1/2		2	Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company.....	5,700	100	35		34 1/2	Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation.....	20,000	15	14	10	27 1/2	Mersey and Irwell.....	500	100	100	10		
Gt Western Steam Pa.....			100		25	Macclesfield.....	3,000	100	100	2 1/2	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6 1/2	Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	14	Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental.....	11,493	50	50	7	64 1/2	Regents or Loncon.....	21,418	33 1/2	33 1/2	2 1/2	25	25
Ditto.....	3,200	50	40	7		Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....				6		Somerset coal.....	800	150	150	7 1/2	123	123
Reversionary Int. Soc.....	5,387	100	100	4 1/2	104	Stafford and Worcester.....	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60		36 1/2	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5			Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7 1/2	10	15	Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50			Swansea.....	533	100	100	15	240	240
University College.....	1,500	100	100			Sewern & Why & Rail Av.....	3,762	26 1/2	26 1/2	5 1/2	30	30
						Trent and Mersey.....	2,600	50	50	65	495	
						Thames and Medway.....	8,149	19 1/2	19 1/2		10	10
						Warwick and Birmingham.....	100	100	100	10 1/2	167	
						Warwick and Napton.....	980	100	100	8 1/2	122	
						Water Works.						
Ashby de la Zouch.....	1,432	113	av.	4	70	Birmingham.....	4,800	25	25	3 1/2	28	28
Barnsley.....	720	100	100	14	180	East London.....	4,433	100	100	8	223	225
Birmingham, 1-16 share ..	3,000	118 1/2	79	10	150	Grand Junction.....	5,500	av.	41 2-3	7 1/2	88	90
Do. and Liverpool Junction.....	4,000	160	100		13 1/2	New River L. B. Ann.....	1,500			2 1/2		
Cowentry.....	500	100	100	20	365	Manchester and Salford.....	6,486	av.	30	8 1/2	57	57
Cromford.....	460	do.	do.	24	250	Vauxhall, lt. S. London.....	1,000		100	5	55	55
Derby.....	600	do.	do.	9	105	West Middlesex.....	8,294	av.	63 1/2	6 1/2	126	127
Erewash.....	231	do.	do.	32	440	Docks.						
Forth and Clyde.....	1,297	400 1/2	40 1/2	4	440	Commercial Dock.....	1,065	100	100	3	10	
Grand Junction.....	11,600	100	100	7	162	East and West India.....		sto.		5 1/2	137	
Grand Surrey.....	1,500	do.	do.		20	London.....	3,238,310	sto.		4 1/2	114 1/2	115
Gloucester and Rerkley.....	5,000	do.	do.		8	St Katharine.....	1,352,752	st c		5	116	171
Grantham.....	749	150	150	8	185	Souhampton.....	7,000	50	50			
Lancaster.....	11,699	47 1/2	47 1/2	3	40							
Leeds and Liverpool.....	2,897	100	100	34	640							
Leicester.....	545	140	140	9	139							



AMERICAN RAILROADS.															
NAMES OF RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843. Income.		Div. per cent.	1844. Income.		Div. per cent.	1845. Income.		Div. per cent.	
						Gross.	Nett.		Gross.	Nett.		Gross.	Nett.		
Maine.	1	Portland, Saco and Portsmouth.	50	1,200,000			89,997	47,166	7	131,404	62,172	6			
N. Ham.	2	Concord.	35	750,000								12			
Mass.	3	Boston and Maine.	56	1,485,461			178,745	68,499	6	233,101	86,401	6½			
	4	Boston and Maine extension.	17½	455,703	unfin.										
	5	Boston and Lowell.	26	1,863,716			277,315	144,000	8	316,909	147,615	8			
	6	Boston and Providence.	41	1,886,135	none.	18,600	233,388	110,823	6	282,701	156,109	6			
	7	Boston and Worcester.	44	2,914,078			40,141	162,000	6	428,437	195,163	7½			
	8	Berkshire.	21	250,000	not stated			17,500		7	17,737				
	9	Charlestown branch.		280,260					13	34,654	13,971	5½			
	10	Eastern.	54	2,388,631			279,563	140,595	6	337,238	227,920	8			
	11	Fitchburg.	50	1,150,000	just op'n'd						42,759	26,835			
	12	Nashua and Lowell.	14½	380,000			84,079		8	94,588	34,944	10			
	13	New Bedford and Taunton.	20	430,962			50,671	24,000	6	64,998	24,000	6			
	14	Northampton and Springfield.		172,883	unfin.										
	15	Norwich and Worcester.	66	2,290,000	900,000	16,535	162,336	24,871		230,674	99,464	3			
	16	Old Colony.		87,820	unfin.										
	17	Stoughton branch.	4	63,075	unfin.										
	18	Taunton branch.	11	250,000				20,000	8	96,687	20,000	8			
	19	Vermont and Massachusetts.													
	20	West Stockbridge.	3	41,516	200	100						4			
	21	Western, (117 miles in Mass.,)	156	7,686,202	1,686,202	30,000	573,882	284,432		753,753	139,679	3			
	22	Worcester branch to Milbury.		8,431	506										
	23	Housatonic, (10 months,)	74	1,244,123						150,000					
Conn.	24	Hartford and New Haven.	38	1,100,000	100,000	10,000	100					6			
	25	Hartford and Springfield.	25½	600,000	400,000	2,000	100								
	26	Stonington, (year ending 1st Sept.,)	48	2,600,000	650,000	13,000	100	113,889		154,724	79,845				
N. York.	27	Attica and Buffalo.	31	336,211				45,896	7,522	73,248	48,033				
	28	Auburn and Rochester.	78	1,796,342	200,000	14,000	100	189,693	112,000	237,667	152,007	6			
	29	Auburn and Syracuse.	26	766,657			133½	86,291	27,334	96,738	52,544	6			
	30	Buffalo and Niagara.	22	200,000		1,500									
	31	Erie, (446 miles,)		5,000,000											
	32	Erie, opened.	53					48,000		126,020	59,075				
	33	Harlem.	26	2,250,000	750,000	30,000				140,685	62,399				
	34	Hudson and Berkshire.	31	575,615		50				35,029	1,789				
	35	Long Island.	96	1,610,221	392,310	29,846				153,456	58,996				
	36	Mohawk and Hudson.	17	1,317,893	400,000	10,000	100	69,948	58,780	79,804	45,763				
	37	Saratoga and Schenectady.	22	303,658				42,242	3,000	34,666	8,455				
	38	Schenectady and Troy.	20½	640,800				28,043		32,646	6,365				
	39	Syracuse and Utica.	53	1,115,897	none.	16,000	62½	163,701	72,000	192,061	120,992	8			
	40	Tonnawanda.	43	727,332				76,227		114,177	75,865	5			
	41	Troy and Greenbush.	6	180,000											
	42	Troy and Saratoga.	25	475,801				44,325	21,000	38,502	9,971	2½			
	43	Utica and Schenectady.	78	2,168,165	none.	20,000	100	277,164	180,000	331,932	199,094	8			
N. Jersey	44	Camden and Amboy.	61	3,200,000				682,832	383,880	784,191	404,956				
	45	Elizabethtown and Somerville.	26	500,000											
	46	New Jersey.	34	2,000,000											
	47	Paterson.	16	500,000								6			
Penn.	48	Beaver Meadow.	26	1,000,000											
	49	Cumberland Valley.	46	1,250,000											
	50	Harrisburg and Lancaster.	36	860,000	645,920								77,538	9,988	
	51	Hazleton branch.	10	120,000											
	52	Little Schuylkill.	29	900,000											
	53	Blossburg and Corning.	40	600,000											
	54	Mauch Chunk.	9	100,000											
	55	Buck Mountain.	4	72,000											
	56	Minehill and Schuylkill Haven.	19½	396,117	25,000	7,019	50					12			
	57	Norristown.	20	800,000											
	58	Philadelphia and Trenton.	30	400,000											
	59	Pottsville and Danville.	29½	1,500,000											
	60	Reading.	94	9,457,570	7,447,570	40,290	50			597,613	343,511				
	61	Schuylkill valley.	10	1,000,000											
	62	Williamsport and Elmira.	25	400,000				20,000							
	63	Philadelphia and Baltimore.	93	1,400,000				43,043	200,000		210,000				
Delaware	64	Frenchtown.	16	600,000											
Maryl'd	65	Baltimore and Ohio, (1st Oct.)	188	7,742,410	1,153,709			575,235	279,402	658,620	346,946		738,603	374,762	3
	66	Baltimore and Washington.	38	1,800,000				177,227	71,691	212,129	104,529		208,813	95,094	6
	67	Baltimore and Susquehanna.	58	3,000,000											
	68	Wrightsville, York and Gettysburg.	12½	500,000											
Virginia	69	Greensville and Roanoke.	18	284,433	37,544	2,000	100			25,368	6,074	3			
	70	Petersburg.	63	969,880	63,000	7,690	100			122,871	72,898	6			
	71	Portsmouth and Roanoke.	78½	1,454,171											
	72	Richmond, Fredericks'b'g and Potomac.	76	800,000						185,213	85,688				
	73	Richmond and Petersburg.	22½	700,000											
	74	Winchester and Potomac.	32	500,000											
N. Car.	75	Raleigh and Gaston.	84½	1,360,000											
	76	Wilmington and Raleigh.	161	1,800,000											
S. Car.	77	South Carolina.	136									5			
	78	Columbia.	66	5,671,452		34,410	75	201,464	77,456	532,871	140,196				
Georgia	79	Central.	190½	3,000,000	500,000	22,500	100	227,532	93,190	328,425	180,704				
	80	Georgia.	147½	2,650,000				248,026	158,207	248,096	147,523				
	81	Montgomery and West Point.	89	500,000	170,000		100			35,000	15,000				
Kent'ky	82	Lexington and Ohio.	40	450,000											
Ohio.	83	Little Miami.	40	400,000											
	84	Mad river.	40	152,000									24,984	3,280	
Indiana	85	Madison and Indianapolis.	56	212,000	50,000			22,110	8,639	39,031	10,065	9½			
Canada.	86	Champlain and St. Lawrence.	15							58,000	24,000				

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Thursday, November 27, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 22,704 01 tons, and by canal 8,839 05, making 31,543 06 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total.....	367,180
From Schuylkill Haven—total.....	367,535
From Port Clinton—total.....	19,902

Total by railroad.....754,619

BY CANAL.

From Pottsville and Port Carbon—total.....	155,900
From Schuylkill Haven—total tons.....	44,576
From Port Clinton.....	49,279

Total by canal.....249,756

Total by railroad and canal.....754,618

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines, -	171,898
Room run do., -	67,500—237,407
Beaver Meadow railroad and coal co.,	71,011
From Penn Haven—Hazleton coal co.,	64,440
From Rock Port—Buck Mountain coal co.,	21,713

WYOMING COAL TRADE—total.....	396,571
PINE GROVE COAL TRADE—total.....	178,745
MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....	44,736
MOUNT CARBON RAILROAD—total tons.....	411,446
MILL CREEK RAILROAD—total.....	241,566
SCHUYLKILL VALLEY RAILROAD—total.....	85,826
[Miners' Journal.]	103,375

WESTERN RAILROAD.—Receipts for week ending November 15.

	1845.	1844.
Passengers.....	\$5,767	\$4,816
Freight, etc.....	13,515	11,723
Total.....	\$19,282	\$16,569
Net gain this week.....		1,713
Net gain previously since Jan. '45.....		49,564
Total gain.....		51,277

Transactions of the Reading railroad for the month of October for three years:

	1843.	1844.	1845.
Business....	\$58,169 34.	\$66,476 59.	\$131,879 64
Coal tons.....	37,261.	55,525.	92,415

Canal Tolls.—Amount of tolls received on all the New York state canals, in each of the following years, viz:

	2d week in Nov.	Total to 14th Nov.
1839.....	\$65,978.	\$1,542,041
1840.....	82,575.	1,695,162
1841.....	74,575.	1,948,751
1842.....	77,534.	1,676,828
1843.....	91,693.	2,016,176
1844.....	96,698.	2,335,409
1845.....	144,173.	2,510,131

Albany Atlas.

American Railroad Iron.—We ask the attention of our readers and especially of railroad companies,

to the advertisement of the "Montour Iron Company," of which Messrs. Murdock, Leavitt & Co. are the agents.

Mr. Herron's Plan of Superstructure.—We give in this number a description and estimate of the cost of Mr. Herron's plan of superstructure with an illustration which will enable any one to understand it. We shall keep our eye upon those three miles, and our readers apprized of its performance. We should like to see more of it in use. It would be a great saving of machinery and iron.

History of the Coal Trade of the Schuylkill region, Pa. We very cheerfully give, [see advertising columns] the card of Mr. Bannan a place in the Journal. It relates to a matter in which this community has an abiding as well as a burning interest, and we know of no gentleman better qualified to write its history. It will afford us pleasure to be instrumental in the sale of the work.

Thanks to the friend who sent us the Logan Gazette; he will perceive, however, that we had already published the report of the superintendent and engineer.

Harlem Railroad.

We learn, by their advertisement in another column, that this company will apply to the legislature, at its ensuing session, for permission to extend their road to Albany. It is much to be desired that a road should be constructed between this city and Albany—and that the different interests should be harmonized. The subject has been a long time under consideration and discussion; one of the best charters in the country granted, amended and extended; yet little progress has been made, comparatively nothing but engineering done, and that mainly at the engineer's expense, under that charter which has now nearly expired.

Now another company comes forward and proposes to construct a road, and of course has to encounter the opposition of those having the original charter, and now, therefore, comes the contest. A word of advice to both parties—unite—unite your forces, gentlemen, and work together, then we shall probably have a road to Albany.

Great Western Railway, C. W.

We learn, from the best authority, that the entire stock of this company has been taken in England by a few of the leading capitalists, and that 15 per cent. on the entire amount, \$6,000,000, has been paid up. That fact alone, shows that it is not, and will not be, in the hands of speculators. The stock commands a high premium in London, and is at 6 per cent. advance at Hamilton.

Arrangements are now making to commence operations by the 1st of December, and the road is to be in full operation by the autumn of 1848! This is nearly equal to the present English mode of making and furnishing an entire line of 92 miles in twelve months and a few days, by one contracting firm.

This road is to commence at Windsor, opposite Detroit, and pass through London to Hamilton, 190 miles, and then probably be continued to Fort Erie, opposite Buffalo, or to Niagara Falls direct, and pass over on a suspension bridge, just below the cataract—thus uniting the interests of both Buffalo and Rochester. This is a magnificent project, and it will be a fine opportunity to make a first rate investment of capital, and a beautiful display of engineering skill, and of the mechanic arts.

Virginia--Internal Improvements.

Reference has been made to a letter addressed by Col. Crozet, civil engineer, to Mr. Lyons, of Rich-

mond, on the subject of completing the line of communication between the eastern and western sections of Virginia. The Richmond Enquirer, of Wednesday, contains that letter, and accompanies its publication with a series of remarks, from which we take the following, which appears to us both just and appropriate, and we trust that such counsels will prevail at the coming session of the legislature. Let the people of Virginia give proper attention to the cultivation of the soil, and at the same time construct suitable main lines for travel and transportation, and then invite northern men of enterprize to occupy their vacant lands, and join with them in the improvement of their unsurpassed water power, and the working of her rich mines, and they will soon find their affairs to wear a very different aspect. "Old Virginia" will be herself again, and again assume her proper relative position among the states of the union, which she has lost by the improvident course of her sons—not her daughters, for they are proverbially good managers—but which may be regained by a wise and vigorous system of cultivation and improvement of the soil, and a judicious extension of her works of internal improvement. It is only for the people of Virginia to will it, and then to act in accordance with that determination, Will they do it? We shall see. The editor says:

"The letter of Col. Crozet discloses to us the important fact, that the route to Parkersburg from Baltimore, is impracticable for all useful purposes, and that our central improvement has nothing to fear from that competition. Their railroad may strike the Ohio at Fishing Creek, which is only about six miles below the parallel of the Pennsylvania line—a point from which the competition with our route would be very little greater than that from Pittsburg.

"But whether greater or less, we would no longer enact the dog in the manger to our brethren of that portion of the state. It seems we cannot be connected with them in trade, by railroad or otherwise, as the route from Staunton to Parkersburg is also impracticable. It is idle to expect their trade to descend to the Great Kanawha—they have no improvements from the interior to that river. And if a railroad were given them to accommodate that trade, it would be a link in their desired connection with the Baltimore road.

"We see, therefore, no ground for unnecessary jealousy among the friends of improvement. The northwest, the central line and the southwest may all unite in one common cause, and with the aid of those in the east, who have always favored their views, added to such as are now daily heard to say, 'we ought heretofore to have gone for these improvements, and will no longer oppose them,' a reasonable hope may be indulged, that the ensuing session of the legislature will be characterized and chronicled in after time, as the great one in the cause of internal improvement and education."

Table of American Railroads.

The following is precisely what we wish to receive from those who have the means to detect and correct errors in this table, and we are much obliged to the gentleman who sent it to us. Will others please do likewise?

For the American Railroad Journal.

I give you the following facts as connected with the Buffalo and Niagara Falls railroad company.

Debt.....	\$19,670 00
Paid in on each share.....	133 33
Whole capital.....	200,000 00

The gross earnings of the road are calculated from June to June of each year, and therefore I do not give them.

3 per cent. dividend was declared on the 1st June last, and 3 per cent. has lately been declared out of the nett earnings of the 6 months ending 3d November, the company having still on hand a reserve fund from those nett earnings. Respectfully yours,

## Herron's Patent Railway Track.

For the American Railroad Journal.

The cut is a plan of the railroad track invented and patented by Mr. James Herron, C. E., as it is laid upon the Philadelphia and Reading railroad, between Valley Forge and Phoenixville. It is represented as seen before the trellis foundation was covered with earth.



As seen stripped of the top ballasting.

The trellis, or diagonal sills, represented in white, are 3 inches thick, 8 inches wide, and 14 feet 9 inches long. These sills are of sawed white pine timber. They were laid upon the clay embankments and in the wet cuts, *without any ballasting under them*; and it will be seen, they make an angle of about forty-five degrees with the line of the rails. A second course, of the same sized sills, laid nearly at right angles on the former, make together, the latticed foundation for supporting the rails, as shown in the cut. These sills are *not* notched into each other where they cross, but are secured together, on the centre line and extremities, by two spikes driven in each crossing.

White pine and hemlock string pieces, 5 inches thick, 8 inches wide and about 20 feet long, are laid diagonally upon the latticed sills, and are united to each other at their ends, by a suitable scarfing. The string pieces were dressed to a thickness where they rest upon the intersections of the lattice; the inner side being made  $\frac{1}{4}$  of an inch thinner than the outer for the purpose of inclining the surface of the rails to suit, as nearly as possible, the conical form of the wheels in use upon the road. The rails, represented by the heavy black lines, have a continuous bear-

ing upon the string pieces, with which they regularly break joint, while the latter are evenly supported by the strongly combined elastic trellis foundation.

The rails, string pieces and trellis sills, are secured together upon this track, by  $\frac{1}{4}$  inch screw bolts, two at each intersection of the lattice. And the ends of the rails are joined by chairs of wrought iron of a new design.

The fastenings used upon this track are more than fifty per cent. heavier than those Mr. H. used upon his Baltimore and Susquehanna track; but, for the generality of railways throughout the United States, the common hook spike fastening would be quite sufficient and would materially reduce the first cost of the track. Mr. Herron has, however, devised a more perfect system of adjusting fastenings than any he has hitherto put in practice, by which the rails and string pieces could be removed, replaced and adjusted, without disturbing the ballasting, or the sub-structure. Those fastenings will also afford great additional facility in the taking out, and replacing any of the trellis sills that may require it; which can be done on any of his tracks, without stopping the trade of the road, but with the more improved fastenings to the extent of the whole timber structure.

The whole of the timber used in this track underwent an antiseptic process. A solution of the bichloride of mercury being forced into the wood by a pressure of 100 pounds on the inch, the air being exhausted, by which nearly half a gallon of solution was forced into each cubic foot of timber. The strength of the solution was 1 pound of sublimate to 15 gallons of water, with the exception of 9,500 feet laid between the 23 mile post and Phoenixville prepared with a solution of only 1 pound to 30 gallons of water.

The simple soaking of timber in this solution, for a sufficient length of time, [Kyan's process] has almost universally proved successful, both in the large quantities thus prepared in England, as well as in the more limited application of it, hitherto made in the United States. And where an occasional piece of timber has been found to decay, in some of the large lots thus prepared in England, [for as yet there is no evidence of any timber prepared with corrosive sublimate having rotted in the United States] there is much reason to suspect that it was owing to decomposition having too far advanced in the heart of the piece at the time it was subjected to the process.

As the penetration by soaking, however, extends but little way below the surface of the timber in the generality of cases, it could not reach, and arrest, the decay in progress at the centre, hence the more effectual process of forcing the solution into the body of the timber, to perfect saturation, has been adopted by the British admiralty, and on some of the more recently constructed railways in England, as well as by Mr. Herron, who is believed to have made the first successful application of it, by hydraulic pressure, in the United States.

Security on this track is nearly perfect, for should an engine or car, by any means be thrown off the rails, it will not likely result in any serious damage, as the trellis sills are covered by the ballasting, leaving nothing exposed, as the cross sills are, for the wheels to "bump" upon, and thus shatter the carriages. And, as the string pieces and rails are strongly secured, they will serve as guards to keep the carriages from running off the embankments. Cases have occurred, where a car axle broke, and one or more wheels were thrown off the rails, yet the train

continued on, in two instances, for more than a mile before the men upon the cars discovered it.

November 15th, 1845.—This track has now been opened to the heavy trade one year and five days, during which time *eight hundred thousand tons*, of 2240 lbs., of coal have rolled over it. The gross tonnage of the coal trade, cars and engines being added to the above, will make about 1,310,000 tons. And the whole *rolling tonnage*, including freight, passengers, etc., probably, 1,400,000 tons.

The excellent condition of the track at this time and the ease of motion with which the cars roll over it, are proverbial.

The quantity and cost of materials and workmanship, per mile of track, were as follows, viz:

8,633 cubic feet [103,600 ft. b.m.] of white pine at 15 2-3 cents.....	\$1,352-55
8,633 cubic feet of timber impregnated with the bichloride of mercury, by hydraulic pressure, at 5 12-100 cents per cubic foot.....	442-00
7,794 lbs. of wrought joint chairs, screws caps and bolts, at 8 cents.....	623-52
7,575 lbs. of hook headed screw bolts and nuts $\frac{1}{4}$ inch diameter, at 7 $\frac{1}{2}$ cents.....	587-06
2,000 lbs. of Burden's 7 inch boat spikes, at 5 $\frac{1}{2}$ cents.....	110-00
2,143 lbs. cast iron washers for bolts at 3 cents per pound.....	64-30

Cost of materials exclusive of rails....	\$3,179-43
93 tons of H rails, 59 2 lbs. per yard of bar at \$60 per ton.....	5,580-00
Workmanship, constructing and laying track, about.....	1,000-00

Cost of one mile of Herron's patent track, No. 1.....

The above account does not, of course, include the cost of widening the cuts and embankments, removal of slips, loose stone, solid rock, and ditching; nor the distribution of materials, straightening of damaged iron, cost of hydraulic Kyanizing apparatus; timber and other materials left, and since used upon other parts of the road, etc.

When spikes are used to secure the rails, instead of screw bolts, the cost will be very considerably reduced, and as timber may generally be had at one-third less than the above price, and as it may be preserved with chloride of zinc, the cost of No. 2 track laid with heavy iron will be from seven to eight thousand dollars per mile.

For the purpose of extending the benefits of this improvement as widely as possible, Mr. Herron has determined to render his patent charge merely nominal, by merging it in cost of construction, while the latter will be fixed, in accordance with the usual prices, at a fair moderate estimate for mechanical labor; and it will be found by comparison, to be in many cases, much lower than the prices that have been paid for the better description of tracks in use. Thus, for the construction of No. 1 track, with screw bolt fastenings, and all his more recent improvements, at the present price of labor, he will charge one thousand dollars per mile.

No. 2 track, under the same circumstances, will be constructed for eight hundred dollars per mile.

These prices may have to be slightly increased in the southern states or wherever labor is high.

Companies will thus get the benefit of Mr. H.'s engineering experience and skill in perfecting their superstructures, while it will be clearly to his interest to execute the work in the most substantial and faithful manner, that will make it in truth a PERMANENT RAILWAY.

**Georgia Railroad and its Extension.**

We are indebted to an intelligent friend for an interesting letter, from which we make the following extracts, in relation to the contemplated extension of the Georgia railroad. We were under the impression that the connection of the Georgia and Central roads with Alabama or the Montgomery and West Point railroad, was to be effected by a road from Griffin, or some suitable point on the Monroe road to West Point, about 65 miles—but we learn from this letter that it is contemplated to construct a railroad from Atlanta, the termination of the Georgia road, direct to West Point, about 85 to 90 miles, which will be considerably shorter than by the way of Griffin. It is also in contemplation, we learn, to construct a railroad from Macon to Columbus, and thus open an easy communication between the best cotton region of Georgia, and Alabama and Savannah. This will greatly increase the business of the Central railroad and of Savannah. It is to be hoped that both of these extensions will be speedily commenced; and also that the Western and Atlantic road will be completed to the Tennessee river, without delay. The advantage to be derived from it will be proportionably much greater than the outlay required to complete it. The writer says:

"I have no doubt of the early extension of the Western and Atlantic railroad to the Tennessee river, at Rossville [Chatanooga]. With the exception of a short tunnel of some 1200 feet, and the superstructure of a few bridges, the entire road is ready for the reception of the rails. That the continuation of this road to Nashville will be undertaken and accomplished within a few years, no one who will consider its commanding position, can for a moment question. It brings Nashville within 570 miles of the Atlantic at Charleston, and opens to us at once the heart of the great west—affording an outlet for its productions some hundred miles shorter, from the mouth of the Ohio, than by any other route to an Atlantic port.

"As commanding as the position of our road is, in reference to the trade of the west, it is not the less so in relation to the travel between the north and southwest. The great northern and southern mail now traverses the whole length of our road from Augusta to Atlanta, 171 miles, and thence is carried in stages 136 miles, via Newmas and West Point, to the head of the Montgomery railroad. It is over this route that the connection by railroad between Atlanta and the Montgomery railroad will be formed, and not by the zigzag track via the Monroe railroad that you suggest. As soon as the country has recovered entirely from the effects of its former excesses in all sorts of speculative projects, this connection—which not only affords an avenue for northern travel, but will also receive that from Tennessee to New Orleans—will be undertaken and completed. Its length will only be about 85 or 90 miles to its junction with the Montgomery and West Point railroad.

"On the north of us, the present route of the great mail and travel is circuitous, and encounters occasional delays unavoidable upon ocean navigation. These difficulties it has been proposed to overcome, either by a road from Waynesboro' on the Wilmington and Weldon railroad, by Fayetteville, Cheraw and Camden to the South Carolina railroad at Gadsden, or by a continuation of the Raleigh road to the same point."

The "old north state" must be aroused to action on this connection between her works and those of South Carolina. It will never do to have such a break in such a line.

For the American Railroad Journal.

MR. EDITOR. A London paper states that the Atmospheric railway system has of late been so greatly improved by Pilbrow, that new roads in Great Britain, to the extent of one thousand miles, are about to be constructed on his plan.

Your Journal has published from time to time notices of atmospheric railways; but neither in it nor elsewhere have I seen any account of the cost of their construction. Have you any such information in your possession? If so, its publication would doubtless interest many of your readers.

ENQUIRER.

You noticed, some time ago, the receipt from F. O. J. Smith, of a book called "Vocabulary for secret correspondence, by means of the electro magnetic telegraph." Is the work for sale in this city?

If "Enquirer" will examine the volume of the *Railroad Journal* for last year, 1844, he will find a very full description of the atmospheric railway as then in use on the Kingston and Dalkey road, with illustrations and estimates of cost for constructing and working, as compared with the other mode in use. He will also find copious extracts from the report of the committee appointed by parliament to investigate the merits of the system. Indeed, the space devoted by us last year to this new mode of working railways, was greater than many thought profitable; yet we were of the opinion that it should be thoroughly understood by all who are interested in railroads, that it might be exploded if a humbug—and adopted if superior in point of economy and safety to the locomotive system.

Great improvements, however, are said to have been made, both in the construction and working of the system, since last year, of which we shall endeavor to give some account before long.

The description given by us last year was from Mr. Samuda, one of the patentees, and may therefore be supposed to be put in the most favorable light—but we have now before us the report of M. Mallet, a French engineer, who visited Kingston for the purpose of making experiments. His report was decidedly in favor of making experiments in France.

We shall probably be able soon to give the result of recent experiments on a more extended scale, we hope on the arrival of the next steamer.

In relation to the "vocabulary of secret correspondence," we cannot say whether or not they are for sale in this city. They were, we believe, printed by order of congress.

*Canal Tolls for October 1845.*—The editor of the Albany Atlas will please accept our thanks for his attention to our request, that he would add to his monthly statement of receipts of tolls on the different canals, a statement also of the *expenses of collection*, and send us his paper.

We have now before us the statement for October which has a column showing the expense of collection of tolls, but not of superintendence, and tending locks. Will the editor do us the further favor to add another column still, showing the cost of superintendence and lock tending? We desire to publish these statements regularly in the journal, as we shall be able to do from the Atlas, which we now find a regular and acceptable visitor.

There will be little trouble in making this addition, as there is just room for another column of figures, as will be seen, if fine type is used. The Atlas says "The following statement shows the amount collected for toll in the month of October on the several canals, and also the expenses of collection, that is, the amount paid to the collectors and their clerks, the canal boat inspectors, etc. The ex-

penses of collection are retained by the collectors out of the tolls of each month and the balance of the tolls is placed to the credit of the treasurer. In the following statement, the first column shows the proceeds deposited to the credit of the treasurer for Oct.—the second shows the expenses of collectors' offices and the salaries of inspectors—the third column shows the gross amount of tolls for the month of October on all the state canals.

Erie canal.....	\$144,470-71	\$5,024-17	\$149,494-88
Champlain.....	16,320-79	1,184-28	17,505-07
Oswego.....	9,828-57	412-17	10,205-74
Cayuga & Seneca...	5,011-36	200-18	5,211-54
Chemung.....	2,024-98	201-16	2,226-14
Crooked lake.....	255-49	89-53	345-02
Chenango.....	3,938-39	12-17	3,950-56
Genesee valley.....	3,891-80	172-70	4,064-50
Oneida lake.....	25-00	41-27	66-27
Seneca river.....	63-29		63-29

485,840-38 7,337-63 493,178-01

The expenses of collection on the Chenango canal are greater than given in the second column by about \$150. These expenses do not include the charges for superintendence, lock tending, etc., which amount to about half a million of dollars per annum."

**Railroad Meetings in Ohio.**

We take from the Ohio State Journal, of 12th inst., the following account of a meeting held at Toledo on the 25th of October, for the purpose of considering the subject of a railroad from Buffalo, along the southern shore of lake Erie to Toledo, and thence to Chicago, or to some point in Illinois, with a view to its extension to St. Louis. We concur fully with the editor of the State Journal in the opinion that "this road is one of vastly greater importance than any or all others now proposed in and from the northern section of our state;" and therefore we hope to see it taken hold of with the right spirit, and prosecuted with vigor even until it reaches the Mississippi in more places than one.

The proceedings appear to have been first published in the "Toledo Blade"—an implement of war well known in the *Maumee* country, though we have not been gratified for many a year by a sight of its beautiful polish and exquisite edge, though we occasionally hear the sound of its high tempered metal, as it severs a limb or a head, from some luckless wight, who comes recklessly within its sweep. Possibly we may see it again—aye, and *feel* it too—its influences we mean, in favor of this important work in which so many will soon become deeply engaged. This is one of those works which cannot be allowed to rest.

At a numerous meeting of the citizens of the city of Toledo, Lucas county, Ohio, held at the old court room in said city, on the 25th day of October, 1845—Richard Mott, the mayor, was called to the chair, and Junius Flagg appointed secretary.

The object of the meeting having been explained, the Hon. H. D. Mason, the Hon. Elisha Whittlesey, and Jesup W. Scott, Esqs; thereupon offered the following resolutions which were unanimously adopted:

*Resolved*, That the time has arrived when a railroad, to connect the north Atlantic states with the states of the northwest, should be constructed. That the united exertions of both these great sections are required and should, without delay, be put forth for the attainment of this object. That the interests of the stockholders and of a large portion of the people along its line as well as considerations arising from love of country, require that the entire road should be made within the limits of our government; and that a'l

attempts, within the states, to forestall action on the route, by encouraging the construction of a road to pass through the territory of a foreign government, should be met by a determined spirit, that we will not rest until this work shall have its entire route fixed on the soil of our republic.

*Resolved*, That it is the opinion of the meeting, that the efforts exerted by several American citizens, and communities, to withdraw from their usual direct and national channels the products and the travel of the western and southwestern states, and to open new, circuitous and unnatural channels through the province of a foreign power, for their transit and passage, to the states and cities bordering on the Atlantic, should be counteracted, by showing to the American people the practicability and greater advantages of the route on the south shore of lake Erie for the construction of a railroad, and by showing the amount of business such road would necessarily perform; and the loss the country would sustain, if such efforts shall be successful.

*Resolved*, That it is expedient to appoint a committee to confer with such persons and corporations on the south shore of lake Erie as said committee shall think proper, on the subject of holding a convention in regard to the construction of a railroad from Toledo to Buffalo.

*Resolved*, That the construction of a railroad from Toledo, through Indiana to some point or points in Illinois, with a view to its extension to St. Louis, is demanded by the vast amount of the productions of western and southwestern states, which such an eastern market, and the travel on such routes would concentrate.

*Resolved*, That a committee be appointed to confer with such persons as they shall select, in regard to the western route, and collect statistical information of the business and travel on a railroad, which, when constructed, it would perform and convey on said route.

On motion, *Resolved*, That the first named committee consist of ten persons, to be appointed by the chairman. Whereupon, Jesup W. Scott, Henry Bennett, James Myres, H. D. Mason, Dan'l O. Morton, John Fitch, Ora H. Knapp, M. H. Tilden, Charles H. Williams, were appointed.

On motion of Judge Tilden, Richard Mott was appointed on the said committee.

On motion, *Resolved*, That the second committee consist of two, to be appointed by the chairman; Elisha Whittlesey and H. D. Mason were thereupon appointed.

On motion of Jesup W. Scott, Esq.,

*Resolved*, That a committee of three be appointed to obtain statistics of the trade of Toledo. Jesup W. Scott, Daniel Segur, and Henry Deminon were appointed.

On motion of J. W. Scott, Esq., Richard Mott was added to the last committee.

On motion, *Resolved*, That the first named committee cause the above to be published in such newspapers as they deem advisable.

And on motion, the meeting adjourned.

RICHARD MOTT, *President*.

JUNIUS FLAGG, *Secretary*.

#### Railroad Meeting at Cleveland.

We find in the Cleveland Herald, of 10th inst, a number, sent probably by mistake, or for some purpose, as we have not before in years received a number of the Herald, though we have sent the Journal to it for many months—the following account of the proceedings of a meeting held in that city on the 8th inst., for the purpose of consulting and conferring in relation to the railroad from Buffalo to Toledo and Chicago.

The meeting was addressed by E. Whittlesey, of Trumbull county, and H. D. Mason, of Toledo, who had passed over the proposed route from Toledo to Michigan city, for the purpose of ascertaining the character and resources of the counties through which the line would probably pass. We give at length Mr. Whittlesey's remarks, as they are directly to the point, and may be useful to the subject under consideration.

Of the importance of this road to the people along its entire line, and to the multitudes who will emigrate westward, and would pass over it if finished, we entertain a deep and abiding conviction: and we would just whisper in the ear of the editor of the Herald particularly, and the people of Cleveland generally, that they must not content themselves with "spending their energies and means in 'penetrating the interior,' in connecting Cincinnati with our beautiful city." They will find that both "silver and gold" as well as "statistical information," and "influence and encouragement" will be required of them "in aid of the railroad along the south shore of lake Erie." There is no other place on the south side of lake Erie more deeply interested in this work, or better able to take the lead in its construction than Cleveland, and to her citizens do we look, and upon them rely, for prompt and efficient aid to it. Will they give it? We shall see.

Gentlemen, who are in favor of constructing a railroad along the south shore of lake Erie, which would ultimately connect Buffalo with the Mississippi, assembled in the hall of the common council of the city of Cleveland, on Saturday, Nov. 8th. Heman Ely, of Lorain county, was appointed president, and B. F. Wade, of Ashtabula county, secretary.

The meeting being organized, John W. Allen, of this city, called upon Elisha Whittlesey and Judge Mason to communicate what statistical information they had obtained in their late tour between Toledo and Michigan city.

Mr. Whittlesey thereupon responded in substance as follows:

That the citizens of Toledo were induced to invite a meeting of the citizens on the south shore of lake Erie, to take into consideration the propriety of renewing their efforts to construct a railroad which should ultimately connect Buffalo with the Mississippi river, from the measures which were actively prosecuted to divert the travel and the products of the west and southwest from their national channels, and turn them through the province of Upper Canada. He reminded the gentlemen present, that in 1836 a company was incorporated to construct a railroad from the east line of the state of Ohio to the Maumee river, with the right to extend it to Fort Defiance; and that a considerable sum of money had been drawn from the treasury, corresponding with the amount expended by

individuals, in grading a track and laying down the superstructure of a railroad from the Maumee river to Sandusky city, and from thence to Huron; and while he had no doubt the gentlemen who had charge of the work intended to advance the public interests, he then thought, and had seen no reason for changing the opinion, that the line selected, although important as a link of the road, was the last that should have been undertaken. His object in referring to what had taken place was not to bestow any censure upon those who had charge of the work, but to find the cause for the apathy that had existed for some time past in regard to this road, in the failure to prosecute the work after it was commenced. It was known to the gentlemen present, that a company had been incorporated some years since, to construct a railroad from Toronto, on lake Ontario, to Port Sarnia, at the outlet of lake Huron, and that the British government had recently subscribed liberally towards the work; and he expressed it as his opinion that the road would be constructed, inasmuch as it would open an extensive tract of uncultivated land for settlement, and the policy of the present government now being to win the confidence of her subjects in the province referred to, by acts of kindness and liberality. This route was favorably considered by different sections of New York east of Buffalo, and different companies proposed to form connections with it, as should best advance the interests of the sections of the country they represented. In the expectation that the road would at no distant day be extended on the north side of lake Ontario to Kingston, it was proposed by one company to construct a railroad from Rome to cape Vincent, and to connect with the Canada road at Kingston. That the Canadian travel and business might be drawn to Boston, the stock for constructing a railroad from that city to Ogdensburgh had been liberally subscribed. The provincial parliament had granted another charter for a railroad from Bertie, nearly opposite to Buffalo, to Sandwich, near Detroit, and the construction of this road was favorably considered by the citizens of Buffalo. A portion of the citizens of Michigan were in favor of the last mentioned route, inasmuch as it would connect, by crossing the Detroit river, with the Central railroad in that state. They would probably prefer the Toronto and Port Sarnia route, to a route on the south side of lake Erie, and they might connect the Central railroad with it, in the vicinity of Fort Gratiot. Whatever the citizens of Canada or the present government might do to create facilities for business or intercommunication, he should witness with satisfaction; but he hoped the question would be propounded directly to the American capitalists, whether they should seek investments in a foreign province to the abandonment of a route in their own country, vastly more advantageous to them in a pecuniary point of view. He had asked gentlemen at Boston and New York to designate the trade they expected in either city from Canada, and he had not heard any one say the Canada route would bring anything



into the eastern states, except the products and passengers of the west and southwest. The time had been when Detroit and Buffalo were not so much in love with their provincial neighbors as they seemed to be at present. If the scenes of 1812 and 1813 should be again acted, those cities would again receive the protection and sympathy of their countrymen in the states. While the Canada routes could convey nothing to the states they did not receive from them, a railroad on the south shore of lake Erie would pour into the eastern cities the products of the richest portions of the globe, with a number of passengers far exceeding the conception of the most enthusiastic mind. The power of the west was beginning to be developed. In connection with the railroad on the south shore of lake Erie, and as a part of the contemplated railroad from Buffalo to the Mississippi, the citizens of Toledo had turned their attention to the section between the Maumee bay and the south bend of lake Michigan, and the same meeting that proposed a convention at this city, appointed Judge Mason and himself a committee to confer with the inhabitants on the line of the route, and to obtain such statistical statements as were important for general information. They had attended to the duty assigned to them, and had just returned. The better to see the country the route would accommodate, and from which it would draw its supply, they passed through Adrian, Hillsdale and Coldwater, to Constantine; from thence to Bristol, Goshen, Elkhart, Mishawakee, South Bend and Laporte, to Michigan city; and in returning, continued east from Bristol to Lima, in Lagrange county, and to Willow prairie, in Steuben county, and from thence to Hillsdale. It was their intention to have continued east through Williams and Lucas counties, but they expected to meet Mr. Baldwin from Boston, and have him and his party commence their examination on that portion of the line, and they hastened back to give the necessary directions.

They found the productions of the country and the staple article of wheat in particular, more abundant than they had anticipated. They were not then in possession of all the statistical tables, they hoped soon to obtain, and could not therefore go into detail—but such information and tables as they had enabled them to say that the southern tier of counties in Michigan, exclusive of Monroe, produced this year about two million bushels of wheat, and that the northern counties in Indiana, from which a railroad would draw its supply, produced more than one million nine hundred thousand bushels. There had been shipped from Michigan city, 90,000 bushels, and it was expected that two vessels would take from 10 to 12,000 bushels more, and that the navigation would close with 150,000 bushels in store, which, by the opening of navigation in the spring, would be increased to 400,000 bushels. From information received from Chicago, the spring would find stored in that city 700,000 bushels.—Storehouses and mills on the routes they passed over were groaning under their bur-

dens, and yet, in looking at the stacks of wheat in every direction, a traveller might well doubt whether any wheat had been sent to market. The people, with very few exceptions, were determined to grade a track and lay down the superstructure of a railroad whenever they could be assured it would be covered with iron. The expense of carrying the fruits of their labor to market, was a burden too onerous for them to bear—and they anxiously look for its removal.

Sections of the country abound with iron ore, and the water power is great, almost beyond comparison. Villages are rapidly increasing, notwithstanding their insular position—and whenever the country shall be penetrated by a railroad, they will vie in number, wealth and prosperity, with the most flourishing sections of New England. A railroad across the part of the peninsula of Michigan on the route mentioned, and continued to Buffalo, would equalize the business of the country throughout the whole year, instead of its being compressed into the compass of six months, as it now is. The farmer would then take his own time for threshing his wheat for market, and the miller would find business for the whole year. The wheat would more generally be converted into flour in the country where it was raised, and an unparalleled state of prosperity for the west would be witnessed immediately. It is ascertained with tolerable certainty that the number of travellers from the lower Mississippi for the east, that ascend the Mississippi and Illinois rivers, is as great as the number that ascend the Ohio. In addition to this, the immense region of Iowa, Wisconsin, and the "far west," are to be taken into the account when estimating the travel that would concentrate on the road. No one can realize the number of emigrants on their way to the west, who has not visited the country. From Laporte to South Bend, a distance of twenty-eight miles, they met twenty-seven emigrating families. Gentlemen at Laporte who have made it their business to take notice of the emigrants and travellers that daily passed through that village, assured them, the number was equal to two hundred a day, west and east. A gentleman at Michigan city informed them that in returning lately from Chicago, he counted more than fifty emigrating families in a distance of forty miles, and this on one of two parallel roads, and at that time supposed to be the least travelled. Mr. Churchill, from Batavia, in Illinois, who arrived at Bristol the evening before they saw him, said he counted over 100 wagons with emigrants in one day. A railroad would not convey all the emigrants to the west, but a road so straight, with so low grades, and cheaply constructed, and rates correspondingly low, would be able to convey most of them, advantageously, to both parties. The question for the people on the south shore of lake Erie to solve is, will they stand still and see, as they must, unless they put forth their energies, the products of the west and southwest with their enterprising and busy population, pass out of their own country into a foreign province in their transit to the east? When

the country west of the mountains contained a population scarcely exceeding one hundred thousand, Mr. Jefferson thought it was of so much importance to have an outlet to the ocean by the Mississippi, that without the authority of law, and as he admitted, in violation of the constitution, he purchased Louisiana, and the nation sustained him. If a population of seven millions will now consent to pass the boundaries of a neighboring province to reach an eastern market, the spirit of the people is broken down. Let us ascertain what is public sentiment, by calling special and general conventions in the country bordering on this lake, and in the adjoining counties, and abide the result.

Judge Mason, of Toledo, was then called upon, and responded in a speech of great force and eloquence. He enforced and illustrated the positions taken by Mr. Whittlesey, with arguments of unusual pertinency and in language of peculiar significance and energy, and furnished much additional statistical information. Judge Mason's speech was abundantly fortified with ascertained facts, and figures "that cannot lie"—but he marshalled them so effectively, and relieved their dryness and monotony with such beauty and energy of illustration, that he was listened to with exceeding interest.

Messrs. Allen and Starkweather also briefly addressed the meeting, explaining the views and actions of the citizens of Cleveland, in relation to the great work of connecting Cincinnati and Cleveland by railroad, expressing their conviction of the vital importance of the road under consideration, and tendering their aid and co-operation in directing and arousing the public attention to it.

Letters were read, from various points on the route of the proposed road, stating that the want of time, and the bad state of navigation prevented the attendance of delegates.

On motion, the following gentlemen were appointed a committee to issue circulars appointing a convention to be held at some future day, by them to be designated, viz:

Elisha Whittlesey, of Trumbull county, H. D. Mason, of Toledo, A. A. Bliss, of Loraine county, John M. Woolsey and Samuel Starkweather, of Cleveland.

On motion, *Resolved*, That the proceedings of this meeting be published in all papers favorable to the proposed work.

HENAN ELY, *President*.

B. F. WADE, *Secretary*.

#### Sale of Another Railroad.

*Ohio Railroad Company.*—We find in the Sandusky Clarion, of the 11th inst., a notice of the board of public works of Ohio, offering to receive proposals "for the purchase of the property, right of way, permanent fixtures and chartered franchises" of the Ohio railroad company, extending the entire distance from the Maumee river to the Pennsylvania state line, or about 175 miles. The Ohio railroad was commenced, and a large amount of money expended upon it, and we believe a short distance was completed, but of this we are not sure. Note.—Will Wm. Durbin, Esq., or Cyrus Williams, Esq., of Sandusky city, please furnish us information in relation to the progress made upon, and the present condition of this road? All operations were, we

believe, discontinued upon it four or five years since, of course great losses will be sustained by those who furnished the capital expended in grading, piling and bridging, as it is well known that works of this kind decay more rapidly when out of, than when in, use; but as a *good road* is of more importance to the people than the dividends upon the stock, it may better be given to any company, or individual who will complete it in a proper manner, and manage it properly, than to have it remain as it is—useless and an eyesore to those who have invested capital in it.

The present is a fortunate period for putting it up for competition; and we hope it will be taken hold of by capitalists who will make all necessary arrangements this winter for commencing operations early in the spring, and then prosecute the work to an early completion; but if such a company cannot be found to purchase it, or even to take it as a *gift*, then we would recommend to the legislature of Ohio, at the coming session, to offer a *bonus* of \$500,000, in three annual instalments, to the right sort of a company that will put it in successful operation within that period. It would be the best investment they could make of that amount of capital, as this road will form a *base line* with which will be connected numerous lateral roads extending westwardly to the Ohio river. If, however, the state legislature declines further aid to this important work, as we suppose it will, then we say to the people of the *twenty-five northern* counties of the state, better would it be for your prosperity to be taxed *one million* of dollars in four years than not to have this road built—if the Canadians should, as they surely will, construct one on the other side of the lake—even if you never receive a penny in the way of dividends.

The following is the notice referred to.

OFFICE OF THE BOARD OF PUBLIC WORKS, }  
Columbus, Oct. 30, 1845. }

In pursuance of a joint resolution of the general assembly of the state of Ohio, providing "for the sale of the personal property, fixtures, right of way, etc., of the Ohio railroad company, and for other purposes," passed March 12, 1845, the board of public works will receive proposals, at their office in Columbus, until the 24th day of December next, for the purchase of the right of way, permanent fixtures and chartered franchises of said company. Proposals may be made for the whole line, extending from the Pennsylvania state line to the Maumee river, or for separate sections, as follows: 1st, for that portion lying east of Cleveland—2d, for all that portion lying between Cleveland and the termination of the Mad river and lake Erie railroad, at Sandusky city—3d, for that portion lying between Sandusky city and Lower Sandusky, at the head of navigation on the Sandusky river—4th, for the remaining portion, lying between the Sandusky river and the Maumee river. Proposals will be received and considered for any lesser portions of said line of road than those above named.

For terms and conditions of sale, reference may be had to the joint resolution above cited. By order of the board.

O. FOLLETT, *President.*

The following extract from the joint resolution of the general assembly, will show the conditions and terms on which the road is to be sold:

*Resolved, by the general assembly of the state of Ohio,* That the board of public works be and they are hereby authorized to sell to the highest bidder, or dispose of in the manner they shall consider most advisable for the interests of the state, after having given not less than thirty days' notice, by public advertisement of the time and place of sale, all the personal property belonging to the Ohio railroad company, that now is, or may hereafter come into the possession of said board; and said board is hereby authorized to sell or dispose of such property, on a credit of not exceeding five years, and take notes, bonds, or other evidences of debt, bearing interest, and well secured for the payment of the same; and the notes and bonds so taken shall be payable at the state treasury, and the interest thereon shall be payable annually.

*Resolved, further,* That said board shall, in like manner, with like credit and security, sell and dispose of the whole or part of the right of way, permanent fixtures and chartered franchises of said company; and the person or persons, or body corporate, becoming the purchaser of such permanent fixtures, right of way and chartered privileges, may exercise, use, possess and enjoy the same, or so much thereof as may be purchased, as fully as the same could have been enjoyed by the said Ohio railroad company, provided that said permanent fixtures, right of way and chartered privileges shall become forfeited to the state of Ohio if the purchaser shall not, within five years commence, and within ten years complete said road, or so much thereof as shall have been purchased by such person or persons, or body corporate, provided that the state of Ohio shall not, in any manner, be bound or pledged to furnish any means whatever for the completion of said road.

We learn, says the Baltimore American, thus far the number of boats which have ascended the Tide Water canal this year is about *four hundred* more than went up during the whole of last year. From this time to the close of navigation there will be increased activity in the business of the canal.

*Railroad Iron.*—Horace Gray and others are about to commence the manufacture of railroad iron in Maine, where they have a mine of excellent hematite ore. Our American railroads are likely to be retarded in their progress towards completion by the high price of railroad iron in England. This will also have the effect to promote the manufacture in this country. We ought not for the future import a single pound of railroad iron, having the means to manufacture it, as soon as energy can be directed to the object, in any quantity; and we should not be surprized, if in a few years, our railroad iron was exported to Europe. It can be done, and can be afforded, we think, in France or Spain, at a less price than English iron now commands.

*Albany and Boston Railroad.*—The greatest activity prevails at East Albany at this season of the year. Extra freight trains of 20 and 30 cars are despatched day and night, but still the large mass of freight in the warehouses does not seem to diminish. There is now more flour, etc., awaiting shipment than will probably be sent away for weeks after the canal closes. This is no fault of the directors, for it is known far and near, that this is the model road of the country, presenting the greatest possible facilities for the despatch of business. We learn that the ferry boat now in use has been sold, and that the company will, during the coming winter build one of superior accommodations, which will be particularly adapted to running in the ice.—*Albany Atlas.*

*Canals in the West.*—How little is generally known of the extent of the public works in that region.

The new work on the Wabash and Erie canal between Lafayette and Covington, Indiana, 49 miles in length, is completed, and water has been let into it through its entire length. The entire length of continuous canal communication from Cincinnati to Covington, the southwestern terminus of the Wabash and Erie canal, is 350 miles. Including the branches the length is about 540 miles.

#### A CARD.

THE SUBSCRIBER, EDITOR AND PUBLISHER of the *Miners' Journal* for the last sixteen years, has been engaged, for the last year in collecting the materials for a work, for which he has secured the copy right, in the following words:—"A history of the Anthracite Coal Trade of Schuylkill and the adjoining Counties, Geological and Statistical, accompanied with Maps of the different Regions, the Improvements, Investments, Capacity, etc., embracing a complete and authentic history to the present time, to which will be appended a Synopsis of the Iron Trade."

It is our intention to embrace everything of interest in the work, connected with the trade, up to the beginning of the year 1846, prepared and arranged with a view of continuing the publication, at periods of five or ten years, with such additions as the increased trade will warrant. These branches of trade have assumed an importance which will warrant such a publication; and he feels confident, that with the proffered aid of several gentlemen and the statistics already in his possession, he will furnish the public with a work, which, if not one of the most interesting in its details, it will be of great value to those engaged and interested in these branches of business.

As soon as the Maps, etc. are prepared, and some idea can be formed of the probable expense of publishing the work, proposals will be issued for the same. All the tracts of Coal land will be designated on the Map of the Schuylkill Coal Region, which will accompany the work.

Pottsville, Nov. 13, 1845. BENJ. BANNAN.

NOTICE IS HEREBY GIVEN THAT the New York and Harlem Railroad Company, intend to apply to the Legislature of the State of New York, at the ensuing session thereof, for an amendment to their charter, authorizing them to pledge their property and franchise for the purposes of extending their road from its present termination to the city of Albany, and for other purposes.

Dated Nov. 20th. 48 6t

**RAILROAD IRON.**—THE "MONTOUR Iron Company," Danville, Pa., is prepared to execute orders for the heavy Rail Bars of any pattern now in use, in this country or in Europe, and equal in every respect in point of quality. Apply to MURDOCK, LEAVITT & CO., Agents.

Corner of Cedar and Greenwich Sts. 43 1y

**NEW YORK AND ERIE RAILROAD** Company. The Stockholders of this company are hereby notified that an instalment of Five dollars on each share of the new stock, on which not more than five dollars has been paid, is required to be paid at the office of the company, No. 50 Wall street, on or before Wednesday, the 10th day of December next. By order of the board of Directors. NATHANIEL MARSH, Secretary.

New York November 5, 1845.

N.B. Subscribers at or near Newburgh are requested to make payment to Thomas C. Ring, Esq. Cashier of the Powell Bank. 4t 46

**WESTERN AND ATLANTIC RAILROAD.** The Western and Atlantic Railroad is now in operation to Marietta, and will be opened to Cartersville, in Cass county, on the 20th of October—and to Coosa Depot, (formerly known as Borough's,) on the 20th of November.

The passenger train will continue, as at present to connect daily (Sundays excepted) with the train from Augusta, and the stage from Griffin.

CHAS. F. M. GARNETT.

Chief Engineer.

BOSTON AND MAINE RAILROAD.

Upper Route. Boston to Portland via, Charlestown, Somerville, Malden, Stoneham, South Reading, Reading, Wilmington, Ballardvale, Andover, North Andover, Bradford, Haverhill, Atkinson, Plaistow, Newtown, Kingston, East Kingston, Exeter, South Newmarket, Newmarket, Durham, Madbury, Dover, Somersworth, South Berwick, North Berwick, Wells, Kennebunk, Saco and Scarborough.

Winter Arrangement, 1845 & 6. On and after Monday, October 20th, 1845, Passenger Trains will run daily, (Sundays excepted,) as follows, viz.

Leave Boston for Portland at 7 1/2 a.m. and 2 1/2 p.m. Leave Boston for Great Falls at 7 1/2 a.m., 2 1/2 p.m. and 3 1/2 p.m. Leave Boston for Haverhill at 7 1/2 a.m., 2 1/2, 3 1/2 and 5 p.m. Leave Portland for Boston at 7 1/2 a.m., and 3 p.m. Leave Great Falls for Boston at 6 1/2 a.m., 9 1/2 a.m. and 4 1/2 p.m. Leave Haverhill for Boston at 6 1/2, 8 1/2, and 11 a.m., and 6 1/2 p.m.

Special Train.—A special train will leave Boston for Andover at 11 1/2 a.m., and Andover for Boston at 3 1/2 p.m.

The Depot in Boston is on Haymarket Square. Passengers are not allowed to carry Baggage above \$50 in value, and that personal Baggage, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every \$500 additional value.

CHAS. MINOT, Superintendent. October 20, 1845. 43 ly

SPRING STEEL FOR LOCOMOTIVES,

Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent, j5a3 Albany Iron and Nail Works, Troy, N. Y.

TO IRON MANUFACTURERS. THE

Subscribers, as Agents of Mr. Geo. Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO., j4a5 No. 4 South Front st., Philadelphia, Pa.

MACHINE WORKS OF ROGERS,

Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work. Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York.

FOR SALE AT A SACRIFICE.—A LOCO-

motive Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine. 2 8-horse " " " " 1 Upright Hydraulic Press.

All of which will be sold low, on application to T. W. & R. C. SMITH, Founders and Machinists, Alexandria, D. C.

GEORGIA RAILROAD. FROM AUGUSTA TO ATLANTA—171 MILES.

This Road in connection with the South Carolina Railroad and the Western and Atlantic Road now forms a continuous line of Railroad of 360 miles from Charleston to Cartersville, two miles west of the Etowa River in Cass County.

Rates of Freight, and Passage from Augusta to Cartersville. On Boxes of Hats, Bonnets, and Furniture per foot..... 15 cts. " Dry goods, shoes, saddlery etc., per. 100 lbs. 85 " " Sugar, coffee, iron, hardware, etc. " 70 " " Flour, bacon, mill machinery etc. " 33 1/2 " " Molasses, per hoghead \$9; salt per bus. . . 22 "

Passengers \$9 50; children under 12 years of age and servants, half price.

Passengers to Atlanta, head of Ga. Railroad, \$7. German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight payable at Augusta.

J. EDGAR THOMPSON, Ch. Eng. and Gen. Agent. Augusta, Oct. 21 1845. \*44 ly

NICOLL'S PATENT SAFETY SWITCH

for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design. It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable. Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, Reading, Pa. ja45

GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/2 in. to 2 1/2 in thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wrot. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wrot. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descriptions. ja45ly

TO RAILROAD COMPANIES AND MANUFACTURERS OF RAILROAD MACHINERY. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45- N. E. cor. 12th and Market sts., Philad., Pa.

NORWICH AND WORCESTER RAILROAD.

On and after May 22, 1845, Trains will leave as follows, viz:— Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4 1/2 p.m. Leave Worcester, at 10 a.m., and 4 1/2 p.m.

The morning train from Norwich, and the morning and evening trains from Worcester, connect with the Boston, Western, and Hartford and Springfield railroads.

New York Train, via Steamboat. Leaves Norwich for Worcester and Boston, every morning except Monday, upon the arrival of the boat from New York, about 2 a.m. Leaves Worcester for Norwich and New York, at 5 1/2 p.m., daily, except Sunday.

