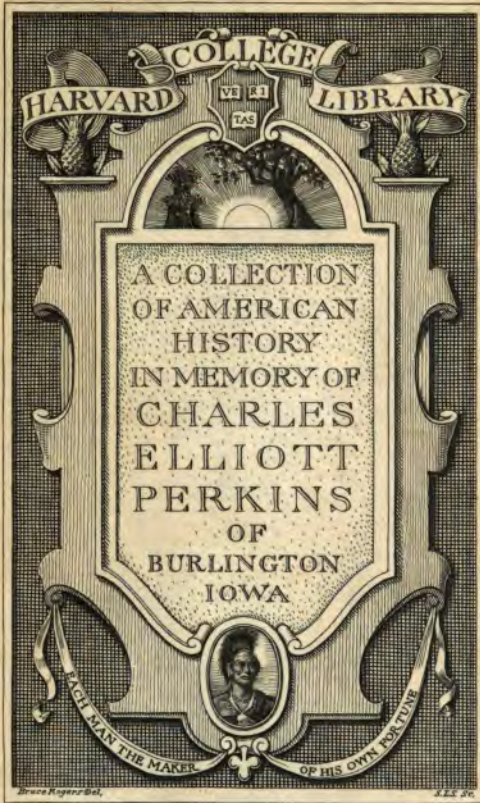


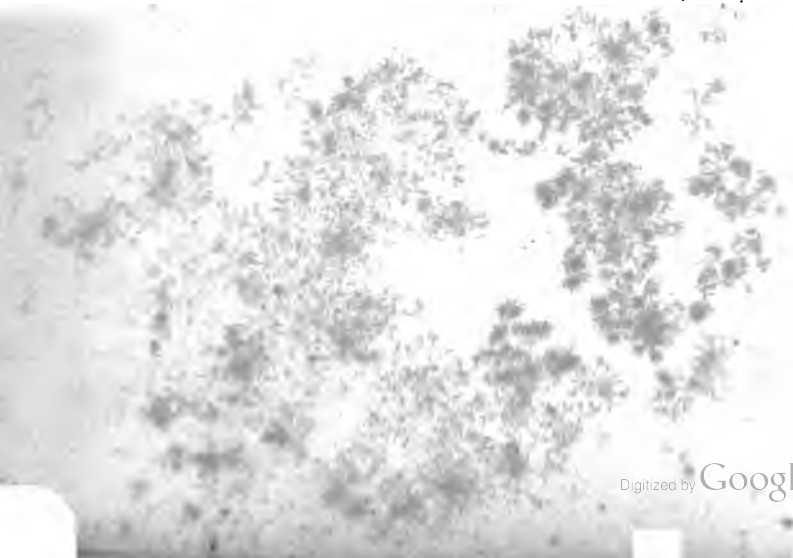


US 23305.25



THE GIFT OF HIS DAUGHTER

PERKINS HOOPER





Very respectfully

Thos. Allen

President Pacific Railroad

Engraved expressly

for the

Western Journal and Civilian

Digitized by Google

Lith. by Schaeff & Bro. 4th St. N^o 52.

0

THE JOURNAL

CIVILIAN,

Published by
M. NIEDNER,
107 N. 2d St.,
PHILADELPHIA, PA.

Subscription price, \$1.00 per annum in advance.

1853

VOL. 15.

PUBLISHED MONTHLY

32. HOURS:

PRINTED BY M. NIEDNER, WELD BUILDINGS, CHESNUT STREET.

1852-'53.



*Very respectfully
Yours truly*

President Pacific Railroad

Engraved expressly

for the

Western Journal and Civilian

Digitized by Google

Printed by Long St Louis.

Lith. by Schaeff & Bro. 4th Str. N^o 52.

THE
WESTERN JOURNAL

AND

Civilian,

DEVOTED TO

**Agriculture, Manufactures, Mechanic Arts, Internal Im-
provement, Commerce,**

PUBLIC POLICY,

AND

POLITE LITERATURE.

Agriculture and the Mechanic Arts are the basis of Civilization.

M. TARVER & H. COBB,

EDITORS & PROPRIETORS.

VOL. IX.

PUBLISHED MONTHLY.

ST. LOUIS:

PRINTED BY M. NIEDNER, WELD BUILDINGS, CHESNUT STREET.

1852-'53.

MS 23305.25

HARVARD COLLEGE LIBRARY

JUN 30 1915

CHARLES ELLIOTT PERKINS
MEMORIAL COLLECTION

GENERAL INDEX

TO THE NINTH VOLUME OF THE WESTERN JOURNAL.

ARTICLES BY THE SENIOR EDITOR.