New York Train, via Long Island Railroad.—Leaves Norwich about 3 p.m., for Worcester and Boston, daily, except Sunday. Leaves Worcester for Norwich and New York, at 7 1/2 a.m., daily, except Sunday, and arrives in Norwich at 9 1/2.

Freight Trains. Daily, except Sunday. Fares are less when paid for Tickets, than when paid in the cars.

EMERSON FOOTE, Superintendent. 32 ly

LAWRENCE'S ROSENDALE HYDRAULIC CEMENT.

This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floors and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE, 142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 32 ly

SUMMER ARRANGEMENT—FARE REDUCED.

By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

Direct to New Orleans, and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great Southern Mail Line, and the only one that issues a through ticket South. Those who patronize it will save their money and time. Through Tickets from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

Fast Mail Line.—Leave New York at 9 a.m. and arrive in Philadelphia at 3 1/2 p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12 1/2 to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.

Passengers by the above line will arrive at Richmond by 11 1/2 o'clock p.m. and Petersburg, Va. by 2 1/2 o'clock p.m., through to the former city in twelve hours, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

Way Mail Schedule.—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p. m.; arrive in Baltimore at 2 1/2 p.m.; arrive in Washington at 7 p.m. From Philadelphia by steamboat.—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore.

STOCKTON & FALLS. 31

**BOSTON AND PROVIDENCE RAILROAD.** Passenger Notice. Winter Arrangement. On and after Monday, Nov. 3, the Passenger

Trains will run as follows:

For New York—night line, via Stonington.—Leaves Boston every day, but Sunday, at 4 1/2 p.m.

Accommodation trains, leave Boston at 8 a.m. and 3 1/2 p.m., and Providence at 8 a.m. and 3 1/2 p.m.

Dedham trains, leave Boston at 9 a.m. 3, 5 1/2 and 10 p.m. Leave Dedham at 8 and 10 1/2 a.m., and 4 1/2 and 7 p.m.

Stoughton trains, leave Boston at 12 m. and 4 p.m. Leave Stoughton at 8-20 a.m. and 2 1/2 p.m.

All baggage at the risk of the owners thereof.

N.B. The last train to and from Boston and Dedham, will be omitted in case of a severe snow storm.

W. RAYMOND LEE, Supt. 31 1/2

**BRANCH RAILROAD and STAGES** connecting with the Boston and Providence Railroad.

Stages connect with the Accommodation trains at the Foxboro' Station, to and from Woonsocket. At the Seekonk Station, to and from Lonsdale, R. I. via Pawtucket. At the Sharon Station, to and from Walpole, Mass. And at Dedham Village Station, to and from Medford, via Medway, Mass. At Providence, to and from Bristol, via Warren, R. I.—Taunton, New Bedford and Fall River cars run in connection with the accommodation trains.

**NEW YORK AND ERIE RAILROAD LINE.** For Middletown, Goshen, and intermediate places. Two daily lines each way, as follows:

For passengers, the new, and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7 1/2 o'clock, A.M., and 5 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4 1/2, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets.

H. C. SEYMOUR, Superintendent.

Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc.

31 1/2

**BALTIMORE AND SUSQUEHANNA** Railroad. The Passenger train runs daily except Sunday, as follows:

Leaves Baltimore at 9 a.m., and arrives at 6 1/2 p.m. Arrives at York at 12 1/2 p.m., and leaves for Columbia at 1 1/2 p.m. Leaves Columbia at 2 p.m., and leaves York for Baltimore at 3 p.m. Fare to York \$2. Wrightsville \$2 50, and Columbia \$2 62 1/2. The train connects at York with stages for Harrisburg, Gettysburg, Chambersburg, Pittsburg and York Springs.

Fare to Pittsburg. The company is authorized by the proprietors of Passenger lines on the Pennsylvania improvements, to receive the fare for the whole distance from Baltimore to Pittsburg. Baltimore to Pittsburg.—Fare through, \$9 and \$10.

Afternoon train. This train leaves the ticket office daily, Sundays excepted, at 3 1/2 p.m. for Cockeysville, Parkton, Green Springs, Owings' Mills, etc.

Returning, leaves Parkton at 6 and Cockeysville and Owings' Mills at 7, arriving in Baltimore at 9 o'clock a.m.

Tickets for the round trip to and from any point can be procured from the agents at the ticket offices or from the conductors in the cars. The fare when tickets are thus procured, will be 25 per cent. less, and the tickets will be good for the same and following day in any passenger train.

D. C. H. BORDLEY, Supt. Ticket Office, 63 North st.

**DAVIS, BROOKS & Co., 30 WALL ST.**

Have now on hand and for sale,

200 tons 2 1/2 x 1/2 inch Flat punched Rails, Bars 18 feet each.

100 tons Heavy Edge Rails, 90 tons per mile.

30 tons 2 1/2 x 1/2 inch Flat Rails.

Also—A STEAM PILE DRIVER, built by "Dunham & Co." which has never been used, and cost originally \$5000.

s20 2m ja45

**BALTIMORE AND OHIO RAILROAD.** MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7 1/2 and

Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5 1/2 P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

**WASHINGTON BRANCH.**

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5 1/2 P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13 1y

**CENTRAL RAILROAD-FROM SAVANNAH** to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight. Rates of Passage, \$8 00. Freight—

On weight goods generally... 50 cts. per hundred.

On measurement goods... 13 cts. per cubic ft.

On brls. wet (except molasses and oil).....\$1 50 per barrel.

On brls. dry (except lime)... 80 cts. per barrel.

On iron in pigs or bars, castings for mills, and unboxed machinery..... 40 cts. per hundred.

On hds. and pipes of liquor, not over 120 gallons.....\$5 00 per hhd.

On molasses and oil.....\$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE, 40 Gen'l. Supt. Transportation.

**LEXINGTON AND OHIO RAILROAD.**

Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1-25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above.

35 1y

**KEARNEY FIRE BRICK.** F. W. BRINLEY, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire, Peter Cooper, } New York.

Murdock, Leavitt & Co. J. Triplett & Son, Richmond, Va.

J. R. Anderson, Tredegar Iron Works, Richmond, Va.

J. Patton, Jr. } Philadelphia, Pa.

Colwell & Co. J. M. L. & W. H. Scovill, Waterbury, Con.

N. E. Screw Co. } Providence, R. I.

Eagle Screw Co. William Parker, Supt. Bost. and Worc. R. R.

New Jersey Malleable Iron Co., Newark, N. J.

Gardiner, Harrison & Co. Newark, N. J.

25,000 to 30,000 made weekly. 35 1y

**RAILROAD IRON AND FIXTURES.**

The Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO., 30 Wall st., N. York.

**NEW YORK AND HARLEM RAILROAD COMPANY.**—Winter Arrangement.

On and after Monday, November 3d, the cars will run as follows:

Leave City Hall for Harlem (125th street,) Morrisiana, Fordham, Williams' Bridge, Hunt's Bridge, Underhill's Road, Tuckahoe, Hart's Corners, and White Plains—7-30 and 10-30 a.m., and 1 and 3-30 p.m.

Extra trains for Yorkville, Harlem, Morisiana, Fordham, and Williams' Bridge, leave 27th street 7 a.m. for Williams' Bridge. Leave City Hall 9 a.m. (to Harlem only) and 11-30, 2-30, and 4-30 p.m. for Williams' Bridge.

Leave White Plains for City Hall—8-10, 11-10 a.m., and 1-45, 4-10 p.m.

Leave Tuckahoe for City Hall—8-20, 11-20 a.m., and 1-55, 4-20 p.m.

Leave Williams' Bridge for City Hall—7-45, 8-45, 11-45 a.m. and 12-45, 2-15, 3-45, 4-45, and 5-45 p.m.

Leave Morisiana for City Hall—8-10, 9-10, and 10 a.m., and 12-10, 1-10, 2-40, 4-10, 5-10, and 6-10 p.m.

The freight train will leave City Hall at 12-45 p.m. and leave White Plains at 11-10 a.m. All freight must be at the City Hall between the hours of 10-30 a.m. and 12-30 p.m. The White Plain trains will stop, after leaving the City Hall, only at the corner of Broome street and the Bowery, Vauxhall Garden and 27th street.

An extra car will precede each train, 10 minutes before the time of starting from the City Hall, and will take up passengers along the line.

The City Hall and 27th street line will run every 6 minutes from 7-30 a.m. to 8 p.m.

The City Hall and 27th street night line will run every 20 minutes from 8 to 12 o'clock.

On Sundays the trains will be regulated according to the state of the weather. 1y 46

**THE LONDON RAILWAY RECORD,** Edited by Mr. JOHN ROBERTSON, A. M., (connected from the commencement with the Weekly Railway press of England.)

The Railway Record is acknowledged to be the leading English Railway Journal, and is published twice a week in London, namely on Wednesday and Saturday. It contains copious and correct reports (by special reporters) of all railway meetings in the United Kingdom; ample Share Lists and Traffic Tables, showing the length, cost, capital and selling prices in the principal markets, with Editorial articles on the leading Railway topics of the day. The Railway Record contains also, a complete resume of French, Belgian and other foreign Railway affairs.

Subscriptions 13s. per quarter, to be transmitted in advance to Messrs. Dawson and Sons, Cannon-st. London. Office 153 Fleet street, London. 46

**BOSTON COURIER, DAILY, SEMI-Weekly and Weekly.**

The Daily edition of the Courier, presents to merchants and others, an extensive medium of advertising. The circulation of the Semi-Weekly Courier (published on Mondays and Thursdays) is believed to be more extensive than that of any other similar Boston Newspaper. This publication embraces all the reading matter of the Daily, the Foreign and Domestic Markets, Review of the Boston Market, Prices current, and Ship News, prepared with great accuracy. The Weekly Courier contains as much of the matter of the daily as can be crowded into a sheet of the same size, without ship news, prices current or advertisements.

Our extions to obtain and publish authentic information on all topics proper for the columns of a newspaper,—the state of trade, the prices of merchandise, the current news of the day, and the political movements in the various sections of the country—will not be abated. The marine department of the Courier has been inferior to none in copiousness or accuracy of detail, and it will be our endeavor to maintain its reputation in this respect.

TERMS OF SUBSCRIPTION.

For the Daily Courier, for one year, in advance \$8.00

For the Semi-Weekly Courier, for one year... 4.00

For the Weekly Courier, for one year..... 2.00

JOSEPH T. BUCKINGHAM.

EBIN B. FOSTER.

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 49.]

THURSDAY, DECEMBER 4, 1845.

[WHOLE No. 492, VOL. XVIII

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

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One page per annum.....	\$125 00
One column " .....	50 00
One square " .....	15 00
One page per month.....	20 00
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One page, single insertion.....	8 00
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Professional notices per annum.....	5 00

### ENGINEERS and MACHINISTS.

- J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)
- TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)
- ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)
- S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)
- NORRIS, BROTHERS, Philadelphia, Pa.
- KITE'S Patent Safety Beam. (See Adv.)
- FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)
- NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)
- ROSS WINANS, Baltimore, Md.
- CYRUS ALGER & Co., South Boston Iron Company.
- SETH ADAMS, Engineer, South Boston, Mass.
- STILLMAN, ALLEN & Co., N. Y.
- JAS. P. ALLAIRE, N. Y.
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- WEST POINT FOUNDRY, N. Y.
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- JOHN F. STARR, Philadelphia, Pa.
- MERRICK & TOWNE, do.
- HINCKLEY & DRURY, Boston.
- C. C. ALGER, Stockbridge Iron Works, Stockbridge, Mass.
- BALDWIN & WHITNEY, Philadelphia, Pa.

### IRON MERCHANTS and IMPORTERS.

- DAVIS, BROOKS & Co., N. Y. (See Adv.)
- A. & G. RALSTON & Co., Philadelphia, Penn. (See Adv.)
- THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM.

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

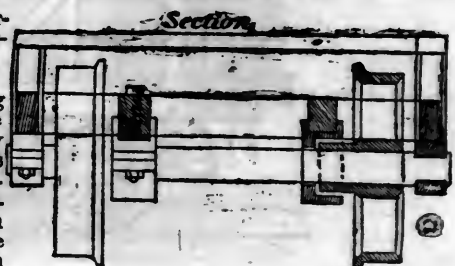
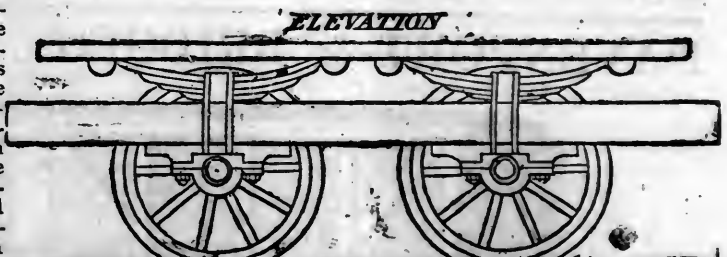
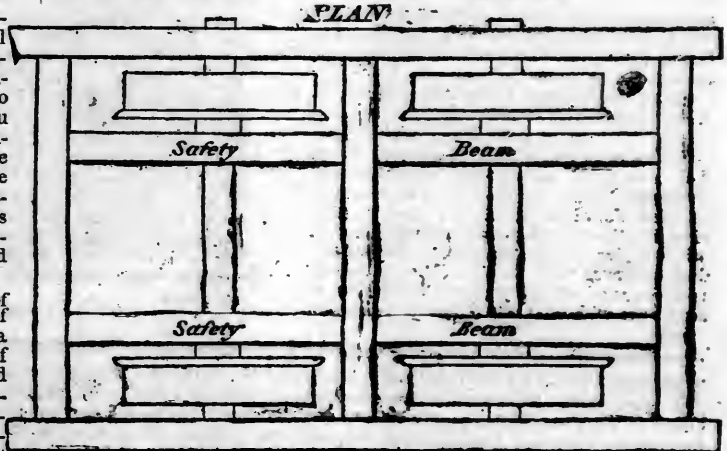
On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,  
JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.  
A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, *Agent.*

Albany Iron and Nail Works, Troy, N. Y.  
The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, *Agent.*  
Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand.

ja45

### FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

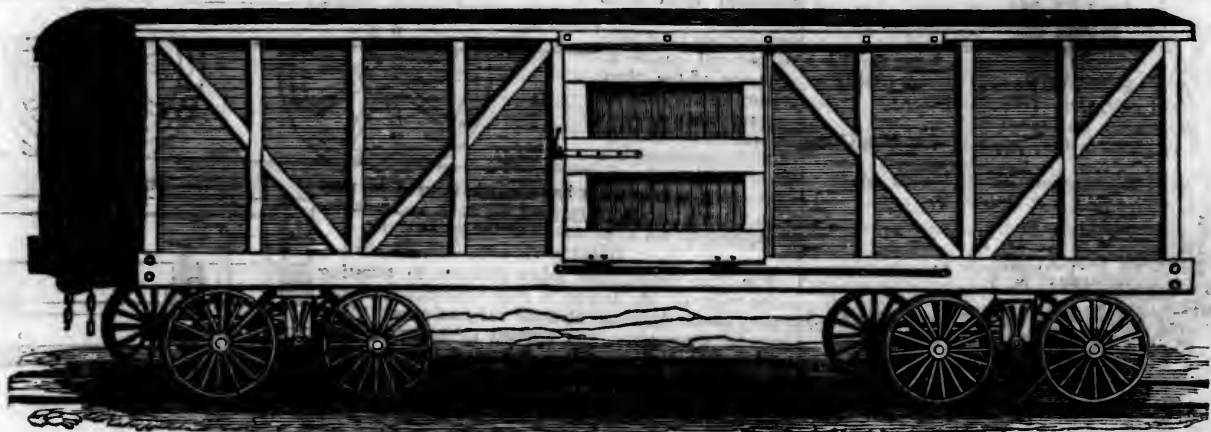
N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\*\*\* The letters in the figures refer to the article given in the *Journal* of June, 1844.

ja45

**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

## DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern, and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All orders punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of letters patent to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of improving their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

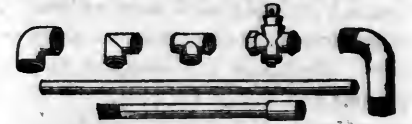
**W. Mc. C. CUSHMAN, Civil Engineer,**  
Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

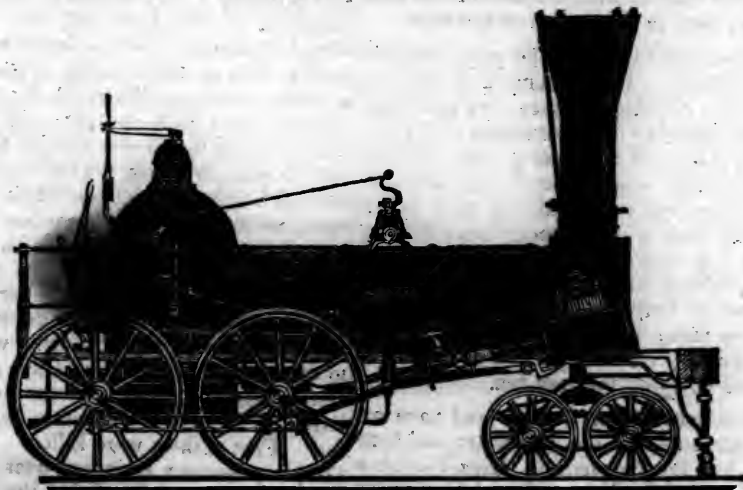
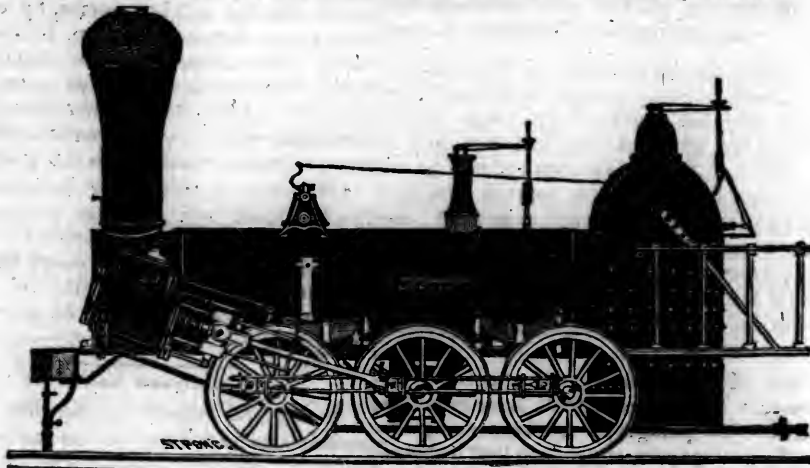
From 4 inches to 1 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**

*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches Diameter of Cylinder,	×	20 inches Stroke.
"	2,	14	"	× 24 " "
"	3,	14½	"	× 20 " "
"	4,	12½	"	× 20 " "
"	5,	11½	"	× 20 " "
"	6,	10½	"	× 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.  
**WILLIAM YOUNG,**  
President.

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Biluminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS,** 48 State st., or to **CURTIS, LEAVENS & CO.,** 106 State st., Boston, or to **A. & G. RALSTON & Co.,** Philadelphia.  
ja45

**CYRUS ALGER & CO.,** South Boston Iron Company.

*London, Central Railway Terminus.*—We have more than once spoken of the great convenience which would result from bringing as near to one point as possible the terminus of the different railroads in cities and large villages. We have always felt that *travelers* and *freight* should have as little trouble as possible in getting from one depot to another. Railroads are designed to transport persons and things for which the owners of the railroad are to be *paid*, and those who *pay* for this service ought *first* to be accommodated, rather than the people who happen to live in the cities and towns, and keep a hotel, or drive a carriage, cart or omnibus. Hotels, carriages, and carts are supposed to be brought into use to be employed by those who *need*, or *desire* their services, not to oppress those who do not want them, as it would seem to be supposed in some places we could name. And by forming central, or joint stations where it can be done—and it can be done almost anywhere if in London—much inconvenience and especially to females who travel alone, and persons not accustomed to travel, would be avoided.

By the following statement it will be seen that they are endeavoring to effect this desirable object in London as well as in other cities and towns in England.

"At the court of common council, on Thursday, the question of the central grand terminus, suggested to the lord mayor elect, the presentation of a petition from the directors of Direct London and Manchester railway company (Rastrick's line,) for leave to purchase the Farringdon market for a great central terminus. The petition was presented by Mr. King, and duly seconded."

A company, with a capital of 300,000*l.* for establishing iron works, has been formed under the title of the "Swansea and Dulais railway company" for the manufacture of rails and merchant iron. Messrs. Manby and Brothers, engineers.

*Thames Tunnel Railway.*—Negotiations are on foot, says the Railway Record, of 15th Oct., between the directors of the Thames Tunnel and a party of capitalists, headed by a gentleman most favorably known in the railway world, for the purchase of the tunnel, with the view of carrying a railway direct from the junction of the Eastern Counties' and Blackwall lines, to a point on the Greenwich line, whence the Croydon, Brighton and Dover lines diverge.

*Railways in Spain.*—The Madrid Gazette mentions the arrival of Mr. Brunel at Madrid with a party of English engineers to carry on the works of the north of Spain.

*Canals into Railroads.*—"A meeting," says the Record, "of the proprietors of the

Monmouth canal was held at Newport, on Friday last for the purpose of contracting to sell the same; and resolutions were adopted for carrying out the object of the meeting."

*L'Espagne*, a newly established French paper, says the Record, remarking on the subject of the impossibility of competition between canals and railways, a question on which our French neighbors are not yet quite decided, points to the movements in England as decisive.

*Cornish Engines.*—The number of pumping engines reported this month is 36. They have consumed 2,448 tons of coal, and lifted 52,000,000 tons of water 10 fathoms high.—The average duty of the whole is therefore 63,000,000 lbs. (23,606 tons) lifted one foot high by the consumption of a bushel of coal.

A treaty for the purchase of Northumberland House is going on between its ducal proprietor and the southwestern. The excellence of the site for a west end terminus is superlative. If the conversion should be effected, we trust the noble marble staircase will be preserved and turned to account; we know of no equal to it in the metropolis except perhaps that at Sutherland House. The central terminus, baffled at Hungerford, are said to be negotiating for leasing Waterloo Bridge instead.

The Hudson Testimonial progresses famously. More than 15,000*l.* have been subscribed. A paragraph has been going the round of the papers, suggesting that it should be invested in founding "Hudson Almshouses" for the widows and children of those who lose their lives in the service of railways.

Children have reason to be very thankful for the railway. Left at home in dismal neglect in days of stage coaches, they now form the great majority of all excursion trains. A short time since, a large party from Bethnal (of hard toiling weavers) made an excursion to Brighton, when the children were taken there and back at a little more than a shilling a head. A week or so ago, upwards of 7000 school children made an excursion from Birmingham to Derby. We rarely hear of an excursion train, which is not partly composed of smiling urchins, packed as closely as pigs, and enjoying the rare fun.

The inundations in Cumberland have arrested the works on the Lancaster and Carlisle. And the *Sunderland Herald* informs us that part of the Newcastle and Darlington which passes through the Morden Carrs, near Aycliffe, has for an entire week been covered with water. The long and heavy trains could scarcely move, and the merchandize train actually could not proceed, and had to be drawn on by another powerful engine.

The earliest railway for public traffic in England, says the Railway Chronicle, was one passing from Merstham to Wandsworth, through Croydon; a small single line, on which a miserable team of lean mules or donkeys, some thirty years ago, might be seen crawling at the rate of four miles in the hour

with small trucks of stone and lime behind them. It was commenced in 1801, opened in 1803, and the men of science of that day—we cannot say that the respectable name of Stephenson was not among them—tested its capabilities, and found that one horse could draw some 35 tons at six miles in the hour, and then, with prophetic wisdom, declared that railways could never be worked profitably. The old Croydon railway is no longer used. The *genius loci* must look with wonder on the gigantic offspring of the little railway which has swallowed up its own sire. Lean mules no longer crawl leisurely along the little rails with trucks of stone, through Croydon, once perchance during the day, but the whistle and the rush of the locomotive, and the whirl of the atmospheric, are now heard all day long. Not a few loads of lime, but all London and its contents, by comparison—men, women, children, horses, dogs, oxen, sheep, pigs, carriages, merchandize, food—would seem now-a-days to be passing through Croydon, for day after day more than one hundred journeys are made by the three great railroads which reach this place.

Oftentimes in every hour during daylight the Londoner may transport himself to the Chalk Downs, and be freshened by the pure breezes of Duppers Hill, or to the sandy heights of the Addington Hills, and scent the fragrant wild thyme which he cratches at every step.

#### Railroad Accidents.

Is there no remedy for the frequent and serious accidents occurring on our railroads?

*On the Western Railroad.*—Last week was certainly a very unlucky one with the trains on the Western railroad. We have already recorded the collision of the first freight train on the morning of the 7th, with a yoke of oxen at Westfield, by which one animal was killed outright, and the other hurt so much that it was obliged to be sacrificed, besides throwing the locomotive, tender and ten freight cars off the track, and damaging them quite seriously, as well as delaying all the trains of the day. On Saturday, (8th) one freight train ran into the rear of one forward of it, while the latter was stopping at the Chester Factories depot, by which the locomotive of the first train was injured to the amount of \$2000, and five cars of the last broken to pieces, and their contents of live hogs let loose too violently for their comfort. Five of them were killed. On Friday (7th) a passenger train ran over and killed two cows west of Pittsfield; the locomotive was not injured nor the train thrown off; and on the same day a flock of sheep were run into by another train, and some twenty or more killed. Quite a slaughter house, truly! including the ox run over and killed on the Friday previous (Oct. 31st,) last week's work would sum up: three oxen, two cows, five hogs, and sheep too numerous to mention, without saying anything about the locomotives, cars and freight, smashed up, all of which somebody must pay for. Most fortunately no person was hurt by either accident.



**On the Providence Railroad.**—The steam-boat train via Stonington was thrown off the track of the Providence railroad, at Sharon on Saturday morning, in consequence of a switch being misplaced. The locomotive was driven, with great violence, into a sand bank; and the baggage crates, and one or two passenger cars badly broken. Fortunately no one was seriously injured, though the engineer and fireman received some severe bruises. It is supposed that the switch was altered some time during the night; but whether by accident or design, is not known.

—Atlas.

**James River Canal.**—It is estimated, says the Richmond Enquirer, that the reduction in the rates of tolls, at the commencement of the present year, was such, that if the tonnage had remained the same, the receipts would have been reduced about 22,000 dollars. Nevertheless, it turns out that the receipts from tolls, for the last twelve months have exceeded those of the twelve months previous, by upwards of 9,000 dollars. These two sums amount to about one-sixth of the receipts of the last year. Consequently the trade must have increased one-sixth during the year.

Such has been the uniform tendency on all the public works in this country, and especially on the New York canals, as will be seen by referring to a statement in this Journal, number 35 for August 28th. In 1832 the up tolls on the Erie canal were \$5 08½ on 1000 lbs. of merchandize from Albany to Buffalo and \$2 54 on 1000 lbs. of flour, or provisions from Buffalo to Albany, whereas in 1845, this year, they are \$3 20½ up, and \$1 62½ down and yet the tolls of 1845, will be double those of 1832 and even double those of 1837—next year, 1846, the up tolls on merchandize are to be \$2 36 and the down tolls on provisions \$1 35½ per 1000 lbs. or just one-half the charges of 1832, and we shall be disappointed if with ordinary crops, the receipts do not equal those of this year. Yet, notwithstanding these and numerous other proofs, which he who runs may read, we see the managers of some of our most important lines exacting rates of freight and fare which are truly oppressive. It is much to be desired that they should learn wisdom in this matter and as much for their own interest as for the interest of others.

**Raleigh and Gaston Railroad.**—It appears by the following from the Raleigh Register that governor Graham has determined to go in his bid to the maximum amount for the Raleigh and Gaston road.

“Governor Graham has returned from his examination of the Raleigh and Gaston railroad. He was accompanied to Gaston by the public treasurer, by George W. Mordecai, Esq., the temporary president of the company, John D. Hawkins, Esq., of Franklin, one of

the directors, and Mr. Holister, superintendent of the road. We are gratified to learn that the governor found the road, excepting the section between Raleigh and Forestville, on which workmen are now operating, in much better condition than he had expected; and that, after a personal survey of almost the whole track, and the depots, aqueducts, and noble bridges of the company, and on the inspection of the reports of its income for the past two years, made to the court of equity of Wake, he determined without hesitation, as the agent and representative of the state, at the sale of the company's property, to be made on the 29th of December next, to bid the maximum amount prescribed in the act of the general assembly at the last session, viz: \$300,000, and the interest accrued thereon since the bonds for this amount, endorsed by the state, were issued—which will be in all about \$381,000.

**The City of Macon and the Central Railroad.**—A very numerous and respectable meeting of our citizens was held at the court house on Monday last, to adopt measures to counteract the efforts now making by the Central railroad company, to procure an amendment of their charter authorizing them to construct a road from some point in Bibb county, to a point on the Chattahoochee, at or near Columbus. There was a unanimous expression of opinion, in opposition to this scheme, as one ruinous to the interest of Macon. Our people are all of one way of thinking on this point. They will not permit a junction of any road on the west side of the Ocmulgee, with the depot on the east side, within their corporate limits; and they have expressed their determination to resist by all legal means, any such junction either above or below the city. The diversion of trade from our city by any such junction, is too apparent for us to dwell on. The attempt to effect it by the railroad company, was regarded by the meeting as a violation of former pledges and stipulations, and as a measure destructive to our prosperity, and which should be arrested at its inception. A series of resolutions expressive of the sense of the meeting were passed, and a committee appointed to draft a memorial to the legislature, praying the rejection of the contemplated amended charter.”

Will the editor of the Macon Messenger please inform us why this opposition? Is Macon the last city or town in that direction? Or are there cartmen, and cabmen, whose interest is paramount to that of the business community? We ask for information as we do not understand why this opposition.

**The City Point Railroad.**—The business on this road has increased considerably during the last six or eight months, so much indeed, as to encourage the belief that it will be a source of no small profit to the town.—This must be gratifying to all who have at heart the prosperity of Petersburg. One of the grand designs in the original construction of this road was the formation of an important

connection between the Petersburg railroad and the James river and bay line, thus offering to travellers, going north or south, a cheap, expeditious and agreeable route. It is also a great accommodation to our merchants in the rapid, cheap and safe transportation of goods brought by vessels to City Point. But for this road our citizens would be subjected to much inconvenience, because of the difficulty during some seasons of the year in transporting merchandize, etc., in vessels from City Point to this place, on account of the small quantity of water and obstructions by ice in the Appamattox. If this road were abandoned, the travel on the bay would in a short time most certainly be lost to Petersburg and the Petersburg railroad, as under this state of affairs strong inducements would be held out to northern or southern capitalists to purchase, and recommence operations on the road between Portsmouth and Weldon.”

Not with a view of injuring Petersburg, by any means, but for the convenience of travellers, we hope northern or southern capitalists, we care little which, will purchase and repair “the Portsmouth and Weldon road.” It is mortifying to see a railroad on such a line as that go to ruin. Why do the citizens of Virginia allow it?

**Flour by Railroad.**—There was received in this city from Albany, says the Boston Daily Advertiser of 25th Nov., by the Western and Worcester railroads, in the week ending the 15th inst., 13,174 barrels flour. In the week ending on Saturday last, the quantity received was 13,426 barrels, and on the three first days of the present week, 10,845 barrels, making in two and a half weeks, 37,445. In the last three days the freight trains have contained an average of more than 1000 barrels a train, in addition to large quantities of other freight. The receipts for the transport of flour on the Boston and Worcester railroad, in the two entire weeks above mentioned, were about a fifth part of the whole freight receipts of those weeks. This branch of the business, however, contributes a much larger proportion of the amount of the merchandize transported, than of the income earned.

“About 3000 barrels of flour, in addition to the above, were received at the depot in this city yesterday.”

The amount of other freight passing in the same direction, and of merchandize by return trains, would astonish many of our citizens if they were to see the trains as they arrive at the depot in Boston and Greenbush. We will take the liberty, however to tell them that the present business over that road is only a priming to what it will be a few years hence, especially if the road between Albany and this city is not constructed.

The earnings of the Buffalo and Niagara railroad company this year shows a very great increase over last. From the 1st of August to 1st of November, this year, they were \$11,864, against \$8,352 for corresponding period last year.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in the latest balance sheets.	Total earnings, in pounds, for six months as stated in the latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.					
							Per share.	Per cent. per annum.									
Arboath and Forfar.....	15	102,000	35,000	138,870	.....	.....	0	12	2	10	0	25	20	Aberdeen.....	1,600,000		
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5	0	2	10	0	100	100	Barnsley Junction.....	200,000	
Brandling Junction.....	23	161,700	365,470	481,452	.....	.....	.....	.....	.....	.....	.....	.....	50	54	Belfast and Ballymena.....	385,000	
Bristol and Gloucester.....	37½	400,000	211,000	657,825	.....	.....	.....	.....	.....	.....	.....	.....	30	59	Blackburn and Accrington.....	400,000	
Chester and Birkenhead.....	14½	750,000	143,170	518,980	5,856	13,148	0	10	0	2	0	0	50	60	Birk. and Ches. Junction.....	1,000,000	
Dublin and Drogheda.....	31	450,000	150,000	582,254	.....	.....	.....	.....	.....	.....	.....	.....	60	115	Bolt, Wigan and Liverpool	800,000	
Dublin and Kingston.....	6	200,000	152,200	349,736	.....	.....	.....	.....	.....	.....	.....	.....	100	251	Caledonian.....	1,800,000	
Dundee and Arbroath.....	16½	100,000	49,445	153,416	2,969	6,993	1	5	0	5	0	0	25	36	Cambridge and Lincoln.....	1,250,000	
Durham and Sunderland.....	18½	169,350	124,055	270,392	9,889	17,702	.....	.....	.....	.....	.....	.....	50	25	Chatham and Portsmouth.....	5,000,000	
East County and North and East.....	86½	4,443,200	1,341,155	3,931,905	47,385	118,726	1	6	.....	.....	.....	.....	45	57	Chester and Wrexham.....	120,000	
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1	5	0	5	0	0	50	78	Churnet valley.....	1,800,000	
Glasgow, Paisley and Ayr.....	51	937,500	.....	1,071,258	12,446	36,736	1	5	0	5	0	0	50	72	Direct Northern to York.....	4,000,000	
Glasgow, Paisley and Greenock.....	22½	650,000	216,666	797,643	11,830	23,447	0	5	0	2	0	0	25	21	Dublin and Belfast.....	950,000	
Grand Junction.....	104	2,478,712	.....	2,503,671	84,309	195,080	5	0	0	10	0	0	100	239	Dundee and Perth.....	250,000	
Great North of England.....	45	969,000	581,017	1,307,487	12,201	36,189	3	0	0	6	0	0	100	230	Edinburg and Northern.....	800,000	
Great Western.....	221½	4,650,000	3,679,343	7,445,689	143,279	440,046	4	0	0	8	0	0	80	215	Ely and Bedford.....	270,000	
Hartlepool.....	15½	438,000	155,540	719,205	.....	.....	.....	.....	.....	.....	.....	.....	100	.....	Glossog, Dum. & Carlisle.....	1,300,000	
Leicester and Swannington.....	16½	140,000	.....	140,000	2,207	6,317	1	5	0	5	0	0	50	.....	Gt. South and West Ext.....	1,200,000	
Liverpool and Manchester.....	32	1,209,000	497,750	1,785,500	64,885	141,252	5	0	0	10	0	0	100	214	Gt. Grimby and Sheffield.....	600,000	
Llanelly.....	27	200,000	44,000	221,624	.....	.....	.....	.....	.....	.....	.....	.....	87	.....	Harwich and E. coun. Jun.	160,000	
London and Birmingham.....	302½	6,874,976	1,928,845	6,614,005	96,413	456,997	5	0	0	10	0	0	100	245	Huddersfield & M. rl. & cl.	600,000	
London and Blackwall.....	3½	804,000	266,000	1,768,851	15,978	23,870	0	3	0	1	10	0	16	10	Kendal and Windermere.....	125,000	
London and Brighton.....	56	1,935,000	705,000	2,637,753	30,490	130,156	1	10	0	6	0	0	50	77	Leeds and Dewsbury.....	400,000	
London and Croyden.....	8½	550,000	229,000	761,885	7,583	10,545	0	8	0	4	0	0	14	23	Leeds and Thirsk.....	900,000	
London and Greenwich.....	3½	759,383	233,300	1,040,930	15,193	28,933	.....	.....	.....	.....	.....	.....	13	11	Liv. Ormskirik and Preston	600,000	
London and South Western.....	92½	2,222,100	630,100	2,604,405	89,439	190,631	2	0	0	10	0	0	41	82	London and Portsmouth.....	1,750,000	
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1	0	0	5	0	0	40	62	London and York.....	5,000,000	
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2	2	0	4	10	0	93	169	Londonderry & Enniskillen	500,000	
Manchester and Leeds and Hull.....	87	2,937,500	943,932	3,921,593	46,653	156,761	.....	.....	.....	.....	.....	.....	82 & 102	60	170	Lynn and Ely.....	200,000
Midland railway.....	179½	5,158,900	1,719,630	6,279,838	75,227	276,129	3	0	0	6	0	0	100	192	Manchester, Bury and Ross	300,000	
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	46,745	5	0	0	5	0	0	100	113	Manchester and Buxton.....	250,000	
Newcastle and Darlington.....	23	500,000	.....	405,728	.....	.....	.....	.....	.....	.....	.....	.....	1	0	0	Mullingar and Athlone.....	.....
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466	.....	.....	.....	.....	.....	.....	6	9	0	Newcastle and Berwick.....	700,000
North Union.....	39	739,201	308,306	1,028,593	24,788	37,794	2	10	0	6	5	0	100	176	.....	.....	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415	.....	.....	.....	.....	.....	.....	.....	.....	20	45	.....	.....	
Paris and Ronen.....	84	1,440,000	.....	.....	31,247	91,171	.....	.....	.....	.....	.....	.....	8	0	0	.....	.....
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066	.....	.....	.....	.....	.....	.....	4	0	0	.....	.....
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,875	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
South Eastern.....	88	2,996,000	1,530,377	3,464,173	69,288	139,042	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Taff Vale.....	30	465,000	195,000	595,089	9,115	22,692	1	17	3	15	0	0	100	104	.....	.....	
Ulster.....	25	519,150	20,000	348,236	5,401	13,856	0	15	0	5	1	8	32	52	.....	.....	
Yarmouth and Norwich.....	20½	187,500	62,500	230,036	5,186	10,008	1	0	0	5	0	0	20	29	.....	.....	
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	1,107,146	31,349	75,474	2	10	10	0	0	0	50	115	.....	.....	

ENGLISH STEAM AND MISCELLANEOUS COMPANIES.

NAME OF COMPANY.	Steam and Miscellaneous.					NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.							
Anglo Mexican Mint.....	10,000	10	10	.....	15½	15½	Loughborough.....	70	142½	142½	70	1140
Anti Dry Rot.....	10,000	.....	18½	.....	2	.....	Monmouthshire.....	2,409	100	100	10	160
Australian Trust Company	5,700	100	35	.....	34½	.....	Melton Mowbray.....	250	100	100	10	117
General Steam Navigation	20,000	15	14	10	27½	27	Mersey and Irwell.....	500	100	100	10	.....
Gt Western Steam Pa.....	.....	.....	100	.....	25	.....	Macclesfield.....	3,000	100	100	2½	15
Metropolitan Wood Pav..	15,000	10	6	5	6½	.....	Neath.....	247	100	100	17	365
Patent Elastic Pav.....	10,000	1	1	5	14	.....	Oxford.....	1,786	100	100	30	505
Peninsular and Oriental..	11,493	50	50	7	64½	65	Regents or Loncon.....	21,418	33½	33½	2½	25
Ditto.....	3,200	50	40	7	.....	.....	Shropshire.....	500	125	125	6	120
Polytechnic Institution.....	.....	.....	.....	6	.....	.....	Somerset coal.....	800	150	150	7½	123
Reversionary Int. Soc.....	5,387	100	100	4½	104	104	Stafford and Worcester.....	700	140	140	25	480
R. Mail Steam Packet.....	15,000	100	60	.....	36½	37	Shrewsbury.....	500	125	125	12	230
South Western Steam.....	4,000	25	5	.....	.....	.....	Stourbridge.....	300	145	145	14	360
Ship Owners' Towing.....	3,000	10	7½	10	15	.....	Stroudwater.....	200	150	150	19	.....
Thames Tunnel.....	4,000	50	50	.....	.....	.....	Swansea.....	533	100	100	15	240
University College.....	1,500	100	.....	.....	.....	.....	Sewern & Why & Rail Av.	3,762	26½	26½	5½	30
<b>Canals.</b>						Trent and Mersey.....	2,600	50	50	65	495	.....
Ashby de la Zouch.....	1,432	113	av.	4	70	70	Thames and Medway.....	8,149	19½	19½	.....	10
Barnsley.....	720	100	100	14	180	180	Warwick and Birmingham.	1,000	100	100	10½	167
Birmingham, 1-16 share	3,000	118½	79	10	150	160	Warwick and Napton.....	980	100	100	8½	122
Do. and Liverpool Junction	4,000	160	100	.....	13½	13½	<b>Water Works.</b>					
Cowentry.....	500	100	100	20	365	365	Birmingham.....	4,800	25	25	3½	28
Cromford.....	460	do.	do.	24	250	250	East London.....	4,433	100	100	8	223
Derby.....	600	do.	do.	9	105	105	Grand Junction.....	5,500	av.	41	2-3	7½
Erewash.....	231	do.	do.	32	440	440	New River L. B. Ann.....	1,500	.....	.....	2½	88
Forth and Clyde.....	1,297	400½	40½	4	440	440	Manchester and Salford.....	6,486	av.	30	8½	57
Grand Junction.....	11,600	100	100	7	162	161½	Vauxhall, lt. S. London.....	1,000	100	100	5	55
Grand Surrey.....	1,500	do.	do.	.....	20	.....	West Middlesex.....	8,294	av.	63½	6½	126
Gloucester and Rerkley.....	5,000	do.	do.	.....	8	8	<b>Docks.</b>					
Grantham.....	749	150	150	8	185	185	Commercial Dock.....	1,065	100	100	3	80
Lancaster.....	11,699	47½	47½	3	40	40	East and West India.....	.....	sto.	.....	5½	137
Leeds and Liverpool.....	2,897	100	100	34	640	640	London.....	3,238,310	sto.	.....	4½	114½
Leicester.....	545	140	9	139	139	.....	St. Katharine.....	1,352,752	str.	.....	5	116
.....	.....	.....	.....	.....	.....	.....	Southampton.....	7,000	50	50	.....	171



AMERICAN RAILROADS.

NAMES OF RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	1845.		Div. per cent.
						Gross.	Nett.		Gross.	Nett.		Gross.	Nett.	
Maine. 1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6			
N. Ham. 2 Concord.....	35	750,000									12			
Mass. 3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½			
4 Boston and Maine extension.....	17½	455,703	unfin.											
5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8			
6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6			
7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½			
8 Berkshire.....	21	250,000	not stated					7	17,737					
9 Charlestown branch.....		280,260						13	34,654	13,971	5½			
10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8			
11 Fitchburg.....	50	1,150,000	just op'n'd											
12 Nashua and Lowell.....	14½	380,000				84,079		8	94,588	34,944	10			
13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
14 Northampton and Springfield.....		172,883	unfin.											
15 Norwich and Worcester.....	66	2,290,000	900,000	16,535	100	162,336	24,871		230,674	99,464	3			
16 Old Colony.....		87,820	unfin.											
17 Stoughton branch.....	4	63,075	unfin.											
18 Taunton branch.....	11	250,000						8	96,687	20,000	8			
19 Vermont and Massachusetts.....														
20 West Stockbridge.....	3	41,516			100						4			
21 Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3			
22 Worcester branch to Milbury.....		8,431	506											
23 Housatonic, (10 months.).....	74	1,244,123							150,000					
Conn. 24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6			
25 Hartford and Springfield.....	25½	600,000	400,000	2,000	100									
26 Stonington, (year ending 1st Sept.).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845				
N. York. 27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033				
28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6			
29 Auburn and Syracuse.....	26	766,657		133½		86,291	27,334		96,738	52,544	6			
30 Buffalo and Niagara.....	22	200,000		1,500										
31 Erie, (446 miles.).....		5,000,000												
32 Erie, opened.....	53						48,000		126,020	59,075				
33 Harlem.....	26	2,250,000	750,000	30,000					140,685	62,399				
34 Hudson and Berkshire.....	31	575,613		50					35,029	1,789				
35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996				
36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763				
37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455				
38 Schenectady and Troy.....	20½	640,800				28,043			32,646	6,365				
39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8			
40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
41 Troy and Greenbush.....	6	180,000												
42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8			
N. Jersey 44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956				
45 Elizabethtown and Somerville.....	26	500,000												
46 New Jersey.....	34	2,000,000												
47 Paterson.....	16	500,000									6			
Penn. 48 Beaver Meadow.....	26	1,000,000												
49 Cumberland Valley.....	46	1,250,000												
50 Harrisburg and Lancaster.....	36	860,000	645,929									77,538	9,988	
51 Hazleton branch.....	10	120,000												
52 Little Schuylkill.....	29	900,000												
53 Blossburg and Corning.....	40	600,000												
54 Mauch Chunk.....	9	100,000												
55 Buck Mountain.....	4	72,000												
56 Minehill and Schuylkill Haven.....	19½	396,117	25,000	7,019	50			12			12			
57 Norristown.....	20	800,000												
58 Philadelphia and Trenton.....	30	400,000												
59 Pottsville and Danville.....	29½	1,500,000												
60 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511				
61 Schuylkill valley.....	10	1,000,000												
62 Williamsport and Elmira.....	25	400,000				20,000								
63 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000				
Delaware 64 Frenchtown.....	16	600,000												
Maryl'd 65 Baltimore and Ohio, (1st Oct.).....	188	7,742,410	1,153,709			575,235	279,402		658,620	346,946		738,603	374,762	3
66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		208,813	95,094	6
67 Baltimore and Susquehanna.....	58	3,000,000												
68 Wrightsville, York and Gettysburg.....	12½	500,000												
Virginia 69 Greensville and Roanoke.....	18	284,433	37,544	2,000	100				25,368	6,074	3			
70 Petersburg.....	63	969,880	63,000	7,690	100				122,871	72,898	6			
71 Portsmouth and Roanoke.....	78½	1,454,171												
72 Richmond, Fredericksb'g and Potomac.....	76	800,000												
73 Richmond and Petersburg.....	22½	700,000							185,213	85,688				
74 Winchester and Potomac.....	32	500,000												
N. Car. 75 Raleigh and Gaston.....	84½	1,360,000												
76 Wilmington and Raleigh.....	161	1,800,000									5			
S. Car. 77 South Carolina.....	136													
78 Columbia.....	66	5,671,452		34,410	75	201,464	77,456		532,871	140,196				
Georgia 79 Central.....	190½	3,000,000	500,000	22,500	100	227,532	93,190		328,425	180,704				
80 Georgia.....	147½	2,650,000				248,026	158,207		248,096	147,523				
81 Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Kent'ky 82 Lexington and Ohio.....	40	450,000												
Ohio. 83 Little Miami.....	40	400,000												
84 Mad river.....	40	152,000										24,984	3,280	
Indiana. 85 Madison and Indianapolis.....	56	212,000	50,000			22,110	8,639	8	39,031	10,065	9½			
Canada. 86 Champlain and St. Lawrence.....	15						12,000		58,000	24,000				

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Thursday, December 4, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 20,828 07 tons, and by canal 9,904 02, making 30,732 09 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total...377,801  
 From Schuylkill Haven—total.....377,124  
 From Port Clinton—total..... 20,521

Total by railroad.....775,447

BY CANAL.

From Pottsville and Port Carbon—total.....162,079  
 From Schuylkill Haven—total tons..... 46,445  
 From Port Clinton..... 51,136

Total by canal.....259,660

Total by railroad and canal.....1,035,107

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.

Summit mines, - 181,639  
 Room run do., - 72,213—253,852  
 Beaver Meadow railroad and coal co., 75,130  
 From Penn Haven—Hazleton coal co., 68,836  
 From Rock Port—Buck Mountain coal co., 23,269

421,087  
 WYOMING COAL TRADE—total .....182,745  
 PINE GROVE COAL TRADE.—total.....44,736  
 MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....423,440  
 MOUNT CARBON RAILROAD—total tons...247,052  
 MILL CREEK RAILROAD—total.....89,834  
 SCHUYLKILL VALLEY RAILROAD—total.....118,969  
 [Miners' Journal.]

WESTERN RAILROAD.—Receipts for week ending November 22.

	1845.	1844.
Passengers.....	\$5,437	\$5,071
Freight, etc.....	13,432	10,964
Total.....	\$18,869	\$16,035
Net gain this week.....		2,834
Net gain previously since Jan. '45.....		51,277
Total gain.....		54,111

Transactions of the Reading railroad for the month of October for three years:

	1843.	1844.	1845.
Business....	\$58,160 34.	\$66,476 59.	\$131,879 64
Coal tons.....	37,261.	55,525.	92,415

Erie Railroad.—The following gentlemen were chosen, on Saturday, directors of this great enterprise, with perfect unanimity, by 19,924 ballots:

Benjamin Loder, Stephen Whitney, Silas Brown, Henry Sheldon, Daniel L. Miller, Stewart C. Marsh, Jacob Little, Henry Suydam, Jr., W. E. Dodge, Shepherd Knapp, Samuel Marsh, Robert L. Crooke, A. S. Diven, Elmira, John Wood, Thomas Tileston, Cornelius Smith, Homer Ramsdell, Newburgh.

Springfield and Northampton Railway.—This road will be opened for travel some time in the present week.

Dividends.—The Delaware and Hudson canal company have declared a dividend of five per cent., payable on the 8th inst.

The Nashua and Lowell railroad corporation has declared a semi-annual dividend of five per cent., payable December 1st.

Notice to Railroad Contractors.

Proposals will be received at the office of the Pittsfield and North Adams Railroad Corporation in Pittsfield, Mass., until the 20th of December next,

1st. For the Graduation, Masonry and Bridging of 18½ miles of Roadway.

2d. For furnishing the Timber, Chairs and spikes and laying the Superstructure.

3d. For furnishing Materials and Building a heavy, substantial Post and Rail fence upon each side of the Roadway.

The approximate quantities are as follows, to wit: 600,000 cubic yards of Excavation and Embankment.

- 6,500 perches of Masonry.
- 500 feet of Bridging.
- 43,000 chestnut or white oak Cross-ties, 5 inch face 7 inches between faces and 7 feet long.
- 500,000 feet board measure, Hemlock sills 3 in. x 8 in. x 18 feet long.
- 150,000 feet board measure, Hemlock sills 3 in. x 8 in. x 6 and 12 feet long.
- 70,000 fence rails 12 feet long, either split from thrifty Chestnut of a size not less than 5 in. x 2 in. measured across the centre of the smallest end, or sawed from Spruce timber with square edges, 5 in. x 1½ in. or from Hemlock 5 in. x 2 in.
- 18,000 Chestnut fence posts, holed with 4 holes 7½ feet long and measure not less than 8 in. x 4 in. across the centre of the smallest end.
- 45 tons of Hook Head Railroad Spike.
- 90 tons of Cast Iron Chairs.

Plans, Profiles, Specifications etc., will be ready for examination on and after the 15th December.

FREDERICK HARBACH,

Resident Engineer.

Office of the Pittsfield and North Adams Railroad Corporation.

Pittsfield, Nov. 26th 1845.

3t 49

For the American Railroad Journal.

CLEVELAND, OHIO, }  
 November 25th, 1845. }

Sir: In a late number of your valuable Journal, I perceive that you are asking for information about the movements of the Cleveland, Columbus and Cincinnati railroad company. This is the title of the company as originally chartered in 1836, but is somewhat of a misnomer at present. It was then designed that it should make a road from Cleveland through Columbus to Cincinnati, but action was so long delayed that other companies were subsequently organized, and now occupy that part of the line between the two last mentioned cities. The Little Miami company has a road in full operation, extending from Cincinnati to Zenia, 65 miles, and from there to Columbus, 50 miles. Another company, called the "Columbus and Zenia," has surveyed and located a road that will be speedily put under contract. Our road, therefore, will only go to Columbus, but with the others a continuous line will be formed between the lake and river.

A company was organized this fall, under the charter referred to, by the selection of the following named persons as directors: Samuel Medary, William Neil, W. L. Sullivan and R. E. Neil, all of Columbus, and John M. Woolsey, Richard Hilliard, P. M. Weddell, Henry B. Payne and John W. Al-

len, all of Cleveland. They subsequently elected John W. Allen president, William Neil treasurer, and Albert G. Lawrence secretary.

The directors have now two separate companies of engineers surveying the country, and intend to keep them employed till all the information shall be acquired necessary to a judicious location. Whatever line may be taken, the expense for grading, the great source of expenditure on the eastern roads, will be trifling. It is believed that at present prices a substantial road with heavy iron can be made for \$12,000 per mile, including the right of way. The distance to Columbus will be about 140 miles, and to Cincinnati about 255 miles. If this line is made, as it should, and I think will be, the whole distance may be easily travelled in twelve hours, and with some of our fast boats on the lake, a gentleman may breakfast in Cincinnati one morning, and dine, if not breakfast, the next day in Buffalo, and may sleep the next night in your city.

That there will be a very great business in the transportation of passengers and property on this line, there can be no doubt. Of all the travellers at Cincinnati bound east, not more than one in nine hundred, as near as can be ascertained, comes to the lake at all, and yet the number is considerable.—From the central parts of the state very few do so. Nearly all the merchants and others below 100 miles from the lake cross the mountains, and if they go to New York, it is after having passed through Baltimore and Philadelphia, where they make many of their purchases, and as to others, compel your dealers oftentimes to sell at reduced rates under the threat of returning to the more southern cities to complete their stocks. Your merchants, therefore, have a deep interest in drawing all the travellers they can to the lake in the first place before their pockets are lightened elsewhere.

The country through which the road will pass is all good, and much of it of exceeding fertility, and its products are mainly, north of Columbus, of a character that must be carried to a market, that is, they are not cattle and hogs that can carry themselves. The road will probably be so distant both from the canal and the Mad river railroad, reaching the lake at Sandusky, as not to suffer or make them suffer unduly. At Cincinnati, the last mentioned road and ours will come into competition for the lake business, but the through business will be but a small part of what each will have to do. That there will be way business enough to support both I have little doubt.

The harbor of Cleveland is 60 miles nearer Buffalo than Sandusky, and is always accessible. Not a steamboat goes through lake Erie that does not stop at it. The Ohio canal and Ohio and Pennsylvania both terminate here and would without any railroads make it a place of considerable importance.

I think \$600,000 may be furnished in Ohio toward making our road, perhaps more. Will not New York and Boston feel a pecuniary interest sufficient to induce them to take the residue of the stock, or a part of it, and loan enough money to finish it on a pledge of the road? They had better invest their money in this road, than in some they have made, and in more that they talk of.

What is now the city of Cleveland, 15 years ago had 1000 people, Cincinnati 30,000, and the whole state 900,000. Now we have 12,000, Cincinnati 100,000, and the state 1,900,000, and we are yet in the gristle. A railroad between the two cities would go on paying increased dividends, till every rood of land in the broad basin of the Mississippi sustained its man. Very respectfully, etc.,

A DIRECTOR.

"STAND TOGETHER," says the editor of the Petersburg, Va. Republican. It is amusing to read the remarks of the Republican.—When he happens to agree with the dominant party of the legislature—as in political matters, the choice of "a speaker, a governor and a U. S. senator," all of which offices he "presumes will be filled by democrats," he relies upon party—but when he contemplates the possibility that a portion of his party will act upon their own judgment in matters of high import to Virginia, he seems to think it is time for "party men to forget and despise party trammels and names," and says:

"If there ever was a time for the man who truly and honestly loves his state and all her interests, to come up manfully and earnestly to the task of performing fearlessly his whole duty; if there ever was a time for the man of narrow prejudices and selfish propensities to make a noble sacrifice for the good and honor of his country, *this is the time!* This is no time for a halting, wavering, doubtful policy."

Now we see no more reason to "despise party trammels" at this time than at any other; they ought *always* to be "despised," and honest, independent, action should be as much sought in the election of a "speaker" a "governor" or a "U. S. senator," as in legislating on the subject of "canal, McAdamized and railroad improvements." In these matters, says the editor:

"Party names must be forgotten, and party animosities must be buried. Every man—be he whig or democrat—who loves this good "Old Dominion," not only for what she has been, but for what she is and for what she hopes she yet will be; every man who would not be willing to hear the cries of repudiation and distress and ruin ringing from the north to the south, and from the east to the west, must boldly come to the rescue, drive back every encroachment, resist every innovation; trample upon the petty feelings and unworthy designs of the partizan, and make one more vigorous, determined and tremendous effort for the sake of the prosperity and peace of this the mother of states and statesmen.—Yes! let all who are of this heart and this mind, "stand together," work together, fight together?"

We agree most cordially with the editor, that it is the duty of all to unite, stand, work and fight together, if need be, to make the "Old Dominion" what she ought to be and may be; but we imagine it will be a long while before that period arrives if they still "resist innovation" upon their time honored prejudices; "mother of states and statesmen" she may have been, but it has been her ruin; much better would it now be for her if she had given birth to industry, enterprize and perseverance, as they would have improved her soil, and developed her boundless miner-

al and manufacturing resources, and have kept her at the head of the list of these United States, instead of putting her upon the "sliding scale" from which her "statesmen" will never lift her, though a little common sense, aided by judicious and liberal legislation, backed by a proper encouragement to and just appreciation of, those who are neither afraid nor ashamed to labor, would do it. Let her legislature charter a company to construct a railroad from Lynchburgh to the mouth of the Kenawha or Guyandotte, by the most feasible route, with the privilege of extending it to Richmond, when that part between the present termination of the canal and the Ohio shall be completed; and take one-third of the stock, when the other two-thirds shall have been taken by responsible parties; and then let the Baltimore and Ohio railroad company have the right of way to Parkersburg, thus accommodating her northwestern counties without cost to herself, and we should soon see industry encouraged, agriculture improved, mining and manufacturing extended and "old Virginia" would soon become as good as new.

**Rival Lines of Railroad.**

The Utica Gazette, of 24th Nov., has the following remarks in relation to a rival line of railroad between Schenectady and Utica. *Such is the natural consequence* of "high fares and low speed for passengers" on such a thoroughfare as that along the Mohawk valley. *Two dollars*, or at most \$2 50, with an average of *twenty-five* miles an hour, between Buffalo and Albany, would give much greater accommodation to the public and better returns, as we think, to the shareholders. We coincide fully with Mr. Hudson, the English railway king, and many equally good judges in our own country, that for railroad companies to "benefit the public, is to benefit themselves." "Promote your own interests, but carry with you the interest of all whom it affects." "Do good to yourselves, but take others along with you in your prosperity, instead of thriving at their expense." *This is the true policy for all to pursue*—and it is the only policy for the managers of railroads to pursue if they would be prosperous and carry with them the approbation of an enlightened community.

*Thirteen miles* an hour, on such a line, is not enough, and *four cents a mile* is too much—and these errors must be corrected, or the people will have another railroad; whereas, we think reduced rates of fare, and increased speed, in accordance with the "spirit of the age in which we live," would prevent a rival line. The editor of the Gazette says:

"Another Railroad to Schenectady.—Our readers have doubtless observed that notice has been given of an application to the next legislature for the incorporation of a company to construct a railroad from Schenectady to this city, on the south side of the Mohawk river. The notice is signed by many well known, influential, enterprizing and wealthy citizens of this place and Troy. It is obvious that there is enough travel at the present time, on this route to afford two railroads handsome profits, and with the reduction of

price, which two will insure, the travel will soon be more than doubled. As a means of reducing the exorbitant charges demanded on the present railroad, this project is a matter of interest to every inhabitant of this section, not only as personal advantage to him in travelling, but as the means of continuing this as the great route of travel through the state, which the present high fares and the reduction on other routes have materially tended to transfer.

"We understand that it is contemplated to build the new road in the best manner, so that it will have the decided preference of travellers over the old one, and be also adapted for the transportation of freight, which the present one is not."

*Rates of Fare—Comparative Statement.*—The following comparative statement of rates of fare and speed on several different railroads would seem to warrant the complaints so frequently made against some of the railroad companies. A wide contrast here, between the charges on these roads—some of them must derive very large, or others very small profits. We shall refer again to this subject soon:

"The exorbitant rates of fare, time of running, and general management of the railroads between Rochester and Schenectady, says the Democrat, have become subjects of public complaint, the justice of which may be seen by a comparison, in those particulars, with several other roads on our main routes. The following statement and comparison is believed to be nearly accurate, and exhibits a contrast which would seem to justify the public dissatisfaction, and perhaps call for legislative or other redress:

	Miles.	Time.	Fare.
Long Island railroad	96	3 hrs.	50 cts.
Providence to Boston	40	1½ "	1 00 "
Boston and Portland	115	5 "	3 00 "
Albany and Boston	205	12 "	5 00 "
Schenectady to Greenbush via Troy	28	1 "	50 "
Baltimore and Phil.	96	5½ "	2 00 "
Roch. to Canandaigua	29	2½ "	1 13 "
" Auburn	77	5 "	3 00 "
" Syracuse	100	7 "	4 00 "
" Utica	152	12 "	6 00 "
" Schenectady	228	18 "	9 00 "

These roads enjoy an entire monopoly—they are accumulating large surplus funds—and the public have a right to know why they run at half the speed, and charge double the fare of other roads."

**Wilmington and Raleigh Railroad Co.**

The following report is taken from the Wilmington Chronicle of the 19th ult. It is the only account of this road that has reached us in a long time—except in the shape of complaints of its management—and, though it is not as favorable as we could wish, yet we hope to hear that it is doing better. The "Old North State" must do more than she has yet undertaken, or she will be distanced in the race of improvement now about to be commenced.

The tenth annual meeting of the stockholders in the Wilmington and Raleigh railroad company was held in the town of Wilmington last week, beginning on Thursday. The attendance of stockholders was unusually full. That portion of the stock held by the state of North Carolina, was represented

by governor Graham, as *ex officio* chairman of the board of internal improvements. The other members of the board, Col. Calwallader Jones and Dr. F. J. Hill, were also present.

Dr. F. J. Hill, of Brunswick, was chosen chairman of the meeting, and Jas. Griswold, of Wayne, and Thomas Loring, of Wake, secretaries.

On the first day of the meeting, the president of the corporation, gov. Dudley, submitted on behalf of the directory a report of their operations and the affairs of the road for the year ending October 1st. The committee appointed at the previous annual meeting to examine the books and accounts of the company, consisting of Alexander McRae, James Griswold, and Wm. S. Baker, also made a report of a statistical character. They found everything correct.

From these reports we extract some particulars of general interest.

Liabilities of the company on the 1st of October, 1845, \$658,376 10, viz:

For bonds sold in England, bearing 5 per cent. interest.....	\$222,666 67
To the literary fund of the state of N. Car. at 6 per cent. interest.....	85,000 00
For company's bonds endorsed by state of N. Car., bearing 6 per ct. in....	250,000 00
For bills payable, bearing 7 per ct. in.	30,000 00
"          "          "          6          "	17,000 00
"          "          not bearing interest.	1,698 65
"          "          Scrip bonds payable to contractors at 6 per cent.....	5,966 43
For bonds payable for loss by steamer N. Car., at 6 per cent. interest.....	91 27
For negro bonds due 1st Jan'y, 1843, at 6 per cent. interest.....	778 75
Do. due 1st January, 1845, at do.....	3,294 00
Do. due 1st January, 1846, at do.....	10,640 49
For balance due on pay rolls to 1st Oct. 1845.....	7,713 55
For balance of accounts due sundry individuals for materials, labor, etc., of which \$5,067 72 bears interest at 6 per cent.....	23,526 29
	<hr/>
	\$658,376 10

Amount of receipts from railroad from all sources for the year ending 1st October, 1845.....	161,484 11
Expenditures of road for do. 121,805 55	
Profits of railroad.....	39,678 56
Amount of receipts from steamboats from all sources for the year ending 1st Oct. 1845.....	127,009 34
Expenditure of do. far do. 90,285 65	
Profits of steamboats.....	36,723 69

Total amount of profits of railroad and boats.....	76,399 25
Reduction of the liabilities of the company since Oct. 1, 1844.....	31,632 03
Paid for interest accruing within the year ending Oct. 1, 1845.....	44,311 63
Paid for repairs of depot at Wilmington within same time.....	3,166 27
Cash in hands of treasurer, Oct. 1, 1845.....	3,449 81

Comparative monthly receipts and expenditures for the years 1841, 1842, 1843, 1844 and 1845.

Av. monthly.	Receipts.	Expenses.
Railroad, 1841.....	13,552 34.....	1,0948 76
"          1842.....	10,736 60.....	8,818 85
"          1843.....	10,175 73.....	5,848 01
"          1844.....	13,225 45.....	10,970 51
"          1845.....	13,457 01.....	10,150 46
Steamb'ts, 1841.....	11,216 69.....	9,213 85
"          1842.....	8,496 71.....	7,825 93
"          1843.....	8,672 02.....	6,499 17

"          1844.....	10,902 37.....	5,998 92
"          1845.....	10,584 11.....	7,523 80

The above table shows that the receipts on the road alone were greater during the year 1845 than either of the four preceding except 1841. In 1841 the fare through the line was \$20; it is now, and was during the whole of the year ending Oct. 1st, \$12; so that the exhibit proves an increase of travel and freight transportation on the road, mostly travel, of upwards of sixty per cent. over 1841.

Gov. Dudley was desirous (for reasons of a private nature,) of withdrawing from the presidency of the company, and tendered his resignation of the same. He was prevailed upon however to serve another year, and was re-elected. P. K. Dickinson, Samuel Potter, John Hill, James T. Miller, O. G. Parsley and Gilbert Potter, all of Wilmington, were chosen directors on the part of the stockholders, and James S. Battle, of Edgecombe, James Griswold, of Wayne, Edward P. Hall, and A. J. De Rosset, Jr., of Wilmington, were by Gov. Graham appointed directors on the part of the State.

**Central, Georgia Railroad, Extension.**

We find, in the Macon Messenger of Nov. 6th, the proceedings of a meeting of the shareholders of this company in relation to its extension to Columbus. The report of the president speaks of two routes having been examined, one from Macon, at or near the present termination of the road, and the other from Barnesville, on the Monroe railroad, about 40 miles beyond Macon; but the preference is given to the former, though it will require the construction of a greater length of road, by about 25 miles, yet the distance by the latter will be about 15 miles greater.

The president said:

"That this board, in the month of May last, instructed the engineer of this company, Mr. Reynolds, to make such an examination of the country between Macon and Columbus, as would enable the board to determine by what route the Chattahoochee river could be reached, by a railroad, from the Ocmulgee, at the lowest cost. The board did not feel authorized, or consider it necessary, to go to any considerable expense in making this examination, if a mere reconnoissance of the country would enable them to form a proper judgement."

Our object being to lay before our readers the information furnished by the engineer in relation to, rather than the reasoning of the directors for, their choice between the routes, we give the report of the engineer only, yet the opinions expressed in the following paragraph taken from the president's report, accord so entirely with our own that we give them a place in the Journal in the hope that they may have influence with those who think or act otherwise. It is contemplated that this extension which ever route may be adopted, will form a part of the line from Savannah to Mobile.

Mr. Cuyler, the president, says, that:

"If the connection be directly with the Central railroad at or near its depot in Macon, the increase of business on the Central road from points above Macon, carried on without the cost of transferring loads from one set of cars to another, will enable its directors, and make it their interest, to place freights at a point much lower than could possibly be done on a line which would terminate at the Monroe depot, and begin again at the Central depot; and such reduction would necessarily be not only on goods brought from points beyond Macon, but also from Macon and along the entire line of road. The unloading and lading of cars and drayage of loads for a mile, is a matter of heavy expense imposed on goods and produce, highly injurious to the people at large, and generally, not subserving any interest, unless it be the interest of dray owners who haul for hire. That interest is comparatively small, and even without a railroad connection, could, it is obvious, be destroyed, if railroad companies, which connect alone be such a portage, should determine to take it into their own hands. Portage between the termini of railroads tends to increase the charge to travellers and freighters, and more money is lost by the people of a town who travel and transact its commercial business, where a portage is insisted on, than can be gained by the inhabitants, of whatever occupation, by keeping it up."

The annexed report of Mr. Reynolds enables us to form an idea of the country through which he passed. This extension is of much importance to the Central road—and we can appreciate the motives of the company in selecting the lower route for a connection with Alabama. They thereby command the business of the finest cotton region of the state, and what is of importance, avoid connection with another road, or keep the entire management in their own hands.

ENGINEER'S OFFICE, C. R. R. }  
Savannah, Oct. 15, 1845. }

R. R. Cuyler, Esq., President:

SIR: By your direction I made a reconnoissance of the country between the cities of Macon and Columbus, in May last, with a view of ascertaining whether a favorable line for a railroad existed between those two cities. As this examination was made rather cursorily, I cannot speak definitely as to the distance, cost, or exact location of a railroad route between these points, but I can say, with confidence, that a favorable line may be established, and I have no doubt the distance will fall short of one hundred miles; my observations led me to believe that the following would be the most practicable route, viz:

Leaving the city of Macon in a southwesterly direction, crossing Tobasafkee creek; thence across Icheconno creek, following the valley of that creek a short distance we reach one of its branches, called, Deep creek, and pursuing the valley of this creek we reach the summit between the Icheconno and Flint river. We then descend to the valley of the Flint by a small stream, called Beaver creek,

and cross the river near the mouth of Patchelaggee creek, about 10 miles below the "Old Agency." We then take the valley of the Patchelaggee and ascend to the summit between Flint and Chattahoochee rivers; here the branches of the Patchelaggee interlock with those of the Upotoy, which empties into the Chattahoochee a few miles below Columbus. We therefore follow the valley of this creek until we gain the valley of the Chattahoochee, and then take the low grounds up to the city.

That portion of the route between the city of Macon and the Flint river will afford a very favorable line, with a wide choice of ground; and for a considerable distance beyond the Flint, a good location may be made.

From the summit to the Chattahoochee—some 20 miles—the country is hilly and broken, and will require a careful instrumental examination to select a good line. The topography of this section much resembles that over which the Central road passes between the Oconee and Ocmulgee rivers, and I imagine the difficulties of constructing a road would not be greater.

There is a great abundance of pine timber of the best quality throughout the whole distance; and as the lands are for the most part of little value for cultivation I have no doubt the right of way could be obtained on favorable terms. It has been suggested to me that a route might be found, lower down the country, which would not be less favorable, and would come nearer the rich cotton lands of the lower counties. I cannot give an opinion on this point, but think it worthy of a careful examination.

I do not like to hazard an estimate of the cost of the proposed work, without further data. This would of course depend much upon the character of the road structure and kind of rail adopted, and the state of the iron market at the time.

I do not think, however, that I hazard much in assuming that one million of dollars would build the road with a "bridge rail" similar to that in use on the Georgia and State road, which I consider the best pattern for a rail of that weight (say 40 lbs. to the yard.) With a rail of this kind, and a strong superstructure, the distance between Macon and Columbus could, if desirable, be run in 4 hours with passenger trains—in 5, with perfect ease.

On my return from Columbus, I passed over the country between that city and Barnesville; I had very little opportunity of examination, as I passed over the stage road.—I am, however, well satisfied that the topography is not so favorable for the construction of a railroad as that between Macon and Columbus.

There is a portion of the distance, viz: between Thomaston and Barnesville that would afford a very favorable location, at a moderate cost; but for the remainder of the distance, much heavy work would be unavoidable in grading, with probably a very crooked line.

The distance would be about 20 miles less than the route direct from Macon, but I im-

agine the cost of the road would not be much, if any less. I am very respectfully, your obedient servant.

L. O. REYNOLDS, *Engineer.*

The report was received by the meeting.

It was then *Resolved*, That the subject matter of the report of the president and directors be referred back to the board of directors, with a request that they will take such further action, in relation to procuring the proper amendments to the charter, or effecting the objects contemplated, as they may think best.

The meeting then adjourned.

Joseph Day, *Chairman*, Charles Cotton, *Secretary.*

#### Railroad Meeting at Elmira.

The annexed proceedings of a meeting held at Elmira, N. Y., on the 13th November, refer so directly to a subject in which we take a deep interest, and to which we have devoted some attention, to wit: the opening of an easy communication between the interior of this state and *Harrisburg* and *Baltimore*, as well as *Williamsport* and *Philadelphia*, that we "take the responsibility" of publishing them, though not exactly included in the list of those formally called upon to do so—possibly from the fact that the Journal has too recently engaged in the cause to be known so far from home. The object in view is so eminently deserving of early attention that we cannot omit the opportunity of saying a good word in favor of it; and as our hand is in, we desire to say, that the spirit manifested by the people of these two great states at this time in favor of the connection of their public works is truly commendable and deserving of imitation in other states. The more connections the better—*remove*, not impose, restrictions upon a free intercourse in any and every direction. Open the lines for travel, and then leave people to choose their own route, and thus encourage them, not attempt to *compel* them, to patronize you.

"At a meeting of the citizens of Elmira and its vicinity, held at the Eagle tavern, on the 13th Nov., 1845, pursuant to public notice, to take measures to further and secure the speedy construction of the Elmira and Williamsport railroad, with a view to a continuous connection by railroad, by the way of the west branch, between the New York and Erie railroad and the city of Philadelphia. Simeon Benjamin was called to the chair, and W. Maxwell appointed secretary.

"The object of the meeting having been briefly stated, it was

"*Resolved*, That a committee of five be appointed to draft resolutions, expressive of the sense of the meeting, whereupon Judge Dunn, Judge Rood, Sheriff Judson, Dr. Hart and Dr. Hepburn, were appointed such committee.

"The committee reported the following preamble and resolutions, which were unanimously adopted:

"Whereas, public attention has recently

been called to the importance of a speedy connection between the internal improvements of the state of Pennsylvania and the railroads and canals of New York, and large public meetings have been held at Williamsport and other places to promote the important object.

"And, Whereas, various routes for a railroad from some points in this state to Williamsport in Pennsylvania have been proposed and considered in the meetings above referred to. Therefore,

"*Resolved*, That we are in favor of the proposed connection at such point, and upon such route as will best subserve the public interest; and that the route from the head of the Seneca lake, through the village of Elmira to the present termination of the Williamsport and Elmira railroad, at Ralston, is the most practicable route, will be attended with the least expense, and be the most important to the public welfare.

"*Resolved*, That the present is a favorable time to urge the speedy completion of the Williamsport and Elmira railroad—that in the judgment of this meeting no work of public improvement of the same magnitude has been proposed, which promises greater public benefit, or a richer return for the investment of capital.

"*Resolved*, That this meeting recommend a general convention of the citizens of Chemung, Tioga, Tompkins, Yates, Seneca and Ontario, in this state, and of the counties of Bradford, Lycoming, Columbia, Northumberland and other counties in Pennsylvania, and the city of Philadelphia, to be held at Elmira on the first Wednesday in December next, at 10 o'clock A.M., of that day, to adopt efficient measures to insure the speedy accomplishment of the connection.

"*Resolved*, That a committee of three be appointed to take the necessary steps to obtain from the legislature of this state, an act renewing and extending the charter of the Elmira and Williamsport railroad company, whereupon Hiram Gray, James Dunn and Alexander S. Diven, were appointed such committee.

On motion, *Resolved*, That a committee of correspondence, consisting of five persons, be appointed, whereupon Dr. James Hepburn, A. S. Diven, William Maxwell, Samuel B. Strang and Isaac Baldwin, were appointed such committee.

S. BENJAMIN, *Chairman.*

W. MAXWELL, *Secretary.*

#### Railroad Meeting at Albion.

A large and respectable meeting was recently held at Albion, Orleans county, New York, for the purpose of taking into consideration the propriety of extending the railroad from Lockport to Rochester, and thus opening the most direct line from Boston and Albany, in connection with the contemplated railroad in Canada West, from the Niagara river, to Windsor, near Detroit. The following officers were appointed, viz:

"President—Hon. Alexis Ward, of Albion.

"Vice Presidents—Hon. T. J. Paterson,



of Rochester; Wm. Parmelee, Esq., of Lockport; Wm. S. Fenn, Esq., of Middleport; Dr. D. Carpenter, of Brockport.

"Secretaries—Sandford E. Church, of Albion; Botsford Fairman, of Medina.

"Dr. L. C. Paine, of Albion, briefly stated the objects of the convention and the measures proposed to be adopted to carry these objects into effect.

"N. Davis, Jr., Esq., from the committee on resolutions, reported the following among others:

"Whereas, the Lockport and Niagara falls railroad company have been authorized by law to extend their road from Lockport to Rochester, and whereas the company have resolved that such extension shall be made by the direct route between those two points leading through Orleans county,

"Therefore, *Resolved*, That it is the sense of this meeting that the best interests of the company and of the several villages on the line of the canal as well as of the adjoining country, demand that the canal route should be adopted as the location of the road."

We omit most of the proceedings, but cannot omit the following, as it is the spirit of the people in every part of the country. The people have "resolved that *we* will not consent that our neighbors should travel forty miles an hour, and *we in a line boat*, nor that our wheat, from lack of facilities, should reach the market behind that of Michigan and Ohio."

That is the spirit to which we alluded, when we said that the completion of the Baltimore and Ohio railroad to Parkersburg, would insure the construction of their main line from Guyandotte to Richmond. "We will not consent for others to travel 40 miles an hour, and *we in a line boat*." That is the spirit which is to build many a railroad in this country.

A convention was also held at Gaines, composed of delegates from the several towns and villages along the line of the *Ridge road*, from Lockport to the city of Rochester, inclusive, on the 6th day of November, 1845, pursuant to notice, and in accordance with a call from a committee appointed at a former meeting, the Hon. Alfred Babcock was appointed president, and Gen. Abner Hubbard, of Murray, and Wm. W. Ruggles, Esq., of Gaines, secretaries.

"The object of the convention being stated by W. W. Ruggles, which was to adopt such measures as might be deemed expedient for prosecuting the construction of the railroad from Niagara falls to Rochester, and some appropriate remarks being made by him, he closed by introducing to the convention C. B. Stuart, Esq., of Rochester, the engineer of the company, who addressed the convention in a very able and lucid manner; showing the importance of the road, by connecting the Great Western railway, through Canada

West, from the Niagara river to Detroit river, with the Auburn and Rochester railroad at Rochester; thus perfecting the last important link, on a direct line, to the great chain of railways from the Atlantic, at Boston, to lake Michigan. He also presented, in an impressive and convincing manner, the superiority of railroads over every other mode of travel or of transportation.

"The convention was addressed by Hon. H. Gardiner, of Lockport; Hon. A. Ward, of Albion; and Hon. L. Clark, of Lockport. Mr. Clark, in a masterly manner, addressed the farming interest, which was largely represented by a numerous attendance of the landholders along the line of the *Ridge road*, who will respond in a spirit of liberality to his appeal."

Here are rival lines. This is one of the difficulties which will often interfere with the progress of meritorious works. The "*Ridge road*" formerly had several flourishing villages at intervals, some of which, and perhaps most of them, were depopulated by the location of the canal a short distance south, upon which new villages sprung up. A railroad along the "*Ridge*" would in some measure restore the old villages. Hence the rivalry. Both are so feasible, that the question may turn upon the superior influence of the canal route—it being the custom of the day to give unto those who have an abundance, and withhold from those who have not. The gentlemen of the "*Ridge*" must therefore be moving if they also do not intend to go on "*a line boat*."

#### Railroad Meetings.

The following notice of the proceedings of a meeting held at Niagara Falls is taken from the Lockport "*Democrat*." It is a movement in the right spot. Let them persevere.

At a public meeting held pursuant to notice, at the Cataract House, in the village of Niagara Falls, on the evening of the 10th instant, Hon. Augustus Porter was called to the chair, and H. W. Clark appointed secretary.

After some appropriate remarks, Maj. C. B. Stuart moved that a committee of five be appointed to draft resolutions for the consideration of the meeting.

The chair appointed the following gentlemen: S. De Veaux, G. W. Holley, P. Whitney, A. H. Porter, and E. P. Graves.

Judge De Veaux from the committee on resolutions, reported the following, which were unanimously adopted:

*Resolved*, That we view with deep interest the efforts now making to forward three of the greatest enterprizes in the way of public improvement that have as yet been entered upon in this country—the formation of a railroad from Rochester to Lockport, which will complete the railroad communication from the Genessee river to the falls of Niagara—in connection with this railroad, a railroad and carriage bridge across the Niagara river, and from thence through Canada, a railroad to the Detroit river.

*Resolved*, That in the opinion of this mee-

ting, the stock of the railroad to Rochester must prove a profitable investment, that the pleasure travel during the summer season to the falls of Niagara constitutes the very best portions of the business of the railroads west of Albany; and the railroad from Rochester to this place cannot fail of securing a large share of that business. People when visiting the falls will go no round-about way to them, if there is a direct route.

*Resolved*, That, should the great Western railroad from Detroit through Canada, terminate at the falls of Niagara, it will evidently subserve a greater number of interests, as well as afford a larger accommodation to the public than any other terminus that has been spoken of. 1st. the traveller will secure a view of the attractive scenery of this country—when at the falls, he will be at a point from whence various routes diverge. The Queenston railroad will take him to Queenston, and to the steamboats upon lake Ontario, to Chippeway, and from thence the steamboats to Buffalo—or crossing the Niagara, he will have his choice by railroad to Buffalo, and on eastward—by railroad to Lewiston and thence by steamboat, or direct through Lockport by railroad, to the city of Rochester.

*Resolved*, That the practicability of a bridge across the Niagara river at some point between old fort Schlosser and Lewiston landing, is not to be doubted: and if built will form an object of curiosity of not much less interest than the falls; an accommodation to the inhabitants and to travellers, and a source of profit to the owners.

*Resolved*, That we consider the location of a bridge across the Niagara river, a subject to be decided by those who build it, or the owners of the stock; and that it is inexpedient to distract the public mind with any question in reference to such location; but we will cordially unite with our fellow citizens on this side, and our neighbors in Canada, in endeavoring to obtain charters from the respective governments for a company to build such bridge.

*Resolved*, That we highly approve these proposed improvements, and will promote and encourage them, and recommend them to our fellow citizens as enterprizes truly worthy of their support and patronage.

The meeting was then ably and eloquently addressed by the Hon. Lot Clark, of Lockport, and G. W. Holley, Esq., of Niagara falls, showing conclusively the vast advantages that would accrue not only to the village of Niagara, but to the business and travelling public throughout the globe, should these improvements be carried to an immediate completion.

Upon motion, the chair appointed the following committee to confer with gentlemen in Canada relative to the bridge across the Niagara river:

G. W. Holley, Esq., S. De Veaux, Esq., Gen. Whitney, of Niagara Falls, Lot Clark, Esq., of Lockport, C. B. Stuart, Esq., of Rochester.

Upon motion adjourned.

Augustus Porter, Chairman; H. W. Clark, Secretary.

TRAVELLERS' RAILROAD AND STEAM NAVIGATION GUIDE, ON THE CONTINENT.

List of Railroads Now Open on the Continent, and the Fares.

The Fares are in the Coins of each Country, and reduced into English Currency: th. thalers and silbros; g. guilders, kreutzers and cents; fr. francs and centimes.

FROM	MILES	DESTINATION.	FIRST CLASS.		SECOND CLASS.	
			S. D.	S. D.	S. D.	S. D.
Aix-la-Chapelle	43	Cologne . . . . . th.	2	6 0	1 15	4 6
Amsterdam	25	Utrecht . . . . . g.	1 80	3 0	1 40	2 4
Amsterdam	..	Arnhem . . . . .	..	..	..	..
Antwerp	28	Brussels . . . . . fr.	3 25	2 7	2 50	2 0
Antwerp	150	Cologne . . . . . fr.	21	16 10	16	12 10
Antwerp	96	Lille . . . . .	..	..	..	..
Antwerp	107	Aix-la-Chapelle. fr.	13 50	10 10	10 50	8 5
Augsburg	39	Munich . . . . . g.	3	6 0	2 12	4 5
Basel	86	Strasbourg. . . . . fr.	13 95	11 2	10 60	8 6
Berlin	200	Dresden . . . . .	..	..	..	..
Berlin	53	Frankfort on O. th.	2 10	7 0	1 15	4 6
Berlin	140	Leipzig . . . . . th.	5 15	16 6	3 20	11 0
Berlin	128	Magdeburg . . . . . th.	4 20	14 0	3 5	9 6
Berlin	18	Potsdam . . . . . th.	..	20 2 0	..	15 1 6
Berlin	90	Stettin . . . . .	..	..	..	..
Bonn	16	Cologne . . . . . th.	..	15 1 6	..	10 1 0
Breslau	53	Oppeln . . . . . th.	2 16	7 8	1 18	4 10
Brunswick	44	Hanover . . . . . th.	..	20 2 0	..	18 1 10
Brussels	142	Cologne . . . . . fr.	20 50	16 5	15 50	12 5
Brussels	59	Valenciennes . . . . . fr.	6	4 10	4 75	3 10
Budweis	64	Lintz . . . . . g.	3	5 0	2	3 4
Carlsruhe	21	Baden . . . . . g.	1 30	2 6	1	1 8
Carlsruhe	48	Offenbourg . . . . . g.	3 18	5 6	2 12	3 8
Dresden	60	Leipzig . . . . . th.	2 8	6 10	1 8	3 10
Dresden	134	Magdeburg . . . . .	..	..	..	..
Dusseldorf	18	Elberfeld . . . . . th.	..	25 2 6	..	18 1 10
Frankfort O.M.	21	Mainz . . . . . g.	2 6	3 6	1 27	2 5
Frankfort O.M.	26	Wiesbaden . . . . . g.	2 42	4 6	1 48	3 0
Hague	47	Amsterdam . . . . . g.	3 65	6 1	2 45	4 1
Hiedelberg	14	Mannheim . . . . . g.	..	51 1 5	..	30 0 10
Leipzig	33	Altenburg . . . . . th.	1 12	4 3	..	26 2 8
Mannheim	73	Baden . . . . . g.	5 6	8 7	3 30	5 10
Mannheim	52	Carlsruhe . . . . . g.	3 18	5 6	2 12	3 8
Mannheim	93	Kehl . . . . . g.	6 45	11 3	4 30	7 6
Mannheim	100	Offenbourg . . . . . g.	6 33	10 11	4 24	7 4
Ostend	92	Antwerp . . . . . fr.	9 25	7 5	7	5 7
Ostend	89	Brussels . . . . . fr.	9 25	7 5	7	5 7
Ostend	169	Aix-la-Chapelle. fr.	19 50	15 7	15 25	13 2
Ostend	212	Cologne . . . . . fr.	27	21 7	20 75	16 7
Paris	18	Corbeil . . . . . fr.	3	2 5	2 40	1 11
Paris	75	Orleans . . . . . fr.	15	12 0	12 60	10 1
Paris	84	Rouen . . . . . fr.	16	12 10	13	10 6
Paris	5	St. Cloud . . . . . fr.	..	80 0 8	..	60 0 6
Paris	12	St. Germain . . . . . fr.	2	1 7	1 50	1 3
Paris	12	Versailles . . . . . fr.	2	1 7	1 50	1 3
Rouen	84	Paris . . . . . fr.	16	12 10	13	10 6
Vienna	40	Glognitz . . . . . g.	3 29	6 8	2 30	5 0
Vienna	120	Gratz . . . . .	..	..	..	..
Vienna	132	Ollmutz . . . . . g.	11 12	23 5	7	14 0

An Alphabetical list of the Distances, in English miles, of the Principal Towns from London, to which are added, those between some of the Continental Towns.

Abbeville	190	Frankfort O.M.	544	Moscow	1396
Aix-la-Chapelle	330	Frieburg	739	Naples	1450
Amsterdam	248	Gand	177	Neurenburg, from	
Arnhem	270	Geneva	1060	Frankfort O.M.	126
Baden-Baden	650	Gratz, fm. Vienna	120	Neurenbg, f. Leipzig	159
Basel	780	Hague	212	Offenbourg	698
Berlin	644	Havre, by Brighton	137	Prague, fm. Vienna	196
Berlin fm. Hamburg	175	" by Southampton	198	Prague, fm. Frank-	
Bern	830	Heidelberg	589	fort O.M.	290
Bieberich	510	Kehl	684	Prague, fm. Dresden	94
Bonn	420	Leghorn	1240	Paris, by Brighton	241
Bordeaux, fm. Paris	346	Leipzig, fm. Frank-		Paris, by Southamp.	340
Breslau, fm. Berlin	202	fort O.M.	210	Rome	1380
Breslau, fm. Dresden	154	Liege	300	Rouen, by Southamp.	256
Brussels	250	Lyons, fm. Paris	290	Stuttgart	678
Carlsruhe	625	Mainz	517	Schaffhausen	790
Caub	485	Mannheim	571	St. Petersburg, f. Berlin	1060
Coblentz	458	Milan	942	Strasbourg, fm. Paris	285
Cologne	400	Milan, fm. Venice	200	Trieste, fm. Venice	319
Constance	820	Magdeburg f. Hambg.	157	Utretcht	230
Dijon, fm. Paris	318	Magdeburg f. Leipzig	74	Vienna, from Frank-	
Dresden, fm. Prague	94	Magdeburg f. Dresden	134	fort O.M.	437
Dusseldorf	368	Marseilles, fm. Paris	500	Vienna fm. Trieste	319
Elberfeld	388	Munich, fm. Frank-		Venice, fm. Milan	200
Emmerich	300	fort, O.M.	214	Wiesbaden	520
Florence	1160	Munich, fm. Vienna	276	Zurich	830

The direct Fares from London are at the following reduced rates.

From LONDON.	Via ROTTERDAM.		Via ANTWERP & from COLOGNE.		Via OSTEND and from COLOGNE.	
	Out, or Single Journey.		Out, or Single Journey, Exclusive of Railroad Fares.			
	Chief cabin	Fore cabin	Chief cabin	Fore cabin	Chief cabin	Fore cabin
To the follow- ing places.	£ s. D.	£ s. D.	£ s. D.	£ s. D.	£ s. D.	£ s. D.
Dusseldorf	2 16 6	1 18 11	..	..	..	..
Cologne	2 18 6	1 19 10	..	..	..	..
Bonn	2 19 9	2 0 6	2 3 3	1 13 3	1 11 5	1 5 8
Neuweid.	3 3 11	2 2 4	2 8 1	1 15 2	1 16 2	1 7 6
Coblence.	3 4 11	2 2 10	2 9 0	1 15 6	1 17 0	1 8 0
Bingen	3 10 1	2 5 2	2 13 9	1 17 9	2 1 9	1 10 3
Bieberich.	3 11 1	2 5 9	2 15 3	1 18 5	2 3 2	1 10 11
Wiesbaden	3 11 9	2 6 4	2 16 0	1 19 0	2 3 9	1 11 6
Mayence.	3 11 4	2 5 10	2 15 5	1 18 6	2 3 5	1 11 0
Mannheim	3 15 6	2 8 8	2 19 6	2 1 4	2 7 6	1 13 10

Children under 10 years of age, half price; for dogs, half the price of fore cabin is charged; on carriages, and horses booked in London direct for the Rhine, a considerable reduction is also made.

Agents--General Steam Navigation Company.

Rotterdam, W. Smith, and Mr. P. A. Van Es.	Brussels, W. Middleton.
Cologne, J. Simonis.	Paris, F. Spiers.
Aix-la-Chapelle, J. A. Mayer.	Havre, P. Albrecht.
Spa, Dommartin.	Rouen, Company's Office.
Antwerp, C. Brequigny.	Dieppe, D. L. Chapman.
Ostend, St. Amour.	Boulogne, W. Hughes, Dellatre.
Gand, I. Van Aken.	Calais, A. Spiers.
	Hamburg, G. Delaval.

In the month of October the Housatonic road received \$15,637, an increase of 30 per cent. on that month of last year. The old debts are paying off, and its new rail is laying down, so that a portion will be in readiness for winter service, and a safe line of transit from New York to Albany via Western railroad.

**A CARD.**  
**THE SUBSCRIBER, EDITOR AND PUBLISHER** of the Miners' Journal for the last sixteen years, has been engaged, for the last year in collecting the materials for a work, for which he has secured the copy right, in the following words:—"A history of the Anthracite Coal Trade of Schuylkill and the adjoining Counties, Geological and Statistical, accompanied with Maps of the different Regions, the Improvements, Investments, Capacity, etc., embracing a complete and authentic history to the present time, to which will be appended a Synopsis of the Iron Trade."  
 It is our intention to embrace everything of interest in the work, connected with the trade, up to the beginning of the year 1846, prepared and arranged with a view of continuing the publication, at periods of five or ten years, with such additions as the

increased trade will warrant. These branches of trade have assumed an importance which will warrant such a publication; and he feels confident, that with the proffered aid of several gentlemen and the statistics already in his possession, he will furnish the public with a work, which, if not one of the most interesting in its details, it will be of great value to those engaged and interested in these branches of business.

As soon as the Maps, etc. are prepared, and some idea can be formed of the probable expense of publishing the work, proposals will be issued for the same. All the tracts of Ooal land will be designated on the Map of the Schuylkill Coal Region, which will accompany the work.  
 Pottsville, Nov. 13, 1845. BENJ. BANNAN.

**NEW YORK AND ERIE RAILROAD**  
 Company. The Stockholders of this company are hereby notified that an instalment of Five dollars on each share of the new stock, on which not more than five dollars has been paid, is required to be paid at the office of the company, No. 50 Wall street, on or before Wednesday, the 10th day of December next. By order of the board of Directors. NATHANIEL MARSH, Secretary.  
 New York November 5, 1845.

N.B. Subscribers at or near Newburgh are requested to make payment to Thomas C. Ring, Esq. Cashier of the Powell Bank. 4t 66

**RAILROAD IRON.—THE "MONTOUR**  
 Iron Company," Danville, Pa., is prepared to execute orders for the heavy Rail Bars of any pattern now in use, in this country or in Europe, and equal in every respect in point of quality. Apply to MURDOCK, LEAVITT & CO., Agents.

Corner of Cedar and Greenwich Sts. 43 1y

**WESTERN AND ATLANTIC RAIL-**  
 road. The Western and Atlantic Railroad is now in operation to Marietta, and will be opened to Cartersville, in Cass county, on the 20th of October—and to Coosa Depot, (formerly known as Borough's,) on the 20th of November.

The passenger train will continue, as at present to connect daily (Sundays excepted) with the train from Augusta, and the stage from Griffin.  
 CHAS. F. M. GARNETT, Chief Engineer.

**NOTICE IS HEREBY GIVEN THAT**  
 the New York and Harlem Railroad Company intend to apply to the Legislature of the State of New York, at the ensuing session thereof, for an amendment to their charter, authorizing them to pledge their property and franchise for the purposes of extending their road from its present termination to the city of Albany, and for other purposes.  
 Dated Nov. 20th. 48 6t

**BOSTON AND MAINE RAILROAD.**

Upper Route. Boston to Portland via, Charlestown, Somerville, Malden, Stoneham, South Reading, Reading, Wilmington, Ballardvale, Andover, North Andover, Bradford, Haverhill, Atkinson, Plaistow, Newtown, Kingston, East Kingston, Exeter, South Newmarket, Newmarket, Durham, Madbury, Dover, Somersworth, South Berwick, North Berwick, Wells, Kennebunk, Saco and Scarborough.

Winter Arrangement, 1845 & 6. On and after Monday, October 20th, 1845, Passenger Trains will run daily, (Sundays excepted,) as follows, viz. Leave Boston for Portland at 7 1/2 a.m. and 2 1/2 p.m. Leave Boston for Great Falls at 7 1/2 a.m., 2 1/2 p.m. and 3 1/2 p.m. Leave Boston for Haverhill at 7 1/2 a.m., 2 1/2, 3 1/2 and 5 p.m. Leave Portland for Boston at 7 1/2 a.m., and 3 p.m. Leave Great Falls for Boston at 6 1/2 a.m., 9 1/2 a.m. and 4 1/2 p.m. Leave Haverhill for Boston at 6 1/2, 8 1/2, and 11 a.m., and 6 1/2 p.m.

Special Train.—A special train will leave Boston for Andover at 11 1/2 a.m., and Andover for Boston at 3 1/2 p.m.

The Depot in Boston is on Haymarket Square. Passengers are not allowed to carry Baggage above \$50 in value, and that personal Baggage, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every \$500 additional value. CHAS. MINOT, Superintendent.

October 20, 1845. 43 1y Super't.

**SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars.** The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent, 15a3 Albany Iron and Nail Works, Troy, N. Y.

**TO IRON MANUFACTURERS. THE**

Subscribers, as Agents of Mr. Geo. Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Gelschmainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO., No. 4 South Front street, Philadelphia, Pa. ja45

**MACHINE WORKS OF ROGERS,**

Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work. Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Patterson, N. J., or 60 Wall street, N. York

**FOR SALE AT A SACRIFICE—A LOCO-**

motive Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine. 2 8-horse " " " " 1 Upright Hydraulic Press:

All of which will be sold low, on application to T. W. & R. C. SMITH.

Founders and Machinists, Alexandria, D. C. May 12th

**GEORGIA RAILROAD. FROM AUGUSTA TO ATLANTA—171 MILES.**

This Road in connection with the South Carolina Railroad and the Western and Atlantic Road now forms a continuous line of Railroad of 360 miles from Charleston to Cartersville, two miles west of the Etowa River in Cass County.

Rates of Freight, and Passage from Augusta to Cartersville.

On Boxes of Hats, Bonnets, and Furniture per foot..... 15 cts. " Dry goods, shoes, saddlery etc., per 100 lbs. 85 " " Sugar, coffee, iron, hardware etc. " 70 " " Flour, bacon, mill machinery etc. " 33 1/2 " " Molasses, per hogshead \$9; salt per bus. . 22 " Passengers \$9 50; children under 12 years of age and servants, half price.

Passengers to Atlanta, head of Ga. Railroad, \$7. German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight payable at Augusta. J. EDGAR THOMPSON, Ch. Eng. and Gen. Agent.

Augusta, Oct. 21 1845. \*44 1y

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, Reading, Pa. ja45

**GEORGE VAIL & CO., SPEEDWELL IRON**

Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/2 in. to 2 1/2 in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions. ja45 1y

**TO RAILROAD COMPANIES AND MAN-**

ufacturers of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**NORWICH AND WORCESTER RAIL-**

Road. On and after May 22, 1845, Trains will leave as follows, viz:—

Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4 1/2 p.m. Leave Worcester, at 10 a.m., and 4 1/2 p.m.

The morning train from Norwich, and the morning and evening trains from Worcester, connect with the Boston, Western, and Hartford and Springfield railroads.

New York Train, via Steamboat. Leaves Norwich for Worcester and Boston, every morning except Monday, upon the arrival of the boat from New York, about 2 a.m. Leaves Worcester for Norwich and New York, at 5 1/2 p.m., daily, except Sunday.

New York Train, via Long Island Railroad.—Leaves Norwich about 3 p.m., for Worcester and Boston, daily, except Sunday. Leaves Worcester for Norwich and New York, at 7 1/2 a.m., daily, except Sunday, and arrives in Norwich at 9 1/2.

Freight Trains. Daily, except Sunday. Fares are less when paid for Tickets, than when paid in the cars.

EMERSON FOOTE, Superintendent. 32 1y

**LAWRENCE'S ROSENDALE HYDRA-**

ulic Cement. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Floors and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE, 142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 32 1y

**SUMMER ARRANGEMENT—FARE**

REDUCED.

By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

Direct to New Orleans, and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great Southern Mail Line, and the only one that issues a through ticket South. Those who patronize it will save their money and time. Through Tickets from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

Fast Mail Line.—Leave New York at 9 a.m. and arrive in Philadelphia at 3 1/2 p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12 1/2 to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.

Passengers by the above line will arrive at Richmond by 1 1/2 o'clock p.m. and Petersburg, Va. by 2 1/2 o'clock p.m., through to the former city in twelve hours, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

Way Mail Schedule.—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p. m.; arrive in Baltimore at 2 1/2 p.m.; arrive in Washington at 7 p.m. From Philadelphia by steamboat.—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore.

STOCKTON & FALLS. 31

**BOSTON AND PROVIDENCE RAILROAD.** Passenger Notice. Winter Arrangement. On and after Monday, Nov. 3, the Passenger Trains will run as follows:

For New York—night line, via Stonington.—Leaves Boston every day, but Sunday, at 4½ p.m. Accommodation trains, leave Boston at 8 a.m. and 3¼ p.m., and Providence at 8 a.m. and 3¼ p.m.

Dedham trains, leave Boston at 9 a.m. 3, 5½ and 10 p.m. Leave Dedham at 8 and 10½ a.m., and 4½ and 7 p.m.

Stoughton trains, leave Boston at 12 m. and 4 p.m. Leave Stoughton at 8:20 a.m. and 2½ p.m. All baggage at the risk of the owners thereof.

N.B. The last train to and from Boston and Dedham, will be omitted in case of a severe snow storm. W. RAYMOND LEE, *Sup't.* 31 1y

**BRANCH RAILROAD AND STAGES CONNECTING WITH THE BOSTON AND PROVIDENCE RAILROAD.**

Stages connect with the Accommodation trains at the Foxboro' Station, to and from Woonsocket. At the Seekonk Station, to and from Lonsdale, R. I. via Pawtucket. At the Sharon Station, to and from Walpole, Mass. And at Dedham Village Station, to and from Medford, via Medway, Mass. At Providence, to and from Bristol, via Warren, R. I.—Taunton, New Bedford and Fall River cars run in connection with the accommodation trains.

**NEW YORK AND ERIE RAILROAD LINE.** For Middletown, Goshen, and intermediate places.—Two daily lines each way, as follows:

For passengers, the new, and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7½ o'clock, A.M., and 5 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6 A.M., and 4½ P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets.

H. C. SEYMOUR, Superintendent. Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghampton, Owego, Port Jervis, Honesdale, Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc. 31 1y

**BALTIMORE AND SUSQUEHANNA RAILROAD.** The Passenger train runs daily except Sunday, as follows:

Leaves Baltimore at 9 a.m., and arrives at 6¼ p.m. Arrives at York at 12¼ p.m., and leaves for Columbia at 1¼ p.m. Leaves Columbia at 2 p.m., and leaves York for Baltimore at 3 p.m. Fare to York \$2. Wrightsville \$2 50, and Columbia \$2 62½. The train connects at York with stages for Harrisburg, Gettysburg, Chambersburg, Pittsburg and York Springs.

Fare to Pittsburg. The company is authorized by the proprietors of Passenger lines on the Pennsylvania improvements, to receive the fare for the whole distance from Baltimore to Pittsburg. Baltimore to Pittsburg.—Fare through, \$9 and \$10.

Afternoon train. This train leaves the ticket office daily, Sundays excepted, at 3¼ p.m. for Cockeysville, Parkton, Green Springs, Owings' Mills, etc.

Returning, leaves Parkton at 6 and Cockeysville and Owings' Mills at 7, arriving in Baltimore at 9 o'clock a.m.

Tickets for the round trip to and from any point can be procured from the agents at the ticket offices or from the conductors in the cars. The fare when tickets are thus procured, will be 25 per cent. less, and the tickets will be good for the same and following day in any passenger train.

D. C. H. BORDLEY, *Sup't.* Ticket Office, 63 North st. 31 1y

**DAVIS, BROOKS & Co., 30 WALL ST.** Have now on hand and for sale, 200 tons 2½ x ¼ inch Flat punched Rails, Bars 18 feet each.

100 tons Heavy Edge Rails, 90 tons per mile. 30 tons 2½ x ¼ inch Flat Rails.

Also—A STEAM PILE DRIVER, built by "Dunham & Co." which has never been used, and cost originally \$5000. s20 2m

**BALTIMORE AND OHIO RAILROAD.** MAIN STEM. The Train carrying the Great Western Mail leaves Bal-

timore every morning at 7½ and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburg. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

**WASHINGTON BRANCH.** Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5½ P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13 1y

**CENTRAL RAILROAD-FROM SAVANNAH to Macon.** Distance 190 miles.

This Road is open for the transportation of Passengers and Freight. Rates of Passage, \$3 00. Freight—On weight goods generally... 50 cts. per hundred. On measurement goods..... 13 cts. per cubic ft. On brls. wet (except molasses and oil).....\$1 50 per barrel. On brls. dry (except lime).... 80 cts. per barrel. On iron in pigs or bars, castings for mills, and unboxed machinery..... 40 cts. per hundred. On hds. and pipes of liquor, not over 120 gallons.....\$5 00 per hhd. On molasses and oil.....\$6 00 per hhd. Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE, 40 Gen'l. Supt. Transportation.

**LEXINGTON AND OHIO RAILROAD.** Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1-25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above. 35 1y

**KEARNEY FIRE BRICK.** F. W. BRINLEY, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire, } New York.  
Peter Cooper, }  
Murdock, Leavitt & Co. }  
J. Triplett & Son, Richmond, Va.  
J. R. Anderson, Tredegar Iron Works, Richmond, Va.  
J. Patton, Jr. } Philadelphia, Pa.  
Colwell & Co. }  
J. M. L. & W. H. Scovill, Waterbury, Con.  
N. E. Screw Co. } Providence, R. I.  
Eagle Screw Co. }  
William Parker, Supt. Bost. and Worc. R. R.  
New Jersey Malleable Iron Co., Newark, N. J.  
Gardiner, Harrison & Co. Newark, N. J.  
25,000 to 30,000 made weekly. 35 1y

**RAILROAD IRON AND FIXTURES.** The Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO., 30 Wall st., N. York. ja46

**NEW YORK AND HARLEM RAILROAD Company.**—Winter Arrangement.

On and after Monday, November 3d, the cars will run as follows: Leave City Hall for Harlem (125th street,) Morrisiana, Fordham, Williams' Bridge, Hunt's Bridge, Underhill's Road, Tuckahoe, Hart's Corners, and White Plains—7:30 and 10:30 a.m., and 1 and 3:30 p.m.

Extra trains for Yorkville, Harlem, Morrisiana, Fordham, and Williams' Bridge, leave 27th street 7 a.m. for Williams' Bridge. Leave City Hall 9 a.m. (to Harlem only) and 11:30, 2:30, and 4:30 p.m. for Williams' Bridge.

Leave White Plains for City Hall—8:10, 11:10 a.m., and 1:45, 4:10 p.m.

Leave Tuckahoe for City Hall—8:20, 11:20 a.m., and 1:55, 4:20 p.m.

Leave Williams' Bridge for City Hall—7:45, 8:45, 11:45 a.m. and 12:45, 2:15, 3:45, 4:45, and 5:45 p.m.

Leave Morrisiana for City Hall—8:10, 9:10, and 10 a.m., and 12:10, 1:10, 2:40, 4:10, 5:10, and 6:10 p.m.

The freight train will leave City Hall at 12:45 p.m. and leave White Plains at 11:10 a.m. All freight must be at the City Hall between the hours of 10:30 a.m. and 12:30 p.m. The White Plain trains will stop, after leaving the City Hall, only at the corner of Broome street and the Bowery, Vauxhall Garden and 27th street.

An extra car will precede each train, 10 minutes before the time of starting from the City Hall, and will take up passengers along the line.

The City Hall and 27th street line will run every 6 minutes from 7:30 a.m. to 8 p.m.

The City Hall and 27th street night line will run every 20 minutes from 8 to 12 o'clock.

On Sundays the trains will be regulated according to the state of the weather. 1y 46

**THE LONDON RAILWAY RECORD,** Edited by Mr. JOHN ROBERTSON, A. M., (connected from the commencement with the Weekly Railway press of England.)

The *Railway Record* is acknowledged to be the leading English Railway Journal, and is published twice a week in London, namely on Wednesday and Saturday. It contains copious and correct reports (by special reporters) of all railway meetings in the United Kingdom; ample Share Lists and Traffic Tables, showing the length, cost, capital and selling prices in the principal markets, with Editorial articles on the leading Railway topics of the day. The *Railway Record* contains also, a complete resume of French, Belgian and other foreign Railway affairs.

Subscriptions 13s. per quarter, to be transmitted in advance to Messrs. Dawson and Sons, Ca<sup>o</sup> st. London. Office 153 Fleet street, London. 46

**BOSTON COURIER, DAILY, SEMI-Weekly and Weekly.**

The *Daily* edition of the *Courier*, presents to merchants and others, an extensive medium of advertising. The circulation of the *Semi-Weekly Courier* (published on Mondays and Thursdays) is believed to be more extensive than that of any other similar Boston Newspaper. This publication embraces all the reading matter of the *Daily*, the *Foreign and Domestic Markets*, *Review of the Boston Market*, *Prices current*, and *Ship News*, prepared with great accuracy. The *Weekly Courier* contains as much of the matter of the *Daily* as can be crowded into a sheet of the same size, without ship news, prices current or advertisements.

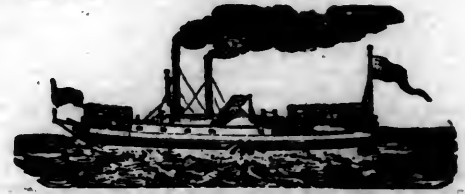
Our extions to obtain and publish authentic information on all topics proper for the columns of a newspaper,—the state of trade, the prices of merchandise, the current news of the day, and the political movements in the various sections of the country—will not be abated. The marine department of the *Courier* has been inferior to none in copiousness or accuracy of detail, and it will be our endeavor to maintain its reputation in this respect.

TERMS OF SUBSCRIPTION.  
For the *Daily Courier*, for one year, in advance \$8.00  
For the *Semi-Weekly Courier*, for one year, 4.00  
For the *Weekly Courier*, for one year, 2.00

JOSEPH T. BUCKINGHAM,  
EBIN B. FOSTER.

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTER SERIES, VOL. I., No. 50.] THURSDAY, DECEMBER 11, 1845. [WHOLE No. 493, VOL. XVIII.

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

**RATES OF ADVERTISING.**

One page per annum.....	\$125 00
One column ".....	50 00
One square ".....	15 00
One page per month.....	20 00
One column ".....	8 00
One square ".....	2 50
One page, single insertion.....	8 00
One column ".....	3 00
One square ".....	1 00
Professional notices per annum.....	5 00

**ENGINEERS and MACHINISTS.**

- J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)
- TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)
- ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)
- S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)
- NORRIS, BROTHERS, Philadelphia, Pa.
- KITE'S Patent Safety Beam. (See Adv.)
- FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)
- NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)
- ROSS WINANS, Baltimore, Md.
- CYRUS ALGER & Co., South Boston Iron Company.
- SETH ADAMS, Engineer, South Boston, Mass.
- STILLMAN, ALLEN & Co., N. Y.
- JAS. P. ALLAIRE, N. Y.
- H. R. DUNHAM & Co., N. Y.
- WEST POINT FOUNDRY, N. Y.
- PHENIX FOUNDRY, N. Y.
- R. HOE & Co., N. Y.
- ANDREW MENEELY, West Troy. (See Adv.)
- JOHN F. STARR, Philadelphia, Pa.
- MERRICK & TOWNE, do.
- HINCKLEY & DRURY, Boston.
- C. C. ALGER, Stockbridge Iron Works, Stockbridge, Mass.
- BALDWIN & WHITNEY, Philadelphia, Pa.

**IRON MERCHANTS and IMPORTERS.**

- DAVIS, BROOKS & Co., N. Y. (See Adv.)
- A. & G. RALSTON & Co., Philadelphia, Penn. (See Adv.)
- THOMAS & EDMUND GORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

**KITE'S PATENT SAFETY BEAM.  
PLAN**

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

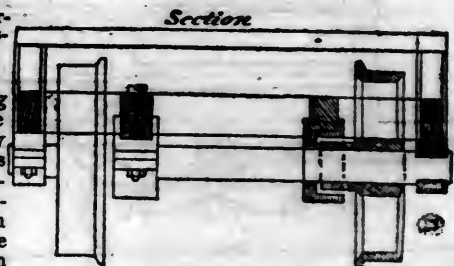
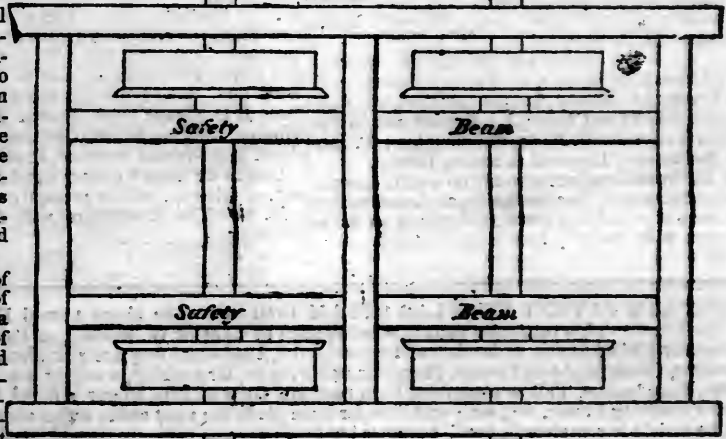
On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting to the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,  
JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.  
A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hapover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. **JOHN F. WINSLOW, Agent.**

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

**HENRY BURDEN, Agent.**

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. J. Janyers, Baltimore; Degrand & Smith, Boston.

••• Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

### FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved **SPARK ARRESTER**, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

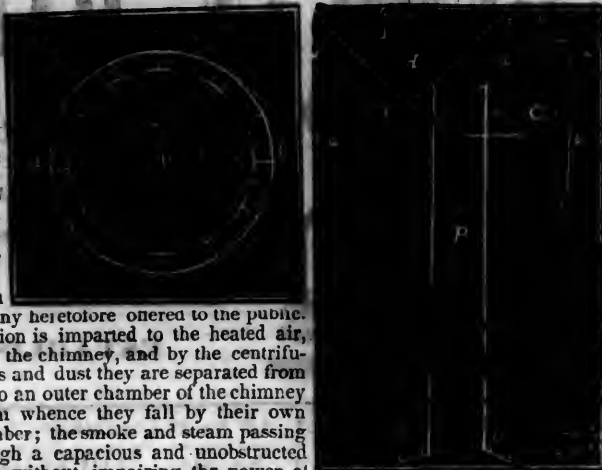
These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Supt Hartford and New Haven Railroad; W. R. M'Kee, Supt Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Supt New Jersey Railroad Trans. Co.; J. Elliott, Supt Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Supt Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Supt Macon Railroad, Macon, Ga.; J. H. Cleveland, Supt Southern Railroad, Monroe, Mich.; M. F. Chittenden, Supt M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. Philadelphia, Pa., April 6, 1844.