	PAGE.
The Public Domain—Homestead Bill	1
Juvenile Reform Schools.....	75
United States:—The Southeast and Northwest.....	149
Memorial of the Mississippi Valley Convention.....	176
Memorial to the Legislature of Missouri in behalf of a Juvenile Reform School.....	215
Commercial Prospects of 1853.....	223
Cuba.....	295
Missouri, Past, Present and Future.....	369

ARTICLES BY THE JUNIOR EDITOR.

Mississippi Valley Railroad.....	36, 277
Light of Love.....	59
The Spirit Bride.....	62
Spiritual Communion.....	63
Select Parables.....	74
Mississippi Valley Railroad—Iron Mountain—North and South Missouri Links—Conventions, &c.....	114
Address to the people of the Mississippi Valley.....	182
Iron Mountain—South Missouri Railroad.....	204
Southeast Missouri.....	313
Geological Survey of Missouri.....	379
Arkansas and Mo. R. R. Chalk Bluff and Fulton R. R. Grant and Survey.....	401

CONTRIBUTIONS.

Pacific Railroad. System of Railroads for Missouri and the West. By E. E., of Missouri.....	28
North Missouri Railroad. By B. A. ALDERSON, of Missouri.....	45
Arctic Searching Expedition. By H. A. PROUT, M. D., of St. Louis, Mo.	50
Oratory—Random Thoughts. By an Occasional Writer.....	60
The Plains. By FRANCOIS DES MONTAIGNES, of St. Louis.....	71, 146, 221, 290, 366, 433
Uncle Tom's Cabin. A Review. By X. Y. Z.....	133
Freedom of the Will. By Hon. A. BEATTY, of Ky.....	140
British Museum—St. Louis Mercantile Library. By MANN BUTLER, of Mo.	209
Great Men of France—Lamartine. By H. H.....	112
Latent Heat. By Hon. A. BEATTY, of Ky.....	232
Croley's Ridge. By Rev. J. M. STEEL, of Arkansas.....	266
Uses of the Sea. A Poem. By EDWARD STAGG, of St. Louis.....	287
American Exhibition of the Industry of All Nations—New York Crystal Palace.. Wealth of Missouri. By A. S. MITCHELL, Esq., of Mo.....	269
Caloric. An Essay on Congelation, &c. By Hon. A. BEATTY, of Ky.	308, 376
Weight of Character. By Missourian.....	352
Valley of the Ohio. By MANN BUTLER, Esq., of Mo.....	355
Illinois, Past, Present and Future. By BLUFFDALE.....	362
Geological Researches in Missouri. By M. M. MAUGHAS, M. D., of Mo.	382
St. Louis and the Southeast. By AMICUS.....	398
Superior Social Advantages of the Mississippi Valley R. R. By EDWARD WYMAN, of Mo.....	409
Juvenile Reform Schools. By Mrs. MARY R. HALL, of Iowa.....	430

GENERAL INDEX TO THE NINTH VOLUME.