••• The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45

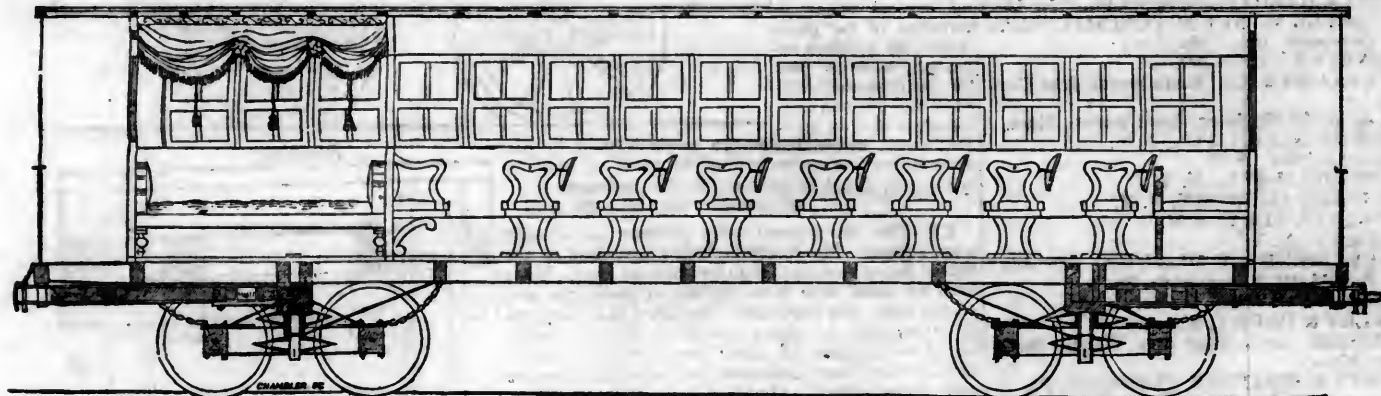


**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

The article is complete in itself, occupies but little space, is perfectly portable, and requires no brick work, not even to stand upon. It is valuable not only in the saving of time and labor, but in the economy of fuel, as it has been ascertained by accurate measurement, that the saving in that article is fully two-thirds over other methods heretofore in use. They are now for the first time introduced into New York and Boston by the subscriber, who has the exclusive right for the New England states, New York and New Jersey, and are manufactured by

**CURTIS & RANDALL, Boston; and by FORCE, GREEN & CO. New York.**

## DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern, and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All orders punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**RAILROAD IRON AND LOCOMOTIVE**  
Tyres imported to order and constantly on hand  
by **A. & G. RALSTON**  
Mar. 20tf 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention. **ANDREW C. GRAY,**  
ja45 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc. —respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
Albany, N. Y.  
Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

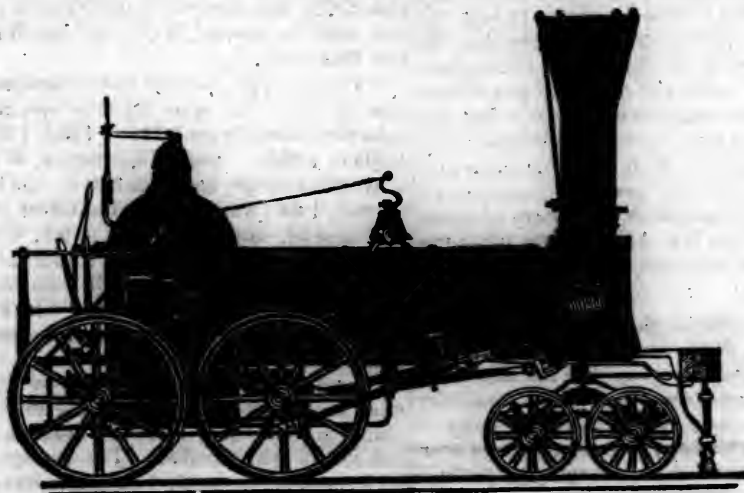
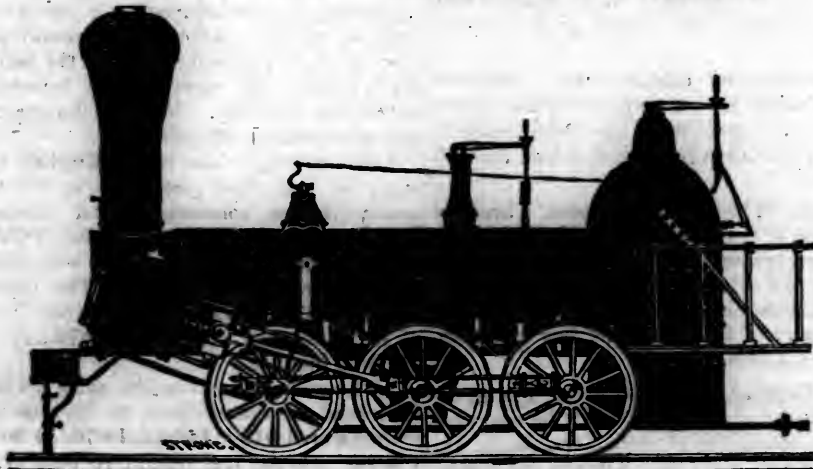
From 4 inches to 1/2 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T. L., and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**

*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class 1,	15 inches	Diameter of	Cylinder,	×	20 inches	Stroke.
" 2,	14	"	"	×	24	" "
" 3,	14 1/2	"	"	×	20	" "
" 4,	12 1/2	"	"	×	20	" "
" 5,	11 1/2	"	"	×	20	" "
" 6,	10 1/2	"	"	×	18	" "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.  
**WILLIAM YOUNG,**  
President.  
jy451m

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal and Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years the coal will not cost more than \$1 to \$1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.  
**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.  
Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.  
Pattern shop, 35x32 feet, with lathes, work benches, &c.  
Work shop, 86x35 feet, on the same floor with the pattern shop.  
Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.  
Foundry, at end of main brick building, 60x45 1/2 feet two stories high, with a shed part 45 1/2 x 20 feet, containing a large air furnace, cupola, crane and corn oven.  
Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.  
Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.  
Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:  
Boiler house 50 feet long by 30 feet wide, two stories.  
Blacksmith shop, 49 feet long by 20 feet wide.  
For terms, apply to **HENRY ANDREWS, 48 State st.,** or to **CURTIS, LEAVENS & CO., 106 State st., Boston,** or to **A. & G. RALSTON & Co., Philadelphia.**  
ja45  
**CYRUS ALGER & CO., South Boston Iron Company.**

## Railway Miscellany.

A gentleman was fined 40 shillings for smoking a cigar in a railway carriage on the Dublin and Drogheda railway! "Served him right."

The Brighton railway company have offered the post office department to carry a mail every train, between London and Brighton, which would be nearly every hour in the day.

Who will not admit, even if there is "no poetry in railways," the truth of the two last lines in the following verses?

## "No Poetry in Railways."

The following beautiful verses appeared a day or two since in the *Morning Chronicle*. They are from the pen of a gentleman till recently connected with the active conduct of that journal, and most favorably known through several literary productions:

No poetry in railways! foolish thought  
Of a dull brain, to no fine music wrought,  
By mammon dazzled, though the people prize  
The gold alone, yet shall not we despise  
The triumphs of our time, or fail to see  
Of pregnant mind the fruitful progeny  
Ushering the daylight of world's new morn.  
Look up, ye doubters, be no more forlorn!  
Smooth your rough brows, ye little wise: rejoice,  
Ye who despond: and with exulting voice  
Salute, ye earnest spirits of our time,  
The young improvement ripening to her prime,  
Who, in the fullness of her genial youth,  
Prepares the way for freedom and for truth,  
And breaks the barriers that, since earth began,  
Have made mankind a foreigner to man.

Lay down your rails, ye nations, near and far:  
Yoke your full trains to steam's triumphal car;  
Link town to town; and in these iron bands  
Unite the estranged and oft embattled lands.  
Peace and improvement round each train shall soar,  
And knowledge light the ignorance of yore:  
Men, joined in amity, shall wonder long  
That hate had power to lead their fathers wrong;  
Or that false glory lead their hearts astray,  
And made it virtuous and sublime to slay.

Blessings on science! When the earth seemed old,  
When faith grew dotting, and the reason cold,  
'Twas discovered that the world was young,  
And taught a language to its lisping tongue:  
'Twas she disclosed a future to its view,  
And made old knowledge pale before the new.

Blessings on science! In her dawning hour  
Faith knit her brow, alarmed for ancient power;  
Then looked again upon her face sincere,  
Held out her hand, and hailed her sister dear;  
And reason, free as eagle on the wind,  
Planed o'er the fallow meadows of the mind,  
And, clear of vision, saw what seed would grow  
On the hill slopes, or in the vales below;  
What in the sunny south or nipping north,  
And from her talons dropped it as she soared.

Blessings on science, and her handmaid steam!  
They make Utopia only half a dream;  
And show the fervent of capacious souls,  
Who watch the ball of progress as it rolls,  
That all as yet completed, or begun,  
Is but the dawning that precedes the sun.

CHARLES MACKAY.

"*The Leviathan Air Engine*.—One of the most important announcements of the present week is that the above engine, which has for the last twelve months been familiarly spoken of as Renagle's air engine, is to be employed as a tractive power on the Shrewsbury, Chester, and Crewe junction railway. The enormous power of the machine, and the success of the experiments which are reported to have been made with it to the satisfaction of many eminent scientific men, have attracted to the subject the attention of all Europe. We expect that the curiosity of the public will be satisfied by the committee on the Shrewsbury and Crewe junction railway bill, since the power to be employed on a projected line, as

in the case of the atmospheric principle of traction, must form an inseparable accident in the consideration of the bill."

"*Railways in Russia*.—It is said that the emperor of Russia proposes not only to connect Warsaw by a branch line with the trunk line at present in construction from St. Petersburg to Moscow, but also to extend it to the Odessa, so that the trade of Poland will extend itself to the Black and Caspian seas."

"*Railway Bubbles*.—*Punch* says, "As many as 17,000 newspapers have been found in the general post office with their covers burst. The reason of the newspapers bursting is accounted for by the fact that they contain so many railway bubbles."

"*Railway Gauges*.—Sir Frederick Smith and Professors Barlow and Airey, are busily engaged in receiving evidence on the great question of the gauges. It is reported that the evidence on the narrow gauge is completed."

"*Railways vs. Canals*.—The Aberdeen Herald states that arrangements are in progress for the purchase of the Aberdeenshire canal by the Great North of Scotland railway company."

"*Coal*.—The Wolverhampton Chronicle mentions a rumour that Mr. F. Wrightson, of Birmingham, has been directed by the lords of the admiralty to make an analysis of the different kinds of coal in Great Britain. An inquiry of the same kind has been completed in America."

*Dr. Lardner*, in a letter to the Times, denies that (as generally alleged) he ever said before a committee of parliament, that it was impossible to cross the Atlantic by steam. The doctor, who dates from Paris, says: "I beg to inform you that I never gave any evidence before parliament on the subject of the Atlantic question, nor did I ever, either there or elsewhere, make the statement you allude to, which was contradicted when it first appeared. You will perceive the impossibility of my having made such assertion when you remember that it has been well known to all who are conversant with the history of steam navigation, that the Atlantic was twice traversed by the steam ship Savannah, about 20 years ago."

"*Greece*.—Railways, proscribed at Rome, are finding their way into Greece. The *Morning Chronicle* states that the first meeting of the promoters of the Athenian railway was held recently, when the chief judge of Areopagus (Masson) attended, and in a luminous harangue of encouragement, pledged his influence with the Greek parliament and king Otho in support of the project."

A contemporary says, "It is a fact, that the demand by the printers for the little letter *g* is so great, that the type founders are doing nothing else but casting for it. So many *esquires* have found their way into print, that the printers have been thrown out of their calculations, and the supply is not adequate to the demand. If, therefore, gentlemen happen to find themselves dubbed plain Mr., they will know the reason."

"*Andover Canal*.—On Friday last at a meeting of the Andover canal company, it was proposed that the offer made by the Manchester and Southampton railway company, to give £30,000 for the canal, £10,000 down as a deposit, should be accepted. This was unanimously agreed to."

"*Warsaw and Vienna Railway*.—"The great line of railway from Warsaw to Vienna is being carried out with most amazing activity. In June last the part between Warsaw and Grodzisk was opened; on the 21st of September, the section between Grodzisk and Ruda was finished; and in like manner it is expected that the portion between Skinevire and Lorzvitz will be completed before the end of the year."

"*Advantageous Rates for Passengers and Goods on English Railways*.—We noticed last week a clever paper, printed for private circulation, on the adaptation of official returns of railway traffic to the general purposes of statistical inquiry, from the pen of Mr. Graham, the secretary, we believe, of the Statistical society. We take the opportunity of extracting the following:

"The average rates of 22 English railways for first class passengers, on five half yearly returns commencing 1st January, 1841, were 2-772*d.*, 2-71*d.*, 2-69*d.*, 2-655*d.*, 5-706*d.* On the last return, 12 were above the average, and 10 below it. The highest charge, 3-47*d.*, was made by the Great North of England; and the lowest, 1-87*d.*, by the Durham junction.

"The average rates on the same 22 lines for second class passengers, on the same five returns were 1-915*d.*, 1-955*d.*, 1-876*d.*, 1-902*d.*, 1-957*d.* On the last return, 10 were above the average, and 12 below it. The highest rate, 2-7*d.*, was charged by the Eastern counties, and the lowest, 1-5*d.*, by the Whitby and Pickering.

"The average rates for third class passengers on 16 of the same 22 railways, on the same five returns were 1-41*d.*, 1-185*d.*, 1-247*d.*, 1-204*d.*, 1-251*d.* On the last return, 5 were above the average, and 11 below it; the highest rate, 1-6*d.*, was made by the Great North of England, and the lowest, 0-9*d.*, by the London and Croydon and the Lancaster and Preston. The Chester and Birkenhead had a fourth class, at the rate 0-33*d.*, which was discontinued during the period of the second return of the tables.

"As there is but slight variation in the rates for horses and carriages, live stock and coals, over the four returns, an average is taken for the whole period. The average rate for horses, taken on 21 English railways, is 4-14*d.* Of these, 13 are above the average, and 8 below it. The highest charges were made by the Preston and Wyre and the Whitby and Pickering companies, viz: 5-5*d.*, and 5*d.* respectively. The numbers conveyed on these lines were, however, very small. The lowest rate, 2*d.*, was charged by the York and North Midland.

"The average rate for carriages taken on the same 21 railways is 7-36*d.* Of these, 10 are above the average, and 11 below it. The highest charge, 10-5*d.*, was made by the Lan-



caster and Preston, and the lowest, 4d., by the York and North Midland. The Chester and Birkenhead, not included in the average charged 12d. on returns 1 and 2; but had reduced the rate to 8d. on 3 and 4. This reduction was not followed by an increase of traffic.

"The average rate for coals is 1.83d. per ton per mile, taken on 22 English railways.

"The average rate for the conveyance of cattle on 9 English railways is 1.53d. Of these, 3 are above the average and 6 below it. The highest rate, 2d., was charged by the Birmingham and Gloucester, and the lowest, 0.9d., by the Newcastle and Carlisle.

"The average rate for sheep on 9 English railways is 0.3d. Of these, 5 are above, and 4 below the average. The highest rate, 4d., was charged by the Birmingham and Gloucester, and the lowest, 2d., by the London and Birmingham.

"The average rate for pigs on 9 English railways is 0.344d. Of these, 4 are above, and 5 below the average. The highest rate, 0.5d., was charged by the Birmingham and Gloucester and the London and Southwestern, and the lowest rate, 0.17d., by the Newcastle and Carlisle.

"The above averages having been taken on those lines only of which the returns were perfect during two years, but as they include the most extensive lines, and are located in all parts of England, the averages may be considered fair."

The general scope of the writer's argument is thus stated:

"The basis of the argument for the utility of these tables as applied to general statistical purposes is, that all the surplus produce of labor must be conveyed to its market or locality of consumption. Common roads will soon be superseded, except for very short distances, by railways, as the means of such conveyance, and there can be no doubt that a well digested system of tabulating the traffic of so large a portion of the produce of the land and labor as must pass through the hands of railway companies, would furnish the most important information on the state and variation of local trade throughout the kingdom."

The pamphlet is worthy of attention, as we trust the first of a valuable series.—*London Railway Record.*

**Ranelagh Suspension Bridge.**—A company has been brought forward for the construction of a bridge across the Thames, from a point between Chelsea hospital and the Grosvenor canal, to the Surry shore near the red house, at Battersea. The necessity of such a structure, as a public work, is now very generally admitted, and the distance between Vauxhall and Battersea bridges is very great and includes an immense mass of buildings, and a large population. The commissioners of metropolitan improvements, indeed, in their plans accompanying their report to the house of commons, on proposed improvements in this district, have laid down roads, apparently with the express view of leading to a communication with the Surry side of the river, at the point proposed by the promoters of the Ranelagh bridge.

The proposed bridge is intended to be upon the suspension principle. Instead of the old plan of erecting two piers in the waterway, supporting a centre chain of great span, there will be only one pier in the river, midway between the two shores, and a great saving will consequently be effected in pile driving, masonry, etc., while the two chains will not be of any considerable length, and consequently, as the strain will be less, they may either be made to bear a greater weight, or they may be safely constructed with a smaller quantity of iron than under the old system. The arrangement of the structure, although very simple and obvious, is, we believe, entirely novel, and is worthy of the rising reputation of the engineer, Mr. Bird. The expense for approaches will be very trifling. On the Middlesex side there is very little to be done, and such property as it will be necessary to purchase on either side of the river is vacant, and of comparatively little value, and consequently the item of compensations, usually so large in concerns of this nature, cannot in any event amount to any considerable sum, especially as all the parties affected are favorable to the undertaking, on account of the great increase which it will create in the value of all property in the locality.

The capital proposed is £90,000, which is sufficient to provide amply for the whole of the works to be executed and for every necessary expense, particularly as there is no prospect of any parliamentary opposition. To a very considerable population it will afford peculiar conveniences, and looking at the immense district for which it will provide increased accommodation, we have no doubt the concern will yield very ample returns on the capital engaged in it. According to the best calculations, based upon the returns of the neighboring bridges, the tolls will not be less than £8,000, being about 9 per cent. upon the proposed capital, part of which may very probably not be required. The whole tolls will be so much clear profit, as the outgoings after the completion of the bridge will be very small, and will be met by the dues arising from a steamboat pier in the centre of the river, which forms part of the project. On the development of the traffic under the cheap toll system, the produce will probably amount to a much larger sum.

It is a most important advantage for the scheme that it has the approval and support not only of the owners of property affected, but also of the lords commissioners of Chelsea hospital, and in consequence of the safe passage of the company's bill through parliament may be looked forward to as certain. In conclusion, we must observe that while the works will be constructed on perfectly safe and substantial principles, the capital is very small in proportion to the probable dividends to be derived from the undertaking, and we can confidently recommend it to such of our readers as may be looking out for a solid remunerative and permanent investment.—*Railway Times.*

"It has been decreed, as was well said by Mr. Parker, at the Oxford and Wolverhampton meeting on Tuesday, that the people of

this country shall travel by railways. The people have made such a decree themselves and it is absurd—it is worse than absurd—to say that the large extension of an existing beneficial system will ultimately be injurious to the country. There is no parallel between railways and canals. As well might it be said that the manufacture of gas could never answer as a commercial speculation, because only a certain number of candles were made and used before gas was invented; or as well might it have been said at the time printing was introduced, that its extension ought to be curbed because before its introduction a certain number of books only was read.

"It does not always follow, that a railway is projected because a certain amount of traffic exists between its termini, or in other words, that the existing traffic has caused the projection of a railway. A railway, in a great measure, creates its own traffic; and where there was very little traffic before, the completion of a railway will cause a traffic unthought of to be established."

**Anthracite Furnaces, etc.—Consumption of Coal on the Line.**—In the spring of the present year there were but two anthracite furnaces in blast between this place and Philadelphia, Dr. Palmer's, the "*Pioneer*," on the island, and one at Phoenixville. There are now four in blast, and another will be added to the number in one or two weeks. They are capable of turning out 275 tons of iron per week, or 13,750 tons per annum. In the course of next season, the following furnaces will be in operation in the coal region and on the canal between this place and Philadelphia. They are all at this time either in blast or in process of erection:

At Spring Mill,	2
At Conshehocken,	1
At Phoenixville,	3
At Birdsborough,	1
At Reading,	1
In the coal region,	3—11

These furnaces, eleven in number, can produce 610 tons per week, or 30,500 tons per year. Heretofore, three tons of coal have been required for the engine and stack, to produce a ton of iron, but since the new method of heating the blast at the tunnel head has been introduced, the quantity of coal used has been reduced to about two and a half to smelt a ton of iron. These furnaces alone will consume *seventy-five thousand tons* of coal per annum. This quantity is independent of that which will be required by the rolling mills, steam forges, and other iron works erected and in course of erection, which will require about *fifty thousand tons more*. From this statement, our readers can form some idea of the increased consumption that will be required on the line of the canal and railroad—and we venture the prediction that those who live twenty years longer, will see the whole extent of these improvements dotted with manufacturing towns and villages so closely located as to form almost a continuous town between the coal region and Philadelphia.

The foregoing, from "*The Miners' Journal*," of the 22d inst., shows that we shall be able at an early day to make our own iron.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting.		Paid on share.	Value of share.	NEW AND PROPOSED RAILWAYS.	Share Capital.
							Per share.	Per cent. per annum.				
Arboath and Forfar.....	15	102,000	35,000	138,870			0	12 6 2	10 0	25	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5 0 2	10 0	100	Barnsley Junction.....	200,000
Branding Junction.....	23	161,700	365,470	481,452				4 10 0	50	54	Belfast and Ballymena.....	385,000
Bristol and Gloucester.....	37 1/2	400,000	211,000	657,825				nihil.	30	59	Blackburn and Accrington.....	400,000
Chester and Birkenhead.....	14 1/2	750,000	143,170	518,980	5,856	13,148	0	10 0 2	0 0	50	Birk. and Ches. Junction.....	1,000,000
Dublin and Drogheda.....	31	450,000	150,000	582,254				nihil.	60	115	Bolt., Wigan and Liverpool.....	800,000
Dublin and Kingston.....	6	200,000	152,200	349,736				9 0 0	0 0	100	Caledonian.....	1,800,000
Dundee and Arbroath.....	16 1/2	100,000	49,445	153,416	2,989	6,993	1	5 0 5	0 0	25	Cambridge and Lincoln.....	1,250,000
Durham and Sunderland.....	18 1/2	169,350	124,055	270,392	9,889	17,702		nihil.	50	25	Chatham and Portsmouth.....	5,000,000
East County and North and East.....	86 1/2	4,443,200	1,341,155	3,931,905	47,385	118,726	1	6 6		45	Chester and Wrexham.....	120,000
Edinburg and Glasgow.....	46	1,125,000	375,000	1,497,523	29,429	55,866	1	5 0 5	0 0	50	Churnet valley.....	1,800,000
Glasgow, Paisley and Ayr.....	51	937,500	1,071,258	12,416	36,736			5 0 5	0 0	50	Direct Northern to York.....	4,000,000
Glasgow, Paisley and Greenock.....	22 1/2	650,000	216,666	797,643	11,930	23,447	0	5 0 2	0 0	25	Dublin and Belfast.....	950,000
Grand Junction.....	104	2,478,712		2,503,671	84,309	195,080	5	0 0 0	0 0	100	Dundee and Perth.....	250,000
Great North of England.....	45	969,000	581,017	1,307,487	12,201	36,189	3	0 0 6	0 0	100	Edinburg and Northern.....	800,000
Great Western.....	221 1/2	4,650,000	3,679,343	7,445,689	143,279	440,046	4	0 0 8	0 0	80	Ely and Bedford.....	270,000
Hartlepool.....	15 1/2	438,000	155,540	719,205				8 0 0	100	50	Glasgow, Dum. & Carlisle.....	1,300,000
Leicester and Swannington.....	16 1/2	140,000		140,000	2,207	6,317	1	5 0 5	0 0	50	Gt. South and West Ext.....	1,200,000
Liverpool and Manchester.....	32	1,209,000	497,750	1,785,000	64,885	141,252	5	0 0 10	0 0	100	Gt. Grimby and Sheffield.....	600,000
Llanely.....	27	200,000	44,000	221,624				1 0 0	2 0 0	87	Harwich and E. coun. Jun.....	160,000
London and Birmingham.....	202 1/2	6,874,976	1,928,845	6,611,005	96,413	456,937	5	0 0 10	0 0	100	Huddersfield & M. rl. & cl.....	670,000
London and Blackwall.....	3 1/2	804,000	266,000	1,768,851	15,978	23,870	0	3 0 1	10 0	16	Kendal and Windermere.....	125,000
London and Brighton.....	56	1,935,000	705,000	2,637,753	30,490	130,156	1	10 0 6	0 0	50	Leeds and Dewsbury.....	400,000
London and Croyden.....	8 1/2	550,000	229,000	761,885	7,583	10,545	0	8 0 4	0 0	14	Leeds and Thirsk.....	900,000
London and Greenwich.....	31	759,383	233,300	1,040,930	15,193	28,933		nihil.	13 11		Liv. Ormskirk and Preston.....	600,000
London and South Western.....	92 1/2	2,222,100	630,100	2,604,405	89,439	190,631	2	0 0 10	0 0	41	London and Portsmouth.....	1,750,000
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1	0 0 5	0 0	40	London and York.....	5,000,000
Manchester and Bolton.....	10	778,100	197,730	773,743	8,565	21,140	2	2 0 4	10 0	93	Londonderry & Enniskillen.....	500,000
Manchester and Leeds and Hull.....	87	2,937,500	1,943,932	3,921,593	46,653	156,761		8 1/2	10 0	60	Lynn and Ely.....	200,000
Midland railway.....	179 1/2	5,158,900	1,719,630	6,279,838	75,227	276,129	3	0 0 6	0 0	100	Manchester, Bury and Ross.....	300,000
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	46,745	5	0 0 5	0 0	100	Manchester and Buxton.....	250,000
Newcastle and Darlington.....	23	500,000		405,728				1 0 0	8 0 0	21	Mullingar and Athlone.....	
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466		6 9 0	50	69	Newcastle and Berwick.....	700,000
North Union.....	39	739,201	308,306	1,028,593	24,788	37,794	2	10 0 6	5 0	100	Richmond & W. End Junc.....	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415				0 16 0	8 0 0	20	Scottish Central.....	700,000
Paris and Rouen.....	84	1,440,000			31,247	91,171		8 0 0	20 40		Sheffield and Lincolnshire.....	650,000
Preston and Wyre.....	19	830,000	179,852	355,161	4,191	7,066		4 0 0	50	32	Shrewsbury and Gd. Junc.....	400,000
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,895	14,876		nihil.	87	135	Shrew. Wolv. Dudly & B.....	900,000
South Eastern.....	88	2,996,000	1,530,277	3,464,172	69,288	139,042		3 1 4	33 48		Trent Valley.....	900,000
Taff Vale.....	30	465,000	195,000	595,089	9,115	22,692	1	17 7 3	15 0	100	West London Extension.....	64,000
Ulster.....	25	519,150	20,000	348,626	5,401	13,856	0	15 0 5	1 8	32	West Yorkshire.....	1,000,000
Yarmouth and Norwich.....	20 1/2	187,500	62,500	230,036	5,186	10,008	1	0 0 5	0 0	20	Whitehaven and Maryport.....	100,000
York and N. Mid. and Leeds and Selby.....	28	1,062,500	167,500	1,107,146	31,349	75,474	2	10 0 10	0 0	50	FRENCH RAILWAYS.	
											Boulogne and Amiens.....	1,500,000
											Central of France.....	1,280,000
											Lyons and Avignon.....	2,400,000
											Orleans, Tours & Bordeaux.....	2,000,000
											Paris and Lyons.....	2,500,000
											Paris and Orleans.....	1,600,000
											Paris and Rouen.....	1,400,000

ENGLISH STEAM AND MISCELLANEOUS COMPANIES.

Steam and Miscellaneous.							NAME OF COMPANY.						
NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	
Anglo Mexican Mint.....	10,000	10	10		15 1/2	15 1/2	Loughborough.....	70	142 1/2	142 1/2	70	1140	
Anti Dry Rot.....	10,000		18 1/2		2		Monmouthshire.....	2,409	100	100	10	160	
Australian Trust Company.....	5,700	100	35		34 1/2		Melton Mowbray.....	250	100	100	10	117	
General Steam Navigation.....	20,000	15	14	10	27 1/2	27	Mersey and Irwell.....	500	100	100	10		
Gt Western Steam Pa.....			100		25		Macclesfield.....	3,000	100	100	2 1/2	15	
Metropolitan Wood Par.....	15,000	10	6	5	6 1/2		Neath.....	247	100	100	17	365	
Patent Elastic Pav.....	10,000	1	1	5	1 1/2		Oxford.....	1,786	100	100	30	505	
Peninsular and Oriental.....	11,493	50	50	7	64 1/2	65	Regents or Loncon.....	21,418	33 1/2	33 1/2	2 1/2	25	
Ditto.....	3,200	50	40	7			Shropshire.....	500	125	125	6	120	
Polytechnic Institution.....				6			Somerset coal.....	800	150	150	7 1/2	123	
Reversionary Int. Soc.....	5,387	100	100	4 1/2	104	104	Stafford and Worcester.....	700	140	140	25	480	
R. Mail Steam Packet.....	15,000	100	60		36 1/2	37	Shrewsbury.....	500	125	125	12	330	
South Western Steam.....	4,000	25	5				Stourbridge.....	300	145	145	14	360	
Ship Owners' Towing.....	3,000	10	7 1/2	10	15		Stroudwater.....	200	150	150	19		
Thames Tunnel.....	4,000	50	50				Swansea.....	533	100	100	15	240	
University College.....	1,500	100	100				Seyern & Why & Rail Av.....	3,762	26 1/2	26 1/2	5 1/2	30	
							Trent and Mersey.....	2,600	50	50	65	495	
							Thames and Medway.....	8,149	19 1/2	19 1/2		10	
							Warwick and Birmingham.....	1,000	100	100	10 1/2	167	
							Warwick and Napton.....	980	100	100	8 1/2	122	
							Water Works.						
Ashby de la Zouch.....	1,432	113	av.	4	70	70	Birmingham.....	4,800	25	25	3 1/2	28	
Barnsley.....	720	100	100	14	180	180	East London.....	4,433	100	100	8	223	
Birmingham, 1-16 share.....	3,000	118 1/2	79	10	150	160	Grand Junction.....	5,500	av.	41 2-3	7 1/2	88	
Do. and Liverpool Junction.....	4,000	160	100		13 1/2	13 1/2	New River L. B. Ann.....	1,500			2 1/2		
Coventry.....	500	100	100	20	365	365	Manchester and Salford.....	6,486	av.	30	8 1/2	57	
Cromford.....	460	do.	do.	24	250	250	Vauxhall, lt. S. London.....	1,000		100	5	55	
Derby.....	600	do.	do.	9	105	105	West Middlesex.....	8,294	av.	63 1/2	6 1/2	126	
Erewash.....	231	do.	do.	32	440	440	Docks.						
Forth and Clyde.....	1,297	400 1/2	40 1/2	4	440	440	Commercial Dock.....	1,065	100	100	3	80	
Grand Junction.....	11,600	100	100	7	162	161 1/2	East and West India.....		sto.		5 1/2	137	
Grand Surrey.....	1,500	do.	do.		20		London.....	3,238,310	sto.		4 1/2	114 1/2	
Gloucester and Rerkley.....	5,000	do.	do.		8	8	St. Katharine.....	1,352,752	sta.		5	116	
Grantham.....	749	150	150	8	185	185	Southampton.....	7,000	50	50		171	
Lancaster.....	11,699	47 1/2	47 1/2	3	40	40							
Leeds and Liverpool.....	2,897	100	100	34	640	640							
Leicester.....	545	140	140	9	139	139							



AMERICAN RAILROADS.

NAMES OF RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	1845.		Div. per cent.
						Gross.	Nett.		Gross.	Nett.		Gross.	Nett.	
Maine. 1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6			
N. Ham. 2 Concord.....	35	750,000									12			
Mass. 3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½			
4 Boston and Maine extension.....	17½	455,703	unfin.											
5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8			
6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6			
7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½			
8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
9 Charlestown branch.....		280,260						13	34,654	13,971	5½			
10 Eastern.....	54	2,388,631				279,503	140,595	6	337,238	227,920	8			
11 Fitchburg.....	50	1,150,000	just opn'd						42,759	26,835				
12 Nashua and Lowell.....	14½	380,000				84,079		8	94,588	34,944	10			
13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
14 Northampton and Springfield.....		172,883	unfin.											
15 Norwich and Worcester.....	66	2,290,000	900,000	16,535	100	162,336	24,871		230,674	99,464	3			
16 Old Colony.....		87,820	unfin.											
17 Stoughton branch.....	4	63,075	unfin.											
18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8			
19 Vermont and Massachusetts.....														
20 West Stockbridge.....	3	41,516	200		100						4			
21 Western, (117 miles in Mass.).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3			
22 Worcester branch to Milbury.....		8,431	506											
23 Housatonic, (10 months,).....	74	1,244,123							150,000					
Conn. 24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6			
25 Hartford and Springfield.....	25½	600,000	400,000	2,000	100									
26 Stonington, (year ending 1st Sept.,).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845				
N. York. 27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033				
28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6			
29 Auburn and Syracuse.....	26	766,657			133½	86,291	27,334		96,738	52,544	6			
30 Buffalo and Niagara.....	23	200,000		1,500										
31 Erie, (446 miles,).....		5,000,000												
32 Erie, opened.....	53						48,000		126,020	59,075				
33 Harlem.....	26	2,250,000	750,000	30,000					140,685	62,399				
34 Hudson and Berkshire.....	31	575,613			50				35,029	1,789				
35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996				
36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763				
37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455				
38 Schenectady and Troy.....	20½	640,900				28,043			32,646	6,365				
39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8			
40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
41 Troy and Greenbush.....	6	180,000												
42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8			
N. Jersey 44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956				
45 Elizabethtown and Somerville.....	26	500,000												
46 New Jersey.....	34	2,000,000												
47 Paterson.....	16	500,000									6			
Penn. 48 Beaver Meadow.....	26	1,000,000												
49 Cumberland Valley.....	46	1,250,000												
50 Harrisburg and Lancaster.....	36	860,000	645,929									77,538	9,988	
51 Hazleton branch.....	10	120,000												
52 Little Schuylkill.....	29	900,000												
53 Blossburg and Corning.....	40	600,000												
54 Mauch Chunk.....	9	100,000												
55 Buck Mountain.....	4	72,000												
56 Minehill and Schuylkill Haven.....	19½	396,117	25,000	7,019	50			12			12			
57 Norristown.....	20	800,000												
58 Philadelphia and Trenton.....	30	400,000												
59 Pottsville and Danville.....	29½	1,500,000												
60 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511				
61 Schuylkill valley.....	10	1,000,000												
62 Williamsport and Elmira.....	25	400,000				20,000								
63 Philadelphia and Baltimore.....	93	1,400,000				43,043	200,000			210,000				
Delaw're 64 Frenchtown.....	16	600,000												
Maryl'd 65 Baltimore and Ohio, (1st Oct.).....	188	7,742,410	1,153,709			575,235	279,402		658,620	346,946		738,603	374,762	3
66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		208,813	95,094	6
67 Baltimore and Susquehanna.....	58	3,000,000												
68 Wrightsville, York and Gettysburg.....	12½	500,000												
Virginia 69 Greensville and Roanoke.....	18	284,433	37,544	2,000	100				25,368	6,074	3			
70 Petersburg.....	63	969,890	63,000	7,690	100				122,871	72,898	6			
71 Portsmouth and Roanoke.....	78½	1,454,171												
72 Richmond, Fredericksb'g and Potomac.....	76	800,000							185,243	85,688				
73 Richmond and Petersburg.....	22½	700,000												
74 Winchester and Potomac.....	32	500,000												
N. Car. 75 Raleigh and Gaston.....	84½	1,360,000												
76 Wilmington and Raleigh.....	161	1,800,000												
S. Car. 77 South Carolina.....	136										5			
78 Columbia.....	66	5,671,452		34,410	75	201,464	77,456		532,871	140,196				
Georgia 79 Central.....	190½	3,000,000	500,000	22,500	100	227,532	93,190		328,425	180,704				
80 Georgia.....	147½	2,650,000				248,026	158,207		248,026	147,523				
81 Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Kent'ky 82 Lexington and Ohio.....	40	450,000												
Ohio 83 Little Miami.....	40	400,000												
84 Mad river.....	40	152,000												
Indiana 85 Madison and Indianapolis.....	56	212,000	50,000			22,110	8,639	8	39,031	10,065	9½	24,984	3,280	
Canada 86 Champlain and St. Lawrence.....	15								58,000	24,000				

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

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Thursday, December 11, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

It will be seen that the amount of coal sent this week by railroad is 5,850 11. The snow storm in the early part of the week blocked up the lateral roads so that it has been almost impossible for the cars to pass over them.

The canal is closed for the season.

A letter from Pinegrove states, that the navigation on the Branch canal, closed on the 28th inst. We shall have no further reports from Pinegrove until next spring.

BY RAILROAD.

From Pottsville and Port Carbon—total.....	381,270
From Schuylkill Haven—total.....	379,233
From Port Clinton—total.....	20,793
Total by railroad.....	781,298

BY CANAL.

From Pottsville and Port Carbon—total.....	163,913
From Schuylkill Haven—total tons.....	47,277
From Port Clinton.....	52,387
Total by canal.....	263,558

Total by railroad and canal.....1,043,857

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.	
Summit mines, -	184,365
Room run do, -	73,136
Beaver Meadow railroad and coal co.,	76,812
From Penn Haven—Hazleton coal co.,	70,659
From Rock Port—Buck Mountain coal co.,	23,858
	428,830

WYOMING COAL TRADE—total.....182,745

PINE GROVE COAL TRADE—total.....47,928

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....426,509

MOUNT CARBON RAILROAD—total tons.....247,052

MILL CREEK RAILROAD—total.....91,484

SCHUYLKILL VALLEY RAILROAD—total.....118,969

[Miners' Journal.]

WESTERN RAILROAD.—Receipts for week ending November 29.

	1845.	1844.
Passengers.....	\$5,857	\$5,478
Freight, etc.....	13,500	12,565

Total.....\$19,357 \$18,043

Net gain this week.....1,314

Net gain previously since Jan. '45.....54,111

Total gain.....55,425

Transactions of the Reading railroad for the month of October for three years:

	1843.	1844.	1845.
Business....	\$58,160 34	\$66,476 59	\$131,879 64
Coal tons.....	37,261	55,525	92,415

Canal Tolls.—Amount of tolls received on all the New York state canals, in each of the following years, viz:

	4th week in Nov.	Total to 30th Nov.
1839.....	\$5,041	\$1,599,038
1840.....	20,190	1,772,583
1841.....	21,734	2,033,262
1842.....	5,380	1,748,870
1843.....	14,747	2,082,146
1844.....	13,449	2,446,038
1845.....	25,584	2,646,118

The above is the entire amount of tolls for the season of 1845 to the close of canal navigation—exceeding the very heavy tolls of 1844 by the sum of \$200,088.—Albany Argus, Saturday.

The Kingston Chronicle says, "The Kingston and Toronto railroad committee have given to Mr. Cull, civil engineer, final instructions to proceed with a preliminary survey of the whole line from Wolf island to Toronto, and he has commenced the work."—Oswego Whig.

The Beauharnois canal, in Canada, 12 miles long, around the Cascades and Ceder rapids, is completed.

To Railroad Contractors.

We gave in our last the proposals of the Pittsfield and North Adams railroad company, and they will be found in another page of this, for the graduation, masonry, materials for, and laying the superstructure, and fencing eighteen and a half miles of railroad from Pittsfield to North Adams.

These proposals are given in a form and place that suits us admirably. They are given in a detailed and definite manner which enables those at a distance, who desire to compete for either of the items, to understand and propose without the trouble and expense of a journey. We therefore commend the subject to the notice of other companies who are about receiving proposals, and will on our own, as well as on their account, make one suggestion which we feel assured will be for our mutual—though much more, we hope, for their, than our, interest—viz: allow more time for competition, bring more competitors into the field, and thus save money to the company while it, at the same time, gives us more for advertising! a very important matter to the RAILROAD JOURNAL, when it is just getting up steam, after years of short supplies of fuel. Will you bear this in mind gentlemen?

Another Road to be made immediately, as will be seen by the following proposals from the Boston, Concord and Montreal railroad company, and we would call the attention of our contracting readers to the notice, as we feel assured that good bargains will be made on this line where the managers are so prompt to take a hint, and avail themselves of the true medium of arresting attention. It is beyond all question, for the interest of the company to invite a vigorous competition for their work, and it strikes us they have got upon the right track to effect that object—their principal mistake lies in having made the discovery at so late a period; we will however endeavor to remedy that by calling specially upon those desirous to engage in the kind of business here offered, to give their immediate attention to the matter. There is no time to be lost, unless they mean to lose an opportunity of being instrumental in the "improvement of the ways;" the avenues of trade and travel, we mean, not the manners of good old New Hampshire, God bless her; upon whose soil we drew our first breath, and spent our early years, and towards whose bleak hills and fruitful valleys we often look back with fond affection, even though it is near forty years since we left the haunts of childhood, on the banks of the beautiful Connecticut, where it bids adieu to the territory of the youthful queen, upon whose dominions the sun never sets; and it is therefore possible that we may be a little selfish in this matter, as with a good railroad up the valley of that river we should be

likely to revisit the scene of more than one childish frolic; though, in doing so, it is probable that we should find—alas! only the places where, not the madcaps with whom we so often engaged in the sports of boyhood.

Boston, Concord and Montreal Railroad.

Proposals will be received for the Grading and Masonry of this Road, from Concord, N. H., to the Connecticut river at the mouth of Ammonoosue river, till the 23d inst. Specifications, Profiles, Surveys, etc., may be obtained of the Engineer, William P. Crocker, at Meredith Bridge, who will furnish any desired information in relation to the subject. Bids will be received for the whole line or any part of it; and it will be expected the work will be commenced as soon as may be after the contracts are closed.

Sealed proposals may be made to either of the Directors, or the Engineer, and will be considered by the Board at the Eagle Coffee House, in Concord, on Tuesday the 23d instant.

JOSIAH QUINCY.

President B. C. and M. Railroad.

December 2, 1845.

2t 50

Farmington Canal, or

New Haven and Northampton Railroad.—The communication of "P," in this number of the Journal, in relation to these works, should be well considered by the parties interested in them, before they decide upon making "two bites of a cherry," not now worth eating, instead of engrafting upon the stem a different kind of fruit, say, if you please, the "apple," which is sure to yield abundantly when cultivated properly on the right kind of soil. The idea of making a railroad along the line of the Farmington canal is by no means of recent date. It has been for years so evidently in accordance with the spirit of the age, and offered inducements to those interested so far greater than the canal can possibly afford, that it arrested the attention of a gentleman of intelligence and much practical experience both in canals and railroads, several years ago, as may be seen by referring to the Railroad Journal for June 15, 1840, page 360. The views put forth in that communication by Mr. Holcomb, in relation to the propriety of abandoning the canal entirely, and constructing a railroad upon its bed and towing path, by levelling and filling, were both just and timely—though somewhat in advance of the age, as it had not then become fashionable to turn canals into railways—and they have lost nothing of their force by the lapse of time, but gained decidedly, both here and in Europe, under circumstances similar to those in connection not only with the Farmington, but also with many other of our canals. The same subject was again alluded to by us in the Journal of 3d July last, page 427, when we again placed the views of Mr. Holcomb before our readers, in connection with an article from the N. Haven Courier, taking almost the same ground. We now give another well written article on the same subject, from a source entitled to the entire confidence of those most deeply interested in the matter, and will not omit so good an opportunity to caution those having the management of the business, to look well to the present indications of the times, and be sure that they do not make an "improvement," which will require to be again improved before it will produce the greatest good to the greatest, or even any good to the greatest number; or, indeed, yield any return to those who have, for so many years, had only a plentiful harvest of disappointment.

Let them make a good railroad in place of the canal or let it be as it is. Use the water for man...

ing purposes wherever it is available, and make a railroad which will increase the business many fold, and then accommodate the whole *without* the canal better than *with* it. The railroad *alone* will in a few years, if not at once, be profitable; but with the canal kept in *readiness* for use along side, *neither* will yield returns to those who have invested, or may hereafter invest, their capital in them. The true policy, as we think, if any change is made, is to make it *thorough*, and a good railroad instead of a poor canal. "P." is ready to back his opinions in relation to cost of grading, and his name is at the service of those who would avail of his offer.

BY THE CAMBRIA, which arrived at Boston on the 4th inst., we have received our regular files of the London Railway and Mining Journals—and also through the kindness of an esteemed friend in London, and the politeness of Professor Morse, who came passenger, we have duplicates of some and extra papers of much value, together with letters containing intelligence of importance to all in this country, interested in the extension of the railway system. We find many matters of absorbing interest in these papers and letters, which we shall give in the next number, the present one being mainly in type when our journals came to hand, thus denying us the pleasure of giving, at least one of the letters in addition to the few extracts and comments for which we have room this week.

The panic, or revulsion, as it is termed, has had the effect to depress railway shares considerably, even the best dividend paying of the roads, as will be seen by the following list of fifteen roads. The average par value of these shares is £72 63s. 8d.; the average amount paid on them £56 63s. 8d. The average market value on 25th October was £119 15s. 8d.; and on the 15th November it was £116 17s. 3d.—showing an average decline of £2 18s. 8d. This has, of course, given much alarm to holders, and especially to those who have been speculating largely on small capital in doubtful or rival schemes, but those who have invested in legitimate lines, and understand the subject, will not, we imagine, be disposed to rush into the market, but will hold on for a time until the present excitement subsides. Nor will this depression and alarm interfere at all with those works already commenced; but they will be vigorously pushed forward to completion.

We give this list of roads, cost and present value of shares, for the purpose of reference hereafter and shall take occasion to refer to it by way of showing the rise or fall of the market value of the shares.

NAME OF ROAD.	Am't of shares.	Paid on share.	Value Oct. 25.	Value Nov. 15.
Birmingham & Glouc..	£100	£100	£126	£125½
Bristol and Gloucester..	50	30	56	54
Eastern Counties..	25	14½	21	20½
Grand Junction.....	100	100	241	231
Hull and Selby.....	50	50	103	100
Gt. North of England..	100	100	216½	212
Great Western.....	100	80	142	155
Liverpool and Manch..	100	100	213	220
London and Birmingham..	100	100	217	214
London and Brighton..	50	50	65½	61
London and York.....	50	2½	5	4½
Manch. and Birmingham..	40	40	81	74
Manchester and Leeds..	100	76	146	136
Sheffield and Manchestr	100	100	148	130
Trent valley.....	20	2	15½	15

15 companies, average. £72½ £56½ £119½ £116½

The prices of iron vary but little from 25th Oct. to 15th Nov. Rails have advanced a trifle, and Scotch pig has receded, as will be seen by the following quotations of the two dates; there is little chance, however, for a decline, as the demand must continue enormous.

October 25th. November 15th.  
Price of rails,..... £11 10s. to 12. £12.  
Scotch pig..... 4 2s. 6d. to 4 5s. 4.

For the American Railroad Journal.

New York, December 1st, 1845.

**New Haven and Northampton Railroad.**

I understand that measures are about being taken to construct a railroad on the banks of the New Haven and Northampton canal. Feeling some interest in that work, I ask the use of your columns to throw out a few suggestions for the consideration of those who have the control of that work.

What I would principally urge upon their attention, is not the propriety of the work in view; but the manner of carrying it out. I allude to maintaining the canal; thus keeping up two works for the accommodation of a business that has not heretofore been found adequate to the repairs of one.—Railroads, it is true, *make* business, but I have never heard of any that has made more business than it was able to accommodate, or that was so *unselfish* as to make business for a canal by its side, unless it was in the construction of the railroad itself. I humbly submit whether the continuance of the canal will not jeopard both projects, for the following reasons.

First, the additional cost of the railroad, will form no trifling consideration. The cost of preparing the roadbed may be put down at double, and will necessarily after this additional outlay, be extremely imperfect, should the exact line of the towing path be adhered to, and should it not, the additional cost would be considerably beyond what I have mentioned. When I say it would be extremely imperfect, I allude to the numerous small curves in the canal, many of which cannot be of more than 200 feet radius; and on our best railroads, 2000 feet is the minimum. To be sure, these are admitted on steep grades, whereas upon the proposed work, they would occur upon a level. But even upon a level, a radius of curvature of 200 feet, cannot be thought of in connection with high speed and safety, and without these requisites the work had far better not be undertaken. For the day has passed when it was only necessary to build *some sort* of a railroad, to secure the patronage of the public. Railroads are becoming so numerous, especially in the region where this is to be located, that the travelling community has grown bold enough to demand to be carried both with *safety* and *speed*. And I will here take the liberty to predict, that in ten years, and perhaps less, the speed of passenger trains upon all the railroads in the country, will be doubled, and in place of from fifteen to twenty miles per hour, we shall travel at a speed of from thirty to forty miles. The observation of every one must satisfy him of this fact.

How shortsighted then will it be in the directors [of the sound judgment and professional however sagacity of one of their number, Henry Farnam, esq., civil engineer, I have the highest opinion,] of the work in question, to construct a railroad which would scarcely admit, compatible with safety, the average speed of the present time. In order to remove this difficulty, [the abruptness of the curves,] nothing less than the whole width and limits [with perhaps occasional departures from these] of the canal, will suffice.

Again, should the project of maintaining the canal be abandoned, the plan suggested by a correspondent of the Journal, June 1840, of using the bottom or to wingpath at pleasure, by ditching\* the former, or by throwing down the latter 'till a suffi-

\* Does P mean filling the canal, or ditching the sides of the rail track?

cient width is obtained, might be availed of; but should the proposed plan be insisted upon, [which, Siamese twins like, would never be able to accomplish anything because retarded by its other half,] the towing path, culverts, aqueducts and bridges would all require to be widened, and at a very heavy expense. The towing path was originally ten feet in width, but upon embankments it is now scarcely more than seven. It cannot be supposed for a moment that the present width will answer, or even the original, bearing in mind the conditions of speed and safety. Nothing less than twelve feet, and the common width is at least fifteen, will at all answer. The number of culverts and bridges to be lengthened in a country so abounding in streams and roads, is very large. Of the latter, there cannot be less on the eighty miles of canal, than 160, which require another condition besides lengthening—that of raising. They are now some eight feet above the water line, and six above the towing path. To raise them sufficiently, would not only be attended with considerable expense, but render them difficult and inconvenient [now sufficiently so] to cross.

Again, it cannot be so long since an accident has happened to the canal—the washing away of an embankment, or something of the kind, occasioned by the water of the canal, that the directors require to be reminded that canals are subject to such accidents, and this canal in particular—owing to the loose sandy soil through which it passes. From this cause, as an accident would not be likely to happen to the canal without affecting the railroad, the latter as well as the former, would be liable to constant interruptions, diverting business into new channels, which frequently never returns.

As to the capability of a railroad to do all the business that might offer on the route, no one can doubt for a moment; and as to the capabilities of railroads to do freighting business profitably, and especially freighting and passenger business combined, which would be the character of the business on this work, it is only necessary to look over the reports furnished weekly by you in the Journal.

At once then, and forever, let them abandon the canal, a work, as time has proved, conceived in error, [although the offspring of a master mind, the late James Hillhouse,] and I might almost say, supplied with water by the tears of the orphans and widows of impoverished stockholders! [but that would be most too much of a flourish,] and construct a permanent and substantial railroad. Your correspondent, in the article above alluded to, a part of which you lately republished, accompanied by some judicious and well timed remarks on this subject, estimated the cost of the improvement at about \$6,300 per mile, which I then thought sufficiently high; but the price of iron having considerably advanced since that period, a corresponding addition must be made to this estimate. The preparation of the road bed is estimated in that article at between \$1,300 and \$1,400, and I will enter into contract with ample sureties to perform the work for that amount, and you are authorized to furnish my name to any person that shall desire it in connection with this affair.

There are several other matters that I shall pass by without comment, for fear of burdening you with too lengthy a communication; such as the cost of all cost of constructing and maintaining the railroad; the cost of either numerous viaducts, or swing bridges, maintaining the canal, independent of the additions, [and in the latter event, coupled with the expense of attendance,] for crossing the canal as the towing path shifts from one side to the other; or the

obstacles to crossing the towing path for its legitimate purpose, after it has been occupied by a railroad, and the consequent expense of constructing a new towing path throughout the entire line.

Since writing the above, I have seen the report of the engineer, [Prof. A. C. Twining, a gentleman of the highest standing in the profession] employed to make a reconnoissance and survey of the proposed work.

It appears by the report that the immediate object of the directors is to construct a railroad along the line of the canal to Bristol Basin, a distance of about twenty-seven miles, and from thence departing entirely from the route of the canal, to Collinsville, a clever little village which has been brought into existence by the manufacture of the celebrated Collins axes, a distance of about thirty-nine miles. Mr. T. estimates the cost at \$15,171 per mile, or the gross sum of \$595,591; a sum which three years since, by adhering to the line of the canal for the railroad and abandoning it for purposes of navigation, would have been nearly sufficient to have constructed a railroad to Northampton, a distance of about eighty miles; and which at this time is sufficient to construct at least sixty-five miles, counting the superstructure at Mr. T.'s estimate. What object the directors can have sufficient to induce them to carry their proposed work to Collinsville, it is difficult to see, unless it is in connection with the Western railroad at Pittsfield, by continuing up the, from here, rugged valley of the Farmington, especially since a more desirable connection would be made at Westfield, where the Western railroad crosses the canal; since I venture the opinion that the amount of axes, [it is true, I say nothing of other materials,] which the railroad would carry in several years, [I am supposing that they forge pick axes as well as others] would scarcely be equal to the number required to hew its way through the rough and rugged region about Collinsville.

This departure from the canal is the more surprising, since the only outlet possessed by this region of country is at present the canal [it can only shun it by crossing over, and proceeding to Hartford] which the canal now enjoys and to which the railroad, as next of kin, though not of affection, would fall heir.

I learn by the report in question, that a principal object of the directors in keeping up the canal, is to furnish water power for manufacturing establishments, yet to be built along its banks—admitting that the freighting will mostly be done by railroad. To a certain extent this may be, and doubtless is, a judicious measure; but it certainly cannot be necessary or desirable to keep up eighty miles of canal to furnish to a few manufacturing establishments, at a low rent, the small amount of water furnished by the Farmington river and the Southwick ponds—from whence the principal supplies of water are obtained. The water power must be furnished at a low rent, or in a country so abounding in streams and still unappropriated water powers, there will be few to avail themselves of them, especially since it has already become a much mooted point, whether water power is desirable where it involves any, however inconsiderable, transportation to and from the sea-board or navigable streams; and I am told that in the eastern part of Pennsylvania, about Philadelphia, and in Delaware, about Wilmington, one vicinity having the Schuylkill, etc., and the other the Brandywine, etc., affording unrivalled water powers, steam power, from its economy, [coal, it is true is cheap] and certainly, is obtaining a decided preference.

I suggest then, whether it would not be better to use the amount of water power near the sources from whence it is obtained; the water of the Farmington near the town of that name, where, it appears by the report, there is a fall of something like forty feet between the canal, and river; and the water of the Southwick ponds, at the northern outlet from them, where, we are informed, there is a fall of sixty feet in half a mile. And finally, would it not be cheaper to transport the goods, wares and merchandize, from the former point [Farmington] to the sea-board, than to convey thither the water, [some forty miles by feeder and canal,] for turning the factory wheels; and although the fall would be perhaps double by adopting the latter course, yet it may be questioned whether the waste by leakage, evaporation, etc., would not restore the equilibrium.

Very truly yours, P.

Report of the Western & Atlantic Railroad. ENGINEER'S DEPARTMENT W. & A. R. R. }  
October 22d, 1845. }

I have the honor to submit the following report of my transactions as chief engineer of the Western and Atlantic railroad, since the date of my last report, and an account of expenditures up to the 30th September last.

In that report, it was stated that there were twenty-nine miles of the track laid in 1842, in which no change of plan was intended. The method to be pursued in repairing this distance was the first matter requiring attention. Upon a thorough examination of the track for that object, it was clearly ascertained that nothing short of an entire renewal would accomplish the desired end. On the 25th of December, contracts were made for timber, and, within a few days, for laying the new track. This step was unavoidable, as the old timber was thoroughly rotten, and the necessity for this expenditure had a serious bearing on the efforts to extend the road to the farthest possible point.

In May, contracts were made to complete the track for 20 miles beyond Coosa depot. The whole superstructure on this road has been let at an unprecedented low price. The entire cost of timber and workmanship has been from \$850 to \$1030 per mile; and that at the highest price, was combined with a large quantity at a very low price. It is believed that no work in the United States has been let lower than the highest of these rates. The work has been pressed with great vigor, and at the close of the year the state will possess eighty miles of railroad in successful operation.

There have been some circumstances attending the execution of the order for 1840 tons of iron given to Messrs. John Frazier & Co., of Charleston, on the 8th May, 1844, which it is deemed proper to make public. This order was given to them in consequence of an intimation given through a third party that they could, through their Liverpool friends, procure the iron at the lowest cash prices, and give the state of Georgia a credit of twelve months. After much correspondence with these gentlemen, during which the above conditions were repeatedly mentioned, the order was finally given at a personal interview. It was sent to Messrs. Fielden, Brothers & Co., of Liverpool. In the

letter of Messrs. John Frazier & Co., conveying the order, are these words: "You will now please find enclosed the specifications and drawings, in conformity with which you will now make a contract immediately for eighteen hundred and forty tons of rails, at the lowest possible cash prices." The letter further urged them to procure a credit if possible, adding: "If twelve months cannot be got, get as long a time as you can;" but the order was to purchase the rails positively, and secure the credit if practicable. The only imperative condition of the order was to purchase the rails at the lowest possible cash prices.

Under this order, Mr. John Pickersgill, of London, one of the firm of Fielden, Brothers & Co., made a contract for the rails with Messrs. Thompson and Forman, in London, on or about the 1st day of June, agreeing to give them about £2 per ton above the market price at that date. The price agreed on between them was £8 15s., and letters from several of the most respectable American houses, show this to have been about \$2 per ton above the market price at that time.

These facts were not known here until the first cargo arrived. They were then reported to your excellency, when every means were adopted to obtain justice. As soon as the complaint was made, Messrs. Thompson and Forman agreed to deduct £500 from their bill, and Messrs. Fielden, Brothers & Co. agreed to deduct their commission; showing that both were perfectly aware of the injustice done to the state; but they could not consent to disgorge the whole of the \$18,000 overcharged. Unfortunately, iron had risen enormously in the mean time, and the agent of the state was forced to subject to the imposition.

Messrs. John Frazier & Co. were at once satisfied of the fact, that an imposition had been practiced, and made every effort to induce their Liverpool friends to adjust it properly, and on failing to obtain redress, they agreed to charge no commission. The only blame that can be attached to these gentlemen is for not at once assuming the responsibility of giving up the rails to the state of Georgia at the market price in England, at the date of purchase, and leaving the English correspondents to establish their exorbitant demand as they could.

The ship Wakona encountered a heavy storm in her passage, and the iron became much corroded by the effects of salt water. This gave rise to a claim for damages amounting to \$7,300, which the insurance office had refused to pay; though it is believed they cannot maintain the ground they have taken on the subject, and this amount will yet be recovered.

There have been about \$51,000 paid as duty on railroad iron, an expenditure from which it was afterwards believed that the state would be relieved by the justice of congress. A bill actually passed the senate within the last three days of the session, and it was believed, would have passed the house of representatives, if it had reached there. No doubt was ever felt that this duty would be remitted. In that confident expectation, it was

deemed entirely safe to project work which should consume the whole appropriation, after setting apart the amount of these duties which it was supposed would remain a surplus on hand. The work which will be perfected at the close of this year, had to be determined on eighteen months ago, and certain parts let, and the object in view was to bring the greatest possible extent of road into active and profitable use. The failure of congress to pass a bill for refunding this duty, deprived the work of this reserved fund to cover any expected contingency.

When the work had progressed so far that no part could be suspended without injury to the whole, it first became known that the iron had cost much more than the estimate in consequence of the most extraordinary conduct of our English agents. This, together with the redemption of a considerable quantity of scrip over what was shown by the books of the office to be in circulation, has occasioned the liabilities of the state under existing contracts to exceed by about \$14,000 the bonds which have been issued. But it is respectfully submitted that the \$270,000 of bonds issued, do not cover the appropriation made in the act of 1843. Your extra message of November 22d, 1843, is the only document from which the amount of appropriation can be ascertained. In that message the amount of bonds authorized by existing appropriations, and not heretofore issued, is stated at \$270,975 34. Of the amounts deducted from existing appropriations to show this result, there were of state bonds, \$1000 returned as defective, and cancelled under your direction. There were also two demands on the treasury, amounting to \$506 86, which were presumed at the time to be paid, and were charged to the appropriations, as paid—but they were afterwards ascertained to be unpaid. And, lastly, there were \$6,482, of six per cent. scrip mentioned as outstanding, and charged as an appropriation to the railroad. These sums added, will make \$278,964 20, as the true amount of the appropriation.

Allow me to call your attention to a sentence in the message referred to. You say, "The aggregate expenditure on this road, up to the commencement of the present year, amounts to the sum of \$2,916,008 28." Can the scrip in question be called an expenditure, if it must be called in and no equivalent from the treasury issued to replace it? The same argument will apply to the defective bonds and cash checks, above mentioned.

Then, the true amount of the appropriation, being as above stated, leaves the surplus of liabilities incurred, over and above the appropriation, only \$5,035 80. This cannot be wondered at, when the causes leading to such a result are remembered.

At the period of the last report there were \$27,000 of bonds hypothecated with the bank of Hamburg for money to carry on the work. All the cash expended has been obtained in the same manner, and the accompanying statement (marked A) will exhibit the amount of each loan, the name of the bank or individual holding the loan, the rate of interest, and the amount of bonds hypothecated.

It will be perceived that all the loans are made on an equal amount of bonds, except those from the bank of Charleston, and the bank of Hamburg. In these two is a surplus of bonds amounting to \$33,747 96. This sum is considered pledged to the Georgia railroad bank for loans and sums due for transportation of iron.

The plan of transportation recommended in my last annual report, has been carried out. The state has her own locomotives, and passenger's cars, and the Georgia railroad company furnish the freight cars. For the use of these cars, that company is to receive one-eighth of the freight. This arrangement will of course be extended to the Monroe railroad, when they form a junction. It is confidently believed that no other plan can succeed. This saves to the state all the expense and risk of transshipment at the junction of the roads, and saves the owner of the articles conveyed much delay and some damage.—Any other plan would throw the first twenty miles of the state work almost out of use, and would operate as a considerable drawback on the entire business of the road.

To abandon the plan would render necessary an immediate expenditure of \$30,000 to procure a supply of freight cars. The state might be forced to this measure by an attempt at extortion on the part of the companies owning the cars; but in no other event can it be advised.

It is respectfully submitted, whether there may not be some legislation necessary to protect the property of the state on the Western and Atlantic railroad, and to prevent malicious persons from placing obstructions on the road.

The object kept steadily in view during the last two years, has been to put in operation the greatest possible length of road; as the large sums of money already expended are thus brought into active use. The amount of work thus accomplished will be, by the close of the year, eighty miles of road. This reaches to a point near a bend in the Oostenaula river, five miles south of the crossing of said river. It was at first believed that the appropriation would extend across the river, as this was considered a highly desirable point; but this was found to be impossible.

It is certainly desirable in every point of view, to extend the road at once to Cross Plains, which can be done at a very trifling cost, compared with the sum already expended on this 20 miles. An appropriation of \$100,000 would complete the road to this point with a plate rail, or \$140,000 would supply a track of the most permanent character. This would overcome the obstructions presented by our rivers, and 20 miles of remarkably bad road, and reach a point of great importance; being the junction of the Hightower road with the great State Trunk. Of the expediency of completing the entire state road, there can be very little doubt; but the point here mentioned has superior claims to attention, both from its importance and the facility with which it may be reached. The entire distance is graded, and there is a single bridge wanting, which may now be built at

a very trifling cost. The receipts on a railroad increase with its length in a much greater ratio than the expenses—and this would be strongly exhibited in the case of this twenty miles, under the peculiar circumstances.

That the Western and Atlantic railroad will yield a handsome revenue to the state—even larger than its warmest friends have heretofore calculated, is now evident. Twenty miles of the work went into operation on the 15th September, and the receipts of the first month have been upwards of \$1,100. It was not generally known that the state road was opened—because apprehensions of a disappointment prevented the necessary steps for making it known from being taken. The amount of goods wagoned through Marietta during the month was fully equal to that transported on the road. Moreover, it is conceded that twenty miles of railroad cannot make money, except under the most favorable circumstances. This is therefore to be taken only as an indication of what may be expected, when a respectable portion of the road is in use, and the fact is generally known. The warehouse in Marietta has been crowded with packages of merchandize for Huntsville, Decatur and other points in Alabama, and for Knoxville, Athens and other places in Tennessee.

At the end of this year a traveller leaving Washington city for Nashville, may reach there by this road in two days less time than by any other route—and the mail between those points must necessarily come this way. Every mile that is added to the road will attract the travel and trade of a still larger extent of country.

An accident on the road, in which I had the misfortune to have a thigh broken, prevents me from extending this report to the limits which I had assigned. Accompanying this report you will find an account current, and a table of the cost of the road. All of which is respectfully submitted.

(Signed,) CHAS. F. M. GARNETT.  
Chief Engineer.

A.—BONDS HYPOTHECATED.		
Name of Bank.	Bonds Hypothecated.	Am't of Loan.
Bank Charleston.....	\$105,000.....	\$78,962 04
" Hamburg.....	27,000.....	19,390 00
" Augusta.....	30,000.....	30,000 00
" the State.....	25,000.....	25,000 00
Mechanics' bank.....	25,000.....	25,000 80
George M. Newton.....	5,000.....	5,000 00
K. Boyce.....	20,000.....	20,000 00
J. Henry.....	5,000.....	5,000 00
Mechanics' bank.....	14,500.....	14,500 00
Georgia R. R. bank.....	.....	6,500 00

\$256,500

ACCOUNT CURRENT.—Chas. F. M. Garnett, Chief Engineer of the Western and Atlantic railroad, in account current with the State of Georgia from Oct. 1, 1844, to Sept. 30, 1845.

1844.		Dr.
October 1.—To balance as per account current of this date.....		\$112,178 93
Nov. 29.—To 6 per cent. state bonds received of Gov. Crawford.....		10,000 00
1845.		
February 3.—To 6 per cent. state bonds rec'd of Gov. Crawford.....		15,000 00
April 11.—do. do. do. do.		20,000 00
May 17.—do. do. do. do.		60,000 00
June 17.—do. do. do. do.		40,000 00
Amounting to.....		\$257,178 93



1844.	Cr.	
Decem. 31.—By amount paid for construction during 4th qr.		
1844.....		\$ 11,783 91
1845.		
March 31.—By amount paid for construction during 1st qr.		
1845.....		20,813 15
June 30.—Do. do. 2d qr.		150,324 36
Sept. 30.—Do. do. 3d qr.		42,120 11
" " Scrip redeemed.....		6,000 00
" " Balance on hand.....		26,137 40
Amounting to.....		\$257,178 93
COST OF ROAD.		
Amount expended on construction up to 30th Sept. 1844.....		\$2,908,686 02
Amount expended on construction up to 30th Sept. 1845 as per vouchers..		225,041 53
Cost of road.....		\$3,133,727 55

**Railroad Meetings.**

We give place with pleasure, this morning, to the proceedings of a meeting held at the Clifton House, on the Canada side of Niagara falls, on the subject of a bridge over the Niagara river. We are informed by Major Stuart, that the meeting was numerously attended, and much enthusiasm manifested. It will be seen that Mr. Buchanan, formerly British consul at New York, was president of the meeting. He was much delighted with the project, and proposed to take a liberal share of stock. The citizens of Canada agree to take one-half the amount, \$100,000, and three-fourths of the remainder has already been engaged on this side, and will be subscribed as soon as the charter is obtained.—The project is one of great importance to this city, and we hope our citizens will keep this in mind, and also the great improvements now going on at the falls.—*Rochester paper.*

A numerous meeting of gentlemen from the Niagara and Gore districts, Canada, and the state of New York, took place at the Clifton Hotel, Niagara Falls, on Wednesday, the 19th November.

James Buchanan, Esq., of Drummondville was called to the chair.

Jasper T. Gilkeson Esq., of Hamilton, was appointed secretary.

Mr. Stuart, C. E. of the Lockport and Rochester railroad, explained the objects and vast importance of the proposed bridge; demonstrated that it was quite practicable, at a moderate cost.

Mr. Centre, of Lockport, and General Whitney of the falls, both expressed their conviction of the great advantages offered by the intended bridge, while Mr. Carroll, one of the directors of the Great Western railroad, was of opinion that such bridge—if constructed—would command the terminus of the Great Western railroad. Other gentlemen offered their views, and a general opinion prevailed of the immense benefits of the proposed connection between the two countries, as it would be of infinite service to the inhabitants and railroad companies on both sides of the line, while it would probably prove the best paying stock in the world.—After some further conversation, it was,

*Resolved*, That a committee of six gentlemen, consisting of Messrs. Curtenius, De Veaux, Stuart, Cummings, Street, and Car-

roll, be appointed to confer and submit resolutions for the adoption of the meeting.

The above committee reported the following resolutions, which were unanimously approved of.

*Resolved*, That it is desirable that a bridge should be constructed across the Niagara river, at or near the falls, as the said bridge would afford a great convenience to the inhabitants of Canada, and the neighboring state; offering, as it would, an uninterrupted communication throughout the year.

*Resolved*, That to promote the objects of this meeting, a committee of five gentlemen, from Canada and the state of New York, be appointed, who will frame the necessary bill or application to their respective legislatures, for an act of incorporation, with a capital not exceeding £75,000 (\$300,000.)

*Resolved*, That Sir Allen N. MacNabb, G. S. Tiffany, W. H. Merrit, J. Cummings, Thos. C. Street, Esquires, of Canada West, and Lot Clark, G. W. Holley, Samuel De Veaux, C. B. Stewart, Joseph Centre, Esqs., of the state of New York, do compose the said committee.

Moved by J. Cummings, Esq., seconded by Thos. C. Street, Esq.

That Mr. Buchanan do vacate the chair, and the same be taken by Mr. Carroll.

S. Buchanan, *Chairman*; I. T. Gilkeson, *Secretary*.

*Resolved*, That the thanks of this meeting be given to Mr. Buchanan for his conduct in the chair.

Mr. Street here addressed the meeting on the propriety of obtaining statistical information, he therefore proposed the subjoined resolution which was agreed to:

*Resolved*, That Lot Clark, Samuel De Veaux, Joel McCollum, James Buchanan, James, Cummings, and W. H. Merrit, Esqs., be a committee to collect statistics, with a view to show the probable support which will be given to the proposed bridge.

P. Carroll, *Chairman*; J. T. Wilkson, *Secretary*.

**Suspension Bridge at Niagara Falls.**

We find the following notice in the Utica Gazette, and a similar one in the Philadelphia Ledger. We are gratified to learn that public attention is turned seriously to this subject. Let there be a *suspension bridge* constructed below the falls upon the most approved plan, by which the American and Canadian railroads may be connected, and it will of itself be a curiosity worth a long journey to look at.

Should such a structure be decided on, Mr. Charles Ellet, Jr., of Philadelphia, or Mr. John A. Roebling, of Pittsburg, may gather new laurels in that branch of engineering.

"Charles Ellet, Jr., an engineer, of Philadelphia, has recently, in company with Major C. B. Stuart, of Rochester, inspected the localities in the vicinity of Niagara falls, with a view of ascertaining the practicability of a suspension bridge across the Niagara river.

"There is a point, about a mile and a half

below the cataract, and near the whirlpool, where the distance from one high bank to the other does not exceed 700 feet. The cost of a hanging bridge at that point, of sufficient strength to sustain the weight of a railroad train or any other burden which may be placed upon it, and made in the best and securest manner, is estimated by Mr. Ellet, at \$200,000. He offers to construct such a bridge for that sum, and to subscribe \$20,000 to its stock."

**Union of Railroads.**

Economy, safety and efficiency will, we think, be promoted by the union of short and continuous railroads. Unity of action is especially desirable in railway management, and we are therefore pleased to learn, as we do from the following, which we find in the True Sun, that the committee of the Worcester and Western railroads have agreed upon terms of union. We hope the shareholders will ratify this agreement if it is an equitable one; and we should like now to see a union of the roads west of Albany, under a management which will increase the speed and reduce the charges—and thereby *double*, we *hope*, its receipts in a few years. Who will not join in this desire?

"We understand from the Albany Citizen that the committee appointed for the purpose by each of the above corporations, have agreed upon the terms for the union of these two roads under one corporation, to be called the Boston and Albany railroad company.—Among the terms agreed upon, we have been informed one is that the stockholders of the Worcester railroad, for every five shares of their stock are to receive six shares in the new company. The agreement is to be acted upon by the stockholders of both corporations."

**Railroad to Lake Erie.**—We take the following from the St. Louis New Era, of 18th ult., for the purpose of repeating the remark of the writer, that "*now* is the time for St. Louis to act." The writer says:

"While our eastern friends are stirring with their various railroads, all with a view to secure the trade of the western valley, does it not become us of the west to second their efforts, and commence a work here and meet them half way. I notice there has been a meeting of the citizens of Toledo, in Ohio, at which a project for a railroad was recommended, commencing at Toledo, on the Maumee river, and extending through Indiana to some point in Illinois, with a view to its termination at St. Louis.

"Now, what will our capitalists and enterprising business men do to further the exertions making in other places to connect us with the east by steam?

"Will not those who are most deeply interested in the future prosperity of the city confer together and recommend something to be done to promote the object in view? Shall we be slumbering all the time, and fold our

arms in quietness, as if we had no part or lot in the matter?

"If nothing can be done in *our own state*, to establish a system of *internal improvement*, can we not appeal to our friends in the neighboring states to lend us a helping hand in the great work of uniting the east and west?"

"To this point a railroad must one day, sooner, or later, centre, and those who are on the alert to secure first the completion of a road directed to this city will derive immense advantages.

"It needs only a glance at the map to point out the direction of a road leading from this city, and that, in my humble opinion, is to Vandalia and Terre Haute, on the Wabash, and so on through Lafayette to the lake at Toledo.

"I hope, sir, the attention of the public will be aroused to this important subject, and that meetings will soon be held to take into consideration the whole matter.

"Now is the time for St. Louis to act, and what is done let it be done quickly."

Our citizens, says the Pittsburg Gazette, will be no little gratified to read the proceedings of the railroad meeting in Bedford. As information on the subject of the right of way extends, the people of Pennsylvania will be found acquiescing in the justice of yielding this grant. It is one of those questions which only needs to be examined with unprejudiced minds to secure conviction. We hope our Philadelphia friends will yet see this subject in its true light. We should be sorry to differ with them, or to see hard feelings engendered in the western and southwestern portions of the state, against that city on this question. We want to see her go on with her Sunbury railroad, and we wish to unite with her in amicably procuring the necessary legislation, and as far as our means will admit, in helping her to build the branch to this city; but we are persuaded that a good deal depends upon her course in respect to permitting the Baltimore road to terminate at Pittsburg. The feeling on this subject is so deep in this whole section, that irritation, however improper, will certainly be excited by pertinacious opposition on the part of our eastern sister. If Philadelphia would lose anything by that road coming to Pittsburg, we might acquiesce. But we are satisfied this will not be the case, it will require a great deal of equanimity of temper to sit quiet under an irreparable injury done to the southwestern part of the state, as well as to our state works, should Philadelphia opposition frustrate the just demand made.

We fully concur with the editor of the Gazette, in the opinion that "information on the subject of the right of way" is only necessary to induce the people of Pennsylvania to acquiesce in the justice of granting it to the Baltimore and Ohio railroad company, to reach the Ohio at Pittsburg. With the same propriety might the people of Philadelphia, or any other city, object to having houses and stores erected within their boundaries by *Bostonians*, or others from abroad, because the *rents* would be carried out of Philadelphia. Yet we apprehend that the expenditure of the capital in erecting the buildings, and the increased value given to property thereby, and the

convenience to the people in having these buildings erected by which they may have a choice of location, will be more than equivalent to the inconvenience of having the rents carried out of Philadelphia for expenditure. And then, again, there is at least an equal chance that the rents derived from this first outlay, will be invested in new buildings—at least such will be the influence of the construction of a good railroad through almost any part of the state. The advantages to Pennsylvania will far outweigh, at least an hundredfold, any disadvantage which may by possibility result to Philadelphia. Indeed, we feel assured that Philadelphia will be *directly* benefited by every *main line* of communication from the west to the Atlantic, even those through Virginia and Georgia, as well as through her own territory. Their *influences* will spread in every direction—but especially northward, through all the Atlantic cities, and if Philadelphia does not receive her full share of benefit, it will be because her citizens do not improve the natural advantages of their position.

**More Railroads.**—By a notice in another column, it will be seen that the enterprising citizens of Shelbyville and Shelby county, are about to make an energetic attempt to construct a branch railroad from Shelbyville to Edinburg, the present depot of the Madison and Indianapolis railroad. We have no doubt they will be successful.

A railroad is also talked about from Centerville to Connersville, or some other point on the canal line between that place and Cambridge. One half of the stock will be taken at Centerville. Go ahead, and we'll soon have an extension of the same to this place.—*Indiana State Sentinel*.

That is the way it will work—make *one* railroad, *others* are sure to follow.

**NOTICE TO RAILROAD CONTRACTORS.** Proposals will be received at the office of the Pittsfield and North Adams Railroad Corporation in Pittsfield, Mass., until the 20th of December, next.

- 1st. For the Graduation, Masonry and Bridging of 18½ miles of Roadway.
- 2d. For furnishing the Timber, Chairs and spikes and laying the Superstructure.
- 3d. For furnishing Materials and Building a heavy, substantial Post and Rail fence upon each side of the Roadway.

The approximate quantities are as follows, to wit: 600,000 cubic yards of Excavation and Embankment.

- 6,500 perches of Masonry.
- 500 feet of Bridging.
- 43,000 chestnut or white oak Cross-ties, 5 inch face 7 inches between faces and 7 feet long.
- 500,000 feet board measure, Hemlock sills 3 in. x 8 in. x 18 feet long.
- 150,000 feet board measure, Hemlock sills 3 in. x 8 in. x 6 and 12 feet long.
- 70,000 fence rails 12 feet long, either split from thrifty Chestnut of a size not less than 5 in. x 2 in. measured across the centre of the smallest end, or sawed from Spruce timber with square edges, 5 in. x 1½ in. or from Hemlock 5 in. x 2 in.
- 18,000 Chestnut fence posts, holed with 4 holes 7½ feet long and measure not less than 8 in. x 4 in. across the centre of the smallest end.
- 45 tons of Hook Head Railroad Spike.
- 90 tons of Cast Iron Chairs.

Plans, Profiles, Specifications etc., will be ready for examination on and after the 15th December.

FREDERICK HARBACH,  
*Resident Engineer.*

Office of the Pittsfield and North Adams Railroad Corporation.  
Pittsfield, Nov. 26th 1845. 3t 49

C. J. F. BINNEY,  
GENERAL COMMISSION MERCHANT  
and Agent for Coal, and also Iron Manufactures, etc.

No. 1 CITY WHARF, Boston.  
Advances made on Consignments.  
Refer to Amos Binney, Boston.  
Grant & Stone, } Philadelphia.  
Brown, Earl & Erringer, }  
Weld & Seaver, Baltimore.  
December 8, 1845. 1m 50

**A CARD.**  
**THE SUBSCRIBER, EDITOR AND PUBLISHER** of the *Miners' Journal* for the last sixteen years, has been engaged, for the last year in collecting the materials for a work, for which he has secured the copy right, in the following words:—"A history of the Anthracite Coal Trade of Schuylkill and the adjoining Counties, Geological and Statistical, accompanied with Maps of the different Regions, the Improvements, Investments, Capacity, etc., embracing a complete and authentic history to the present time, to which will be appended a Synopsis of the Iron Trade."

It is our intention to embrace everything of interest in the work, connected with the trade, up to the beginning of the year 1846, prepared and arranged with a view of continuing the publication, at periods of five or ten years, with such additions as the increased trade will warrant. These branches of trade have assumed an importance which will warrant such a publication; and he feels confident, that with the proffered aid of several gentlemen and the statistics already in his possession, he will furnish the public with a work, which, if not one of the most interesting in its details, it will be of great value to those engaged and interested in these branches of business.

As soon as the Maps, etc. are prepared, and some idea can be formed of the probable expense of publishing the work, proposals will be issued for the same. All the tracts of Coal land will be designated on the Map of the Schuylkill Coal Region, which will accompany the work.

Pottsville, Nov. 13, 1845. BENJ. BANNAN.

**NEW YORK AND ERIE RAILROAD** Company. The Stockholders of this company are hereby notified that an instalment of Five dollars on each share of the new stock, on which not more than five dollars has been paid, is required to be paid at the office of the company, No. 50 Wall street, on or before Wednesday, the 10th day of December next. By order of the board of Directors. NATHANIEL MARSH, Secretary.

New York November 5, 1845.  
N.B. Subscribers at or near Newburgh are requested to make payment to Thomas C. Ring, Esq. Cashier of the Powell Bank. 4t 46

**RAILROAD IRON.**—THE "MONTOUR Iron Company," Danville, Pa., is prepared to execute orders for the heavy Rail Bars of any pattern now in use, in this country or in Europe, and equal in every respect in point of quality. Apply to MURDOCK, LEAVITT & CO., Agents.  
Corner of Cedar and Greenwich Sts. 43 1y

**WESTERN AND ATLANTIC RAILROAD.** The Western and Atlantic Railroad is now in operation to Marietta, and will be opened to Cartersville, in Cass county, on the 20th of October—and to Coosa Depot, (formerly known as Borough's,) on the 20th of November.

The passenger train will continue, as at present to connect daily (Sundays excepted) with the train from Augusta, and the stage from Griffin.

CHAS. F. M. GARNETT,  
Chief Engineer. 43

**NOTICE IS HEREBY GIVEN THAT** the New York and Harlem Railroad Company intend to apply to the Legislature of the State of New York, at the ensuing session thereof, for an amendment to their charter, authorizing them to pledge their property and franchise for the purposes of extending their road from its present termination to the city of Albany, and for other purposes. Dated Nov. 20th. 48 6t

**BOSTON AND MAINE RAILROAD.**

Upper Route. Boston to Portland via, Charlestown, Somerville, Malden,

Stoneham, South Reading, Reading, Wilmington, Ballardvale, Andover, North Andover, Bradford, Haverhill, Atkinson, Plaistow, Newtown, Kingston, East Kingston, Exeter, South Newmarket, Newmarket, Durham, Madbury, Dover, Somersworth, South Berwick, North Berwick, Wells, Kennebunk, Saco and Scarborough.

Winter Arrangement, 1845 & 6. On and after Monday, October 20th, 1845, Passenger Trains will run daily, (Sundays excepted,) as follows, viz.

Leave Boston for Portland at 7 1/2 a.m. and 2 1/2 p.m. Leave Boston for Great Falls at 7 1/2 a.m., 2 1/2 p.m. and 3 1/2 p.m. Leave Boston for Haverhill at 7 1/2 a.m., 2 1/2, 3 1/2 and 5 p.m. Leave Portland for Boston at 7 1/2 a.m., and 3 p.m. Leave Great Falls for Boston at 6 1/2 a.m., 9 1/2 a.m. and 4 1/2 p.m. Leave Haverhill for Boston at 6 1/2, 8 1/2, and 11 a.m., and 6 1/2 p.m.

Special Train.—A special train will leave Boston for Andover at 11 1/2 a.m., and Andover for Boston at 3 1/2 p.m.

The Depot in Boston is on Haymarket Square. Passengers are not allowed to carry Baggage above \$50 in value, and that personal Baggage, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every \$500 additional value. CHAS. MINOT, October 20, 1845. 43 1/2 Super't.

**SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars.** The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent, 55a3 Albany Iron and Nail Works, Troy, N. Y.

**TO IRON MANUFACTURERS. THE** Subscribers, as Agents of Mr. Geo. Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle. A. & G. RALSTON & CO., ja45 No. 4 Sout Fronth st., Philadelphia, Pa.

**MACHINE WORKS OF ROGERS,** Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

**Railroad Work.** Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

**Cotton, Wool and Flax Machinery** of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York

**FOR SALE AT A SACRIFICE—A LOCOMOTIVE** Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine. 2 8-horse " " " " 1 Upright Hydraulic Press.

All of which will be sold low, on application to T. W. & R. C. SMITH, Founders and Machinists, Alexandria, D. C.

May 12th

**GEORGIA RAILROAD. FROM AUGUSTA to ATLANTA—171 MILES.**

This Road in connection with

the South Carolina Railroad and the Western and Atlantic Road now forms a continuous line of Railroad of 360 miles from Charleston to Cartersville, two miles west of the Etowa River in Cass County.

Rates of Freight, and Passage from Augusta to Cartersville.

On Boxes of Hats, Bonnets, and Furniture per foot..... 15 cts. " Dry goods, shoes, saddlery etc., per 100 lbs. 85 " " Sugar, coffee, iron, hardware, etc. " 70 " " Flour, bacon, mill machinery etc. " 33 1/2 " " Molasses, per hoghead \$8; salt per bus. . . 22 " Passengers \$9 50; children under 12 years of age and servants, half price.

Passengers to Atlanta, head of Ga. Railroad, \$7. German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight payable at Augusta. J. EDGAR THOMPSON, Ch. Eng. and Gen. Agent.

Augusta, Oct. 21 1845. \*44 1/2

**NICOLL'S PATENT SAFETY SWITCH** for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, Reading, Pa. ja45

**GEORGE VAIL & CO., SPEEDWELL IRON**

Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/2 in. to 2 1/2 in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions. ja45 1/2

**TO RAILROAD COMPANIES AND MANUFACTURERS** of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa. 31

**NORWICH AND WORCESTER RAILROAD.**

On and after May 22, 1845, Trains will leave as follows, viz:—

Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4 1/2 p.m. Leave Worcester, at 10 a.m., and 4 1/2 p.m.

The morning train from Norwich, and the morning and evening trains from Worcester, connect with the Boston, Western, and Hartford and Springfield railroads.

New York Train, via Steamboat. Leaves Norwich for Worcester and Boston, every morning except Monday, upon the arrival of the boat from New York, about 2 a.m. Leaves Worcester for Norwich and New York, at 5 1/2 p.m., daily, except Sunday.

New York Train, via Long Island Railroad.—Leaves Norwich about 3 p.m., for Worcester and Boston, daily, except Sunday. Leaves Worcester for Norwich and New York, at 7 1/2 a.m., daily, except Sunday, and arrives in Norwich at 9 1/2.

Freight Trains. Daily, except Sunday. Fares are less when paid for Tickets, than when paid in the cars.

EMERSON FOOTE, Superintendent. 32 1/2

**LAWRENCE'S ROSENDALE HYDRAULIC CEMENT.**

This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Flooms and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE, 142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 32 1/2

**SUMMER ARRANGEMENT—FARE REDUCED.**

By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

Direct to New Orleans, and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great Southern Mail Line, and the only one that issues a through ticket South. Those who patronize it will save their money and time. Through Tickets from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

Fast Mail Line.—Leave New York at 9 a.m. and arrive in Philadelphia at 3 1/2 p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12 1/2 to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.

Passengers by the above line will arrive at Richmond by 11 1/2 o'clock p.m. and Petersburg, Va. by 2 1/2 o'clock p.m., through to the former city in twelve hours, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

Way Mail Schedule.—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p.m.; arrive in Baltimore at 2 1/2 p.m.; arrive in Washington at 7 p.m. From Philadelphia by steamboat.—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore. STOCKTON & FALLS.

**BOSTON AND PROVIDENCE RAILROAD.** Passenger Notice. Winter Arrangement. On and after Monday, Nov. 3, the Passenger Trains will run as follows:

For New York—night line, via Stonington.—Leaves Boston every day, but Sunday, at 4 1/4 p.m. Accommodation trains, leave Boston at 8 a.m. and 3 1/4 p.m., and Providence at 8 a.m. and 3 1/4 p.m. Dedham trains, leave Boston at 9 a.m. 3, 5 1/4 and 10 p.m. Leave Dedham at 8 and 10 1/4 a.m., and 4 1/4 and 7 p.m. Stoughton trains, leave Boston at 12 m. and 4 p.m. Leave Stoughton at 8-20 a.m. and 2 1/4 p.m. All baggage at the risk of the owners thereof. N.B. The last train to and from Boston and Dedham, will be omitted in case of a severe snow storm. W. RAYMOND LEE, *Sup't.* 31 1/2

**BRANCH RAILROAD AND STAGES** Connecting with the Boston and Providence Railroad. Stages connect with the Accommodation trains at the Foxboro' Station, to and from Woonsocket. At the Seekonk Station, to and from Lonsdale, R. I. via Pawtucket. At the Sharon Station, to and from Walpole, Mass. And at Dedham Village Station, to and from Medford, via Medway, Mass. At Providence, to and from Bristol, via Warren, R. I.—Taunton, New Bedford and Fall River cars run in connection with the accommodation trains.

**NEW YORK AND ERIE RAILROAD LINE.** For Middletown, Goshen, and intermediate places. Two daily lines each way, as follows:

For passengers, the new, and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7 1/2 o'clock, A.M., and 5 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6 A.M., and 4 1/2 P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets. H. C. SEYMOUR, Superintendent. Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale, Carbondale, etc. On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc. 31 1/2

**BALTIMORE AND SUSQUEHANNA RAILROAD.** The Passenger train runs daily except Sunday, as follows:

Leaves Baltimore at 9 a.m., and arrives at 6 1/2 p.m. Arrives at York at 12 1/2 p.m., and leaves for Columbia at 1 1/4 p.m. Leaves Columbia at 2 p.m., and leaves York for Baltimore at 3 p.m. Fare to York \$2. Wrightsville \$2 50, and Columbia \$2 62 1/2. The train connects at York with stages for Harrisburg, Gettysburg, Chambersburg, Pittsburg and York Springs. Fare to Pittsburg. The company is authorized by the proprietors of Passenger lines on the Pennsylvania improvements, to receive the fare for the whole distance from Baltimore to Pittsburg. Baltimore to Pittsburg.—Fare through, \$9 and \$10.

Afternoon train. This train leaves the ticket office daily, Sundays excepted, at 3 1/4 p.m. for Cockeysville, Parkton, Green Springs, Owings' Mills, etc. Returning, leaves Parkton at 6 and Cockeysville and Owings' Mills at 7, arriving in Baltimore at 9 o'clock a.m. Tickets for the round trip to and from any point can be procured from the agents at the ticket offices or from the conductors in the cars. The fare when tickets are thus procured, will be 25 per cent. less, and the tickets will be good for the same and following day on any passenger train. D. C. H. BORDLEY, *Sup't.* Ticket Office, 63 North st. 31 1/2

**DAVIS, BROOKS & Co., 30 WALL ST.** Have now on hand and for sale, 200 tons 2 1/4 x 1/2 inch Flat punched Rails, Bars 18 feet each. 100 tons Heavy Edge Rails, 90 tons per mile. 30 tons 2 1/4 x 1/2 inch Flat Rails. Also—A STEAM PILE DRIVER, built by "Dunham & Co." which has never been used, and cost originally \$5000. 320 2m 3/4

**BALTIMORE AND OHIO RAILROAD.** MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7 1/2 and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5 1/2 P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M. WASHINGTON BRANCH. Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5 1/2 P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. 31 1/2

**CENTRAL RAILROAD-FROM SAVANNAH TO MACON.** Distance 190 miles. This Road is open for the transportation of Passengers and Freight. Rates of Passage, \$8 00. Freight—On weight goods generally... 50 cts. per hundred. On measurement goods... 13 cts. per cubic ft. On brls. wet (except molasses and oil)... \$150 per barrel. On brls. dry (except lime)... 80 cts. per barrel. On iron in pigs or bars, castings for mills, and unboxed machinery... 40 cts. per hundred. On hhds. and pipes of liquor, not over 120 gallons... \$5 00 per hhd. On molasses and oil... \$6 00 per hhd. Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE, 40 Gen'l. Sup't. Transportation.

**LEXINGTON AND OHIO RAILROAD.** Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m. Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1-25. On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort. The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above. 35 1/2

**KEARNEY FIRE BRICK. F. W. BRINLEY,** Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to James P. Allaire, Peter Cooper, Murdock, Leavitt & Co. } New York. J. Triplett & Son, Richmond, Va. J. R. Anderson, Tredegar Iron Works, Richmond, Va. J. Patton, Jr. } Philadelphia, Pa. Colwell & Co. } J. M. L. & W. H. Scovill, Waterbury, Con. N. E. Screw Co. } Providence, R. I. Eagle Screw Co. } William Parker, Supt. Bost. and Worc. R. R. New Jersey Malleable Iron Co., Newark, N. J. Gardiner, Harrison & Co. Newark, N. J. 25,000 to 30,000 made weekly. 35 1/2

**RAILROAD IRON AND FIXTURES.** The Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States. DAVIS, BROOKS & CO., 30 Wall st., N. York.

**NEW YORK AND HARLEM RAILROAD Company.**—Winter Arrangement. On and after Monday, November 3d, the cars will run as follows: Leave City Hall for Harlem (125th street,) Morrisiana, Fordham, Williams' Bridge, Hunt's Bridge, Underhill's Road, Tuckahoe, Hart's Corners, and White Plains—7-30 and 10-30 a.m., and 1 and 3-30 p.m. Extra trains for Yorkville, Harlem, Morrisiana, Fordham, and Williams' Bridge, leave 27th street 7 a.m. for Williams' Bridge. Leave City Hall 9 a.m. (to Harlem only) and 11-30, 2-30, and 4-30 p.m. for Williams' Bridge. Leave White Plains for City Hall—8-10, 11-10 a.m., and 1-45, 4-10 p.m. Leave Tuckahoe for City Hall—8-20, 11-20 a.m., and 1-55, 4-20 p.m. Leave Williams' Bridge for City Hall—7-45, 8-45, 11-45 a.m. and 12-45, 2-15, 3-45, 4-45, and 5-45 p.m. Leave Morrisiana for City Hall—8-10, 9-10, and 10 a.m., and 12-10, 1-10, 2-40, 4-10, 5-10, and 6-10 p.m. The freight train will leave City Hall at 12-45 p.m. and leave White Plains at 11-10 a.m. All freight must be at the City Hall between the hours of 10-30 a.m. and 12-30 p.m. The White Plain trains will stop, after leaving the City Hall, only at the corner of Broome street and the Bowery, Vauxhall Garden and 27th street. An extra car will precede each train, 10 minutes before the time of starting from the City Hall, and will take up passengers along the line. The City Hall and 27th street line will run every 6 minutes from 7-30 a.m. to 8 p.m. The City Hall and 27th street night line will run every 20 minutes from 8 to 12 o'clock. On Sundays the trains will be regulated according to the state of the weather. 1/2 46

**THE LONDON RAILWAY RECORD.** Edited by Mr. JOHN ROBERTSON, A. M., (connected from the commencement with the Weekly Railway press of England.) The *Railway Record* is acknowledged to be the leading English Railway Journal, and is published twice a week in London, namely on Wednesday and Saturday. It contains copious and correct reports (by special reporters) of all railway meetings in the United Kingdom; ample Share Lists and Traffic Tables, showing the length, cost, capital and selling prices in the principal markets, with Editorial articles on the leading Railway topics of the day. The *Railway Record* contains also, a complete resume of French, Belgian and other foreign Railway affairs. Subscriptions 13s. per quarter, to be transmitted in advance to Messrs. Dawson and Sons, Cannon st. London. Office 153 Fleet street, London. 46

**BOSTON COURIER, DAILY, SEMI-Weekly and Weekly.** The *Daily* edition of the Courier, presents to merchants and others, an extensive medium of advertising. The circulation of the *Semi-Weekly* Courier (published on Mondays and Thursdays) is believed to be more extensive than that of any other similar Boston Newspaper. This publication embraces all the reading matter of the *Daily*, the Foreign and Domestic Markets, Review of the Boston Market, Prices current, and Ship News, prepared with great accuracy. The *Weekly* Courier contains as much of the matter of the *Daily* as can be crowded into a sheet of the same size, without ship news, prices current or advertisements. Our exertions to obtain and publish authentic information on all topics proper for the columns of a newspaper,—the state of trade, the prices of merchandise, the current news of the day, and the political movements in the various sections of the country—will not be abated. The marine department of the *Courier* has been inferior to none in copiousness or accuracy of detail, and it will be our endeavor to maintain its reputation in this respect. TERMS OF SUBSCRIPTION. For the *Daily Courier*, for one year, in advance \$8.00 For the *Semi-Weekly Courier*, for one year... 4.00 For the *Weekly Courier*, for one year..... 2.00 JOSEPH T. BUCKINGHAM. EBIN B. FOSTER.

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

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THURSDAY, DECEMBER 18, 1845.

[WHOLE No. 494, VOL. XVIII.]

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

**RATES OF ADVERTISING.**

One page per annum.....	\$125 00
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One square ".....	15 00
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One page, single insertion.....	8 00
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Professional notices per annum.....	5 00

**ENGINEERS and MACHINISTS.**

- J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)
- TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)
- ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)
- S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)
- NORRIS, BROTHERS, Philadelphia, Pa.
- KITE'S Patent Safety Beam. (See Adv.)
- FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)
- NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)
- ROSS WINANS, Baltimore, Md.
- CYRUS ALGER & Co., South Boston Iron Company.
- SETH ADAMS, Engineer, South Boston, Mass.
- STILLMAN, ALLEN & Co., N. Y.
- JAS. P. ALLAIRE, N. Y.
- H. R. DUNHAM & Co., N. Y.
- WEST POINT FOUNDRY, N. Y.
- PHENIX FOUNDRY, N. Y.
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- ANDREW MENEELY, West Troy. (See Adv.)
- JOHN F. STARR, Philadelphia, Pa.
- MERRICK & TOWNE, do.
- HINCKLEY & DRURY, Boston.
- C. C. ALGER, Stockbridge Iron Works, Stockbridge, Mass.
- BALDWIN & WHITNEY, Philadelphia, Pa.

**IRON MERCHANTS and IMPORTERS.**

- DAVIS, BROOKS & Co., N. Y. (See Adv.)
- A. & G. RALSTON & Co., Philadelphia, Penn. (See Adv.)
- THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys, estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

**KITE'S PATENT SAFETY BEAM.**

MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

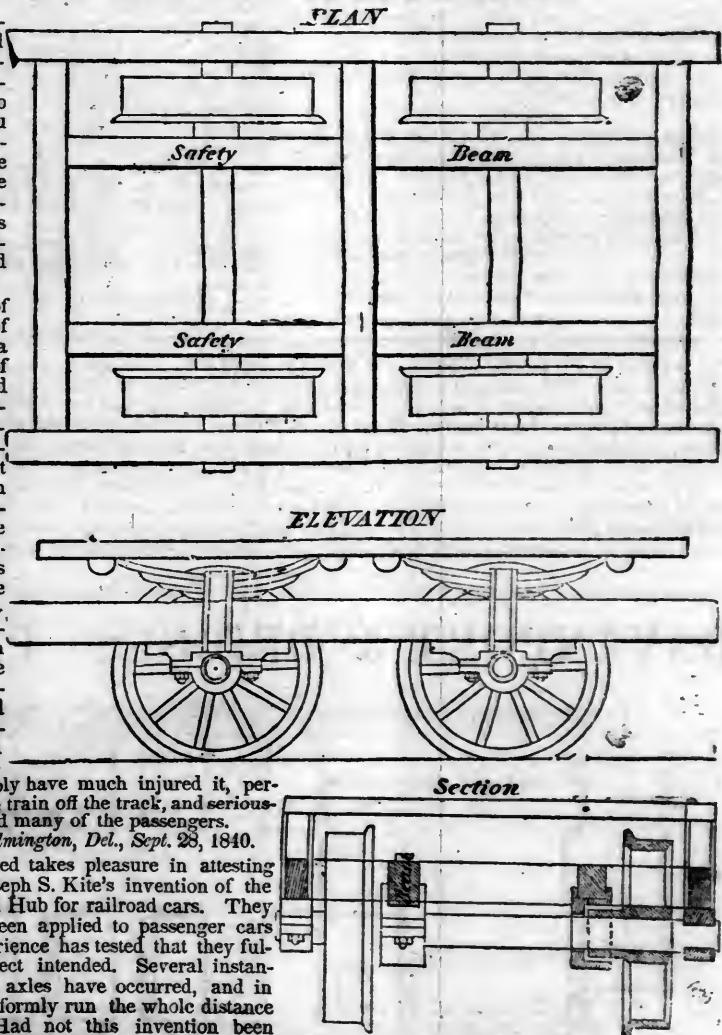
On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
GEORGE CRAIG, Superintendent,  
JAMES ELLIOTT, Sup. Motive Power,  
W. L. ASHMEAD, Agent.  
A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co. Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent. Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

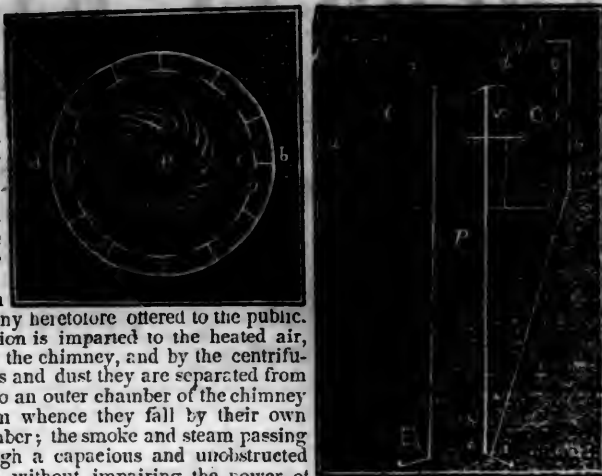
These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Supt Hartford and New Haven Railroad; W. R. McKee, Supt Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Supt New Jersey Railroad Trans. Co.; J. Elliott, Supt Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Supt Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Supt Macon Railroad, Macon, Ga.; J. H. Cleveland, Supt Southern Railroad, Monroe, Mich.; M. F. Chittenden, Supt M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin, & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45

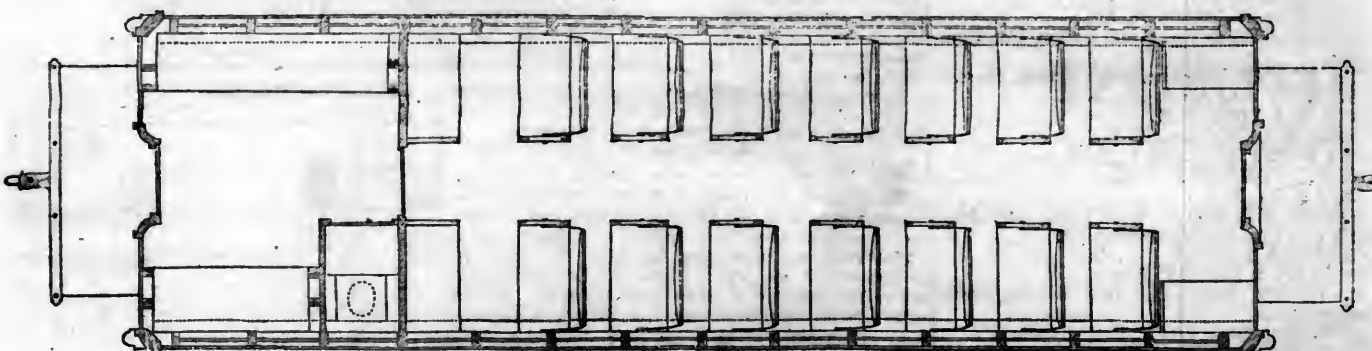


**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

The article is complete in itself, occupies but little space, is perfectly portable, and requires no brick work, not even to stand upon. It is valuable not only in the saving of time and labor, but in the economy of fuel, as it has been ascertained by accurate measurement, that the saving in that article is fully two-thirds over other methods heretofore in use. They are now for the first time introduced into New York and Boston by the subscriber, who has the exclusive right for the New England states, New York and New Jersey, and are manufactured by

CURTIS & RANDALL, Boston; and by FORCE, GREEN & CO. New York.

**DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.**



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern, and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**RAILROAD IRON AND LOCOMOTIVE**  
 Tyres imported to order and constantly on hand  
 by **A. & G. RALSTON**  
 Mar. 20th 4 South Front St., Philadelphia.

**THE NEWCASTLE MANUFACTURING**  
 Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.  
**ANDREW C. GRAY,**  
 ja45 President of the Newcastle Manuf. Co.

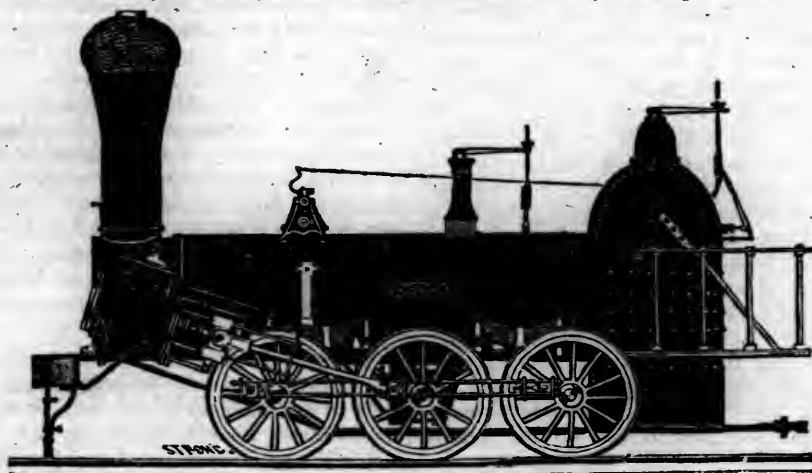
**CUSHMAN'S COMPOUND IRON RAILS.**  
 etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc.—respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
 Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applications must be post paid.

**NORRIS' LOCOMOTIVE WORKS.**

BUSH HILL, PHILADELPHIA, Pennsylvania.



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15 inches Diameter of Cylinder,	× 20 inches Stroke.
"	2,	14	" " × 24 " "
"	3,	14½	" " × 20 " "
"	4,	12½	" " × 20 " "
"	5,	11½	" " × 20 " "
"	6,	10½	" " × 18 " "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

From 4 inches to 24 in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T, L, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER Tubes.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
 Warehouse S. E. Corner of Third & Walnut Streets, PHILADELPHIA.

**RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company** are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.

**WILLIAM YOUNG,**  
 President.

**TO IRON MASTERS.—FOR SALE.—MILL SITES** in the immediate neighborhood of *Bituminous Coal* and *Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years the coal will not cost more than \$1 to \$1.25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.

**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL Dam For Sale.** A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containing 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to **HENRY ANDREWS, 48 State st.,** or to **CURTIS, LEAVENS & CO., 106 State st., Boston,** or to **A. & G. RALSTON & Co., Philadelphia.** ja45

**CYRUS ALGER & CO., South Boston Iron Company.**

The following extract from the late message of Gov. McDowell, of Virginia, is truly gratifying to those who have so long advocated the *better improvement* of the age. The preference he exhibits for railways, carries great weight with it, as the merits of railways compared with canals, has been fully discussed by the press in Virginia, at public meetings called for that purpose. It comes very opportune for the reflection of our executive and the next legislature. Virginia caught the canal mania from the success of New York with the Erie canal. Near \$7,000,000 has been expended on the James river canal, and \$12,000,000 on the Chesapeake and Ohio. Neither of these works have yielded any return for so large an outlay. It is now reduced to a certainty, that a great central railway, through Virginia, will, with the aid of the Baltimore and Ohio railroad, supercede both these canals.

We have two lateral canals in this state, on which \$6,000,000 have been expended, requiring \$3 to \$4,000,000 to complete them. Will the state aid a railway from Rome to Watertown and Cape Vincent, in place of the Black river canal, with *half a million*, to get clear of a bad bargain; and say a *million* to the Attica and Hornellville railway, to supercede the Genesee valley canal, and thus save millions of dollars, as railways are destined to supercede both the above mentioned works.

"The connection, also, between this subject and the military defence of the state, always apparent, and always felt, has become stronger and more admonitory by far since the successful introduction of steam vessels upon the sea; an event which is destined to affect the warfare more radically than the commerce of nations, and one which it is highly important for us and all others to consider and provide for who have a maritime border to be defended. Happily for Virginia, in this matter of defence, she is invulnerable except from the sea. Perfectly secure on the side of the Allegheny against all the world, and scarcely less so on the right and left through the power of contiguous states, the Chesapeake and its estuary waters are the only inlets by which a foreign enemy can ever approach her.—Here, then, on these, and on the margin of these, are to be found her battle fields. Unassailable by any but a naval power, should that power be Great Britain, with her North American possessions as places from which she could descend upon us with all the certainty, as to time, of exact calculation, she would no doubt rely upon her war steamers as her engines of assault, and with these could effect so rapid a concentration of her force upon our ocean border, as to compel us to be always provided with an army in garrison adequate to any emergency, unless we had an inland power of concentration for our own forces which was equal to hers. Such a power, would a well arranged and connected system of internal improvement become. With such a system pervading the state, and accessible at all points for every description of necessary supply, the state itself would become, in effect, an extended military camp, with the faculty of immediately combining her whole disposable power of men and means wherever and whenever her purposes of defence might require. Looking at this as one of the triumphant and conservative

results of the policy in question, it is undeniable that however exclusive and local its ordinary benefits may be thought to be, here at least is one vital particular in which the benefit will be acknowledged by the judgment and patriotism of all to belong to the state. Hence, too, it seems, that the Atlantic and tide water section, assumed to be the most independent of all others of this policy, has yet an eventual interest in it the greatest of all, for there is no other to which its succor can ever be so helpful in that last extremity which casts life and property, and everything which is precious to a people, upon the hazards of the sword.

In order to carry these views into anything like a corresponding effect, I could not present to your consideration a narrower range of internal improvement than that which I have heretofore recommended. So long as the western, northwestern and southwestern portions of the state are without the commercial outlets which they ought to have, neither one of them can be passed by without absolute injustice. Each one is in need of the helping hand of the state—each one is entitled to receive it, and each one is capable of making an ample requital for all it may get. A main difficulty in relation to them has always been, how to provide for them all at the same time without hazarding too far the creation of an oppressive debt, or how, on the other hand, to apply the resources of the state to each one separately and in turn without exciting the distrust and hostility of the rest? In whatever way this difficulty may be met, whether by a successive or united provision, it is still certain that no measure can command the confidence and co-operation which are indispensable to final success, that do not, in some form or other, convey a satisfactory assurance to each particular section that it will not and cannot be neglected. The nature and extent of that assurance, I leave to be devised by yourselves. The northwest should be satisfied that if nothing more is given, the million of dollars at least which has been contingently subscribed for its benefit, should not be withdrawn—the west, that the promised connection between the tide water and the Ohio should be made good—and the southwest, that its many and its just claims, which have been so long and so injuriously denied, should be denied no longer, and that the request which it now makes, if not substituted by something better, shall be fully, immediately and heartily complied with.

In relation to the improvement entrusted to the James river and Kanawha company, I regret to inform you that it is in no better situation, as to its progress, than it was a year ago, nor likely to be in any better one, in that respect, a year hence than it is now, unless the company shall be supplied with other funds than its own to go on with its work. It is now upwards of three years since all operations upon this line above Lynchburg have ceased, and ceased for want of means to do more. The means the company cannot raise upon its own responsibility, nor out of any property which be-

longs to it. It is without funds beyond its daily liabilities, without property to convert into funds, without credit to borrow them upon, with a hundred and forty-six miles only completed of the 480 committed to its charge, and with but a single year remaining of its chartered time to complete the residue; thus situated, it can hardly be doubted that any further reliance upon it to prosecute and finish its work is a mere illusion, which could end only in disappointment and delay. The whole dependence of this company for some time before it stopped its operations was, in some form or other, upon the aid of the state, its whole dependence now for the continuance of these operations, is upon the same aid. If it is granted, the company becomes neither more nor less than the agent of the state for the management of its money, and in this light, considering that it is mainly a corporation of corporations, whose several functions have nothing in common with railroads and canals, and that its responsibilities are only to itself, it is perhaps as little suited for the application of the public funds, as any agent to which the legislature could ever think of committing them. As every dollar, therefore, of the money upon which this work is to be prosecuted, must come, if at all, from the state, it is the clear duty of the legislature to reserve to itself the direct and entire control of all it may grant, and secure its due application under the most public and searching responsibility it can establish.

Without adverting to the administration of this company for any purpose of criticism upon its expenditures or failures, but regarding it only in its actual condition, and seeing that it has accomplished all that it is able to accomplish, that it is powerless to do anything more, and that it is radically unfit, by reason of its peculiar structure, to act as agent of the state in what remains to be done—seeing this, I cannot recommend too strongly the immediate adoption of such measures as shall be necessary to repossess the state, with the consent of the company, either of the whole line of its work, or of the unfinished part of it; and that to the end, that it may execute it on its own account, with all the vigor and despatch at its command. Should this be declined by the legislature, it is nearly certain, from anything that can be now seen, that an indefinite, if not permanent stop must be put to the extension of the work, and the large commercial interests depending upon it be thereby abandoned. Under the pressure of this overruling necessity, it may well be expected that all minor objections to the plan of state execution will be given up, and that the state will promptly interpose to protect and save herself. The work, in all its necessity, magnitude and value, is emphatically her own work, and her utmost exertions should be freely given to carry it through.

By what mode of improvement, however, whether by railroad, canal, or some other, this object can be best accomplished, is a question of some difficulty, and one upon which a few remarks may with propriety be offered.

Having examined this question with a



good deal of care, I am satisfied that a railway, all things considered, is to be preferred; that it will cost the least—pay the most in return—accommodate the best—have the most to gain by the progress of mechanical invention, and when completed will best promote the general purposes of moral as well as physical improvement. These general points, embracing substantially all that is wanted in any plan of improvement, I submit to your judgment in much confidence, that the more they are examined the more they will be verified. Without illustrating that of cost upon comparative data, it is evident in the first place, that as a railroad can accommodate itself to the country over which it is to be taken, in a way quite impossible to a canal, it has in this circumstance a far greater command than the other over its cost of construction. Besides this, it is undeniable, that the cost of an improvement as a financial question, or question in state economy, depends more really and truly upon it than it does upon the amount of the expenditure itself. Judged; therefore, by this definitive test, the true question of cost which is at issue between these respective plans of improvement is, which will afford the best return upon its outlay, or which, in other words, for it is the same thing, will best meet and best answer the general wants of transportation? To this the reply is obvious, that the improvement which is intended to meet and answer these wants, must be commensurate with them, and as they extend to the transportation of persons as well as of property, it must be suitable and sufficient for both. If it is not suitable for that of persons, or so much less so than neighboring and rival improvements, as to be rejected for them, then it is at once deprived of its most essential means of usefulness and support, for all commodities requiring transportation none require it so much as persons, and of all others none pay to the carrier so certain and so high a profit upon so small an amount of bulk, insurance and risk. Any improvement which will lose these, will lose the very best of its customers, and will be in constant danger, besides, of losing the power to maintain itself. Indeed the uniform reliance of most works intended for public accommodation upon passengers for its principal revenue, is such and so well ascertained, that no costly and extended one depending for the most part upon the business created by itself, it may be confidently said, could be supported without them. In order, therefore, to answer public wants, and to sustain itself, the improvement which is to connect the James with the Ohio river, must afford to the travel between that river and the Atlantic as desirable and decided advantages as any other improvement, or this great and indemnifying source of profit must be chiefly if not entirely lost. But this not even the canal could afford, were it ever so perfectly executed, and were it at this hour actually open for use in connection with steamboat navigation on the Kanawha river. Were it so, it would require about five days to make the passage from that river to Richmond, while it would require about three, or

three and a half days to make it by Wheeling through Baltimore and Philadelphia to New York from the same point of departure. This, in most cases, would be decisive with the traveller in turning him from ours to another route. If, however, a railroad were made upon the unfinished line of the James river and Kanawha company to Point Pleasant, or to Guyandotte, it would afford the shortest connection in time by which to reach New York through Richmond, and would no doubt secure the travel and the profit upon it which the canal would lose. But that is not all; by securing travel, freight is also secured. This is the peculiar and controlling principle in railroad operations. Having no superior for passenger transportation, the railway relies upon that for its expenses, and is thus enabled, where the reliance is a safe one, to relieve the freight out of the profits of the travel, and especially would it be enabled thus to do in the case of a state improvement where the charges will be restricted to mere remuneration and repair.

In addition to this it may be remarked, that it is the peculiar and happy faculty of this kind of road that it can be adapted to any rate of movement, and any one of burden, and with an apparent capacity under the progress of mechanical invention for an almost indefinite increase in the degree of both. While the rate of passenger speed is checked only by the fears of the passenger, the rate of burden transportation has been gradually raised from some three or four times the weight of the engine to some twenty times that weight, and the engine itself increased from four or five tons to fifteen or more, thus showing a progressive power of accommodation for all uses, at least as great as those uses can ever require.

At what point on the line of the James river and Kanawha company, the railroad, if adopted, should begin, and by what particular route it should be conducted, are controverted questions of exciting local interests, which I commit to you in the perfect confidence that there will be found justice, disinterestedness and firmness enough in your body to settle them aright. No people has ever been more admonished by bitter experience than we have been, to the exercise upon questions of this kind of a genuine spirit of mutual liberality and concession. Without this spirit, rely upon it that nothing will be accomplished; section will contend against section, and the commonwealth will continue to be what it has long been, impoverished by the very multitude of its blessings.

In relation to the funds which any legislation upon this subject may require, I respectfully submit it as a suggestion, that they may be obtained, in a great and perhaps sufficient degree, by a simple recurrence to the rate of taxation which was fixed by the revenue law of March, 1843."

*Cayuga and Susquehanna Railroad.*—It will be seen by a notice in this paper, that this company will apply to the legislature for an increase of its capital stock and a change of location of a part of the route of

its road. We are happy to learn that it is the determination of the company to proceed promptly to place this road in a proper condition as the great connecting link between the northern and southern lines. The route at the Ithaca termination will be varied, so as to proceed from the village to the summit, without stationary power; and for this purpose competent engineers are already engaged, and have arrived here to make the necessary surveys. The track will be entirely relaid with a heavy rail, and corresponding in width with the New York and Erie railroad. So when the Erie railroad is completed to Owego, the cars can at once run from the steamboat landing on the Cayuga, to the New York termination of that road. A very little expense will establish and keep up the connection of the two great lines, by this crossing, in winter as well as summer. It will be in advance of all other similar enterprises, the most feasible and least expensive. Men of stability and enterprise have taken it in hand, and the work, we feel assured will be done.

We find the foregoing statement in the Ithaca Chronicle of 26th Nov., in relation to the reconstruction of the old Ithaca and Owego railroad, which is now called the Cayuga and Susquehanna railroad. We like this early movement on the part of the citizens of Ithaca. They have always been noted for their enterprise, and this is an indication that they intend to sustain their reputation.

We wish "Raymbault" could revisit the "Soo" again about ten years hence, when he would find a magnificent ship canal there with locks which would contain a fleet of "bark canoes," or pass a steamer of the first class.

*Sault de Ste. Marie.*—"The falls of St. Mary, or the 'Soo,' as here called, are about eight hours of steam sailing from Mackinaw, and a steamer runs regularly between the places.

"It is now two hundred and four years since Raymbault first saw the falls of St. Mary. In a birch bark canoe, he led the first expedition west—he passed over the beautifully clear waters, and between the thickly clustering archipelagoes of lake Huron, and ascending the river, reached the rapids, at the foot of lake Superior, October 4, 1641. He found there 2000 Indians.

"In 1665, Father Claude Allouez reached the 'Soo.' He admired the beautiful river with its woody isles, and inviting bays—and informs us that the savages worshipped the lake as a divinity. He sailed along the great lake, passed the 'pictured rocks,' built a chapel, and we are told the Indians, who never before had seen a white man, came to gaze upon him, and his picture of hell and the last judgment, and he taught them to chaunt the pater and the ave.