- ADDRESS to the people of the Mississippi valley, 182.
- Agricultural products of each State and Territory. Census of 1850, 192.
- Allen, Thomas, Biographical Sketch, 421.
- Amazon and the Atlantic slopes of South America, 166.
- Amazon Valley: its commerce with the United States, 321.
- American Exhibition of the Industry of All Nations, 269, 272, 274, 294, 369, 397.
- Anthracite Coal: Fuel for locomotives, 190.
- Arkansas and Missouri R. R., 346, 401.
- Arctic Expedition in search of Sir John Franklin, 50.
- BALTIMORE AND OHIO RAILROAD: Tariff of rates, 283.
- Bank of the State of Missouri, Report, 1852, 268.
- Blasting rock under water without drilling, 82.
- Bond to be sealed between the North and South. A poem, 139.
- British Museum—Mercantile Library Association of St. Louis, 209.
- Butter: produced in the U. S., 194.
- CALORIC: Latent heat, observations on the laws of, 232.
- Caloric: an essay on congelation, condensation, evaporation, formation of clouds, production of rain and snow, 303, 376.
- CENSUS of 1850. Population of each State and Territory, 110. Decennial Statement of population by classes, 112, 191. Agricultural products of the U. S., 192.
- Cheese: pounds produced in the United States, 194.
- Crystal palace, New York. Vide American Exhibition.
- COMMERCE AND COMMERCIAL STATISTICS. Commerce of New Orleans in 1852, 48.
- COMMERCIAL PROSPECTS for 1853, 223
- Commerce and commercial statistics of St. Louis in 1852, 259, 349.
- Commerce of the Southern States with the valley of the Amazon, 321.
- Commerce of Peoria, Illinois, in 1852, 348.
- Congelation. Vide Caloric.
- Corn, Indian, produced in the United States, 192.
- COTTON AND THE COTTON TRADE. Causes affecting the production, consumption and price. Tabular statements of production and consumption in all countries. Prices, stocks, &c., 249.
- CROLEY'S RIDGE, Arkansas, topographical description, 256.
- CUBA, observations on its political condition and destiny. Its history, population, products, price of land, &c., 295.
- DOMAIN, PUBLIC, 1.
- Drama, 437.
- Dust and Jewel, 148.
- EMIGRATION from the United Kingdom to all countries, 199.
- Emigration from Ireland to the U. S. Amount of money remitted from by Irish immigrants from St. Louis to Ireland, 198.
- Emigration from Germany to St. Louis. Report of the Agent of the German Society, 196.
- Exhibition of the Industry of all Nations at New York. Vide American Exhibition.
- Farming implements, value of in the U. S., 172.
- Flax seed, quantity produced in the U. S., 191.
- Foreign Imports at St. Louis, in 1852, 261.
- Freedom of the Will, 140.
- Geological Survey of Missouri, 319.
- Geological Researches in Missouri, 382.
- German immigration to St. Louis, 196.
- Great men of France, Lamartine, 212.
- HAY, quantity produced in the U. S., 194.
- HEAT, latent. Observations on the laws of caloric, 232.
- Hemp, quantity produced in the U. S., 192.
- Homestead Bill before Congress, 1.
- Illinois, past, present and future, 362.
- Industrial Association at New York. Vide American Exhibition.
- Irish immigrants to St. Louis—money remitted to Ireland, 198.
- Iron Mountain railroad: Act to expedite its construction, 203. Bill introduced in Congress for a grant of land in aid of, 294. Iron Mountain, South Missouri railroad, 204, 294, 347.
- JUVENILE REFORM SCHOOLS, 75, 218, 430.
- Land, number of acres improved in the U. S., 192.
- Latent heat, 232.
- Literary notices, 293.
- Lunatic Asylum of Mo., 436.
- Mankato, Iowa: its location and commerce, 47.
- Manufactures: value of home-made in the U. S., 194.
- Maple sugar, quantity made in the U. S., 194.
- Mercantile Library Association at St. Louis, 299.

- Metaphysical Researches, 67.
- Minnesota, Extracts from Gov. Ramsey's Message, 344. Memorial of Legislative Assembly respecting the Mississippi Valley R. R., 406.
- Mississippi Valley Railroad Convention at St. Louis, 36, 114. Memorial to Congress, 176. Address to the people, 182—Vide 277, 347 and 406, 409.
- MISSOURI. past, present and future, 369. Civil statistics. Treasurer's Report, 414. Population and Revenue, 418.
- Mouth of the Mississippi, 154.
- Navy yard at New Orleans, 154.
- NEW ORLEANS, tabular statement of its commerce 1852—48, 9. New Orleans, Opelousas and Great Western Railroad: first annual report, 331.
- New York Crystal Palace, Vide American Exhibition.
- North Missouri Railroad, its prospects, 45. Convention at St. Charles, 119. Loan of State credit in aid of, 202, 347.
- Oratory, value of the art, its cultivation &c., 60.
- PACIFIC RAILROAD. A system of railroads for Missouri and the West, 28. Routes and estimates of the cost of a road to the Pacific ocean, by J. A. McDougall, 88. First train of cars west of the Mississippi, 202. First annual report, 329. Memorial to the Legislature of Missouri 340.
- Parables, select, 74.
- Peoria, its population, commerce and manufactures, 348.
- Periodical Literature, 220.
- Philadelphia, its railroads, manufactures and commerce, 243.
- PLAINS. A collection of veracious memoranda taken during an expedition of exploration of the valley of the Canadian and other parts of the country, between the western settlements and New Mexico, 71, 146, 221, 290, 366, 433.
- Population of the United States, number of representatives in Congress, &c., 110. Population by classes, 112, 191. Population of each county in Missouri, in 1852, 418.
- Public Domain. Homestead Bill, and general railroad bill before Congress. Superior Advantages of, 409.
- RAILROADS. General railroad bill before Congress, 1. Railroads in Wisconsin, 26. Railroad connections between the Southwestern and Northwestern States, 141. Railroad law of Tennessee, 238. Act of Congress granting land in aid of the Arkansas and Missouri railroad, 346. Missouri and Iowa R. R., 408. Vide Pacific and other railroads under their proper titles.
- Random Thoughts, by an Occasional Writer, 60.
- St. Louis and Southeastern States—railroad to Nashville, Tenn., 398.
- Sea, uses of, a poem, 287.
- Southeast Missouri: system of improvement for the Swamp Land District, 310.
- Southeastern and Northwestern States, 149.
- Spirit Bride, illusion of fancy, 62.
- Spiritual communion. Observations touching the phenomenon known as spirit rappings, 63.
- Sugar, quantity produced in the United States, 194.
- Sunset Gleams—Ethel Grey, 438.
- Swamp Lands of Missouri and Illinois, 310.
- Tennessee railroad law, 238.
- Tobacco and the tobacco trade. History—growth and consumption in all countries. Tabular statement &c., 102. Quantity produced in the U. S. according census of 1850, 192.
- Uncle Tom's Cabin, or life among the lowly, reviewed, 133.
- Uses of the Sea, a poem, 287.
- Valley of the Ohio, its conquest and settlement, 355.
- Weight of character, 352.
- Wheat, quantity produced in the United States, 192.
- Wisconsin, history of its settlement, growth, &c., 15.
- Wine, quantity produced in the U. S., 194.
- Wool produced in the U. S., 192.