"In 1671, a congress of the nations assembled here—it was a most singular and extraordinary congress of native Americans, and brilliantly clad officers from the veteran armies of France. On this spot, one hundred and seventy-four years ago were congregated the envoys of the wild republicans, from the head springs of the St. Lawrence, the Mis-

issippi and the Red river, and formally acknowledged themselves under the protection of the French king. The imposing ceremony is thus described: 'A cross of cedar was raised amid the groves of maple, pine and hemlock that are strangely intermingled on the beautiful banks of the St. Mary, where the bounding river lashes its waters into snowy whiteness, as they hurry past the dark evergreen of the tufted islands in the channel,' the zealous missionaries and steel clad soldiery bowed before the cross, and chanted to its glory,

"The banners of Heaven's King advance,  
The mystery of the cross shines forth.

"As early as 1688, the 'Soo' was a place of great and favorite resort by the traders and voyagers on their way to Mackinaw from Lake Superior.

"At this present time this ancient congress ground of the aborigines, has a fort, a fur trading establishment, a small cluster of dwellings, and a mixed population of the French, English and half breeds—in all not exceeding one half the number of native Americans found here 200 years ago.

"As Mackinaw was the head quarters, and the 'Soo' a favorite stopping place for the traders a century ago, so now, in 1845, is the isle of Beauty the rendezvous, and St. Mary's the resting place of eager, enterprising and scientific adventurers."—*Cleveland Her.*

#### Plank Roads.

This kind of road has, we understand, been constructed in Canada West to a considerable extent, and with entire success. They must be very suitable for lateral roads, branching off from railroads, connecting villages and towns of comparatively small business with more important places, and great thoroughfares; and we are pleased to learn that an experiment is to be made with them in connection with so important a place as from Syracuse and Salina northward. Its success under the direction of Messrs. Alvord and Geddes will insure the construction of other roads on a similar plan. We shall watch and chronicle its progress, and if it answers the anticipations of its friends, we shall give our best efforts in aid of the construction of others on the same plan. We take the following from the Oswego Palladium; which says that:

Pursuant to a request of the directors of this road, Thomas G. Alvord and George Geddes, of Syracuse, have recently visited Canada, for the purpose of examining the plank road in operation there. The result of their observations appear at length in the last Onondaga Standard, and contains much interesting information on the subject. The following paragraph seems to be the substance of their conclusions, and we insert it for the benefit of such as feel an interest in the construction of that work:

"In conclusion we think it is demonstrated beyond a doubt, that an eight feet track of plank road makes a more substantial, solid and permanent roadbed than any other greater width can make: that two stringers, stout enough to hold a pin of size sufficient to keep the plank in their place is all that is necessary; that great care and precaution should be used in so preparing the earth that the plank should at all points bear equally

upon the stringers and earth; that the road sides should be so graded as to be elevated slightly at all times above the ends of the plank; that the plank should be kept covered with some material of earth (sand in all instances if it can be procured) to the permanent depth of at least one half of an inch;—that no wain of over an inch should be permitted; that what is termed a shaky plank can be used, provided the shake or crack approaches a perpendicular split; and that plank four inches in thickness are preferable to a less thickness. It may be necessary here to give reasons for these last opinions. A four inch plank, of course, is stiffer than one of less thickness. In getting to its place, no matter how well you prepare the ground, there will be more or less strength and widthway strain on the plank, which must effect a three inch plank to such an extent as to hasten its wear; not so, or at least so to great an extent, will a four inch plank be effected; so when you have worn off the first inch of your four inch plank, the remaining three inches having found a solid and firm bed, will, in our opinion, do longer service by far than if it had originally been laid three inches thick. We are also of the opinion that, for reasons which we deem perfectly obvious, no plank should be laid more than twelve or less than six inches wide."

The *Mining Journal*, of 8th November, says that,

"Notwithstanding the reaction and dullness in the share market, the price of iron has remained firm during the week, and with all their scheming, speculators for a fall have been unable to drive down prices—in fact, we think, "Othello's occupations 's gone"—for the iron masters begin to see clearly through the various schemes resorted to, for the purpose of influencing the market, and producing unfavorable results of which they may take advantage, and are, therefore, extremely cautious how they pay attention to rumors and reports generally set on foot by jobbers and speculators. Full of orders, which upon an average, will take the large houses twelve months to execute, they remain firm: and though, notwithstanding, in addition to the home trade, many export orders have come in, the price has not advanced; there has not even been a tendency to a decline.—Scotch pig has sold at from 80s. to 83s., and in some few cases as high as 85s.; the average quotation may, however, be taken at 83s. Welsh pig from 105s. to 115s.; railway bars, etc., £11 to £12: and common bar in Wales £9 to £9 10s.; some houses refusing orders at these figures. From the tight state of the money market, and the high price of provisions, it is expected prices will vary but little between the present period and the close of the year. It is calculated that 2,000,000 tons of railway iron will be required for undertakings which are already commenced, or which are pretty certain of being sanctioned, exclusive of orders for exportation to France, Belgium, etc. In the neighborhood of all the iron works, all is activity and plenty."

From the preceding, it will be seen by our iron manufacturers that they have every inducement to push their operations to the utmost of their ability;

and also for capitalists to embark at once in this important branch of business. We must have iron in large quantities. Where shall we get it if we do not make it?

The following is from the *Mining Journal* of 15th November.

*Extension in the Application of Iron in France—Iron Railway Carriages—Iron Ships.*—In Belgium, (says our Paris letter,) an iron carriage has been constructed on 'one of the railways; and though, it may turn out dearer at first than ordinary carriages, it is believed will eventually be found cheaper. If so, iron carriages on railways may become the order of the day: especially as it is believed they present greater security and more advantages, in every respect, than wooden ones. In France, and particularly in Paris, iron is becoming every day more and more extensively employed in place of wood for building; and as the French have always been accustomed to use much more wood in their edifices than we have, the demand for iron will be immensely increased, even if it only partially take the place of wood in the construction of houses and buildings. In France, one-half, or at least one-fourth of the bridges under and over railways will have to be constructed of iron. Moreover the government has determined that, in the course of a short time, several steamships of iron, of a large size, shall be constructed; and even private merchants have begun to have their vessels built of iron. Add all this to the enormous demand for rails, etc., for the railways, and you will see that, on comparing the annual production of France, the position I have taken up—that France cannot supply her demand for iron, and that she must apply to England to help her—is correct. I might have added, that it is seriously proposed to do away with wooden sleepers and blocks of stone, as supporters for the rails on the *chemins de fer*, substituting iron; but the present demand is great enough, without counting probabilities. Yet, notwithstanding the undeniable incapacity of France to supply the iron of which she has need, there are newspapers which cry that, cost what it may, she must not apply to 'perfidious Albion!' The Mines Reunies company has taken on lease, for eighty-three years, the railway from St. Etienne to Lyons. The *Mining Journal* had previously announced that the same company had taken on lease the Givers railway."

"*Price of Iron in France.*—The price of white cast metal is on the rise. The half-rock of Blaise is now selling, delivered at St. Dizier, at £6 18s. the 100 kilos, or 2 cwts.; those of the Marne, at £6 18s. at the furnaces; do. rock, £7 at the furnaces. There is great activity prevailing in all the cast metal and iron furnaces; but the prices appear too high for the trade, and it is not until there are more extensive orders, that another rise will take place. The greater part of the iron masters have sold their produce at three months. The iron masters of the forges of the Marne have entered into contracts for delivering their half-rock iron at the rate of £14 15s. to £15, at St. Dizier, six months' credit, and 3 per cent. discount."



AMERICAN RAILROADS.

NAMES OF RAILROADS.	L'ngth in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843.		Div. per cent.	1844.		Div. per cent.	1845.		Div. per cent.
						Gross.	Nett.		Gross.	Nett.		Gross.	Nett.	
Maine. 1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6			
N. Ham. 2 Concord.....	35	750,000									12			
Mass. 3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6½			
4 Boston and Maine extension.....	17½	455,703	unfin.											
5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8			
6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6			
7 Boston and Worcester.....	44	2,914,078				40,141	162,000	6	428,437	195,163	7½			
8 Berkshire.....	21	250,000	not stated					7	17,737					
9 Charlestown branch.....	41	280,260						13	34,654	13,971	5½			
10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8			
11 Fitchburg.....	50	1,150,000	just op'n'd						42,759	26,835				
12 Nashua and Lowell.....	14½	380,000				84,079		8	94,588	34,944	10			
13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
14 Northampton and Springfield.....		172,883	unfin.											
15 Norwich and Worcester.....	66	2,290,000	900,000	16,535	100	162,336	24,871		230,674	99,464	3			
16 Old Colony.....		87,820	unfin.											
17 Stoughton branch.....	4	63,075	unfin.											
18 Taunton branch.....	11	250,000						8	96,687	20,600	8			
19 Vermont and Massachusetts.....														
20 West Stockbridge.....	3	41,516	200		100						4			
21 Western, (117 miles in Mass.,).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	459,679	3			
22 Worcester branch to Milbury.....		8,431	506											
23 Housatonic, (10 months,).....	74	1,244,123							150,000					
Conn. 24 Hartford and New Haven.....	53	1,100,000	100,000	10,000	100						6			
25 Hartford and Springfield.....	25½	600,000	400,000	2,000	100									
26 Stonington, (year ending 1st Sept.,).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845				
N. York. 27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033				
28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6			
29 Auburn and Syracuse.....	26	766,657				86,291	27,334		96,738	52,544	6			
30 Buffalo and Niagara.....	22	200,000		1,500										
31 Erie, (446 miles,).....		5,000,000												
32 Erie, opened.....	53						48,000		126,020	59,075				
33 Harlem.....	26	2,250,000	750,000	30,000					140,685	62,399				
34 Hudson and Berkshire.....	31	575,613			50				35,029	1,789				
35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996				
36 Mohawk and Hudson.....	17	1,317,393	400,000	10,000	100	69,948	58,780		79,804	45,763				
37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455				
38 Schenectady and Troy.....	20½	640,800				28,043			32,646	6,365				
39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8			
40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
41 Troy and Greenbush.....	6	180,000												
42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2½			
43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8			
N. Jersey 44 Camden and Amboy.....	61	3,200,000				682,832	363,880		784,191	404,956				
45 Elizabethtown and Somerville.....	26	500,000												
46 New Jersey.....	34	2,000,000												
47 Paterson.....	16	500,000									6			
Penn. 48 Beaver Meadow.....	26	1,000,000												
49 Cumberland Valley.....	46	1,250,000												
50 Harrisburg and Lancaster.....	36	860,000	645,929									77,538	9,968	
51 Hazleton branch.....	10	120,000												
52 Little Schuylkill.....	29	900,000												
53 Blossburg and Corning.....	40	600,000												
54 Mauch Chunk.....	9	100,000												
55 Buck Mountain.....	4	72,000												
56 Minehill and Schuylkill Haven.....	19½	396,117	25,000	7,019	50			12			12			
57 Norristown.....	20	800,000												
58 Philadelphia and Trenton.....	30	400,000												
59 Pottsville and Danville.....	29½	1,500,000												
60 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511				
61 Schuylkill valley.....	10	1,000,000												
62 Williamsport and Elmira.....	25	400,000				20,000								
63 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000				
Delaware 64 Frenchtown.....	16	600,000												
Maryl'd 65 Baltimore and Ohio, (1st Oct.).....	188	7,742,410	1,153,709			575,235	279,402		658,620	346,946		738,603	374,762	3
66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,125	104,529		208,813	95,094	6
67 Baltimore and Susquehanna.....	58	3,000,000												
68 Wrightsville, York and Gettysburg.....	12½	500,000												
Virginia 69 Greensville and Roanoke.....	18	284,433	37,544	2,000	100				25,368	6,074	3			
70 Petersburg.....	63	969,880	63,000	7,690	100				122,871	72,898	6			
71 Portsmouth and Roanoke.....	78½	1,454,171												
72 Richmond, Fredericksb'g and Potomac.....	76	800,000							185,243	85,688				
73 Richmond and Petersburg.....	22½	700,000												
74 Winchester and Potomac.....	32	500,000												
N. Car. 75 Raleigh and Gaston.....	84½	1,360,000												
76 Wilmington and Raligh.....	161	1,800,000									5			
S. Car. 77 South Carolina.....	136													
78 Columbia.....	66	5,671,452		34,410	75	201,464	77,456		532,871	140,196				
Georgia 79 Central.....	190½	3,000,000	500,000	22,500	100	227,532	93,190		328,425	180,704				
80 Georgia.....	147½	2,650,000				248,026	158,207		248,096	147,523				
81 Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Kent'ky 82 Lexington and Ohio.....	40	450,000												
Ohio. 83 Little Miami.....	40	400,000												
84 Mad river.....	40	152,000										24,984	3,280	
Indiana. 85 Madison and Indianapolis.....	56	212,000	50,000			22,110	8,639	8	39,031	10,065	9½			
Canada. 86 Champlain and St. Lawrence.....	15						12,000		58,000	24,000				

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N. Y.

Thursday, December 18, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The quantity sent this week by railroad is 10,404 which will be increased next week, if we are not visited with another snow storm.

The supply of anthracite coal sent to market in 1845 will vary little from two millions tons. In 1844, the quantity sent to market was 1,631,669 tons—increase in 1845, about 370,000 tons.

BY RAILROAD.

From Pottsville and Port Carbon—total.....	388,073
From Schuylkill Haven—total.....	382,669
From Port Clinton—total.....	21,019

Total by railroad.....	791,762
Total by canal.....	263,558

Total by railroad and canal.....1,055,321

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....		430,198
SCHUYLKILL VALLEY RAILROAD—total.....		123,216
MILL CREEK RAILROAD—total.....		92,718
MOUNT CARBON RAILROAD—total tons.....		247,052
[Miners' Journal.]		

WESTERN RAILROAD.—Receipts for week ending December 5.

	1845.	1844.
Passengers.....	\$5,658	\$4,620
Freight, etc.....	8,584	8,240
Total.....	\$14,242	\$12,860
Net gain this week.....	1,382	
Net gain previously since Jan. '45.....	55,425	

Total gain.....56,807

Transactions of the Reading railroad for the month of November for three years:

	1843.	1844.	1845.
Business.....	\$51,695 60	\$62,197 23	\$125,946 52
Coal tons.....	34,821	44,513	88,799

The Eastern railroad has declared a semi-annual dividend of four per cent.

The Portland railroad has declared a semi-annual dividend of three per cent.

Rochester and Lockport Railroad.

The directors of the above company, at a meeting held in this city on the 25th ult., appointed Charles B. Stuart, Esq., of Rochester, chief engineer. Mr. Stuart is a gentleman whose scientific acquirements and large experience eminently fit him for the responsible station to which he is chosen. He has been engaged for fifteen years on various railroads in this and other states.

Last summer he was employed to construct the "Tonawanda Connection," through Rochester, a trust which he performed to the full satisfaction of all concerned.

Besides his appointment as chief engineer, Mr. Stuart is empowered to act as a commissioner for

the purpose of receiving subscriptions and transacting other important business connected with the proposed work.

We trust he will give the citizens of New York an opportunity to subscribe to the stock, as the construction of this road, and its connection with the Great Western, C. W., by a bridge is of great importance to New York, as well as to Albany and Boston, as it will give a winter communication to Canada and the west, uninterrupted by ice. We understand about \$250,000 of the stock to the road is already engaged, and its friends are fast taking up the balance. The entire stock of the bridge is engaged, conditioned upon procuring a charter this winter. Its cost will be about \$200,000—span 750 feet, placed 200 feet above the stream, and about 1 1/2 miles below the falls, in full view of the cataract and the whirlpool.

Chemung Railroad.

The survey of the route of the Chemung railroad [for which a charter was obtained last winter, with a capital of \$250,000,] has been completed. It is to connect the head of Seneca lake with the New York and Erie railroad, and the Williamsport and Elmira railroad, at or near Elmira, in Chemung county, N. Y. The route surveyed intersects the N. York and Erie about five miles northwest of Elmira, and is 17 1/2 miles from the head of the lake at Jefferson. The grades will not exceed those of the New York and Erie, and the estimated cost is \$235,000.

Our Foreign Correspondence.

We present to the consideration of our readers in this number another letter from our able and observing friend in London.

The information given, and the opinions expressed by him, in relation to the atmospheric railway, are in accordance with the opinions formed by us on the subject, after looking at it through the medium of the foreign journals, as it has been from time to time presented to our consideration; and we shall therefore give in the Journal at an early day one or two of the numerous plans, with illustrations, which have been presented for the consideration of the European public.

Like the railway system itself, the importance of the matter has brought numerous competitors into the field, and there are at this time many able minds engaged upon it; and from the advances already made, and the energy with which the investigations are prosecuted, we are led to believe that at no distant day it will assume a very different position in the estimation even of those able and independent minds which make it a rule to admit nothing in the way of improvement until it is fully established by experience.

The idea of our correspondent of adopting this mode of communication between the Atlantic and Pacific, across the isthmus of Darien, is both bold and new to us; and, though we were somewhat startled at first at the idea of crossing that neck of land, 70 miles in width, in about 100 minutes! yet we have already become quite familiar with, and reconciled to it—and are quite desirous to be one of the first party that makes the journey—on the condition, however, that they have good and sufficient breaks on the cars, in descending the western declivity of the isthmus, that the train may be sure not to run off at the further end of the track, into the Pacific!! In all seriousness we say, however, if the atmospheric lines now in course of construction, and in contemplation in England shall be successful—then shall we entirely approve of the proposition, and shall not hesitate to yield it all the aid—little

though it may be—of our feeble, instead of "influential" pen. We shall, at all events, not lose sight of, as we deem it, this vastly important subject, but watch the progress of the system, and if it is successful in England, endeavor to aid in its application to this line.

The great extent of roads chartered during the last session of parliament, and the enormous demand for other purposes, has carried up the price of rails to £12 per ton, delivered on board of ship in Wales, which is almost equivalent to a prohibition of exportation to this country, and it will, we hope, stimulate our own capitalists, and iron masters, to exert themselves to furnish an ample supply at an early day for our own use; and we are cheered with the indications of such a result which meet us in our present visit to the keystone state, as well as elsewhere, of which we hope to give some account soon. If we would extend our roads we must make preparations to supply our own iron, and especially if the atmospheric system shall be adopted, as a much larger quantity will be required, which cannot be got abroad, if they carry out one quarter of their own projected works.

The demand for professional services, both engineering and legal, and public advertising, has been wonderful during the past autumn. Its like has never been, and we hope it may never again be, known.

We heartily concur with the writer in his good wishes for the employment of our American engineers, and comparatively poorly paid editors, in our own country. The pressure, however, upon these professions ceased in a great degree on the 30th ult., as upon that day all projects must have been registered, or they could not come before parliament at the approaching session. The London Gazette, extra, published on the 15th of November, must have been a curiosity—as it contained no less than five hundred and forty-three large folio pages, of advertisements solely. We desire to renew our acknowledgements to our attentive correspondent for his letters and other favors, especially for "Bradshaw's Railway Guide," for November, and the London Times and extra, of same date, containing a complete list of all the railways constructed, chartered and projected, in Great Britain, up to its date of publication; from which it appears that the number completed and in use is 47, costing £70,680,877; the number chartered and in course of construction is 118, or about 2,900 miles, which are estimated to cost £67,359,325. The number projected, in addition to the foregoing, is 1,263! of which, 218 have paid a deposit of over 5 per cent., amounting to £11,171,727, and to comply with the resolutions of the house of lords, must pay a further amount of £9,595,464; and on 402 lines a deposit of 10 per cent. is required and much of it paid, and which, if all paid, will amount to £38,369,109—making upon these 620 projected lines an actual deposit, before they can be acted upon in parliament, of £59,136,300, or about two hundred and ninety-five millions of dollars!!! The remaining projects, 643 in number, have not yet registered their prospectuses, and have not therefore paid up the 10 per cent. on their estimated capital. The total number made, chartered and projected, is 1,428, and if, of the average length of those made and making, viz: 28 miles each, will give 39,984 miles of railroad in Great Britain. But of this amount probably not more than one-half will be constructed within the next fifteen years, or about 1,200 miles, at a cost of about £18,000,000 a year; and who will say that this cannot be done, if done in a regular business way, without interfering at all with the other business operations of that country?

For the American Railroad Journal

No. 21 TOKEN HOUSE YARD, LONDON, }  
November 16th, 1845. }

MY DEAR SIR: I am very much obliged for your favor of the 6th October, and also for the numbers of your Railroad Journal, which were very acceptable, as I had not received the usual supply for some time before.

I am happy to say the atmospheric railway system is becoming more and more promising, and I think the day is not very distant when locomotives will be among the "have been's"—"*fuimus*" is the motto of the Bruce family in Wales, the descendants of Rob't Bruce, king of Scotland. So the locomotive must adopt the same motto before many years to pass.—The practical difficulties in the way of the economical management of the atmospheric system will be removed by the application of the ingenuity and experience of the numerous clever men that will soon be engaged in developing the great resources of this beautiful philosophical system, and I shall be disappointed if another year does not decide in its favor over the locomotive railway. You will find in the Railway Record, of November 15, now sent, a few paragraphs bearing on this subject. You will observe Mr. Samuda says he can carry the atmospheric railway over the Mendip hills without cutting or tunnelling, at 70 miles per hour. This is the system that must be adopted in my native state, to extend the railway between Harrisburg and Pittsburg, across the Allegheny, with branches and extensions to Erie, Cleveland, etc. I have been told this day that it is decided to have the atmospheric adopted on the Shropshire\* mineral railway of about 60 miles in length. How I should like our countrymen to have the honor of introducing it between Porto Bello and Panama, across the Isthmus of Darien, short of 70 miles long, where the difficulties to be overcome are not nearly so great as between Philadelphia and Columbia, where a double track of railway of 82 miles long has been made for four millions of dollars! It is disgraceful to the commercial world that this short line of communication quick and inexpensive, between the Atlantic and Pacific oceans, by which some 10,000 miles of most dangerous navigation would be prevented, is not made without any further delay. For the trifling expense of 2½ millions of dollars could this vastly important work be made, which would transfer passengers and merchandise across from the Atlantic to the Pacific in less than one hundred minutes, which by the stormy cape Horn require as many days of most disagreeable and dangerous navigation. Pray use your influential pen in endeavoring to bring about this most important work for the formation of a large commerce on the western coast of America, and generally in the Pacific ocean. I have written by this steamer, on this and other subjects to the editors of the New York Courier and Enquirer, whose aid I invoke to this vastly important matter. I hope the public attention will not be distracted by proposing a ship canal, which could not be made between the two beautiful ports, Panama and Porto Bello, for less than \$25,000,000, and the sacrifice of tens of thousands of lives while in progress, which would be many years, while, on the contrary, all the materials of the atmospheric railway could be prepared in England, or our country, and laid down on the line in twelve months time, as

\* You are aware that it is adopted on the South Devon railway, [52 miles long,] now in progress, and several miles will be opened shortly, [see page 1699 of Railway Record,] to show the practicability of the principle.

no tunnelling and cutting would be required. I have had a great deal of conversation on this subject with two most intelligent Americans, who have been repeatedly across the isthmus, and declare that a railway is far preferable to a canal, because the first could be taken through a comparatively healthy district, [direct from Porto Bello to Panama,] while the canal route would be through the most pestiferous and deadly climate in the world. These two beautiful harbors, equal to Boston and New York, would offer the utmost security to the largest fleets, and having resident populations, would require no expenditure of capital for the creation of towns, as would be the case for the commencement and termination of a canal, if that means of communication were preferred to a railway. Both Panama and Porto Bello are so easy of access that there are no pilots, and none are ever required. The first has 15,000, the other about 5,000 people, and both have great commercial capabilities.

As Respects Iron.—Railway bars are at £12 net cash, on board, at Cardiff and Newport, [Wales,] large and active demand, and two millions of tons of pig iron must be consumed to make the supply of rails required for the existing chartered railways, to say nothing about the 6 or 7,000 miles of railway that will be applied for at the approaching session of parliament, of which some 3 or 4,000 miles may be granted. So you see the iron masters must be very busy to make rails for railways as fast as they may be wanted; but if the atmospheric be adopted, they will require at the lowest estimate, 50 per cent. more of iron. The price of merchant bars is only £9 10s. to £9 15s., and not in that active demand that rails are, between which there is not usually more than 40 shillings difference; but now the difference is 45 to 50s. per ton. For pig iron in Glasgow, speculators and holders are willing to sell at 80 to 82s., while makers ask 95s., for the purpose of deterring orders, of which they have enough on the books. As rails arc principally made in South Wales, there are no pigs for sale there, but the nominal price for No. 1 cold blast pig iron there, is £5 per ton.

The gambling and the mania for railways have been very much checked in the last five or six weeks, and a great deal of headlong ruin has been prevented, although much disaster and suffering has been already produced by undue speculation. None but *bona fide* and rational schemes now have any chance of success; there are still enough before the public to more than consume all the capital that ought to be devoted to this species of improvement. The check received will do nothing but good, and will make the property of the country more lasting and substantial. The demand for surveyors and engineers continues unabated. No less than 64 have left the ordnance surveys to join railways, for which they get compensation 8 to 10 or 12 times as much as before. The most extravagant sums are paid for engineers—£10, £12, £15 per diem are paid for even common and uncelebrated persons, while such men as Stephenson, Brunel, Locke, and others of eminence are making their 20 to £25,000 per annum, and it is the greatest favor to get to speak to them for merely a moment or two. So also with railway counsel and solicitors; they are reaping magnificent harvests. Mr. Austin, a leading barrister in this practice, was employed to the most extraordinary degree last session, taking retainers of £20 to £30 per diem from ten, twelve and fifteen different companies, while by no possibility could he attend before parliamentary committees to a greater number than three, four, five or six per diem. This is a species

of dishonesty that custom sanctions, but still is very far from being defensible. So also newspaper proprietors have profited by this railway excitement. A great number of new publications have been got up especially by it, and all the old ones have profited in an extraordinary manner. The Times publishes regularly twelve pages, frequently sixteen, and occasionally twenty and twenty-four pages of huge size. The Morning Herald, for weeks and weeks, published twenty and twenty-four pages, so also the Morning Chronicle and Morning Post published sixteen and twenty pages, and the Morning Advertiser, Globe, Standard and Sun, which never before had got beyond four pages, went to the extreme of eight pages. All these huge papers were filled with advertisements concerning railways and docks, to say nothing of "Iron Times," "Railway Chronicle," "Herepeth's Railroad Journal," "Railway Record," "Mining Journal," and other papers, devoted almost exclusively to railway affairs, were crammed with advertisements—all of which are paid for in the most extravagant manner, compared with what is customary in our country. I wish the unemployed engineers and poorly paid editors of our country could change places with their brethren of this country for some time, that they might profit by the immense sums spent in making them rich. After the 30th of November, inst., everything will settle down to more moderation and regularity, and we shall be better able to understand what is going on, than we have been for months past. You know that all plans, sections, and books of reference not deposited with the clerk of the peace and advertised in the London Gazette before 12 o'clock, P.M. of the 30th November, cannot come before parliament for charters for the ensuing session, and the consequence is that now there is the greatest hurry and activity and slavish employment,\* working day and night, both in the fields making surveys, as well as in drawing plans, and estimates, etc., in the offices. Never was such activity prevailing, and if one or two hundred of our unemployed engineers and surveyors had been over here for the last eight or nine months, they could all have obtained full employment at high salaries, and been most acceptably welcomed. I hope, however, the railway system will revive in our country, and that all the engineers and surveyors, as well as newspaper editors will have full employment, without being obliged to come over here to find it.

The extra London Gazette, published on the 15th inst, filled with advertisements of contemplated railways, occupies no less than 543 huge folio pages, while the usual London Gazette, published on the day before, was of three times the ordinary size. Nothing shows in a more striking manner the immense activity prevailing in regard to railways in this country than this fact. The Gazette is published twice a week by the government.

I send you Bradshaw's Railway Guide for November, and also the Times with a supplement of this day. Read the leader and the supplement of this paper, and you will be astonished at the mighty wealth, power and energetic enterprize of this country. I am, my dear sir, your's most truly,

GERARD RALSTON.

\* It appears that one engineer is engaged on eleven of the new lines, another on fourteen, a third on sixteen, a fourth on seventeen, and a fifth on twenty-one lines. The same may be, and no doubt are, engaged on other lines; for many of those on the list have no engineer's name attached to them, and it may be safely assumed that the execution in a proper manner of such a quantity of work is beyond human power.

For the American Railroad Journal.

I observe in an extract from the Sunbury American, that the T rails manufactured at the Montour works, are reduced to the exact length of 18 feet by one operation of circular saws at each end, as the rail comes hot from the rollers.

The process is different at the great iron works in South Wales. At the Dowlais works in 1837, they cut off one end in this manner and immediately presented the sawed end to the finisher, who stood in a trench so as to bring the rail [when lying on the floor covered with cast iron slabs] to the proper height for working. I enquired of Mr. Evans the manager, why they did not cut off both ends at once allowing for the contraction [in place of letting the bar cool, marking the length, heating it again and then cutting it off at the mark.] He answered that the heat was not uniform and consequently they would have a difference of half an inch in the length of the bars.

At Cyfarthfa, the second end was cut off cold by a powerful chisel worked by machinery; and a small matter was pointed out to me by Mr. Crawshaw, as important. The bars are reversed so as to cut from the bottom to the top of the rail, leaving a bur on the upper part to be dressed off with the file, in place of a depression as formerly when they cut from the top to the bottom.

The manufacture of these rails was all done by piece work and each set of men had their own mark. The ballers and rollers of the day charge, had one mark and those of the night, another, placed on the side near the middle of the rail. If on inspection the rail was not properly welded, or rolled in the wrong way [as to the laminae whether vertical or horizontal] it was thrown out. The man who squared the end put his mark on it. The other end the same, and the straightener his mark on the top in the middle. All that passed inspection were paid for according to the stamps.

While writing it may be well to mention other facts that may not be generally known. Rolled bars are brittle when the strain is in the direction of laminae, and tough, when at right angles to the laminae, as was shown to my satisfaction. I was also informed that the two ends of the same bar are of unequal tenacity; that which passes last through the rollers and upon which the manufacturer's name is stamped in ordinary flat bars, being the worst.

If you think the above remarks of any use, they are at your service. Yours respectfully,

New York, December 5, 1845. B. AYCRIGG.

#### The Canal of the Dique,

Or Carthagena and Magdalena Canal.—We have before spoken of this work, which is progressing so successfully under the management of our countryman, Mr. George M. Totten, aided by John C. Trautwine of Philadelphia; yet our knowledge of it was so limited, that we could not give much definite information in relation to it, nor can we now, yet we cannot deny ourselves the pleasure of republishing the following very complimentary and we doubt not, just, remarks of the governor of Carthagena, in his message to the legislature, when speaking of the canal, which we copy from the N. Y. Herald. From our knowledge of the gentlemen in charge of the work, we cannot doubt of the entire success of the undertaking, especially if the estimates have been based on their own examinations and they are allowed to carry it through in their own way, as they will be very likely to do if the present governor continues in the chair of state.

It affords us real pleasure to chronicle the commendations thus bestowed upon our countrymen

abroad, and especially so when they fall on our personal friends. That they will continue to merit golden opinions from those who are to be so much benefited by their skill and efforts, we have not a doubt, and hope they may reap golden rewards in return for their labors, deprivations and self-denials and return safely to their friends, when they shall have completed their engagements, is our ardent wish.

We shall be greatly obliged to the gentlemen, or either of them for such an account of the work under their charge, of its position, objects and capacity as will enable us to give our readers a much more intelligible idea of it than we now possess ourselves. We desire to put it on record for future reference. The writer of the letter says:—

"I send you the annual message of the governor of this province to the legislative chamber. You will see that he there speaks in high terms of your countryman, Mr. Totten, who is engaged in building the canal of the Dique, between this city and the river Magdalena. This canal progresses well, and Mr. T. receives the credit due for his exertions in conducting it.

#### Translation of that part of the Governor's Message relating to the Canal of the Dique.

"The most important of all which, is the excavation of the canal of the Dique, progresses with activity, in conformity with the contract made with Mr. G. M. Totten, who, directing and superintending the work himself, advances in a most satisfactory manner.

"I was one of those who previously feared that the opening of the canal might be frustrated by some error in its management, or in the calculation of its cost, or other impediment, which might not have been foreseen, and therefore it was my first care, on taking charge of this government, to go, personally, (7th July) to see the work, and examine it throughout, that I might be able to form an exact judgment upon an enterprize which so much interested me, as a Carthaginian, as a Granadian, and as a governor. How gratifying to me was that inspection! My doubts were at an end; the canal will be opened, and opened in less time than was at first calculated. In the *Semanario*, you have seen the monthly result of the excavation; and the junto of direction of the Dique, having sent a commission to revise the measurement, found the quantity excavated to be 144,644 cubic yards, making a difference of 36,394 yards more than those published from the reports of Mr. Totten, which proceeds, without doubt, from the work done during the month of which the engineer has not yet made his return; and is proof of his probity and the exactness of his reports—so much the more, as the difference is in his favor. In the exposition which will be made to you by the junto of direction, this subject will be treated of more at length.

"I cannot do less here than improve this occasion to express to you, in deference to that respectable stranger, and the engineer who is associated in his labors—that which most impressed me—which was, the rigid order preserved on the works. 320 men, divided into quadrilles, bathed in sweat, worked with activity, with silence, and with such respect and obedience to the directors and forc-

man, that I could not but reflect upon what might be done by such means, with a method followed with perseverance, with a dignified bearing, with seriousness, and with a few words. (Signed)

"JOAQUIN POSADA GUTIERREZ,  
Gov. of the Province of Carthagena."

#### Railroad Meetings.

A full report of the railroad meeting held at Philadelphia on the 10th inst., will be given in the next number, accompanied by some remarks of the editor of the Journal, who is at this time absent, and attended the meeting. He speaks of it as being very enthusiastic, and that the right spirit prevailed, except, perhaps, a little jealousy of the Baltimore and Ohio railroad.

*Railroad Meeting at Ebensburg.*—A large and respectable meeting was held at Ebensburg on the 29th ult., at which resolutions were passed in favor of a continuous railroad between this city and Philadelphia, and the following resolutions in relation to the Baltimore and Ohio railroad:

*Resolved*, That while we believe the construction of a continuous railroad from Harrisburgh to Pittsburg to be of most vital importance to the interests of the entire commonwealth, as she will thereby open a channel through her own borders for the immense trade of the Mississippi valley and the great northern lakes, yet are we convinced that the completion of such a road would in a great measure fail in securing that important object, should any other point than Pittsburg be adopted as a termination for the Baltimore and Ohio railroad.

*Resolved*, That while we believe it to be the duty of the legislature to grant a charter for a centre route, we also hold it to be a duty, in order to promote the general welfare and prosperity of our beloved commonwealth, to grant to the Baltimore and Ohio railroad co. the right of terminating their road at the city of Pittsburg as a terminus of that road at Wheeling, Parkersburgh or the mouth of Fishing creek, would inflict deep and lasting injury upon our interests, whether social, mercantile or agricultural.

This is a just and liberal view of the matter, and one which every intelligent and well informed man, will finally take.

Delegates were appointed to the the railroad convention to be held in Harrisburgh on the 2d Monday of January next, a convention, by the way, in which this county ought to be largely represented.—*Pittsburg Advertiser.*

#### Railroad Convention in Nashville, Tenn.

Nov. 24th 1845.—At 11 a.m. the delegates met in the hall of the house of representatives, and were organized by the appointment of the following officers:—Nathan Green of Franklin county, president; James Overton, of Davidson, William Martin of Smith, vice-presidents; A. O. P. Nicholson, Milton A. Haynes, and Henry Baldwin, secretaries.

Dr. Overton proceeded to explain, in an able address of 20 or 30 minutes, the object of the meeting. He entered into a statement of the advantages which would result from the construction of a railroad from Nashville

to Chattanooga, connecting with the Georgia and South Carolina railroad.

In conclusion he explained the object of the convention to be, to recommend, and if possible, to devise the means, by which that great work might be accomplished.

After Dr. Overton had concluded, Judge Green left the chair, and proceeding to address the convention, said, that his friend (Dr. O.) had already sufficiently explained the advantages which would result from the construction of the railroad. In view of all these advantages he could not suppose that any person could doubt that great good would result from its construction. But he conceived that there might be a difference of opinion as to the practicability of effecting the object proposed.—He therefore, offered the following resolution:

*Resolved,* That a passage for a railroad from Nashville to Chattanooga, across the Cumberland mountains, is practicable at a moderate expense.

Mr. Thomas, of Maury, moved that a committee of ten be appointed to draw up a report and resolutions, declaring the object and wishes of this convention.

#### REPORT OF THE COMMITTEE.

The committee appointed to consider the general objects of the convention, the practicability and advantages of a railroad connection between Nashville and Chattanooga, beg leave to report, that the limited time allowed them to investigate the subject enables them to present only in general terms but a very few of the many important considerations in favor of the proposed work.

After the clear demonstrations which have been made within the last fifteen years, not only in the old world, but in the United States, of the beneficial effects of railroads upon all interests in society, your committee deem any labored argument to prove their general utility wholly unnecessary. It is a conviction of their beneficial influence upon the country which has called this convention together, and prompts its action in the effort now made to secure to our state a cheap and speedy outlet to the markets of our sister states, and of the world, for her rich, varied and abundant productions; and a like introduction to all the necessaries and luxuries of life which we have occasion to bring from abroad.

The first consideration to which attention should be directed in an undertaking of this kind is the *practicability* of the work. And on this branch of the subject your committee feel they are relieved from any reliance on mere conjecture not only by the concurring testimony of many intelligent gentlemen well acquainted with the country and the subject, and by the examination and report of Dr. Troost our able state geologist, but more especially by an actual instrumental survey across the Cumberland mountain (the only interposing obstacle) recently made by Dr. Estill of Winchester, an able and experienced mathematician, a report and map of which have been presented to the convention by the Hon. Judge Green and Col. Taul under whose immediate and personal observation the survey was made.

These evidences all concur in demonstra-

ting the entire practicability of the work, and exhibit much more favorable results than the friends of this important enterprise had anticipated. The survey shows that upon remarkably easy grades in ascending one of the tributaries of Elk river, a point at the western base of the mountain is attained from which the distance is but 2234 feet to its eastern base on Rush creek—a prong of Big Crow creek, and the greatest elevation above a horizontal line connecting the two points is 177 feet.—The descent of Rush creek for about 4 miles is on grades of 75 feet to the mile, and the remaining distance through the whole length of Crow creek valley, until the mountain is entirely passed, upon grades not exceeding 10 feet per mile. So far as the committee are advised this is the only route across the mountain upon which an actual instrumental survey has been made, but others which are much recommended by their directness, your committee believe, from reliable information afforded them, will, upon a proper test, be found to be very favorable.

The routes by Battle creek—by the Fiery Gizzard and by the valley of the Little Sequachee are all believed to be practicable, but the one most eligible can, of course, be alone determined by an actual survey, and a comparison of their relative advantages. The committee alludes to the different routes not for the purpose of indicating a preference for one over another, but alone to present to the convention as they now do with the more perfect confidence, the one important fact that a route is not only practicable, but considering the character of the country, remarkably favorable for the proposed work.

Aside from the difficulties which have been alluded to, no serious obstacle to the construction of a railroad from Nashville to Chattanooga is encountered; as the general surface of the country is level, and very favorable for the construction of such a work.

The committee will, in this connection, mention a fact, not unimportant in relation to works of this kind, that on and near the line of the road, are to be found extensive forests of the best cedar timber in the world, affording abundant material for the wooden superstructure, not less durable than the iron which would be placed upon it.

Nashville is surrounded in all directions and for a great distance, by a country, which, for fertility of soil, extent of valuable agricultural productions, mildness and salubrity of climate is unsurpassed by no place or country on the globe; and with mineral wealth, and manufacturing capabilities equalled by few. Yet in prosecuting a commerce with the world through the Atlantic ocean—the great highway of nations—from this city the productions of this favored region have to travel a distance greater than to the mouth of the Oregon river, on the Pacific ocean, before they pass, (as they do) almost in sight of Savannah and Charleston, (now brought comparatively near us,) on their way to the ports of Europe, encountering great delays, expense and damage in so long, difficult and hazardous a voyage.

A great inducement to the construction of

the proposed road, is the facility which it will afford in the prosecution of this commerce with the old world in giving a shorter, cheaper, more certain, safe and expeditious route to the Atlantic, than the single one now enjoyed, and also, the home market which it will afford for the peculiar productions of this country in the southern Atlantic states, where competition with the like productions of the rich states of the northwest is not encountered, as at present, on the Mississippi river, and in the ports of the gulf of Mexico.

Of course, the foreign imports which come in return to this now comparatively far distant and secluded section of country have to perform the same long, circuitous, expensive and uncertain voyage.

The noble enterprise of our sister states of South Carolina and Georgia, if met with a corresponding spirit and exertion on our part, will now speedily unfetter the enterprise of this favored region, through new avenues, and by greatly increased facilities of transportation, appreciate the value of all we have to sell, and diminish the cost of all which our choice or necessities may induce us to purchase.

Your committee cannot omit an illusion to the advantages which the proposed road will afford to the traveller from Nashville and the adjacent country to any of the Atlantic cities.

The Atlantic at Savannah or Charleston may be reached from this place in 24 hours, and any of the eastern cities in less than one-half the time now required on any other route.

With a railroad to Chattanooga and a short one from Atlanta to West Point, Ga., which will soon be made, a journey by that route from Nashville to New Orleans can be made in three days, without increased facilities west of Montgomery, Ala., which are projected, and which, when completed, will reduce the time to two days.

Thus making the proposed work an important link in accommodating the travel between Texas and New Orleans—all the ports of the gulf, the West Indies and Nashville, and the country north of it for a considerable distance.

The route from Nashville to New Orleans via Chattanooga, Atlanta and Montgomery is little over half the distance of that by river, the one now universally adopted, and which requires and average about eight days, and is subject to the dangers of the perilous navigation of the Mississippi river.

Tennessee with a good system of railroads occupies a position more favorable than any other state in the Union for prosecuting a legitimate commerce by exchange of commodities with the southern states of the confederacy, and for furnishing profitably a supply of provisions to those engaged in the production of the great staples of rice, cotton and sugar. The proposed road, in connection with the improvements of our public spirited sister states of the south, opens to middle Tennessee not only the markets of South Carolina and Georgia, but of south Alabama also, and as bringing into requisition an almost new element in our agricultural and manufactu-



ring prosperity, may all be supplied from our hemp with rope and bagging for their cotton.

The improvement of the navigation of the Cumberland river, below Nashville, by locks and dams, is a work which taken in connection with the railroad is of great importance. A large portion of the agricultural productions of the country in Tennessee and Kentucky near this river, and on the Ohio, is destined to reverse the course heretofore taken to market, and by ascending the Cumberland seek an outlet and market in the ports of Savannah and Charleston. As a means of accommodating this trade—of opening an uninterrupted line of travel from the vast country of the Missouri on the highest route to the Atlantic, and as being imperiously called for by the increased and increasing business of the country, your committee although not charged directly with its consideration, have thought it not improper to call attention to the subject with a view of concentrating public feeling and sentiment on it, so far as it can be done by any action of this convention.

The construction of the proposed railroad will afford a means of transportation to market for the exhaustless deposits of stone coal, which now lie valueless embedded in our mountains, and to Nashville and other places west and east of its locality, cheapen by one-half this valuable species of fuel, at the same time that it will develop the natural wealth and give profitable employment to a considerable portion of the labor of the country.

In addition to these considerations, other and more patriotic motives, which appeal directly to the hearts of all good citizens, come also to advocate the construction of this road; considerations which are intimately connected with the perpetuity of our free institutions, and the glory, honor and safety of our federal Union. Written compacts and solemn constitutional provisions and restrictions, intended for the government of states and communities, have ever been found less binding, and less powerful than those ties which spring from social and commercial intercourse; less potent than those ties which spring from mutual interests.

This railroad communication will not only increase the commercial and social intercourse of the west with the south, but it would give to the citizen soldiers of Tennessee, and of Kentucky, the important position of an army of reserve, ready to be poured down at a moment's warning upon the gulf and south Atlantic shores, for the support and protection of their southern neighbors, who must always be exposed to the first incursions of a foreign foe.

Thus, while we would find the west looking to the south for an avenue to the commerce of the world, and deeply interested in every event which might interfere with the tranquility and prosperity of the southern ports and cities—the south in her turn would look to the hardy sons of Tennessee and Kentucky for protection in every moment of peril to her free institutions, or to her commerce.

In view of all these high and solemn considerations, your committee cannot but regard

the proposed railroad enterprise as one which appeals directly to the interest, to the liberality, to the enlightened philanthropy and patriotism of every brave and true-hearted Tennessean. **JONAS E. THOMAS, Chairman.**

**Cleveland and Pittsburg Railroad**

We put upon record the report of Col. Dodge, in relation to this important line of road between the lake and the Ohio, as we do many similar reports, as a matter of reference for the profession, as well as for our own convenience; and if we knew where to hit him we would send a copy of the Journal as an indication that we should be always obliged to him for a copy of his report, as we are to every member of the profession, who appreciates the object and claims of the Journal, by sending for publication in its columns—a copy of all reports and matters of interest in relation to railroads and canals with which they may be connected, or acquainted. It is not for ourselves alone but for the whole community, and especially for the profession that we ask and republish these documents.

**Report of the Survey and Estimates of the Cleveland and Pittsburg Railroad. By Col. S. Dodge, Engineer.**

In accordance with your request, I organized a corps of engineers, and put them under the charge of George Robinson, Esq., a man of much experience and intelligence, and commenced the survey on the 17th of October last.

The route pursued, commences at Merwin street, in the city of Cleveland, and ascends the Cuyahoga river, crossing it twice to the mouth of Kingsbury's run; from thence up said run to Kinsman street, 3 miles from the place of beginning. From this point another line was run diverging a little to the right, and terminating at the intersection of Pittsburg and Kinsman streets about 80 feet above lake Erie.

The object of this double termination is, to avoid the drayage up the steep grades of the streets leading down to the river and lake.—The expense would be little more than laying down the track, the ground being nearly level, and composed of sand and gravel.

From the head of Kingsbury's run, the road winds along the side hill to Newburgh, with a grade of 40 feet ascent to the mile. It then descends to the valley of Mill creek, and continues up the same near the turnpike road to Bedford; thence crossing Tinkers creek it leaves the turnpike to the left until it reaches Hudson. From thence it takes a more easterly course, re-crosses Tinkers creek and the Cuyahoga, passes near the north side of the village of Ravenna, and continues on the right of the Cleveland and Wellsville turnpike to Benton, in Columbiana county. From thence it crosses said turnpike road, and continues near it to Salem, at the head of the east fork of the Little Beaver creek; from thence it crosses the summit between the east and west fork, 736 feet above lake Erie, and takes down the valley of Cold creek to the west fork of Beaver; from thence it continues down said creek to a small run leading from the summit between Beaver and Little Yellow Creek; thence across said summit 600 feet above lake Erie, and 546 feet above the Ohio at Wellsville; from thence it continues down another run to Little Yellow creek; thence

down said creek 6 miles to Wellsville, and terminates at the bluff in the rear of the village at high water mark, 45 feet above the bed of the river.

The most difficult portions of the route are between Martin's Mill and Wellsville, a distance of 4 miles. From the Yellow creek summit to the crossing of the west fork of Beaver, the crossings of Mill creek, Mahoning, Island creek, Cuyahoga river, Tinkers creek, and the grading from Cleveland to the head of Kingsbury's run, a distance of 3 miles, are also expensive. The balance of the road presents few difficulties, and the whole may be pronounced a favorable route.

The greatest ascent is on the 90 chains below Martin's mill on Yellow creek, being 108 feet. There are also, 460 chains in detached places, viz: 120 chains on Yellow creek; 216 chains between Yellow creek summit and Beaver; and 80 chains descending from the west to the east fork of the Beaver, where it has been necessary to raise the grade to 80 feet to the mile. There are a few short grades of 66 feet to the mile; but the most of the line is below twenty feet.

There will be one tunnel one hundred and fifty-four yards in length, on Yellow creek; one curve of one thousand feet radius, and several below fourteen hundred feet. On no other portions of the road will it be necessary to adopt curves of less than two hundred feet radius.

In the following estimate the road has been divided into three divisions.

The first extends from Cleveland to Ravenna, a distance of	37 miles. 25 chains.
The second from Ravenna to Salem,	29 " 74 "
The third from Salem to Wellsville,	29 " 50 "

Whole distance, 96 miles. 69 chains.

The excavations are estimated eighteen feet wide, with slopes of twelve inches in base to eight inches rise. The embankments thirteen feet wide with the same slopes.

The track to be composed of a double course of longitudinal timbers, connected together with ties eight feet long, three feet asunder and five by six inches in diameter.

The upper wood rail to be secured by a flat bar of iron weighing eighteen pounds to the yard.

It must be admitted that a T or H rail would be preferable, but would cost about four thousand dollars more per mile, estimating the iron at seventy dollars per ton, and weighing fifty-six pounds to the yard, the usual weight of such rails.

The crossings of streams and deep ravines (where earth sufficient to make the embankments is not furnished by the excavations,) will be truss work of wood.—Recapitulation.

First division.....	\$301,028 54
Second " .....	199,366 62
Third " .....	305,672 12
Add for damages, contingent expenses, depots, water stations, and locomotives .....	200,000 00

Total expense when fit for use...1,006,068 27  
Respectfully submitted.

S. DODGE, Engineer

**Suspension Bridges.**

Since the project of constructing a suspension bridge across the Niagara river has been agitated, the public curiosity has been strongly directed to the subject, bridges of that description being almost unknown in this country, and their feasibility doubted by many.—But since a favorable opinion has been given in respect to the construction of one across the Niagara by an engineer so competent and justly celebrated as Mr. Ellet, the matter begins to wear less the aspect of a Quixotic enterprise, and to engage the attention of practical men and capitalists.

We have reliable information that Mr. Ellet is at present engaged in preparing a plan of the contemplated structure, which he will submit to those concerned without loss of time. Of the entire practicability of such a structure, he entertains no question.

The first important suspension bridge erected in Europe, was across the straits of Menai, between Wales and Anglesea; and it is still regarded as one of the best. The distance between its points of elevation is 580 feet; and ships pass beneath it under full sail. Wrought iron chains were used to support the road way.

In 1823 a mechanic of Lyons in France, constructed a suspension bridge across the Rhone at Tournon, of a material which had not been used in any structure of consequence. Cables manufactured of iron wire were substituted for chains. Wire cables are now universally adopted in structures of that sort.

The cables are formed of an assemblage of wire about the diameter of a common writing quill, which are laid parallel to each other in the process of their manufacture, and afterwards collected in a solid mass and bound together by ligatures of the same material.—In a bridge of 400 feet opening between the points of suspension, and 25 feet wide in the clear, there would be needed five cables on each side, each of which would be composed in general of not less than 400 strands of wire, the whole possessing an absolute tenacity of 3000 tons. The suspension bridge across the Schuylkill near Philadelphia, erected in the autumn of 1841, by Mr. Ellet, is the most remarkable structure of this kind in the United States. The distance between the points of suspension of this bridge is 357 feet. Its width between the parapets is 26 feet. The carriage way is 18 feet wide, and there are two foot ways 4 feet each in width. The bridge is supported by four columns 30 feet high and 8½ feet square at the base, constructed of blocks of granite. The bridge is supported by ten cables of iron wire, resting on cast iron rollers placed on the summit of the columns. The flooring is suspended from the cables by means of wire cords similar to the suspension cables in their construction, but smaller. The weight of the entire wood work of the bridge is 115 tons. When the cables sustain only their own weight and that of the flooring, they resist a tension of 240 tons, which is only the ninth part of the force necessary to break them. A weight of 105 tons was placed upon the bridge for the purpose of testing it. It stood the test, and has

sustained every other to which it has been subjected, proving to be a serviceable and excellent bridge. Its cost was \$53,000.

It will be a gigantic undertaking, and worthy to stand beside the great cataract.—*Rochester American.*

*Nashville and Chattanooga Railroad.*—In the Tennessee house of representatives on the 3d inst., Mr. Whiteside from the committee on internal improvements, reported a bill to incorporate the Nashville and Chattanooga railroad company. The stock to consist of 15,000 shares at \$100 each—the company to go in operation as soon as 10,000 shares are subscribed and five dollars on each share shall have been paid; the remainder of the stock to be called for by instalments of \$5 on each share. The bill contains, in addition, the usual provisions of charters of this kind. Read the first time.—*Georgia Chronicle.*

*Railroad Projects.*—The citizens of Massillon propose to the Cleveland people, to bring their railroad down to that place, then to branch to the Ohio river at Wheeling on a route which has been surveyed, and to Columbus through the counties of Holmes and Licking. Should this be done this road will be intersected at Massillon by one from Pittsburg.—*Cincinnati Gazette.*

**BOSTON, CONCORD AND MONTREAL** Railroad. Proposals will be received for the Grading and Masonry of this Road, from Concord, N. H., to the Connecticut river at the mouth of Ammonoosuc river, till the 23d inst. Specifications, Profiles, Surveys, etc., may be obtained of the Engineer, William P. Crocker, at Meredith Bridge, who will furnish any desired information in relation to the subject. Bids will be received for the whole line or any part of it; and it will be expected the work will be commenced as soon as may be after the contracts are closed.

Scaled proposals may be made to either of the Directors, or the Engineer, and will be considered by the Board at the Eagle Coffee House, in Concord, on Tuesday the 23d instant.

JOSIAH QUINCY.

President B. C. and M. Railroad.

December 2, 1845. 2t 50

**NOTICE TO RAILROAD CONTRACTORS.** Proposals will be received at the office of the Pittsfield and North Adams Railroad Corporation in Pittsfield, Mass., until the 20th of December next.

1st. For the Graduation, Masonry and Bridging of 18½ miles of Roadway.

2d. For furnishing the Timber, Chairs and spikes and laying the Superstructure.

3d. For furnishing Materials and Building a heavy, substantial Post and Rail fence upon each side of the Roadway.

The approximate quantities are as follows, to wit: 600,000 cubic yards of Excavation and Embankment.

6,500 perches of Masonry.

500 feet of Bridging.

43,000 chestnut or white oak Cross-ties, 5 inch face 7 inches between faces and 7 feet long.

500,000 feet board measure, Hemlock sills 3 in. x 8 in. x 18 feet long.

150,000 feet board measure, Hemlock sills 3 in. x 8 in. x 6 and 12 feet long.

70,000 fence rails 12 feet long, either split from thrifty Chestnut of a size not less than 5 in. x 2 in. measured across the centre of the smallest end, or sawed from Spruce timber with square edges, 5 in. x 1½ in. or from Hemlock 5 in. x 2 in.

18,000 Chestnut fence posts, holed with 4 holes 7½ feet long and measure not less than 8 in. x 4 in. across the centre of the smallest end.

45 tons of Hook Head Railroad Spike.

90 tons of Cast Iron Chairs.

Plans, Profiles, Specifications etc., will be ready for examination on and after the 15th December.

FREDERICK HARBACH,

Resident Engineer.

Office of the Pittsfield and North Adams Railroad Corporation.

Pittsfield, Nov. 26th 1845.

3t 49

C. J. F. BINNEY,

GENERAL COMMISSION MERCHANT and Agent for Coal, and also Iron Manufactures, etc.

No. 1 CITY WHARF, Boston.

Advances made on Consignments.

Refer to Amos Binney, Boston.

Grant & Stone,

Brown, Earl & Erringer, } Philadelphia.

Weld & Seaver, Baltimore.

December 8, 1845.

1m 50

**A CARD.**

**THE SUBSCRIBER, EDITOR AND PUBLISHER** of the Miners' Journal for the last sixteen years, has been engaged, for the last year in collecting the materials for a work, for which he has secured the copy right, in the following words:—"A history of the Anthracite Coal Trade of Schuylkill and the adjoining Counties, Geological and Statistical, accompanied with Maps of the different Regions, the Improvements, Investments, Capacity, etc., embracing a complete and authentic history to the present time, to which will be appended a Synopsis of the Iron Trade."

It is our intention to embrace everything of interest in the work, connected with the trade, up to the beginning of the year 1846, prepared and arranged with a view of continuing the publication, at periods of five or ten years, with such additions as the increased trade will warrant. These branches of trade have assumed an importance which will warrant such a publication; and he feels confident, that with the proffered aid of several gentlemen and the statistics already in his possession, he will furnish the public with a work, which, if not one of the most interesting in its details, it will be of great value to those engaged and interested in these branches of business.

As soon as the Maps, etc. are prepared, and some idea can be formed of the probable expense of publishing the work, proposals will be issued for the same. All the tracts of Coal land will be designated on the Map of the Schuylkill Coal Region, which will accompany the work.

Pottsville, Nov. 13, 1845. BENJ. BANNAN.

**NEW YORK AND ERIE RAILROAD**

Company. The Stockholders of this company are hereby notified that an instalment of Five dollars on each share of the new stock, on which not more than five dollars has been paid, is required to be paid at the office of the company, No. 50 Wall street, on or before Wednesday, the 10th day of December next. By order of the board of Directors. NATHANIEL MARSH, Secretary.

New York November 5, 4845.

N.B. Subscribers at or near Newburgh are requested to make payment to Thomas C. Ring, Esq. Cashier of the Powell Bank. 4t 46

**RAILROAD IRON.—THE "MONTOUR**

Iron Company," Danville, Pa., is prepared to execute orders for the heavy Rail Bars of any pattern now in use, in this country or in Europe, and equal in every respect in point of quality. Apply to MURDOCK, LEAVITT & CO.,

Agcs/s.

Corner of Cedar and Greenwich Sts.

43 1y

**WESTERN AND ATLANTIC RAIL-**

road. The Western and Atlantic Railroad is now in operation to Marietta, and will be opened to Cartersville, in Cass county, on the 20th of October—and to Coosa Depot, (formerly known as Borough's,) on the 20th of November.

The passenger train will continue, as at present to connect daily (Sundays excepted) with the train from Augusta, and the stage from Griffin.

CHAS. F. M. GARNETT,

Chief Engineer.

**NOTICE IS HEREBY GIVEN THAT**

the New York and Harlem Railroad Company intend to apply to the Legislature of the State of New York, at the ensuing session thereof, for an amendment to their charter, authorizing them to pledge their property and franchise for the purposes of extending their road from its present termination to the city of Albany, and for other purposes.

Dated Nov. 20th.

48 6t

**BOSTON AND MAINE RAILROAD.**

Upper Route. Boston to Portland via, Charlestown, Somerville, Malden,

Stoneham, South Reading, Reading, Wilmington, Ballardvale, Andover, North Andover, Bradford, Haverhill, Atkinson, Plaistow, Newtown, Kingston, East Kingston, Exeter, South Newmarket, Newmarket, Durham, Madbury, Dover, Somersworth, South Berwick, North Berwick, Wells, Kennebunk, Saco and Scarborough.

Winter Arrangement, 1845 & 6. On and after Monday, October 20th, 1845, Passenger Trains will run daily, (Sundays excepted,) as follows, viz.

Leave Boston for Portland at 7 1/2 a.m. and 2 1/2 p.m. Leave Boston for Great Falls at 7 1/2 a.m., 2 1/2 p.m. and 3 1/2 p.m. Leave Boston for Haverhill at 7 1/2 a.m., 2 1/2, 3 1/2 and 5 p.m. Leave Portland for Boston at 7 1/2 a.m., and 3 p.m. Leave Great Falls for Boston at 6 1/2 a.m., 9 a.m. and 4 1/2 p.m. Leave Haverhill for Boston at 6 1/2, 8 1/2, and 11 a.m., and 6 1/2 p.m.

Special Train.—A special train will leave Boston for Andover at 11 1/2 a.m., and Andover for Boston at 3 1/2 p.m.

The Depot in Boston is on Haymarket Square.

Passengers are not allowed to carry Baggage above \$50 in value, and that personal Baggage, unless notice is given, and an extra amount paid, at the rate of the price of a Ticket for every \$500 additional value.

CHAS. MINOT, Super't.

October 20, 1845. 43 1/2

**SPRING STEEL FOR LOCOMOTIVES,**

Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1 1/2 to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, Agent, 55a3 Albany Iron and Nail Works, Troy, N. Y.

**TO IRON MANUFACTURERS. THE**

Subscriber, as Agent of Mr. Geo. Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late R. v. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO., ja45 No. 4 Sout Fronth st., Philadelphia, Pa

**MACHINE WORKS OF ROGERS,**

Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed being large, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work. Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR, a45 Paterson, N. J., or 60 Wall street, N. York

**FOR SALE AT A SACRIFICE—A LOCOMOTIVE** Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine. 2 8-horse " " " " 1 Upright Hydraulic Press.

All of which will be sold low, on application to T. W. & R. C. SMITH, Founders and Machinists, Alexandria, D. C.

May 12th

**GEORGIA RAILROAD. FROM AUGUSTA**

to ATLANTA—171 MILES. This Road in connection with

the South Carolina Railroad and the Western and Atlantic Road now forms a continuous line of Railroad of 360 miles from Charleston to Cartersville, two miles west of the Etowa River in Cass County.

Rates of Freight, and Passage from Augusta to Cartersville.

On Boxes of Hats, Bonnets, and Furniture per foot.....15 cts. " Dry goods, shoes, saddlery etc., per 100 lbs. 85 " " Sugar, coffee, iron, hardware, etc. " 70 " " Flour, bacon, mill machinery etc. " 33 " " Molasses, per hogshead \$9; salt per bus...22 " Passengers \$9 50; children under 12 years of age and servants, half price.

Passengers to Atlanta, head of Ga. Railroad, \$7. German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight payable at Augusta. J. EDGAR THOMPSON, Ch. Eng. and Gen. Agent.

Augusta, Oct. 21 1845. \*44 1/2

**NICOLL'S PATENT SAFETY SWITCH**

for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee. G. A. NICOLLS, Reading, Pa.

ja45

**GEORGE VAIL & CO., SPEEDWELL IRON**

Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1 1/2 in. to 2 1/2 in. thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sowing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shaiting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective iron and Brass Castings of all descriptions. ja45 1/2

**TO RAILROAD COMPANIES AND MANUFACTURERS**

of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE, ja45 N. E. cor. 12th and Market sts., Philad., Pa.

**NORWICH AND WORCESTER RAILROAD.**

On and after May 22, 1845, Trains will leave as follows, viz:—

Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4 1/2 p.m. Leave Worcester, at 10 a.m., and 4 1/2 p.m.

The morning train from Norwich, and the morning and evening trains from Worcester, connect with the Boston, Western, and Hartford and Springfield railroads.

New York Train, via Steamboat. Leaves Norwich for Worcester and Boston, every morning except Monday, upon the arrival of the boat from New York, about 2 a.m. Leaves Worcester for Norwich and New York, at 5 1/2 p.m., daily, except Sunday.

New York Train, via Long Island Railroad.—Leaves Norwich about 3 p.m., for Worcester and Boston, daily, except Sunday. Leaves Worcester for Norwich and New York, at 7 1/2 a.m., daily, except Sunday, and arrives in Norwich at 9 1/2.

Freight Trains. Daily, except Sunday.

Fares are less when paid for Tickets, than when paid in the cars.

EMERSON FOOTE, Superintendent.

32 1/2

**LAWRENCE'S ROSENDALE HYDRAULIC CEMENT.**

This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Flooms and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE, 142 Front street, New York.

Orders for the above will be received and promptly attended to at this office. 32 1/2

**SUMMER ARRANGEMENT—FARE REDUCED.**

By the Great Southern Mail

Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburg, Weldon, and Charleston, S. C.

Direct to New Orleans, and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, \$21; whereby the traveller saves \$4 25. Bear in mind that this is the great Southern Mail Line, and the only one that issues a through ticket South. Those who patronize it will save their money and time. Through Tickets from Baltimore to Charleston \$21; Baltimore to Weldon \$10; Baltimore to Petersburg \$7 50; Baltimore to Richmond \$7.

Fast Mail Line.—Leave New York at 9 a.m. and arrive in Philadelphia at 3 1/2 p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12 1/2 to 1 p.m.; arrive in Petersburg, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C., at 6 a.m.

Passengers by the above line will arrive at Richmond by 11 1/2 o'clock p.m. and Petersburg, Va. by 2 1/2 o'clock p.m., through to the former city in twelve hours, and to the latter in fourteen and a half hours, (and in eight hours less time than by the Bay route,) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

Way Mail Schedule.—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p.m.; arrive in Baltimore at 2 1/2 p.m.; arrive in Washington at 7 p.m. From Philadelphia by steamboat.—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and through tickets apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore.

STOCKTON & FALLS.

**BOSTON AND PROVIDENCE RAILROAD.** Passenger Notice. Winter Arrangement. On and after Monday, Nov. 3, the Passenger Trains will run as follows:

For New York—night line, via Stonington.—Leaves Boston every day, but Sunday, at 4 1/4 p.m. Accommodation trains, leave Boston at 8 a.m. and 3 1/4 p.m., and Providence at 8 a.m. and 3 1/4 p.m.

Dedham trains, leave Boston at 9 a.m. 3, 5 1/2 and 10 p.m. Leave Dedham at 8 and 10 1/2 a.m., and 4 1/2 and 7 p.m.

Stoughton trains, leave Boston at 12 m. and 4 p.m. Leave Stoughton at 8-20 a.m. and 2 1/2 p.m. All baggage at the risk of the owners thenceof.

N.B. The last train to and from Boston and Dedham, will be omitted in case of a severe snow storm. W. RAYMOND LEE, Supt. 31 ly

**BRANCH RAILROAD AND STAGES** Connecting with the Boston and Providence Railroad.

Stages connect with the Accommodation trains at the Foxboro' Station, to and from Woonsocket. At the Seekonk Station, to and from Lonsdale, R. I. via Pawtucket. At the Sharon Station, to and from Walpole, Mass. And at Dedham Village Station, to and from Medford, via Medway, Mass. At Providence, to and from Bristol, via Warren, R. I.—Taunton, New Bedford and Fall River cars run in connection with the accommodation trains.

**NEW YORK AND ERIE RAILROAD**

LINE. For Middletown, Goshen, and intermediate places. Two daily lines each way, as follows:

For passengers, the new, and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7 1/2 o'clock, A.M., and 5 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4 1/2, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets.

H. C. SEYMOUR, Superintendent. Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghampton, Owego, Port Jervis, Honedale Carbonade, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc., etc. 31 ly

**BALTIMORE AND SUSQUEHANNA** Railroad. The Passenger train runs daily except Sunday, as follows:

Leaves Baltimore at 9 a.m., and arrives at 6 1/2 p.m. Arrives at York at 12 1/2 p.m., and leaves for Columbia at 1 1/4 p.m. Leaves Columbia at 2 p.m., and leaves York for Baltimore at 3 p.m. Fare to York \$2. Wrightsville \$2 50, and Columbia \$2 62 1/2. The train connects at York with stages for Harrisburg, Gettysburg, Chambersburg, Pittsburg and York Springs.

Fare to Pittsburg. The company is authorized by the proprietors of Passenger lines on the Pennsylvania improvements, to receive the fare for the whole distance from Baltimore to Pittsburg. Baltimore to Pittsburg.—Fare through, \$9 and \$10.

Afternoon train. This train leaves the ticket office daily, Sundays excepted, at 3 1/4 p.m. for Cockeysville, Parkton, Green Springs, Owings' Mills, etc. Returning, leaves Parkton at 6 and Cockeysville and Owings' Mills at 7, arriving in Baltimore at 9 o'clock a.m.

Tickets for the round trip to and from any point can be procured from the agents at the ticket offices or from the conductors in the cars. The fare when tickets are thus procured, will be 25 per cent. less, and the tickets will be good for the same and following date any passenger train.

D. C. H. BORDLEY, Supt. Ticket Office, 63 North st. 31 ly

**DAVIS, BROOKS & Co., 30 WALL ST.** Have now on hand and for sale, 200 tons 2 1/4 x 1/2 inch Flat punched Rails, Bars 18 feet each.

100 tons Heavy Edge Rails, 90 tons per mile. 30 tons 2 1/2 x 1/2 inch Flat Rails.

Also—A STEAM PILE DRIVER, built by "Dunham & Co." which has never been used, and cost originally \$5000. s20 2m

**BALTIMORE AND OHIO RAILROAD.** MAIN STEM. The Train carrying the

Great Western Mail leaves Baltimore every morning at 7 1/2 and

Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5 1/2 P. M. Fare between those points \$7, and 4 cents per mile for less distances. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburgh \$10, and time about 32 hours. Through tickets from Philadelphia to Wheeling \$13, to Pittsburgh \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5 1/2 P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13 ly

**CENTRAL RAILROAD-FROM SAVANNAH** to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight.

Rates of Passage, \$8 00. Freight—On weight goods generally... 50 cts. per hundred. On measurement goods... 13 cts. per cubic ft. On brls. wet (except molasses and oil)... \$1 50 per barrel. On brls. dry (except lime)... 80 cts. per barrel. On iron in pigs or bars, castings for mills, and unboxed machinery... 40 cts. per hundred. On hhd. and pipes of liquor, not over 120 gallons... \$5 00 per hhd. On molasses and oil... \$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE, 40 Gen'l. Supt. Transportation.

**LXINGTON AND OHIO RAILROAD.**

Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1-25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above. 35 ly

**KEARNEY FIRE BRICK.** F. W. BRINLEY, Manufacturer, Perth Amboy, N. J.

Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire, Peter Cooper, Murdock, Leavitt & Co. } New York.

J. Triplett & Son, Richmond, Va. J. R. Anderson, Tredegar Iron Works, Richmond, Va.

J. Patton, Jr. } Philadelphia, Pa. Colwell & Co. } J. M. L. & W. H. Scovill, Waterbury, Con.

N. E. Screw Co. } Providence, R. I. Eagle Screw Co. } William Parker, Supt. Boston and Worc. R. R. New Jersey Malleable Iron Co., Newark, N. J. Gardiner, Harrison & Co. Newark, N. J.

25,000 to 30,000 made weekly. 35 ly

**RAILROAD IRON AND FIXTURES.** The Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO., 30 Wall st., N. York.

**NEW YORK AND HARLEM RAILROAD** Company.—Winter Arrangement.

On and after Monday, November 3d, the cars will run as follows:

Leave City Hall for Harlem (125th street,) Morrisiana, Fordham, Williams' Bridge, Hunt's Bridge, Underhill's Road, Tuckahoe, Hart's Corners, and White Plains—7-30 and 10-30 a.m., and 1 and 3-30 p.m.

Extra trains for Yorkville, Harlem, Morrisiana, Fordham, and Williams' Bridge, leave 27th street 7 a.m. for Williams' Bridge. Leave City Hall 9 a.m. (to Harlem only) and 11-30, 2-30, and 4-30 p.m. for Williams' Bridge.

Leave White Plains for City Hall—8-10, 11-10 a.m., and 1-45, 4-10 p.m.

Leave Tuckahoe for City Hall—8-20, 11-20 a.m., and 1-55, 4-20 p.m.

Leave Williams' Bridge for City Hall—7-45, 8-45, 11-45 a.m. and 12-45, 2-15, 3-45, 4-45, and 5-45 p.m.

Leave Morrisiana for City Hall—8-10, 9-10, and 10 a.m., and 12-10, 1-10, 2-40, 4-10, 5-10, and 6-10 p.m.

The freight train will leave City Hall at 12-45 p.m. and leave White Plains at 11-10 a.m. All freight must be at the City Hall between the hours of 10-30 a.m. and 12-30 p.m. The White Plain trains will stop, after leaving the City Hall, only at the corner of Broome street and the Bowery, Vauxhall Garden and 27th street.

An extra car will precede each train, 10 minutes before the time of starting from the City Hall, and will take up passengers along the line.

The City Hall and 27th street line will run every 6 minutes from 7-30 a.m. to 8 p.m.

The City Hall and 27th street night line will run every 20 minutes from 8 to 12 o'clock.

On Sundays the trains will be regulated according to the state of the weather. 1y 46

**THE LONDON RAILWAY RECORD,** Edited by Mr. JOHN ROBERTSON, A. M., (connected from the commencement with the Weekly Railway press of England.)

The Railway Record is acknowledged to be the leading English Railway Journal, and is published twice a week in London, namely on Wednesday and Saturday. It contains copious and correct reports (by special reporters) of all railway meetings in the United Kingdom; ample Share Lists and Traffic Tables, showing the length, cost, capital and selling prices in the principal markets, with Editorial articles on the leading Railway topics of the day. The Railway Record contains also, a complete resume of French, Belgian and other foreign Railway affairs.

Subscriptions 13s. per quarter, to be transmitted in advance to Messrs. Dawson and Sons, Cannon st. London. Office 153 Fleet street, London. 46

**BOSTON COURIER, DAILY, SEMI-Weekly and Weekly.**

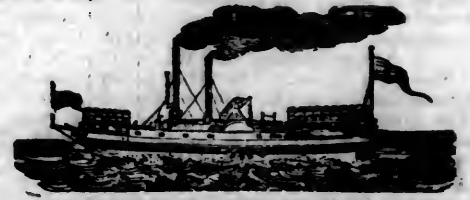
The Daily edition of the Courier, presents to merchants and others, an extensive medium of advertising. The circulation of the Semi-Weekly Courier (published on Mondays and Thursdays) is believed to be more extensive than that of any other similar Boston Newspaper. This publication embraces all the reading matter of the Daily, the Foreign and Domestic Markets, Review of the Boston Market, Prices current, and Ship News, prepared with great accuracy. The Weekly Courier contains as much of the matter of the daily as can be crowded into a sheet of the same size, without ship news, prices current or advertisements.

Our extions to obtain and publish authentic information on all topics proper for the columns of a newspaper,—the state of trade, the prices of merchandise, the current news of the day, and the political movements in the various sections of the country—will not be abated. The marine department of the Courier has been inferior to none in copiousness or accuracy of detail, and it will be our endeavor to maintain its reputation in this respect.

TERMS OF SUBSCRIPTION. For the Daily Courier, for one year, in advance \$8,00 For the Semi-Weekly Courier, for one year... 4,00 For the Weekly Courier, for one year..... 2,00 JOSEPH T. BUCKINGHAM. EBIN B. FOSTER.

# AMERICAN RAILROAD JOURNAL, AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY,  
AND MINES.



ESTABLISHED 1831.

PUBLISHED WEEKLY, AT No. 23 CHAMBERS STREET, NEW YORK, AT THREE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. I., No. 52.] THURSDAY, DECEMBER 25, 1845. [WHOLE No. 495, VOL. XVIII

THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

### RATES OF ADVERTISING.

One page per annum.....	\$125 00
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One square ".....	15 00
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One square ".....	2 50
One page, single insertion.....	8 00
One column ".....	3 00
One square ".....	1 00
Professional notices per annum.....	5 00

### ENGINEERS and MACHINISTS.

J. F. WINSLOW, Albany Iron and Nail Works, Troy, N. Y. (See Adv.)  
 TROY IRON AND NAIL FACTORY, H. Burden, Agent. (See Adv.)  
 ROGERS, KETCHUM & GROSVENOR, Paterson, N. J. (See Adv.)  
 S. VAIL, Speedwell Iron Works, near Morristown, N. J. (See Adv.)  
 NORRIS, BROTHERS, Philadelphia, Pa.  
 KITE'S Patent Safety Beam. (See Adv.)  
 FRENCH & BAIRD, Philadelphia, Pa. (See Adv.)  
 NEWCASTLE MANUFACTURING COMPANY, Newcastle, Del. (See Adv.)  
 ROSS WINANS, Baltimore, Md.  
 CYRUS ALGER & Co., South Boston Iron Company.  
 SETH ADAMS, Engineer, South Boston, Mass.  
 STILLMAN, ALLEN & Co., N. Y.  
 JAS. P. ALLAIRE, N. Y.  
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 WEST POINT FOUNDRY, N. Y.  
 PHENIX FOUNDRY, N. Y.  
 R. HOE & Co., N. Y.  
 ANDREW MENEELY, West Troy. (See Adv.)  
 JOHN F. STARR, Philadelphia, Pa.  
 MERRICK & TOWNE, do.  
 HINCKLEY & DRURY, Boston.  
 C. C. ALGER, Stockbridge Iron Works, Stockbridge, Mass.  
 BALDWIN & WHITNEY, Philadelphia, Pa.

### IRON MERCHANTS and IMPORTERS.

DAVIS, BROOKS & Co., N. Y. (See Adv.)  
 A. & G. RALSTON & Co., Philadelphia, Penn. (See Adv.)  
 THOMAS & EDMUND GEORGE, Philadelphia. (See Adv.)

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

### KITE'S PATENT SAFETY BEAM.

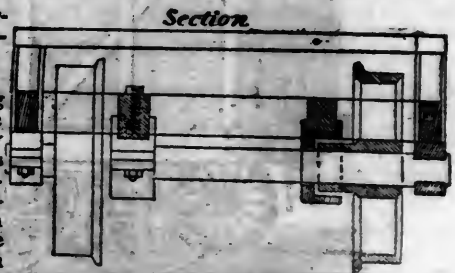
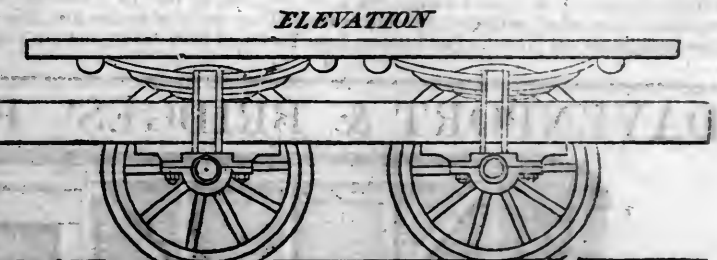
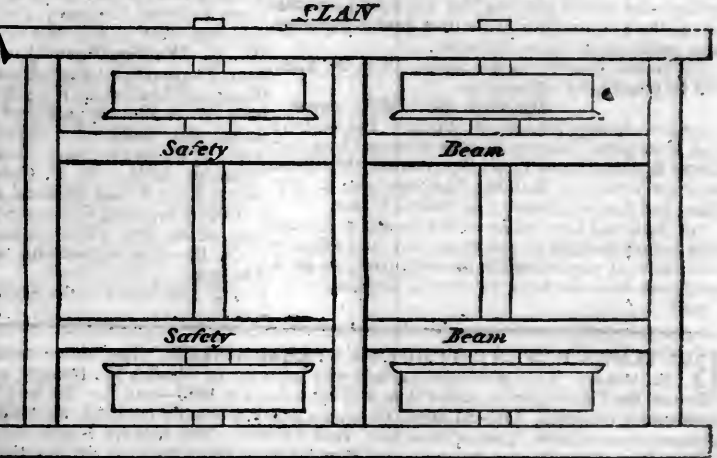
MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.  
 Wilmington, Del., Sept. 23, 1840.

The undersigned takes pleasure in attesting the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent,  
 GEORGE CRAIG, Superintendent,  
 JAMES ELLIOTT, Sup. Motive Power,  
 W. L. ASHMEAD, Agent.  
 A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York.



**PATENT HAMMERED RAILROAD, SHIP and Boat Spikes.** The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, Agent.

Albany Iron and Nail Works, Troy, N. Y. The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Eting, Philadelphia; Wm. E. Coffin & Co. Boston. ja45

**PATENT RAILROAD, SHIP AND BOAT Spikes.** The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

HENRY BURDEN, Agent.

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

\*\*\* Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand. ja45

**FRENCH AND BAIRD'S PATENT SPARK ARRESTER.**

**TO THOSE INTERESTED IN** Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendent Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendent Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Supt Hartford and New Haven Railroad; W. R. M'Kee, Supt Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Supt New Jersey Railroad Trans. Co.; J. Elliott, Supt Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Supt Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Supt Macon Railroad, Macon, Ga.; J. H. Cleveland, Supt Southern Railroad, Monroe, Mich.; M. F. Chittenden, Supt M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms. Philadelphia, Pa., April 6, 1844.

\*\*\* The letters in the figures refer to the article given in the Journal of June, 1844. ja45



**BENTLEY'S PATENT TUBULAR STEAM BOILER.** The above named Boiler is similar in principle to the Locomotive boilers in use on our Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Patent Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

The article is complete in itself, occupies but little space, is perfectly portable, and requires no brick work, not even to stand upon. It is valuable not only in the saving of time and labor, but in the economy of fuel, as it has been ascertained by accurate measurement, that the saving in that article is fully two-thirds over other methods heretofore in use. They are now for the first time introduced into New York and Boston by the subscriber, who has the exclusive right for the New England states, New York and New Jersey, and are manufactured by CURTIS & RANDALL, Boston; and by FORCE, GREEN & CO. New York.

**DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.**



DAVENPORT & BRIDGES CONTINUE TO MANUFACTURE TO ORDER, AT THEIR WORKS, IN CAMBRIDGEPORT, MASS. Passenger and Freight Cars of every description, and of the most improved pattern. They also furnish Snow Ploughs and Chilled Wheels of any pattern, and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices. All order punctually executed and forwarded to any part of the country. Our Works are within fifteen minutes ride from State street, Boston—coaches pass every fifteen minutes.

**RAILROAD IRON AND LOCOMOTIVE**  
 Tyres imported to order and constantly on hand  
 by **A. & G. RALSTON**  
 4 South Front St., Philadelphia.  
 Mar. 20th

**THE NEWCASTLE MANUFACTURING**  
 Company continue to furnish at the Works,  
 situated in the town of Newcastle, Del., Locomotive  
 and other steam engines, Jack screws, Wrought iron  
 work and Brass and Iron castings, of all kinds con-  
 nected with Steamboats, Railroads, etc.; Mill Gear-  
 ing of every description; Cast wheels (chilled) of  
 any pattern and size, with Axles fitted, also with  
 wrought tires, Springs, Boxes and bolts for Cars;  
 Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders  
 will be executed with promptness and despatch.  
 Communications addressed to Mr. William H.  
 Dobbs, Superintendent, will meet with immediate  
 attention.  
**ANDREW C. GRAY,**  
 President of the Newcastle Manuf. Co.

**CUSHMAN'S COMPOUND IRON RAILS.**  
 etc. The Subscriber having made important  
 improvements in the construction of rails, mode of  
 guarding against accidents from insecure joints, etc.  
 —respectfully offers to dispose of Company, State  
 Rights, etc., under the privileges of letters patent to  
 Railroad Companies, Iron Founders, and others in-  
 terested in the works to which the same relate. Com-  
 panies reconstructing their tracks now have an op-  
 portunity of improving their roads on terms very a-  
 vantageous to the varied interests connected with  
 their construction and operation; roads having in  
 use flat bar rails are particularly interested, as such  
 are permanently available by the plan.

**W. Mc. C. CUSHMAN, Civil Engineer,**  
 Albany, N. Y.  
 Mr. C. also announces that Railroads, and other  
 works pertaining to the profession, may be construct-  
 ed under his advice or personal supervision. Ap-  
 plications must be post paid.

**TO RAILROAD COMPANIES AND BUILD-  
 ERS OF MARINE AND LOCOMOTIVE  
 ENGINES AND BOILERS.**

**PASCAL IRON WORKS.**

**WELDED WROUGHT IRON TUBES**

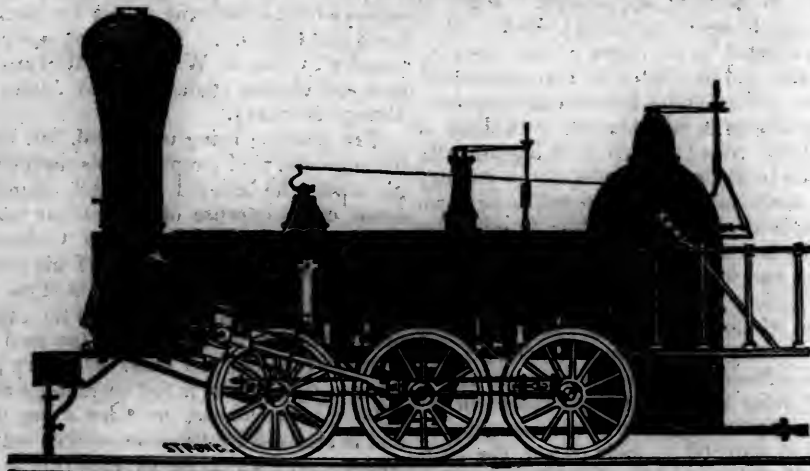
From 4 inches to 1/2 in calibre and 2 to 12 feet long,  
 capable of sustaining pressure from 400 to 2500 lbs.  
 per square inch, with Stop Cocks, T, L, and  
 other fixtures to suit, fitting together, with screw  
 joints, suitable for STEAM, WATER, GAS, and for  
 LOCOMOTIVE and other STEAM BOILER FLUES.



Manufactured and for sale by  
**MORRIS, TASKER & MORRIS.**  
 Warehouse S. E. Corner of Third & Walnut Streets,  
**PHILADELPHIA.**

**NORRIS' LOCOMOTIVE WORKS.**

*BUSH HILL, PHILADELPHIA, Pennsylvania.*



**MANUFACTURE** their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descrip-  
 tions, viz:

Class 1,	15 inches	Diameter of Cylinder,	×	20 inches	Stroke.
" 2,	14	" " " "	×	24	" "
" 3,	14 1/2	" " " "	×	20	" "
" 4,	12 1/2	" " " "	×	20	" "
" 5,	11 1/2	" " " "	×	20	" "
" 6,	10 1/2	" " " "	×	18	" "

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion.  
 Castings of all kinds made to order: and they call attention to their Chilled Wheels  
 for the Trucks of Locomotives, Tenders and Cars.

**NORRIS, BROTHERS.**

**RAILROAD IRON.—THE MARY-  
 LAND AND NEW YORK IRON AND  
 Coal Company** are now prepared to make contracts  
 for Rails of all kinds. Address the Subscriber, at  
 Jennon's Run, Alleghany County, Maryland.  
**WILLIAM YOUNG,**  
 President.  
 jy451m

**TO IRON MASTERS.—FOR SALE.—MILL  
 SITES** in the immediate neighborhood of *Bi-  
 luminous Coal and Iron Ore*, of the first quality, at  
 Ralston, Lyoming Co., Pa. This is the nearest  
 point to tide water where such coal and ore are  
 found together, and the communication is complete  
 with Philadelphia and Baltimore by canals and  
 railways. The interest on the cost of water power  
 and lot is all that will be required for many years  
 the coal will not cost more than \$1 to \$1 25 at the  
 mill sites, without any trouble on the part of the  
 manufacturer; rich iron ore may be laid down still  
 more cheaply at the works; and, taken together,  
 these sites offer remarkable advantages to practical  
 manufacturers with small capital. For pamphlets,  
 descriptive of the property, and further information,  
 apply to Archibald McIntyre, Albany, to Archibald  
 Robertson, Philadelphia, or to the undersigned, at  
 No. 23 Chambers street, New York, where may be  
 seen specimens of the coal and ore.  
**W. R. CASEY, Civil Engineer,**

**VALUABLE PROPERTY ON THE MILL  
 Dam For Sale.** A lot of land on Gravelly  
 Point, so called, on the Mill Dam, in Roxbury,  
 fronting on and east of Parker street, containing  
 68,497 square feet, with the following buildings  
 thereon standing.  
 Main brick building, 120 feet long, by 46 ft wide,  
 two stories high. A machine shop, 47x43 feet, with  
 large engine, face, screw, and other lathes, suitable  
 to do any kind of work.  
 Pattern shop, 35x32 feet, with lathes, work bench-  
 es, &c.  
 Work shop, 86x35 feet, on the same floor with the  
 pattern shop.  
 Forge shop, 118 feet long by 44 feet wide on the  
 ground floor, with two large water wheels, each 16  
 feet long, 9 ft diameter, with all the gearing, shafts,  
 drums, pulleys, &c., large and small trip hammers,  
 furnaces, forges, rolling mill, with large balance  
 wheel and a large blowing apparatus for the foundry.  
 Foundry, at end of main brick building, 60x45 1/2  
 feet two stories high, with a shed part 45 1/2x20 feet,  
 containing a large air furnace, cupola, crane and  
 corn oven.  
 Store house—a range of buildings for storage, etc.,  
 200 feet long by 20 wide.  
 Locomotive shop, adjoining main building, front-  
 ing on Parker street, 54x25 feet.  
 Also—A lot of land on the canal, west side of  
 Parker st., containing 6000 feet, with the following  
 buildings thereon standing:  
 Boiler house 50 feet long by 30 feet wide, two sto-  
 ries.  
 Blacksmith shop, 49 feet long by 20 feet wide.  
 For terms, apply to **HENRY ANDREWS, 48**  
 State st., or to **CURTIS, LEAVENS & CO., 106**  
 State st., Boston, or to **A. & G. RALSTON & Co.,**  
 Philadelphia. ja45

**CYRUS ALGER & CO.,** South Boston Iron  
 Company.

**The Wolfe Island, Kingston and Toronto Railroad Company, in connection with the Rome and Kingston Railroad.**

**Provisional Committee.**—John Counter, Esq., of Kingston, chairman.

John A. McDonald, Esq., M. P. P. Kingston, Henry Smith, Jr., Esq., M. P. P. county of Frontenac, Kingston; Benjamin Seymour, Esq., M. P. P. Lenox and Addington, Bath; Thomas W. Robinson, Esq., mayor of Kingston, Henry Gildersleeve, Esq., John Watkins, Esq., John R. Forsyth, Esq., William Wilson, Esq., director bank of British North America, Thomas A. Corbett, Esq., sheriff Midland District, F. A. Harper, Esq., Colin Miller, Esq., A. B. Hawke, Esq., Thomas Kirkpatrick, Esq., Douglass Prentiss, Esq., and Charles Stuart, Esq., Kingston.

The Great Western railroad of the state of New York, connecting New York and Boston Albany, Schenectady Utica, Syracuse, and Rochester with Buffalo, and the great Erie canal, connecting the waters of the Hudson river with those of lake Erie, are intersected at Rome (sixteen miles from Utica,) in the state of New York, by the Rome and Kingston railroad: by means of the Wolfe Island, Kingston and Toronto railroad, the communication will be extended through the oldest settled and most productive part of Western Canada, until it joins at Hamilton or Toronto to the Hamilton and Sandwich road, which connects Hamilton, on lake Ontario, with Sandwich, nearly opposite Detroit, on lake St. Clair, and the stock of which, to the amount of £1,375,000, has been taken in England, and the remainder £125,000 which was allotted to Canada now quoted at 2½ per cent. advance, and selling at that rate in Hamilton.

The route, when completed, will form not only the shortest and cheapest route from Western Canada, but also from Michigan, Ohio, Illinois, and the rich and growing regions of the far west, to the cities of the Atlantic seaboard.

The advantages it holds out over the route by Rochester, Buffalo, and the south side of lake Erie, or over that by Rochester, Buffalo, and the north side of lake Erie, are, that reckoning the distance from Albany, it will be ninety miles shorter than the one, and about thirty miles shorter than the other, while it will be available for the purposes of commerce and travel at all seasons of the year. 2d. That only a small portion of the route, in comparison, remains to be provided for. The portion from Rome to Kingston is in the hands of our American neighbors, with a third part of the stock taken by the people residing on the line of the road, and the remainder now sure of being taken by Boston and New York capitalists, as soon as laid before them. The stock of the portion extending from Hamilton to Sandwich is not only subscribed for in full, but the first instalment actually paid in to the London bankers of the company; and therefore the link from Kingston westward to the terminus of the Hamilton and Sandwich road, is the only untouched portion of the whole route. Further, that a much larger, more cultivated, and equally fertile region in Canada West, will

be "tapped" by this route. The distance from the head of lake Ontario to Kingston, which would be totally unaffected by any other route, is about two hundred miles. The country all along the shore of lake Ontario is cultivated, at a fair average, forty miles towards the interior, making altogether a surface of eight thousand miles of the oldest settled and more densely populated part of Canada West, including the Home and Simcoe, Newcastle and Colborne, Prince Edward and Victoria, and Midland districts, with a gross population of 195,000, and imports to the annual value of about £800,000 currency, and exports to an annual value exceeding £1,000,000. 3dly. That it will touch at a number of points the future importance of which in a commercial point of view is almost incalculable, and which only require to be made accessible to be fully appreciated. First, at Kingston, the nearest point in Canada to New York, situated at the head of the river St. Lawrence, and the foot of the lake navigation, the road will meet the Rideau canal, connecting the waters of lake Ontario with those of the Ottawa river; it will at Kingston also meet the traffic and business of the country on the banks of the St. Lawrence, as far down as Brockville, some 60 miles; it will also meet the bay of Quinte business, embracing the rich and fertile counties of Prince Edward, Lenox, Addington, and Hastings. Second, at Belleville and the Trent it will in all probability be joined by a branch railroad from the Marmora Iron works, now almost cut off from communication, except in the winter months, but which are nevertheless valued at £40,000 by their owner, the Hon. Peter McGill of Montreal, and are said to contain as fine ore in as large quantities as any mine now worked in the world. At the Trent, by means of the canals now completed, and those in progress, the only outlet for the Otonabee and Rice lake country will connect it with this road. At Port Hope a junction will in all probability be effected, with a railroad from thence to Peterborough; and at Whitby it will be met by the Plank road from thence to the Georgian bay, now contemplated. In addition to all of which must be considered the peculiar advantages afforded to a railroad in Canada by the complete stoppage of all other modes of transit during at least five months in the year by the inclemency of the winter.

On the whole, the advantages of the Wolfe Island, Kingston and Toronto railroad company, are, 1st. That it will form the connecting link between two highly important roads sure to command an extensive travel and business. 2d. That it will pass through and must attract the travel and traffic of a well populated and fertile country still in its infancy, but even now numbering a population of two hundred thousand and an annual business to the amount of one million; and 3d. That it will join at a number of points other means of transportation and travel and sources of business; all tending to swell the business to be done by the Wolfe Island, Kingston and Toronto railroad to an extent which at present, and without

calculating on the rapid increase of the country, or the incentive which the means of travel and business always lend to them, will render the road not only a good and patriotic scheme, but a fair, safe, and profitable investment.

The Provisional committee have competent engineers now employed in surveying the road; and they pledge themselves that £100,000 of the stock shall be taken on the route.

J. Counter, *Chairman*; A. Campbell, *Secretary*.

*Committee Rooms, Kingston, C. W., 12th Nov., 1845.*

#### **Portsmouth and Concord Railroad.**

The stockholders residing in Portsmouth, of the Portsmouth and Concord railroad, held a meeting in the temple, on Monday evening last, to hear the report of the engineer of his surveys of the different routes between this town and Concord. The meeting was called to order by James W. Emery, Richard Jenness was chosen chairman, and James W. Emery, secretary.

The meeting being organized, Mr. Carter the engineer, read a report of his surveys, and gave what he believed an exact estimate in detail, of the expense of constructing the entire road from Portsmouth to Concord.—Without going into the detail of his calculation here, we give the whole cost of the road in round numbers, including all the expense of construction, and furnishing the road with engines, cars and all other necessary apparatus to put the road in full operation—\$877,000—this, we repeat, includes every thing, and is believed by those acquainted with the country over which the surveys run, to be a reasonable and fair estimate. Mr. C. stated that the location of this route rendered the road of easy and cheap construction. He also read an able dissertation of the great advantages which will inevitably result to Portsmouth and the country through which this road is to pass, and detailed to some length the business which must of necessity be done by this road, rendering investments in its stock not only safe but very profitable to the investors. Mr. C. is, no doubt, a man of much investigation and good judgement, and his opinions are therefore valuable to the stockholders.

The meeting was very ably addressed by Messrs. Jenness, Ladd, Emery, Bartlett and Dr. Cheever—all of whom agreed in the vast importance of an early construction of the road, and its great advantages to New Hampshire, and especially to Portsmouth, our only seaport town in the state. Mr. Jenness gave some very interesting statistics of the business of several of the towns in the neighborhood of the road, which added much to its already flattering prospects. Of these, and many other things connected with the road, we shall speak hereafter, not being able at this time for want of sufficient space.

The meeting was very fully attended, and the best of feelings prevailed—in fact it was a meeting of enthusiasm and spirit, evincing a determination on the part of our citizens that the "time has come" when they will act as well as talk.—*Portsmouth Mercury.*



**Central Railroad.**—At the late meeting of the directors of this company, at Boston, the road was located for the entire distance from the mouth of White river to Burlington. The contract has been taken by two individuals, who are to have the work completed ready for the cars, by the 1st of April '47. A New York contractor takes 30 miles of this end of the road, and Mr. Belknap, the great New England contractor, the balance. These gentlemen are expected on the ground the present week, and before this sheet reaches some of its readers, operations will have actually commenced. The company have adopted the Northfield route, which leaves Onion river at the mouth of Dog river, some 2 miles this side of Montpelier. This decision, however, is open to review, on the showing of a different state of facts in reference to the "gulf route." The road enters this town by way of the falls, and a cut through the sand bank near Thompson's, north of the village. The depot, it is generally understood, will be at the lake shore, north of Blinn's wharf—the sand of the deep-cut furnishing materials with which to make the requisite amount of land out into the lake.—*Burlington Free Press.*

**The Continuous Railroad.**—The importance of a railroad communication direct from our city to Pittsburg, is conceded. We think it necessary; and we feel in this matter, as we did in 1823, when we began to stir up the people to a consideration of their true interests in this particular. We all know that railroads are modern inventions, (or applications,) compared with canals; and when the work of internal improvement was begun in Pennsylvania, railroads, as a means of public conveyance, were little understood. Canals were in use around us, and in New England, and few thoughts of railroads upon a main route; and so canals were ordered and carried on, in fulfilment of the desires of the people.

There was at this time, in Philadelphia, a society for promoting internal improvement. At their suggestion, a civil engineer went to England, chiefly to ascertain the best modes of making locks, etc. Mr Strickland returned a convert to railroads—a mode of communication then not approved in this country, even where known. Our townsman, George W. Smith, Esq., brought the matter fully before the public, in a pamphlet of much strength, which, if we mistake not, was republished in three languages in Europe. A railroad interest sprung up, and railroads followed. Had the people understood the value of railroads then, as they do now, we think it probable that the canals would have given place to railroads, and our people would not, at this time, have been devising ways and means to get to Pittsburg on Pennsylvania grounds.

Now we are called on to go to work, and supply deficiencies to make up for what was not done; and it is scarcely to be supposed that there are many persons in Philadelphia, acquainted with its sources and means of business, who do not feel the necessity of a railroad communication between our city and Pittsburg. If the necessity exists, it must be supplied.—*U. S. Gazette.*

Dr. Bailey, of the Cincinnati Herald, while engaged in narrating the movements in northern Indiana and Ohio relative to the great railroad, gives rein to his imagination and looks into the future as follows:

A railroad from the Mississippi, touching at Chicago, and Michigan city, through the bordering counties of Michigan and Indiana, to Toledo, along the southern shore of lake Erie, and thence to Dunkirk, the termination of the great New York and Erie railroad, would be one of the grandest physical achievements of this country. It would bring the Mississippi and the Atlantic within a few days of each other, and bind the east and west together as firmly as the west and southwest are united by the father of waters. It would be the great trunk through which trade and travel would flow, and re-flow between the east and west. The vast, rich, grain-growing, and mineral regions of northern Illinois, Iowa, Wisconsin, Michigan and the countries about the upper lakes would connect themselves with it by canals and railroads, through which would be poured their multiform treasures. The Illinois canal would enrich it with the products of southern Illinois and Missouri. Michigan on the north, would soon send branches to it from her central road, and Indiana through her Wabash and Erie canal, and her line of railroad, stretching from Madison through Indianapolis, to Lafayette or to lake Michigan, would place herself in communication with it on the south. Cincinnati through her railways, would unite with it at Sandusky and Cleveland; and Pittsburg, the commercial emporium of western Pennsylvania, through the line now projected between Cleveland and Wellsville, would find herself associated with the same grand trunk, which like the great Aorta of the human body, would be the principal channel of life to the whole system of western and northwestern states.

**Middletown and Providence Railroad.**—The Middletown Constitution of this week, replying to a paragraph in the Hartford Courant in which it was said that the people of Middletown had commenced the survey of a route between Middletown and Norwich with the view of connecting with the Norwich and Worcester, and after running up to Plainfield, thence to strike over and intersect the Providence and Stonington, says:—

"The road above mentioned is about to be put through, and that in a very short time.—The surveys are going on finely and nothing has been discovered to hinder the building of a railroad on the proposed route."

In another article of the Constitution, we find the following:—

"The citizens of Providence held a meeting on the 29th ult. in relation to the proposed road to connect with the Norwich and Worcester road at Plainfield, and also to connect with the proposed Middletown road, and thus make the shortest route between Boston and New York via Providence and Middletown. The Journal says that 'quite a large number of our most wealthy and public spirited citizens attended the meeting, and there

seems to be a determination to carry the road through.' A number of resolutions were adopted by the meeting. In which they say the subject rises vastly in importance when the proposed plan is viewed as a connecting link in the grand route of a continuous railroad between the emporium of New England and the great emporium of the middle states and of the country, shortening the distance between them some 30 miles, thus insuring the transportation thereon of the United States mails, and presenting the safest, quickest and most certain mode of travelling, and of the carriage of merchandize between those great cities."

"Therefore Resolved, That it is highly expedient to construct the proposed railroad and we will use all proper exertions in our power to commence and prosecute the same to completion as soon as practicable."

**Clute and Seabury's Improved Patent Heat Generator.**—The active agent is a common blower, acting on a coal fire in the common boiler grate, from which the heat and flame pass over a bar which brings them into close contact with the boiler, which they follow to the farther end. Here, instead of passing up into the flue, the unconsumed gasses pass down into a lower reservoir or outlet; from which they escape into the chimney, into which a strong current of atmospheric air is admitted perhaps two feet above the reservoir. This air being heavier than the heated gasses, bears them down; and in fact all the gasses usually escaping from fuel and forming smoke, heated air, etc., are retained in the fire chamber and consumed, except the carbonic acid gas, (incombustible) which alone passes off, hardly warm, through the chimney. All besides is retained and consumed in the formation of steam. Any offensive gases which may be generated by the manufacture carried on by the help of the engine to which this apparatus is attached, may be conveyed into the fire chamber and made not merely harmless but useful.

**Railroad Improvements.**—We learn from an authentic source, says the Macon Messenger, that the Boston and New York association of capitalists, who recently purchased the Monroe railroad, are determined not only to finish, and put in complete repair their entire road to the state terminus, immediately; but that they are also determined to build the road to Columbus with the least possible delay.

The contracts for furnishing timber for relaying the Monroe road, have all been taken. The delivery of which is to commence by the 1st of December, and to terminate on the 1st of March.

The road to Columbus will be speedily commenced, and prosecuted to completion with despatch.

The Nashua road has recently declared a semi-annual dividend of 5 per cent. The first installment on the stock of the Nashua and Groton railroad [towards Worcester.] has been called for, and the whole line to Worcester will undoubtedly be put in course of construction in no long time. When completed the time and distance between here and New York will be much lessened.

In Massachusetts the projects of new roads to be laid before the legislature, at its approaching session an legion; from Lowell to Newburyport, from Andover to Salem, and others too numerous to mention. A union of interests of the Western and Worcester roads is proposed. If not acceded to by the Worcester, the friends of the Western propose to build a new road from Worcester to Boston, at the distance of 5 miles, as may be done according to the charter.

ENGLISH RAILROAD SHARE LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.		Total sums, in pounds, authorized to be raised by loan or mortgage.		Total sums, in pounds, expended at dates of latest balance sheets.		Costs of working in pounds for six months as stated in latest balance sheets.		Total earnings, in pounds, for six months as stated in latest balance sheets.		Dividend at last meeting.		Paid on shares.	Value of shares.	NAME AND PROPOSED RAILWAY.	Share Capital.
		£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.				
Arboath and Forfar.....	15	102,000	35,000	138,870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Aberdeen.....	1,600,000
Birmingham and Gloucester.....	55	1,187,500	407,336	1,500,806	39,261	53,203	1	5	0	2	10	0	100	100	Barnsley Junction.....	200,000	
Branding Junction.....	23	161,700	365,470	481,452	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Belfast and Ballymena.....	385,000	
Bristol and Gloucester.....	37½	400,000	211,000	657,925	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Blackburn and Accrington.....	400,000	
Chester and Birkenhead.....	14½	750,000	143,170	518,980	5,856	13,148	0	10	0	2	0	0	50	60	Birk. and Ches. Junction.....	1,000,000	
Dublin and Drogheda.....	31	450,000	150,000	582,254	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Bolt, Wigan and Liverpool.....	800,000	
Dublin and Kingstown.....	6	200,000	152,200	349,736	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Caledonian.....	1,800,000	
Dundee and Arbroath.....	16½	100,000	49,445	153,416	2,989	6,993	1	5	0	5	0	0	25	36	Cambridge and Lincoln.....	1,250,000	
Durham and Sunderland.....	18½	169,350	124,055	270,392	9,889	17,702	.....	.....	.....	.....	.....	.....	.....	.....	Chatham and Portsmouth.....	5,000,000	
East County and North and East.....	86½	4,443,200	1,341,155	3,931,905	47,385	118,726	1	6	6	.....	.....	.....	.....	.....	Chester and Wrexham.....	120,000	
Edinburg and Glasgow.....	46	1,125,000	375,000	1,649,523	29,429	55,866	1	5	0	5	0	0	50	72	Churnet valley.....	1,800,000	
Glasgow, Paisley and Ayr.....	51	937,500	.....	1,071,258	12,446	23,870	1	5	0	5	0	0	50	72	Direct Northern to York.....	4,000,000	
Glasgow, Paisley and Greenock.....	22½	650,000	216,666	797,643	11,830	23,447	0	5	0	2	0	0	25	21	Dublin and Belfast.....	950,000	
Grand Junction.....	104	2,478,712	.....	2,503,671	84,309	195,080	5	0	10	0	0	0	100	239	Dundee and Perth.....	250,000	
Great North of England.....	45	969,000	581,017	1,307,487	12,201	36,189	3	0	0	6	0	0	100	230	Edinburg and Northern.....	800,000	
Great Western.....	221½	4,650,000	3,679,343	7,445,589	143,279	440,046	4	0	0	8	0	0	80	215	Ely and Bedford.....	270,000	
Hartlepool.....	15½	438,000	155,540	719,205	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Glasgow, Dum. & Carlisle.....	1,300,000	
Leicester and Swannington.....	16½	140,000	.....	140,000	2,307	6,317	1	5	0	5	0	0	50	.....	Gt. South and West Ext.....	1,200,000	
Liverpool and Manchester.....	32	1,209,000	497,750	1,785,000	64,885	141,252	5	0	10	0	0	0	100	214	Gt. Grimby and Sheffield.....	600,000	
Llanelly.....	27	200,000	44,000	221,624	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Harwich and E. coun. Jun.....	160,000	
London and Birmingham.....	202½	6,874,976	1,928,845	6,614,005	96,413	456,997	5	0	10	0	0	0	100	245	Huddersfield & M. rl. & cl.....	600,000	
London and Blackwall.....	3½	804,000	266,000	1,768,851	15,978	36,736	0	3	0	1	10	0	16	10	Kendal and Windermere.....	125,000	
London and Brighton.....	56	1,935,000	705,000	2,637,753	30,490	130,156	1	10	0	6	0	0	50	77	Leeds and Dewsbury.....	400,000	
London and Croyden.....	8½	550,000	229,000	761,885	7,583	10,545	0	8	0	4	0	0	14	23	Leeds and Thirsk.....	900,000	
London and Greenwich.....	3½	759,383	233,300	1,040,930	15,193	28,933	.....	.....	.....	.....	.....	.....	.....	.....	Liv. Ormskirk and Preston.....	600,000	
London and South Western.....	92½	2,222,100	630,100	2,604,405	89,439	190,631	2	0	0	10	0	0	41	82	London and Portsmouth.....	1,750,000	
Manchester and Birmingham.....	31	2,100,000	690,586	1,923,699	15,397	58,162	1	0	5	0	0	0	40	62	London and York.....	5,000,000	
Manchester and Bolton.....	10	778,100	197,730	773,743	8,585	21,140	2	2	0	4	10	0	93	169	Londonderry & Enniskillen.....	500,000	
Manchester and Leeds and Hull.....	87	2,937,500	1,943,932	3,921,593	46,653	156,761	.....	.....	.....	.....	.....	.....	.....	.....	Lynn and Ely.....	200,000	
Midland railway.....	179½	5,158,900	1,719,630	6,279,838	75,227	276,129	3	0	0	6	0	0	100	192	Manchester, Bury and Ross.....	300,000	
Newcastle and Carlisle.....	61	878,240	188,563	1,135,069	26,499	46,745	5	0	0	5	0	0	100	113	Manchester and Buxton.....	250,000	
Newcastle and Darlington.....	23	500,000	.....	405,728	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mullingar and Athlone.....	.....	
Newcastle and North Shields.....	7	150,000	153,876	309,629	8,943	18,466	.....	.....	.....	.....	.....	.....	.....	.....	Newcastle and Berwick.....	700,000	
North Union.....	39	739,201	308,306	1,028,593	24,788	37,794	2	10	0	6	5	0	100	176	Richmond & W. End Junc.....	.....	
Paris and Orleans.....	82	1,600,000	400,000	1,978,415	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Scottish Central.....	700,000	
Paris and Rouen.....	84	1,440,000	.....	.....	31,247	91,171	.....	.....	.....	.....	.....	.....	.....	.....	Sheffield and Lincolnshire.....	650,000	
Preston and Wyre.....	19	830,000	179,852	355,164	4,191	7,056	.....	.....	.....	.....	.....	.....	.....	.....	Shrewsbury and Gd. Junc.....	400,000	
Sheffield and Manchester.....	19	1,150,000	311,759	951,455	11,835	14,876	.....	.....	.....	.....	.....	.....	.....	.....	Shrew. Wolv. Dudley & B.....	900,000	
South Eastern.....	88	2,996,000	1,530,277	3,464,172	69,238	139,042	.....	.....	.....	.....	.....	.....	.....	.....	Trent Valley.....	900,000	
Taff Vale.....	30	465,000	195,000	595,089	9,115	22,622	1	17	7	3	15	0	100	104	West London Extension.....	64,000	
Ulster.....	25	519,150	20,000	318,626	5,401	13,856	3	15	0	5	1	8	32	52	West Yorkshire.....	1,000,000	
Yarmouth and Norwich.....	20½	187,500	62,500	230,036	5,186	10,008	1	0	0	5	0	0	23	29	Whitehaven and Maryport.....	100,000	
York and N. Mid. and Leeds and Selby.....	28	1,062,500	167,500	1,107,146	31,349	75,474	2	10	10	0	0	0	50	115	FRENCH RAILWAYS.		

ENGLISH STEAM AND MISCELLANEOUS COMPANIES.

Steam and Miscellaneous.							Water Works.						
NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.	NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint.....	10,000	10	10	.....	15½	15½	Loughborough.....	70	142½	142½	70	1140	.....
Anti Dry Rot.....	10,000	.....	18½	.....	2	.....	Monmouthshire.....	2,409	100	100	10	160	160
Australian Trust Company	5,700	100	35	.....	34½	.....	Melton Mowbray.....	250	100	100	10	117	117
General Steam Navigation	20,000	15	14	10	27½	27	Mersey and Irwell.....	500	100	100	10	.....	.....
Gt Western Steam Pa.....	.....	.....	100	.....	25	.....	Macclesfield.....	3,000	100	100	2½	15	15
Metropolitan Wood Pav.....	15,000	10	6	5	6½	.....	Neath.....	247	100	100	17	365	365
Patent Elastic Pav.....	10,000	1	1	5	1½	.....	Oxford.....	1,786	100	100	30	505	.....
Peninsular and Oriental.....	11,493	50	50	7	64½	65	Regents or Loncon.....	21,418	33½	33½	2½	25	25
Ditto.....	3,200	50	40	7	.....	.....	Shropshire.....	500	125	125	6	120	120
Polytechnic Institution.....	.....	.....	.....	6	.....	.....	Somerset coal.....	800	150	150	7½	123	123
Reversionary Int. Soc.....	5,387	100	100	4½	104	104	Stafford and Worcester.....	700	140	140	25	480	480
R. Mail Steam Packet.....	15,000	100	60	.....	36½	37	Shrewsbury.....	500	125	125	12	230	230
South Western Steam.....	4,000	25	5	.....	.....	.....	Stourbridge.....	300	145	145	14	360	360
Ship Owners' Towing.....	3,000	10	7½	10	15	.....	Stroudwater.....	200	150	150	19	.....	.....
Thames Tunnel.....	4,000	50	50	.....	.....	.....	Swansea.....	536	100	100	15	240	240
University College.....	1,500	100	100	.....	.....	.....	Seyern & Why & Rail Av.....	3,762	26½	26½	5½	30	30
Canals.							Docks.						
Ashby de la Zouch.....	1,432	113	av.	4	70	70	Trent and Mersey.....	2,600	50	50	65	495	.....
Barnsley.....	720	100	100	14	180	180	Thames and Medway.....	8,149	19½	19½	.....	10	10
Birmingham, 1-16 share..	3,000	118½	79	10	150	160	Warwick and Birmingham.....	100	100	100	10½	167	.....
Do. and Liverpool Junction	4,000	160	100	.....	13½	13½	Warwick and Napton.....	980	100	100	8½	122	.....
Coventry.....	500	100	100	20	365	365	Water Works.						
Cromford.....	460	do.	do.	24	250	250	Birmingham.....	4,800	25	25	3½	28	28
Derby.....	600	do.	do.	9	105	105	East London.....	4,433	100	100	8	223	225
Erewash.....	231	do.	do.	32	440	440	Grand Junction.....	5,500	av.	41	2-3	7½	88
Forth and Clyde.....	1,297	400½	40½	4	440	440	New River L. B. Ann.....	1,500	.....	.....	2½	.....	.....
Grand Junction.....	11,600	100	100	7	162	161½	Manchester and Salford.....	6,486	av.	30	8½	57	57
Grand Surrey.....	1,500	do.	do.	.....	20	.....	Vauxhall, lt. S. London.....	1,000	.....	100	5	55	55
Gloucester and Rerkley.....	5,000	do.	do.	.....	8	.....	West Middlesex.....	8,294	av.	63½	6½	126	127
Grantham.....	749	150	150	8	185	185	Docks.						
Lancaster.....	11,699	47½	47½	3	40	40	Commercial Dock.....	1,065	100	100	3	.....	.....
Leeds and Liverpool.....	2,897	100	100	34	640	640	East and West India.....	.....	sto.	.....	5½	137	.....
Leicester.....	545	140	140	9	139	139	London.....	3,238,310	sto.	.....	4½	114½	115
.....	.....	.....	.....	.....	.....	.....	St. Katharine.....	1,352,752	sto.	.....	5	116	171</



AMERICAN RAILROADS.

NAMES OF RAILROADS.	L'ngth in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share.	1843. Income.		Div. per cent.	1844. Income.		Div. per cent.	1845. Income.		Div. per cent.
						Gross.	Nett.		Gross.	Nett.		Gross.	Nett.	
Maine. 1 Portland, Saco and Portsmouth.....	50	1,200,000				89,997	47,166	7	131,404	62,172	6			
N. Ham. 2 Concord.....	35	750,000									12			
Mass. 3 Boston and Maine.....	56	1,485,461				178,745	68,499	6	233,101	86,401	6 1/2			
4 Boston and Maine extension.....	17 1/2	455,703	unfin.											
5 Boston and Lowell.....	26	1,863,746				277,315	144,000	8	316,909	147,615	8			
6 Boston and Providence.....	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6			
7 Boston and Worcester.....	44	3,914,078				40,141	162,000	6	428,437	195,163	7 1/2			
8 Berkshire.....	21	250,000	not stated				17,500	7	17,737					
9 Charlestown branch.....		280,260						13	34,654	13,971	5 1/2			
10 Eastern.....	54	2,388,631				279,563	140,595	6	337,238	227,920	8			
11 Fitchburg.....	50	1,150,000	just op'd						42,759	26,835				
12 Nashua and Lowell.....	14 1/2	380,000				84,079		8	94,588	34,944	10			
13 New Bedford and Taunton.....	20	430,962				50,671	24,000	6	64,998	24,000	6			
14 Northampton and Springfield.....		172,883	unfin.											
15 Norwich and Worcester.....	66	2,290,000	900,000	16,535	100	162,336	24,871		230,674	99,464	3			
16 Old Colony.....		67,820	unfin.											
17 Stoughton branch.....	4	63,075	unfin.											
18 Taunton branch.....	11	250,000					20,000	8	96,687	20,000	8			
19 Vermont and Massachusetts.....														
20 West Stockbridge.....	3	41,516	200		100						4			
21 Western, (117 miles in Mass.,).....	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3			
22 Worcester branch to Milbury.....		8,431	506											
23 Housatonic, (10 months,).....	74	1,244,123							150,000					
Conn. 24 Hartford and New Haven.....	38	1,100,000	100,000	10,000	100						6			
25 Hartford and Springfield.....	25 1/2	600,000	400,000	2,000	100									
26 Stonington, (year ending 1st Sept.,).....	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845				
N. York. 27 Attica and Buffalo.....	31	336,211				45,896	7,522		73,248	48,033				
28 Auburn and Rochester.....	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6			
29 Auburn and Syracuse.....	26	766,657		133 1/2		86,291	27,334		96,738	52,544	6			
30 Buffalo and Niagara.....	22	200,000		1,500										
31 Erie, (446 miles,).....		5,000,000												
32 Erie, opened.....	53						48,000		126,020	59,075				
33 Harlem.....	26	2,250,000	750,000	30,000					140,685	62,399				
34 Hudson and Berkshire.....	31	575,613		50					35,029	1,789				
35 Long Island.....	96	1,610,221	392,340	29,846					153,456	58,996				
36 Mohawk and Hudson.....	17	1,317,893	400,000	10,000	100	69,948	58,780		79,904	45,763				
37 Saratoga and Schenectady.....	22	303,658				42,242	3,000	1	34,666	8,455				
38 Schenectady and Troy.....	20 1/2	640,800				28,043			32,646	6,365				
39 Syracuse and Utica.....	53	1,115,897	none.	16,000	62 1/2	163,701	72,000		192,061	120,992	8			
40 Tonawanda.....	43	727,332				76,227			114,177	75,865	5			
41 Troy and Greenbush.....	6	180,000												
42 Troy and Saratoga.....	25	475,801				44,325	21,000		38,502	9,971	2 1/2			
43 Utica and Schenectady.....	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199,094	8			
N. Jersey 44 Camden and Amboy.....	61	3,200,000				682,832	383,880		784,191	404,956				
45 Elizabethtown and Somerville.....	26	500,000												
46 New Jersey.....	34	2,000,000												
47 Paterson.....	16	500,000									6			
Penn. 48 Beaver Meadow.....	26	1,000,000												
49 Cumberland Valley.....	46	1,250,000												
50 Harrisburg and Lancaster.....	36	860,000	645,929									77,538	9,988	
51 Hazleton branch.....	10	120,000												
52 Little Schuylkill.....	29	900,000												
53 Blossburg and Corning.....	40	600,000												
54 Mauch Chunk.....	9	100,000												
55 Buck Mountain.....	4	72,000												
56 Minehill and Schuylkill Haven.....	19 1/2	396,117	25,000	7,019	50			12			12			
57 Norristown.....	20	800,000												
58 Philadelphia and Trenton.....	30	400,000												
59 Pottsville and Danville.....	29 1/2	1,500,000												
60 Reading.....	94	9,457,570	7,447,570	40,200	50				597,613	343,511				
61 Schuylkill valley.....	10	1,000,000												
62 Williamsport and Elmira.....	25	400,000				20,000								
63 Philadelphia and Baltimore.....	93	4,400,000				43,043	200,000			210,000				
Delaware 64 Frenchtown.....	16	600,000												
Maryl'd 65 Baltimore and Ohio, (1st Oct.).....	188	7,742,410	1,153,709			575,235	279,402		658,620	346,946		738,603	374,762	3
66 Baltimore and Washington.....	38	1,800,000				177,227	71,691		212,129	104,529		208,813	95,094	6
67 Baltimore and Susquehanna.....	58	3,000,000												
68 Wrightsville, York and Gettysburg.....	12 1/2	500,000												
Virginia 69 Greensville and Roanoke.....	18	284,433	37,544	2,000	100				25,368	6,074	3			
70 Petersburg.....	63	969,880	63,000	7,690	100				122,871	72,898	6			
71 Portsmouth and Roanoke.....	78 1/2	1,454,171												
72 Richmond, Fredericksb'g and Potomac.....	76	800,000							185,243	85,688				
73 Richmond and Petersburg.....	22 1/2	700,000												
74 Winchester and Potomac.....	32	500,000												
N. Car. 75 Raleigh and Gaston.....	84 1/2	1,360,000												
76 Wilmington and Raleigh.....	161	1,800,000												
S. Car. 77 South Carolina.....	136	5,671,452		34,410	75	201,464	77,456		532,871	140,196				
78 Columbia.....	66													
Georgia 79 Central.....	190 1/2	3,000,000	500,000	22,500	100	227,532	93,190		328,425	180,704				
80 Georgia.....	147 1/2	2,650,000				248,026	158,207		248,096	147,523				
81 Montgomery and West Point.....	89	500,000	170,000		100				35,000	15,000				
Kent'ky 82 Lexington and Ohio.....	40	450,000												
Ohio 83 Little Miami.....	40	400,000												
84 Mad river.....	40	152,000										24,984	3,280	
Indiana 85 Madison and Indianapolis.....	56	212,000	50,000			22,110	8,639	8	39,031	10,065	9 1/2			
Canada 86 Champlain and St. Lawrence.....	15								68,000	24,000				

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y.

Thursday, December 25, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The quantity sent this week by railroad is 11,804 tons being an increase over last week's shipments.

BY RAILROAD.

From Pottsville and Port Carbon—total...	393,451
From Schuylkill Haven—total.....	388,617
From Port Clinton—total.....	21,619

Total by railroad.....	803,686
Total by canal.....	263,558

Total by railroad and canal.....1,067,245

MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons.....	435,477
SCHUYLKILL VALLEY RAILROAD—total.....	125,889
MILL CREEK RAILROAD—total.....	94,250
MOUNT CARBON RAILROAD—total tons.....	247,052

[Miners' Journal.]

WESTERN RAILROAD.—Receipts for week ending December 12.

	1845.	1844.
Passengers.....	\$5,361	\$4,682
Freight, etc.....	9,957	8,186
Total.....	\$15,318	\$12,868
Net gain this week.....	2,450	
Net gain previously since Jan. '45.....	56,807	
Total gain.....	59,257	

Transactions of the Reading railroad for the month of November for three years:

	1843.	1844.	1845.
Business....	\$54,695 80.	\$62,197 23.	\$125,946 52
Coal tons.....	34,821.	44,513.	88,799

Missing Numbers of the Railroad Journal.

The present number of the Journal will complete the volume for 1845. Possibly some of the subscribers may not have received all the numbers; or they may have been mislaid—if so, we shall endeavor to furnish them on receipt of a list of those desired to complete volume.

One word to those who have commenced receiving it, without ordering the back numbers from commencement of the volume. You will perceive by the title page and index that as a matter of record, it will be useless without the numbers from January last—therefore, if you take our advice, you will enclose by mail another year's subscription in addition to that already paid, and order the back numbers of the volume for 1845—and have a perfect volume for the past, and the numbers for the ensuing year, as published.

And to those interested in railroads, who have only the current volume of the Journal, we say, with entire confidence, that the previous volumes will be found to contain much of interest to them—and well worth their attention. The volumes previous to 1845 may be had half bound, at \$2 per volume, or less than subscription price.

Errata.—In "making up" the number for Dec. 11th, in the communication on the "New Haven and Northampton railroad," it will be seen there was a transposition of several lines, in the last paragraph on page 792; also in the same paragraph, second line from bottom of page, for "crossing the towing path," read "using the towing path." P shall receive closer attention next time.

We have received from the joint executive committee of the "New York and Hartford railroad, via Danbury," their report on the business and surveys, and had prepared at the expense of some considerable attention, a review of the various matters, of special interest which it contains, for this number, but find we must defer it, with several other notices and communications of importance, for our next, which will be the first number of volume II, second quarto series.

Railroad Dividend.—The directors of the Boston and Worcester railroad have declared a dividend of 4 per cent for the last six months, to be paid on the first day of January.

We have received by the Acadia our regular files of railway papers, full, as usual, of highly interesting intelligence to those in any way interested in the many railway schemes of this country. The discussion of the various plans of the atmospheric system occupies a large space, and its importance no doubt merits great attention.

We have only space to-day, to quote from a letter dated, London, December 3, the price of pig and railway iron. "I give you a few lines, merely to tell you the state of the iron market. In Glasgow, the iron masters demand £5 per ton, while speculators are, in the present great demand for money and apprehended panic, willing and anxious to sell at 75s., or £3 15s. per ton. At Cardiff the best cold blast pig iron is at £5 10., but iron masters will not sell, for they want everything they can convert into rails. Merchant bars not in such demand as rails, and can be had at £9 5s. to 9 10s. per ton, while railway iron, at the Welsh shipping ports, is at £12 per ton, with some concession of 3 or 4 per cent. for cash. All the commercial and monetary classes look with the utmost anxiety to president Polk's message on the 1st December, fearing that it may contain the same style of matter as he uttered in the 4th March last, and that war may be the inevitable consequence."

Philadelphia and Pittsburg Railroad Direct.

Philadelphia has at length moved in relation to this great work. The only wonder with those who stand at a distance, and look at the great field in which so many are contending for the business of the mighty west, is that she has not before been aroused to action. The time was when Philadelphia possessed a large share of the business from the west side of the Alleghenies—but from various causes she has now a less proportion than would seem to fall legitimately to her share. This change has been effected by the construction of canals and railroads on the north and on the south of her, which afford greater facilities for travel and transportation than the works of Pennsylvania—which consist of a combination of the two kinds of improvement, instead of a continuous line of either. This has been found less efficient and less profitable than was anticipated; and therefore it is found to be essential to the prosperity of Philadelphia, and to the securing of the mighty prize to be realized from the increasing business of the Mississippi valley, to have a continuous and direct railroad between Philadelphia and Pittsburg.

This important matter has been under consideration at Pittsburg, and along the contemplated line, for a length of time; but until very recently we have perceived but little indication of interest in, or movement in relation to, the matter in Philadelphia. There seemed to us to be an indifference to the work pervading the city of Philadelphia, which surprised us—and we were therefore the more gratified to learn, on our arrival in that city, a few days since, that there was to be a meeting on the evening of the 10th, at the museum, in accordance with a call made by more than five hundred of the principal firms and business men of the city, for the purpose of adopting measures for the construction of a railroad from Harrisburg to Pittsburg, and thus open a continuous railroad from the Ohio to Philadelphia. We, of course, attended the meeting, and were well pleased with the spirit evinced. The staunch men of the city were there—the merchant, the manufacturer, the professional man and the men of various occupations were there. The meeting was organized by the appointment of an eminent merchant, Thomas P. Cope, Esq., to preside; and by the appointment of other eminent gentlemen on his right and on his left, to support the chair. When the organization was complete, the call for the meeting was read; a few remarks from the chair were made, and then the meeting was addressed by Wm. M. Meredith, Esq., who pointed out, in a forcible manner, the vast importance, indeed the absolute necessity, of the early construction of a railroad to Pittsburg. At the close of his remarks, Mr. Meredith offered a series of resolutions, which were seconded by Henry D. Gilpin, Esq., who followed, and gave some interesting and important statistics, illustrating forcibly the importance of action—early and efficient action.—The meeting was next addressed by Isaac Hazlehurst, Esq., who took broader ground, opened a wider field than those who preceded him. He took the ground that this was in truth a movement in favor of a railroad from Philadelphia, via Pittsburg, to Cincinnati. Mr. Hazlehurst stated that, of the business of the west, four-fifths of the whole which reaches the Atlantic, goes to New York and Boston, and only one-third of the balance, or one-fifteenth of the whole reaches Philadelphia; hence the necessity of a continuous direct railroad from the Ohio river to the Atlantic, by the way of Philadelphia. John J. McCahen, Esq., next addressed the meeting, and expressed the opinion that the route proposed was the best and most feasible; and said he believed it might be constructed without carrying a dollar out of the state—but seemed to apprehend some difficulty in obtaining the act of incorporation—and suggested the propriety of having some connection with, or dependence upon the canal commissioners, in order to avoid interference with, or opposition from the state works. One word, if we may take the liberty, on this point, keep clear of state works, and canal commissioners; better, far, defer the entire work for a year or two, than to connect it in any manner with state works. States can build works, but not as well as a company, or individuals, but in the management or operation of a railroad, or machine shop, a state is sure to be robbed, swindled, gouged and made bankrupt by political demagogues, and designing knaves, who obtain places of trust for which they are unfit. The management of the Columbia railroad a few years ago—of the present we are not informed—should satisfy every Pennsylvanian of the impolicy of further extensions of state works. Far better to give liberal charters to responsible companies, and thus allow private capital to develop the resources of the interior of the state, by the con-

struction of a "main line," which shall extend from east to west, and put out its numerous branches to the north and to the south, through every fertile valley, reaching to the mountains of coal and iron, and to the quarries of limestone and marble, in every direction, thus developing the energies and the wealth of the state and of the people.

Mr. J. M. Sanderson read an extract from a letter from a gentleman in England, stating that the atmospheric system is rapidly gaining ground, and bids fair to supercede the present locomotive system of propulsion. To this we can add a word, and say that, if successful, as we believe it will soon be, it will be peculiarly appropriate to Pennsylvania, as it will require a largely increased quantity of iron, and mainly cast iron, in its construction, and coal may be alone used as fuel upon it.

There was now a call for the "question," on the resolutions offered by Mr. Meredith, but it was ascertained that the Hon George Darsie, of Pittsburg, and a member of the state senate, was in the room, who was invited to address the meeting. On taking the stand he was warmly greeted, and then proceeded to make a few observations in relation to the intimation made by one of the speakers, that there was a feeling of hostility existing between the cities of Philadelphia and Pittsburg; he disclaimed for Pittsburg any such feeling, and pledged himself that the representatives of Pittsburg would vote for a charter for this work if it was asked—even if the representatives of Philadelphia should vote against a favorite proposition of their's, which would most likely come before the legislature, viz: the "right of way" to the Baltimore and Ohio railroad.

Mr. Darsie, in our view, took the true ground—he not only advocated the construction of a direct line to Philadelphia, but also the right of way to the Baltimore and Ohio company to terminate their road at Pittsburg. He reasoned correctly, as we believe that a railroad reaching the Ohio at, or below Wheeling, would be much more injurious, and indeed fatal, to Pittsburg and Pennsylvania, than it would if it terminated at the head of navigation, and at the same point of termination as the road direct to Philadelphia. He said, induce them to come to Pittsburg, and then the direct line will have more than an equal chance for everything destined for the Atlantic, and especially for Philadelphia and New York, but drive them from us, and compel them to seek an outlet, and enable business men to leave the river some two hundred miles below us, and below nearly all of the bad navigation, which often delays boats two or three days in as many hundred miles, and you will then destroy our business, because we are not on the spot to offer them equal and superior advantages. He assured the meeting that the imputations upon the Baltimore and Ohio company, that they had evaded, by going into Virginia, the stipulation to allow Pennsylvania to connect with their line in Washington county, was erroneous. He stated what is notorious to all who have been familiar with the subject, that they were driven into Virginia by the Chesapeake and Ohio canal company—and he pledged his honor that the Baltimore and Ohio company did not, last winter, ask for the right of way, but that the application had been made by the people of Pittsburg alone. He also warned those who desired to secure to Pennsylvania the trade of the west, not to hazard the success of the object of this meeting, by opposing an important measure in which another part of the state is deeply interested—and for which Pennsylvania is only asked to rand the right of way.

We give a brief report of the proceedings of the

meeting from the U. S. Gazette, and shall probably have more to say on the subject hereafter; yet we desire at this time to say to the people of Pennsylvania, that it is of great importance to them to induce their neighbors, if possible, to tap the wine cask on the same level with themselves, instead of far below them, as it is well known that the stream flowing through the lower fasset, not only discharges more rapidly at the same time, but also for a much longer period, than the one near the upper part of the cask. And we may also, perhaps, be allowed to say that he does not read wisely the indications of the times, who flatters himself that a work like the Baltimore and Ohio railroad is to be arrested in its progress, at the present termination, by a spirit of jealousy on the part of neighboring states, when a portion of those states are to be largely benefited by its extension. Far better would it be for Pennsylvania, and especially for Philadelphia, to have three lines of railroad to the Ohio at Pittsburg, viz: one direct, one via Pottsville, Danville and the West Branch, and one via Baltimore, than to have only one. The great difficulty will be to make railroads to the west as fast as they will be needed.

For the American Railroad Journal.

#### Bear Mountain Railroad.

TO EDWIN F. JOHNSON, Esq., CIVIL ENGINEER.

SIR: My attention has been called to a pamphlet lately published in New York, containing three reports in relation to the Bear Mountain railroad and coal region, one of which was written by yourself. I find that your report suggests certain alterations in the plans and arrangements of this road, as designed and located by myself; and as I was absent at the time you visited our region, I am inclined to believe that you make these suggestions from a want of full information on the subject, or from the facts having been misrepresented to you; and I therefore wish to discuss with you through the columns of the Journal, the merits of the alterations you propose, and also to give you such information as you might not have been in possession of at the time you made your report.

Before proceeding to notice your suggestions, allow me to allude briefly to the character and arrangements of the Bear Mountain railroad, as at present designed. This road is, as you have correctly stated, 28 miles in length from the mouth of the coal tunnel to the Pennsylvania canal, and its entire length, when completed through the mountain and extended through Rausch Gap, including also the line parallel to the canal, will be 31½ miles. The road has a uniform grade for its entire length, descending from the mines at a rate varying but a fraction of a foot from 17 feet per mile, and the minimum radius of curvature being 1910 feet.

The advantages of this grade for coal transportation are, we believe, unparalleled. An engine weighing 15 tons, with the weight equally distributed on six wheels, and running at a speed of six or seven miles an hour, will transport over the road as an average load, 900 tons of coal, and return to the mines with the empty cars. Three engines of this description, two of them in use, making one trip each per day, will carry from the mines to the canal 540,000 tons of coal in 300 days, reducing the cost of motive power, per ton per mile, far below the cost of like service upon any other road in the United States.

The length of the tunnel required to reach the coal measures and cut off four good workable veins of coal, is 800 lineal yards, and the entire length of the tunnel when driven through the mountain will be 2800 lineal yards. This tunnel is to be cut for

three tracks, the roof above the centre track being of sufficient height to allow the passage of locomotives entirely through the mountain. The side tracks are intended for the use of coal cars only, and the cars coming out of the veins on either side of the tunnel will pass down the adjacent track without crossing over or interfering with the through trains.

It is proposed to erect a large breaking and screening house on each side of the road near the mouth of the tunnel in which the coal will be screened and if necessary broken by machinery. The coal will be elevated to the top of the screening house, by an endless chain working on inclined planes. This chain will be kept constantly in motion by the engine which drives the screens, and will be arranged in such manner as to fasten itself to the cars as they run upon the track, and also to unfasten itself at the top of the plane.

The principal white ash veins of this region, are found in the north side of the basin, and will be mined at Rausch Gap. This will also be the principal point for the manufacture of iron. When the tunnel is completed through the mountain, it is believed that there will be at least 100,000 tons of white ash coal and 25,000 tons of iron transported over the road from Rausch Gap, and not less than 25,000 tons of freight, such as limestone, merchandize, etc., returned to the same point. By the present arrangement, all the freight will be carried over the entire length of road by locomotive power, and without transhipment.

We have about 3,500 feet parallel to the canal, with an average width of 280 feet. This gives us sufficient space for the basins on the canal, for the construction of a side canal, and for three parallel coal reservoirs, each 3,000 feet in length. Two of these reservoirs are intended to be used for the deposit and transhipment of coal, during the season of navigation, and will contain about 30,000 tons. These reservoirs are arranged in such manner that the cars will be unloaded as they stand in the train, and the coal deposited without detaching any of them, or waiting for boats to convey the coal away. The coal will pass from the reservoirs to the boats without handling by opening doors at the end of the reservoirs, in a similar manner to that by which the cars are unloaded. The third reservoir being intended for the deposit of coal during the winter months, is of different construction from the others, and will contain about 180,000 tons.

Thus you see this road was designed by its projectors for an extraordinary business, and all the arrangements are commensurate with the magnitude and importance of its trade.

The alterations which you propose are specified in the following extracts from your report: "It may perhaps be a subject for consideration, whether it is not advisable to enter the Big Lick mountain at a higher level than that proposed for the tunnel, or otherwise to reduce the grade for the railway from the summit near Cold Spring Gap to near the outlet of the tunnel, a distance of two and a half miles, or both. The latter change will lessen the height of the Williams Valley bridge, and diminish its cost. Such a reduction of the grade will increase somewhat the cost of transportation over the road, which may be nearly or quite compensated for by the saving in cost of the bridge, and by the greater facilities afforded for breaking and screening the coal at the mouth of the tunnel, caused by the difference in elevation of the road and the tunnel."

"While suggesting a change in the plan at this point, [the anticipated advantages of which may disappear on further examination and reflection,] it

may not be improper to speak of another alteration at the lower terminus, which is, to enlarge the dimensions of the coal reservoir by making it equal in length to the canal basin, or sufficient in magnitude for the deposit of coal during the winter season."

"A space of 70 feet in width, 2000 feet in length, and 20 feet in height, which latter is about equal to the elevation of the grade line of the road above the ground at the point, will contain all the coal that can be mined during the suspension of navigation, if it does not exceed 1000 tons per day." There are other matters in your report worthy of notice, but in the present paper I wish to confine myself to the alterations which you suggest.

In order to derive any considerable benefit from the reduction of grade proposed in the above extract from your report, it would of course be necessary to adopt a level grade from the summit to the mouth of the tunnel. This would reduce the height of the bridge over Williams valley about 40 feet, and diminish its cost \$20,000. This alteration would also do away with the planes for elevating the coal at the breaking and screening houses, costing about \$1000 and dispense with the services of two men at the head of these planes, for unloading and changing the cars. On the other hand by this change of grade, the power of the engines would be diminished fifty per cent. for downward transportation, and consequently double the number of engines would be required for a given amount of coal transportation that will be necessary for the same amount by the present arrangement. The difference in elevation between the grade of the road, and that of the tunnel, would of course prohibit the passage of locomotives from the main stem of the road through to Rausch Gap, and consequently all the transportation to and from this point must be done by horse power at a very considerable increase of cost.

A comparison of the difference in cost of constructing and working the road upon the two plans, is as follows:

<i>By the Present Arrangement.</i>	
Interest on extra cost of Williams Valley bridge, \$20,000, at 6 per cent.....	\$1,200 00
Do. on cost of planes and fixtures, \$1,000, at 6 per cent.....	60 00
Do. on additional cost of engines to obtain extra power for elevating the coal, \$1,000 at 6 per cent.....	60 00
Extra fuel for do.....	624 00
Services of two men at the head of the planes, 312 days each, at \$1 00 per day.....	624 00
Per annum.....	\$2,568 00
<i>By the Change Proposed.</i>	
Interest on cost of three extra locomotives, \$24,000, at 6 per cent.....	\$1,440 00
Repairs and renewal of do., 15 per cent.....	3,600 00
Fuel for do.....	2,028 00
Three engineers, 312 days, at \$2 00 each per day.....	1,872 00
Three firemen do., at \$1 00 do.....	936 00
Extra cost of transporting 100,000 tons of coal from the Gap to the south end of the tunnel, at 3 cents per ton.....	3,000 00
Transshipment and extra cost of transporting 50,000 tons of iron, limestone and merchandise, to and from the same point, at 6 cents per ton.....	3,000 00
Per annum.....	\$15,876 00
Deduct cost by the present arrangement.....	2,568 00
Difference in favor of retaining the present grade.....	\$13,308 00

In the above estimate, the cost of oil and cotton waste for the extra locomotives, is not taken into account, as it is offset against the oil required by the machinery of the planes. The calculation is based upon an annual coal transportation of 540,000 tons, 100,000 tons of which are to come from Rausch Gap, and 50,000 tons of freight, other than coal, from the same point.

From the above it will be seen that after the road has been three years in operation, the investment by the proposed change of grade, will exceed the amount required upon the present plan by about twenty thousand dollars, and the annual cost of working the road, including the interest on that investment, would be greater than the cost of working it as projected, by the sum of \$13,308.

The additional cost of transporting the passengers and freight, passing to and from the rich agricultural district, lying north and west of the coal basin, is not included in the estimate. That the amount of this transportation will be very considerable, is evident to every one who is familiar with the trade of this district, and all this trade must pay an additional tax upon its transportation, should the change which you propose be made in the grade of the road. Indeed my own opinion is, that if this change would effect a saving in the first cost of the road, of one hundred thousand dollars, instead of twenty thousand, it would not be advisable to make it, as the extra cost of working the road upon this change of plan, would pay an interest of over 13 per cent. on the one hundred thousand dollars saved by the alteration.

It is this narrow policy shown in the design of many railroads in the United States; the want of fitness in the arrangements, and the extreme desire to save a few thousand dollars in the cost of construction, saved too generally in the wrong place, which has caused them to prove but a libel on the name of railroad.

In relation to the alterations which you suggest at the lower terminus of the road, allow me to say, that because we have but 1200 feet of coal reservoir under contract, it does not follow that we do not intend to increase its length and capacity, as the business of the road shall require, any more than because we have contracted for but three locomotives, we never intend to augment the number.

Although you propose a change which could only be deemed advisable upon a road intended for a limited amount of business, it seems that you did, in some measure, appreciate the value of the road, and coal region; as appears from the following extract from your report: "A project which, whether considered in reference to the benefits it promises to the public, or to the certain and lasting advantage to those who may embark in it, is not surpassed by any other of the kind in the United States."

A careful consideration of the past, and prospective increase of the coal trade, will show you, that with our acknowledged advantages, the business on this road will, in a few years, far exceed the amount which I have estimated in the foregoing calculation.

The consumption of coal during the past three years, has increased about thirty per cent. per annum; and the amount sent to market during the present season will be 2,100,000 tons, affording, it is believed, a very scant supply. Calculating on the present consumption an increase of twenty-five per cent. per annum, for the next four years, the amount required to supply the demand in 1849, will be 5,000,000 tons.

This amount may be furnished by the different coal districts nearly as follows:

Schuylkill.....	2,000,000 tons.
Lehigh.....	600,000 "
Lackawana.....	600,000 "
Wyoming.....	600,000 "
Lykens Valley.....	300,000 "
Pine Grove.....	200,000 "
Bear Mountain.....	800,000 "

With a trade of 800,000 tons per annum in prospect, and with a certainty as great as anything in the future can be, of reaching this amount, in three or four years after the road goes into operation, it would appear to me to be extremely injudicious to make the change in the grade which you propose; and if the data upon which the foregoing calculations are made are correct, as I believe they are, you will doubtless agree with me, that such a change is neither expedient nor desirable.

Very respectfully, yours,  
I. SPAULDING,

Chief Engineer B.M.R.R.

Harrisburg, December 20, 1845.

For the American Railroad Journal  
**Pennsylvania Railroads.**

The state of Pennsylvania is eventually to become the "railroad state," owing to its vast mineral wealth which seeks egress from its mountains by this modern and cheap mode of transportation. Pennsylvania has already about five hundred and fifty miles of railroad in main lines, and about sixty miles of laterals or feeders in Schuylkill county alone; most of which are constructed in the most permanent manner, and are capable of bearing engines of the first class. The improvements in this part of the state, which is generally known by the name of the coal region, are as yet in a state of infancy. New projects are continually heard of, such as railroads, furnaces, rolling mills, etc.; and in no part of the country is there more individual enterprize than in this county. The amount of coal shipped from this region this year, by railroad and canal, amounts to one million and fifty-five thousand tons; the railroad company having taken down seven hundred and ninety-two thousand tons themselves; and the whole amount will reach, by the first of the year, one million one hundred thousand tons. The advantage the Reading railroad has been to this region is incalculable—having destroyed a monopoly, and given such advantages to the dealers, by the use of their cars at the mines, and offering other advantages which has made the coal trade what it is, and made it advantageous for the dealer to carry on operations through the winter, which is done to a great extent. The Mine Hill and Schuylkill Haven railroad company are making an extension of their road, seven and a quarter miles in length, and forms a junction with the Good Spring Creek railroad, about two miles below its terminus, at the town of Tremont. The work is in a forward state of progress, and is being constructed in the most permanent manner; the grading will be finished by the 1st of June next, and the iron laid [T rail] immediately, so that cars may pass over the road by the month of August. This road opens one of the richest coal fields to the Philadelphia market in the region, and is known by the name of the "Swatara," the only outlet which it has had heretofore being by railroad to Pine Grove, and from thence to the Baltimore market, by the Union canal, which is generally unfit for navigation. Already are the owners of property patiently waiting for the completion of this extension before they commence the construction of their lateral roads, some of which will be from two to three miles in length. As soon as the main stem of a plant reaches a certain point, it sends forth its branches

and shoots, so it is with railroads, let a main line penetrate into a country, and wherever there is enterprise or wealth to be reached, there will be a branch sent forth from the main stem opening a market for the mineral or the produce, and increasing the value of property in the vicinity.

Your's truly, R. M.

For the American Railroad Journal.  
Catawissa Railroad.

In your paper of the 27th Nov., I perceive an extract from the "Bloomsburg Democrat," which announces to the world that the stock of this company has been purchased by another "company of wealthy gentlemen on account of the intrinsic merits of its location, and as the cheapest and only feasible route from Philadelphia to the Susquehanna river, and from thence to lake Erie," and *not like other projects we wot of, for the purpose of merely advancing the interest of land speculators, stock jobbers, and obscure villages, which have nothing more than "puffs of wind, hills, vallies, tunnels and inclined planes" to recommend them.*

Now if the writer had confined himself to the mere annunciation of the fact, and had said all that was possible in favor of its location, I should have looked upon the matter as one of their *puffs* that induced its original stockholders (the bank of the United States) to foolishly expend their money in devising and prosecuting a scheme so totally without prospect or business to sustain it. I should also have regarded it as necessary to sustain the stomachs of "the wealthy gentlemen" who have been induced from some cause or other, to prefer this to "any other route." But since the object is to build this work upon imaginary advantages, and in doing so to traduce, and misrepresent other works "we wot of," I will invite your readers to reverse, and apply the aspersions of the writer, to this most outrageous humbug. The facts relating to this "feasible route" are told in a few short sentences, and no doubt before these "wealthy" ourselves expend their money in finishing it, they will look into its prospects and advantages. According to the report of the engineer of the old company there is yet 11 miles to grade and that the distance from Tamaqua to the summit tunnel is 13 miles, with a vertical rise of 940 feet—that two miles are graded with an elevation of 60 feet to the mile—that the balance has to be overcome by *three inclined planes*, on a grade of 66 feet to the mile—and that the part that is finished [35 miles] is carried *over "vallies"* on viaducts, and along the sides of mountains, on retaining walls that would put Christ church *steeple* to the blush. These facts when looked into will probably astonish the "new stockholders" as much as this miserable puff does.

Your obedient servant,

ONE WHO KNOWS.

#### Railroad to Pittsburg.

The meeting of citizens favorable to the construction of a continuous line of railroad from this city to Pittsburg, held last evening in the Chinese saloon, was one of the largest and most respectable that has been held in this city for a long time. It was composed of the wealthiest and most respectable portion of the community, and the feeling developed during the evening, was of a character most favorable to the proposed improvement.

The assemblage was called to order by George W. Toland, Esq., who nominated as chairman, Thomas P. Cope, Esq., and the nomination was unanimously agreed to.

On motion of John B. Meyers, Esq., the

following named gentlemen were called on to act as vice-presidents. John K. Kane, Robt. Toland, George N. Baker, Thomas Sparks, Isaac W. Norris, George W. Carpenter, and David S. Brown.

On motion of Thomas C. Rockhill, Esq., the following gentlemen were chosen secretaries. Henry Welsh, John S. Littell, and Thomas Tuston.

Mr Cope, on taking the chair, made a few remarks in relation to the subject for which the meeting was called. The Bostonians have, he remarked, reached the great west by means of railroads, and are deriving from thence large supplies, and a growing trade; our neighbors of New York are engaged in making a similar effort, and have commenced the construction of a railroad to achieve it; and the Baltimore and Ohio railroad company is endeavoring to obtain the consent of our state, to carry a road across a large portion of our state to Pittsburg, offering us as a boon for this grant, the liberty to connect with the improvement at some point within our state. But to this he thought insuperable objections existed, and with the necessary outlay of at least \$4,000,000, would produce no real and valuable return.

The call of the meeting stated a proposition for the erection of a continuous railroad to Pittsburg, none of the gradients of which will exceed 45 feet to the mile, while the gradients on the Baltimore road rise as high as 84 feet. He thought, likewise, that the fear of draining the state works of their business, entirely unfounded; and he was certain that when it should be known in the west, that a communication between Pittsburg and Philadelphia was opened always—summer and winter—where one merchant had previously come, ten would come to our city, and the business on the public works, instead of being drained, would be increased *four-fold*. Nature, he said in conclusion, has done much for us, let us now see what we can do for ourselves.

William M. Meredith, Esq., then addressed the meeting, upon the subject which the meeting was called to consider, and for the exercise of a vigorous and united effort, and he proceeded to argue at length in favor of the route proposed, making such statements, and presenting such details as served to enforce the perfect feasibility of the project, and of the necessity of carrying it into effect, in order to guard and preserve the trade of the great west to the city of Philadelphia, the state deriving from that possession a constant and increasing benefit.

He considered the efforts which are being vigorously made in the cities of Boston, New York and Baltimore, and showed the natural advantages which, in addition to long possession, our state presents for the permanent security of the trade for which there are now so many active competitors.

In conclusion, he remarked that he had heard it said out of doors, that this meeting was intended to deprive Pittsburg of some favorite railroad, but this feeling he entirely disclaimed; and, on the contrary, if he had a feeling on the subject, it was for the success

of Pittsburg—a sister city to our own, and bound to us by the best bond of affection—that of a harmony of interest. Mr. Meredith then presented the following preamble and resolutions:

*Whereas*, the great western trade, whilst it contributes the largest portion of the *freight* and *tolls* received on the public improvements, has been, and continues to be one of the chief sources of the prosperity of Philadelphia—the loss of which would be severely felt by the state at large; and can be contemplated only, with the most painful apprehensions by this community:

*And Whereas*, the most strenuous and persevering efforts have been made and continue to be made by rival cities and states, particularly by the construction of railroads on our northern and southern borders, with contemplated extensions westward, to divert the trade and travel, as well from the canals and railroads of the commonwealth, as from this her chief commercial emporium, the accomplishment of which can only be prevented by timely and vigorous action on the part of our own citizens and legislature:

*And Whereas*, it has been ascertained by careful and minute surveys, made under the direction of the canal commissioners, that by pursuing the most direct feasible route between Harrisburg and Pittsburg, a continuous railroad, not exceeding 229½ miles in length, without inclined planes, and with no gradients over 45 feet per mile, may be constructed at a moderate expense, and with the best prospects of an adequate remuneration; making the whole distance from Philadelphia to Pittsburg, (including the 106½ miles already in operation,) only 336 miles; being therefore shorter and better adapted to the use of locomotives, and capable of conveying freight and passengers in less time and to greater advantage than by any other known route between the eastern and western waters, in this state or elsewhere: therefore,

*Resolved*, That in order to secure and maintain for this city the important advantages which nature has placed within her reach, and to which, from her character and position, she is justly entitled, and for the commonwealth all the benefits of which her public improvements are susceptible, it has become alike important and expedient that a railroad without inclined planes and with moderate gradients be forthwith constructed by the most direct feasible route between Harrisburg and Pittsburg, thus uniting Philadelphia and Pittsburg, and the eastern and western waters, by a continuous railroad within our own borders.

*Resolved*, That a continuous railroad so constructed, contributing largely to the revenue derived from the present state railroad, touching the state canal at suitable points, and co-operating therewith in times of drought and disaster, supplying its place during the winter months, when the navigation is suspended, and ready at all seasons to convey passengers and light freight from city to city, in from twenty to twenty-four hours, would by the facilities afforded, and the confidence inspired, secure to the great "Pennsylvania



route," thus composed of both canal and railroads, and capable of thus acting jointly or separately, advantages far surpassing all others, and with the contemplated extensions northward and westward, would obtain for it an amount of trade and travel far beyond all former precedent, and at the same time place the growth and prosperity of Philadelphia and Pittsburg on foundations not easily shaken by rival projects from any quarter.

*Resolved*, That the senate and house of representatives of Pennsylvania be, and they are hereby respectfully requested to grant an act of incorporation, with suitable provisions, for the purpose of making the said continuous railroad, by the most direct feasible route, between Harrisburg and Pittsburg, on such equitable and liberal terms, as will at the same time secure its completion and protect the public improvements already made.

*Resolved*, That a committee of twenty-one be appointed by the chair, to prepare and circulate for signature, a suitable memorial, praying the legislature to grant said act of incorporation; and the said committee are hereby authorized to take such further measures, as in their opinion may be deemed expedient to carry into effect the important object contemplated by this meeting.

*Resolved*, That a committee of nine be in like manner appointed to prepare and publish an address to the people of Pennsylvania, setting forth the views and objects of this meeting.

*Resolved*, That the committees to be appointed in pursuance of the foregoing resolutions, be authorized to fill any vacancies that may occur in their own bodies.

*Resolved*, That it be recommended to the citizens of other cities and counties, feeling an interest in this important undertaking, to hold similar meetings, and by other active measures to give their aid in securing for Pennsylvania the early completion of this great "Central Avenue" between the east and the west.

*Resolved*, That we disclaim all intention or desire—elsewhere imputed to us—of throwing obstacles or restraints in the way of improvements proposed to be made within this state by companies incorporated by other states; provided the advantages anticipated therefrom cannot be conferred by improvements made under the authority of our own state. But we *insist*—and we believe that all who think rightly on the subject will *insist*—that favors of this nature should be *reciprocal*—that the "right of way," with a view to the construction of canals or railroads within our borders, or other like grants, by Pennsylvania to adjoining states, or to the citizens thereof, shall be made *only* on the condition that the right to connect with the same or other like improvements within *their* borders, be granted by said adjoining states, to Pennsylvania, or to the citizens thereof. We believe that the welfare of the whole state ought not to be overlooked, or lightly perilled in order to promote sectional or local objects. We feel on this and kindred subjects, as we think every true hearted Pennsylvanian should feel. And we therefore do respectfully, but earnestly, exhort and entreat the representa-

tives of the whole people, to guard and protect the *general interest*, and not to permit the same to be sacrificed or placed in great jeopardy by the rival schemes or projects of other states or the citizens thereof, designed for their aggrandizement by our impoverishment, and enabling them to reap private advantages, while they bear no portion of the public burdens.

The preamble and resolutions being read by Mr. Tustin, Henry D. Gilpin, Esq., rose to second the resolutions. There are, he said, some railroad projects which subserve, and properly so, any local interests; and there are other projects which concern the state—concern every citizen—and in which local projects are merged, for the general interest—and of this last character was the one which the meeting was called to consider. Our state had been among the first to lead in internal improvement; and he proved that the development of our internal resources had increased our population and wealth in a far greater ratio than had been done during the period it enjoyed a flourishing foreign commerce. This had been done by the construction of works of internal improvement; which had drawn to the state, and secured it in the possession of, a valuable and extensive domestic commerce; and as it had been so brought, it should be so maintained by further exertions, when necessary.

The period had come, and he was desirous that Pennsylvania should enter, with her natural and artificial advantages, into the race with her competitors to secure beyond rivalry the advantages she has so long enjoyed. The proposed line of the New York railroad to Erie is greatly inferior to our own, and the same objection lies against the proposed improvement of the Baltimore company, but if no other lines are constructed the trade of the lakes and of the west must pass along them. The situation of Pennsylvania is eminently commanding—she borders on the Atlantic, with the lakes, which connects her with the west and with the Ohio, which connects her with the southwest, advantages which no other state in the Union possesses. We must do as we have done heretofore; meet the crisis, erect the necessary improvement and furnish in the continuous railroad from Pittsburg to Philadelphia, a direct connection of the Ohio with the Atlantic.

Isaac Hazlehurst, Esq., thought that the question as to the best route from Philadelphia to Cincinnati, by way of Pittsburg, was the real one to be considered. It is one which hardly admitted of discussion—whatever is to be done is to be done *now* or never. He proceeded to compare the three routes projected by the Boston, New York and Baltimore companies, and offered in explanation of the importance of the trade of the west, some statistics of its productive wealth, out of all of which that came to the east the Pennsylvania works only derived a benefit from one-fifteenth of the entire value.

He believed that the construction of the road to Pittsburg would be the securing of a direct route to Cincinnati, from whence westward, western enterprise had already opened

ways into the heart of the great west. The work must be done, independent of the question of difficulty or expensiveness, and he was glad to perceive that such was the feeling of the meeting.

It would bring us nearer to Pittsburg, our sister city, identified with our own, in interest, and, he hoped, in feeling. She should not leave us for the embraces of a southern neighbor, and we must, if necessary, grapple her with hooks of iron. He pictured the results which would follow the loss of the trade to Philadelphia—but in conclusion remarked that this result could not take place, if the spirit of the meeting was only carried out.

Mr. John J. McCahen expressed his belief that the route proposed was the best and most feasible; he remarked that the construction of it would not take out of the state one dollar, and he offered some suggestions as to the best and most economical manner of constructing and managing it—adding estimates of the business which it would secure to itself.

Mr. James M. Sanderson read an extract of a letter from a gentleman in Europe, stating that the atmospheric railroad system is destined to take the place of those now in use on the score of economy and efficiency.

The Hon. George Darsie, of Allegheny county, being called upon, rose and said that it appeared to be the opinion of some individuals in this assemblage, that there was a feeling in Pittsburg adverse to Philadelphia; but as a citizen of Pittsburg, for himself and his own citizens, he disclaimed altogether any such feeling, and, as member of the senate of Pennsylvania, he pledged himself to vote for and maintain the project.

He entered into a discussion of the feelings which have led to the honest differences which really exist between the citizens of Pittsburg and Philadelphia, and he offered such an exposition of the advantages of the Pennsylvania and the Baltimore routes, as, in his opinion showed that although there were dangers to be apprehended from the grant of a right of way to the Baltimore company, they were as nothing in comparison with those to be feared from the New York and Boston improvements. The Baltimore improvement would keep, in a great measure, to Philadelphia, the business of the west.

Mr. Darsie having concluded, the chairman announced the following as the gentlemen to compose the committees called for by the resolutions adopted:

*Committee on Memorials, etc.*—David S. Brown, Thomas P. Hoops, J. Fisher Leaming, A. S. Roberts, B. M. Hinchman, Thos. Tustin, James Magee, Gideon Scull, Hugh Campbell, John Welsh, Jr., Alex. Osbourn, Wm. Reynolds, John B. Myers, Philip M. Price, E. A. Penniman, Robert Allen, H. M. Watts, Charles S. Wood, Charles Humphreys, C. G. Childs, Isaac W. Norria, Dr. Abram Helffenstein, Robert Toland, A. J. Lewis, Townsend Sharpless, W. C. Patterson.

*Committee to Prepare an Address to the People of Pennsylvania.*—Geo. W. Toland, George N. Baker, John M. Atwood, Henry

Welch, Isaac Hazlehurst, John K. Kane, Thos. C. Rockhill, Robert Allen.

On motion, the meeting then adjourned.

The Sunbury American thus describes the manner in which the iron T rail for railroads is manufactured at the Montour works, Danville Pennsylvania;

"In order to make the T rail, the iron is first rolled through one set of rollers into heavy flat bars, about three inches in width and three-fourths of an inch in thickness. These bars are then cut into pieces, something less than three feet in length. A number of the pieces, probably 15 or 20, are then placed together, making a square bundle or faggot, weighing 400 pounds. This faggot is then placed into one of the furnaces and brought to a white heat, when it is drawn out on a small iron handcart, and conveyed to the rollers. The great weight and intense heat of such a heavy mass, requires considerable skill as well as strength, in passing it through the rollers. The bar, as it passes through, is caught and supported by iron levers, fastened to chains, that are suspended on pulleys from above. The first bar passes through the square grooves of the rollers three or four times, before it is run through the different grooves that gradually bring it to the form of the edge or T rail, as seen upon our railroads. Through the last grooves it passes five or six times before it is completed. It is then placed on a small railway carriage, on a track 18 feet wide, and hauled up about 20 feet, when the rail comes in contact with two circular saws, one of which is placed on each side of the railway. These saws revolve with great rapidity, and the moment the rail, still red hot, reaches them, the red sparkling iron saw dust is scattered in every direction. The rails are thus cut off square at each end, exactly 18 feet long, apparently as easy as if they were made of tough hickory wood. The rail is then dragged to the pile and left to cool, perfectly finished. The rails we saw made were intended for the Harrisburg and Lancaster road, and weighed fifty-one pounds to the yard, or something more than three hundred pounds each. These are said to be first rails ever made with anthracite iron in this or any other country, and are, we believe, superior to any that have ever been imported."

"*Montreal and Atlantic Railroad.*—A meeting of the provisional committee of this railroad was held at the secretary's office on Monday evening, for the purpose of taking into consideration the advices received from the agent in London by the last packet, and for taking steps to advance the objects of the association. It appears, by the agent's account, that 3,000 shares have been taken up in England, the first instalment on which, of £4 sterling per share has been paid, and deposited in the bank. The number of shares taken here is 1950, on which £1 currency per share has been paid. This is the present state of affairs as far as is known. Now, the act of incorporation provides that 6,000 shares shall be subscribed for before the company goes into operation, by the appointment of a

committee of thirteen, who shall have the management of the railroad in its construction and other matters, the present committee of nine, though clothed with extensive powers, being merely provisional. To make up these 6000 subscribers, 1050 are yet wanted. It is, therefore, impossible to elect the permanent committee; and the gentlemen composing that now existing, feel naturally unwilling to interfere in matters which shall more properly come within the province of their successors, when they can be appointed. This being the case, they—the provisional committee—have come to the resolution of immediately appointing an engineer and surveyor, practically acquainted with such matters, to survey and run the railroad line from Montreal to Sherbrook. The survey is to be completed by the 1st day of January next, at which period it is fully expected that the whole of the 6000 shares—that is, the balance now wanting to make up that number—will be subscribed for in England and this country. This done, operations might commence at once; and as for the remaining 6000 shares, there would be little difficulty in disposing of them; the contractor for the iron would take 1000 shares, and the contractors for making the road from 2000 to 3000 shares. We understand that offers to that effect have already been made by parties in this and the mother country. The committee have also determined to call on the subscribers here for a further payment of £3 16s. currency per share, thereby placing the Canadian and English shareholders on an equal footing."—*Montreal Times.*

"*Origin of Railways.*—The original inventor, it now appears, of the railway system, was the late engineer, Mr. Fredericks, of Hanover. He first thought of constructing a machine for the conveyance of heavy loads, while visiting the mines of Silesia, and he subsequently invented iron rails, exactly as they now are in use; also a locomotive engine and a cart to run from the Dovitry silver mine, upon the Haregnion mountain, Hanover, to the place of refinement, Pucherich, a distance of about an hour's drive. The cart was a four wheeled one, and on its frame was a wooden chest, filled with the mineral of from 60 to 80 cwt. The guide sat upon the driving box like a coachman, and was able by pressure, to direct or arrest the cart at any rate of speed. The evidence connected with this origin of the railway and locomotive is proved by persons still living, who rode in it. The distance requiring a walk of forty-five minutes was thus performed upon it by the king and queen in five. The inventor subsequently executed a drawing for an English gentleman, who, as Mr. Fredericks said a short time before his death, "wishes to run my new cart in his own country, as I do here. He admires it, and I take great care in executing my work, in order to prove that we here are not a set of block-heads." This invention was thus transferred to England, where Mr. Thomas Gray, of Exeter, was finally instrumental in introducing it; and after the application of steam to boats, the steam locomotive was also intro-

duced. These important facts have just been made known, and they show that the claims of England to this, as to almost every invention made by others, are not to be sustained. Thus the world is indebted to Germany for four of the most important inventions; those of powder, printing, clocks and railroads."—*New York News.*

*American Iron, and at the South.*—The Dallas county (Al.) Gazette mentions that there is at this time, and has been for some years past extensive iron works in successful operation in Talladega county, in that state, and these works are now producing bar iron of all sizes and castings of every variety in great abundance. By persons who have used the iron produced at this forge, the Gazette is informed that it is quite equal to the best Swedes brought to this country, and that it can be purchased about as cheap as the article of the same quality can be purchased in New York. In the vicinity of this forge there abound inexhaustible beds of coal, said to be equal to the Pennsylvania article, which furnishes every facility for working the ore that is possessed by those of the north and west.

That is the way it works we shall make iron for export in a few years at this rate.

*New York Canal Tolls.*—The canal tolls received during the 2d week of November show the enormous sum of \$144,173, an excess over the corresponding week last year of \$47,475. The aggregate for the season to the 14th inst. inclusive is \$2,510,131, being an excess of \$63,757 over the total receipts of last year. The weather shows no indication of approaching cold, and navigation for at least 10 days more may be safely calculated upon. Should this be so, an addition of \$250,000 to \$300,000 to the pre-amount of tolls may be looked for.

The survey on the Passumpsic railroad route between Haverhill and Wells river, is in progress and a report will soon be made. On the Vermont Central railroad, the location of the road from White river to Windsor, has been completed. The second installment of this road has lately been ordered.

C. J. F. BINNEY,  
GENERAL COMMISSION MERCHANT  
and Agent for Coal, and also Iron Manufactures, etc.  
No. 1 CITY WHARF, Boston.  
Advances made on Consignments.  
Refer to Amos Binney, Boston.  
Grant & Stone, } Philadelphia.  
Brown, Earl & Erringer, }  
Weld & Seaver, Baltimore.  
December 8, 1845. 1m 50

**RAILROAD IRON.**—THE "MONTOUR Iron Company," Danville, Pa., is prepared to execute orders for the heavy Rail Bars of any pattern now in use, in this country or in Europe, and equal in every respect in point of quality. Apply to MURDOCK, LEAVITT & CO., Agents. 43 1y  
Corner of Cedar and Greenwich Sts.

**WESTERN AND ATLANTIC RAILROAD.** The Western and Atlantic Railroad is now in operation to Marietta, and will be opened to Cartersville, in Cass county, on the 20th of October—and to Coosa Depot, (formerly known as Borough's,) on the 20th of November.

The passenger train will continue, as at present to connect daily (Sundays excepted) with the train from Augusta, and the stage from Griffin.

CHAS. F. M. GARNETT,  
Chief Engineer.

**NOTICE IS HEREBY GIVEN THAT** the New York and Harlem Railroad Company intend to apply to the Legislature of the State of New York, at the ensuing session thereof, for an amendment to their charter, authorizing them to pledge their property and franchise for the purposes of extending their road from its present termination to the city of Albany, and for other purposes. Dated Nov. 20th. 43 6c



**BOSTON AND PROVIDENCE RAILROAD.**  
 Passenger Notice, Winter Arrangement. On and after Monday, Nov. 3, the Passenger

Trains will run as follows:

For New York—night line, via Stonington.—Leaves Boston every day, but Sunday, at 4 1/2 p.m.

Accommodation trains, leave Boston at 8 a.m. and 3 1/2 p.m., and Providence at 8 a.m. and 3 1/2 p.m.

Dedham trains, leave Boston at 9 a.m. 3, 5 1/2 and 10 p.m. Leave Dedham at 8 and 10 1/2 a.m., and 4 and 7 p.m.

Stoughton trains, leave Boston at 12 m. and 4 p.m. Leave Stoughton at 8-20 a.m. and 2 1/2 p.m.

All baggage at the risk of the owners thereof.

N.B. The last train to and from Boston and Dedham, will be omitted in case of a severe snow storm.

W. RAYMOND LEE, *Sup't.* 311y

**BRANCH RAILROAD AND STAGES** Connecting with the Boston and Providence Railroad.

Stages connect with the Accommodation trains at the Foxboro' Station, to and from Woonsocket. At the Seekonk Station, to and from Lonsdale, R. I. via Pawtucket. At the Sharon Station, to and from Walpole, Mass. And at Dedham Village Station, to and from Medford, via Medway, Mass. At Providence, to and from Bristol, via Warren, R. I.—Taunton, New Bedford and Fall River cars run in connection with the accommodation trains.

**NEW YORK AND ERIE RAILROAD LINE.**

For Middletown, Goshen, and intermediate places. Two daily lines each way, as follows:

For passengers, the new, and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7 1/2 o'clock, A.M., and 5 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6 A.M., and 4 P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets.

H. C. SEYMOUR, Superintendent.

Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghamton, Owego, Port Jervis, Honesdale, Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc., etc. 31 1y

**BALTIMORE AND SUSQUEHANNA RAILROAD.**

The Passenger train runs daily except Sunday, as follows:

Leaves Baltimore at 9 a.m., and arrives at 6 1/2 p.m. Arrives at York at 12 1/2 p.m., and leaves for Columbia at 1 1/2 p.m. Leaves Columbia at 2 p.m., and leaves York for Baltimore at 3 p.m. Fare to York \$2. Wrightsville \$2 50, and Columbia \$3 62 1/2. The train connects at York with stages for Harrisburg, Gettysburg, Chambersburg, Pittsburg and York Springs.

Fare to Pittsburg. The company is authorized by the proprietors of Passenger lines on the Pennsylvania improvements, to receive the fare for the whole distance from Baltimore to Pittsburg. Baltimore to Pittsburg.—Fare through, \$9 and \$10.

Afternoon train. This train leaves the ticket office daily, Sundays excepted, at 3 1/2 p.m. for Cockeysville, Parkton, Green Springs, Owings' Mills, etc.

Returning, leaves Parkton at 6 and Cockeysville and Owings' Mills at 7, arriving in Baltimore at 9 o'clock a.m.

Tickets for the round trip to and from any point can be procured from the agents at the ticket offices or from the conductors in the cars. The fare when tickets are thus procured, will be 25 per cent less, and the tickets will be good for the same and following during any passenger train.

D. C. H. BORDLEY, *Sup't.*  
 Ticket Office, 63 North st.

**DAVIS, BROOKS & Co., 30 WALL ST.**

Have now on hand and for sale,  
 200 tons 2 1/2 inch Flat punched Rails, Bars 18 feet each.  
 100 tons Heavy Edge Rails, 90 tons per mile.  
 30 tons 2 1/2 inch Flat Rails.  
 Also—A STEAM PILE DRIVER, built by "Dunham & Co." which has never been used, and cost originally \$5000. 320 2m

**BALTIMORE AND OHIO RAILROAD.**

MAIN STEM. The Train carrying the Great Western Mail leaves Bal-

timore every morning at 7 and

Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with the Wash-

ington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry — with the various railroad and

steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cum-

berland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brown-

sville and Pittsburgh. Time of arrival at both Cum-

berland and Baltimore 5 1/2 P. M. Fare between those points \$7, and 4 cents per mile for less distan-

ces. Fare through to Wheeling \$11 and time about 36 hours, to Pittsburg \$10, and time about 32 hours.

Through tickets from Philadelphia to Wheeling \$13, to Pittsburg \$12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

**WASHINGTON BRANCH.**

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5 1/2 P. M. from Washington, connecting daily with the lines

North, South and West, at Baltimore, Washington and the Relay house. Fare \$1 60 through between Baltimore and Washington, in either direction, 4

cents per mile for intermediate distances. 313 1y

**CENTRAL RAILROAD—FROM SAVANNAH TO MACON.**

Distance 190 miles. This Road is open for the trans-

portation of Passengers and Freight. Rates of Passage, \$8 00. Freight—

On weight goods generally... 50 cts. per hundred. On measurement goods... 13 cts. per cubic ft.

On bris. wet (except molasses and oil).....\$1 50 per barrel.

On bris. dry (except lime)... 80 cts. per barrel.

On iron in pigs or bars, castings for mills, and unboxed machinery..... 40 cts. per hundred.

On hhd. and pipes of liquor, not over 120 gallons.....\$5 00 per hhd.

On molasses and oil.....\$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE, Gen'l. Sup't. Transportation. 40

**LEXINGTON AND OHIO RAILROAD.**

Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare \$1-25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above. 35 1y

**KEARNEY FIRE BRICK. F. W. BRINLEY, Manufacturer, Perth Amboy, N. J.**

Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire, } New York.  
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J. R. Anderson, Tredegar Iron Works, Richmond, Va.

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N. E. Serew Co. } Providence, R. I.  
 Eagle Screw Co. }

William Parker, Supt. Bos. and Worc. R. R.  
 New Jersey Malleable Iron Co., Newark, N. J.  
 Gardner, Harrison & Co. Newark, N. J.

25,000 to 30,000 made weekly. 35 1y

**RAILROAD IRON AND FIXTURES.**

The Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.  
 DAVIS, BROOKS & CO.,  
 30 Wall st., N. York.

**NEW YORK AND HARLEM RAILROAD COMPANY.**

Winter Arrangement. On and after Monday, Novem-

ber 3d, the cars will run as follows:

Leave City Hall for Harlem (125th street,) Morrisiana, Fordham, Williams' Bridge, Hunt's Bridge, Underhill's Road, Tuckahoe, Hart's Corners, and White Plains—7:30 and 10:30 a.m., and 1 and 3:30 p.m.

Extra trains for Yorkville, Harlem, Morrisiana, Fordham, and Williams' Bridge, leave 27th street 7 a.m. for Williams' Bridge. Leave City Hall 9 a.m. (to Harlem only) and 11:30, 2:30, and 4:30 p.m. for Williams' Bridge.

Leave White Plains for City Hall—6:10, 11:10 a.m., and 1:45, 4:10 p.m.

Leave Tuckahoe for City Hall—8:20, 11:20 a.m., and 1:55, 4:20 p.m.

Leave Williams' Bridge for City Hall—7:45, 8:45, 11:45 a.m. and 12:45, 2:15, 3:45, 4:45, and 5:45 p.m.

Leave Morrisiana for City Hall—8:10, 9:10, and 10 a.m., and 12:10, 1:10, 2:40, 4:10, 5:10, and 7:10 p.m.

The freight train will leave City Hall at 12:45 p.m. and leave White Plains at 11:10 a.m. All freight must be at the City Hall between the hours of 10:30 a.m. and 12:30 p.m. The White Plain trains will stop, after leaving the City Hall, only at the corner of Broome street and the Bowery, Vauxhall Garden and 27th street.

An extra car will precede each train, 10 minutes before the time of starting from the City Hall, and will take up passengers along the line.

The City Hall and 27th street line will run every 6 minutes from 7:30 a.m. to 8 p.m.

The City Hall and 27th street night line will run every 20 minutes from 8 to 12 o'clock.

On Sundays the trains will be regulated according to the state of the weather. 1y 46

**THE LONDON RAILWAY RECORD.**

Edited by Mr. JOHN ROBERTSON, A. M., (connected from the commencement with the Weekly Railway press of England.)

The *Railway Record* is acknowledged to be the leading English Railway Journal, and is published twice a week in London, namely on Wednesday and Saturday. It contains copious and correct reports (by special reporters) of all railway meetings in the United Kingdom; ample Share Lists and Traffic Tables, showing the length, cost, capital and selling prices in the principal markets, with Editorial articles on the leading Railway topics of the day. The *Railway Record* contains also, a complete resume of French, Belgian and other foreign Railway affairs.

Subscriptions 13s. per quarter, to be transmitted in advance to Messrs. Dawson and Sons, Cannon st. London. Office 153 Fleet street, London. 46

**BOSTON COURIER, DAILY, SEMI-Weekly and Weekly.**

The *Daily* edition of the *Courier*, presents to merchants and others, an extensive medium of advertising. The circulation of the *Semi-Weekly Courier* (published on Mondays and Thursdays) is believed to be more extensive than that of any other similar Boston Newspaper. This publication embraces all the reading matter of the *Daily*, the Foreign and Domestic Markets, Review of the Boston Market, Prices current, and Ship News, prepared with great accuracy. The *Weekly Courier* contains as much of the matter of the *Daily* as can be crowded into a sheet of the same size, without ship news, prices current or advertisements.

Our exertions to obtain and publish authentic information on all topics proper for the columns of a newspaper,—the state of trade, the prices of merchandise, the current news of the day, and the political movements in the various sections of the country—will not be abated. The marine department of the *Courier* has been inferior to none in copiousness of accuracy of detail, and it will be our endeavor maintain its reputation in this respect.

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