THE WESTERN JOURNAL

and *Civilian*,

VOL. IX.

October, 1852.

No. I.

ARTICLE I.

The Public Domain.—Homestead Bill.

Of the causes which have retarded the advancement of civilization in Europe, none have been more fruitful of social evils than the unjust distribution of the lands amongst its inhabitants. And although some of the most objectionable principles of the European systems have been repudiated in the United States, yet, we are persuaded that the views of our public economists and statesmen are confused and ill-defined in respect to the disposition and management of the public domain in this country.

Our system, which regards the public domain as a source of revenue, was forced upon us by the embarrassed condition of the nation at the close of the revolutionary war; and in view of the small number of our population, the great extent of territory, and the undeveloped condition of our resources, the early policy of the government in respect to the public lands, was probably the best that could have been devised. But the national debt which then existed having been paid, and the resources of the country more fully developed, the reasons which indicated the policy adopted in the first stages of our national existence have ceased; and now it is our duty to inquire whether that policy should not cease also.

A property in a considerable portion of the soil is one of the strong pillars of monarchical governments; and a permanent aristocracy can only be sustained by the possession of large estates in land. Property in the soil, held for the purposes of revenue, is inconsistent with the nature of republican governments. For the government emanating from the people, whatever property it pos-

esses, must necessarily be derived either directly or indirectly from the same source. If the government acquires title by purchase or conquest, it can only be regarded as a depository, a trustee, possessing no right to the usufruct without the consent of its constituents. In a pecuniary point of view, the wealth of the nation would be increased as much by giving the public lands to settlers as by selling them at any price whatsoever to our own citizens. But, nevertheless, it may not be the best policy to dispose of them in that way; nor would such a measure be just; for if the lands possess any pecuniary value in their unimproved condition, the individual who should obtain a tract by donation would receive that much more of the common property of the people than he who might be prevented by circumstances from enjoying a similar privilege.

That our present land system is not in conformity with the genius of our institutions, is manifested by the desire of change which prevails in almost every part of the Union, and also from the many schemes proposed in Congress for its modification.

We have, heretofore, discussed the merits of a Bill introduced by Senator Douglass, at the first session of the thirty-first Congress, proposing to grant "one hundred and sixty acres of the public lands to the actual settler, who shall reside thereon and shall cultivate a portion thereof, for the period of four years," and in the same paper we submitted our own views in respect to a change in the existing laws concerning the public domain. We now propose to examine some of the measures presented during the session of Congress which has recently closed.

The Homestead Bill of the late session is based upon the leading idea of Senator Douglass's Bill of the preceding Congress; but differs materially in its details. We copy it entire, as we find it published in the Evansville Journal, for the benefit of our readers.

HOMESTEAD BILL.

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That any person who is the head of a family and a citizen of the United States, or any person who is the head of a family, and had become a citizen prior to the first day of January, eighteen hundred and fifty-two, as required by the naturalization laws of the United States, shall, from and after the passage of this act, be entitled to

* Vide the Western Journal, Vol. III, Page 281.

enter, free of cost, one quarter section of vacant and unappropriated public lands, or a quantity equal thereto, to be located in a body in conformity with the legal subdivisions of the public lands, and after the same shall have been surveyed.

SEC. 2. *And be it further enacted*, That the person applying for the benefit of this act shall upon application to the register of the land office in which he or she is about to make such entry, make affidavit before the said register that he or she is the head of a family, and is not the owner of any estate in land at the time of such application, and has not disposed of any estate in land to obtain the benefits of this act; and, upon making the affidavit as above required, and filing the affidavit with the register, he or she shall thereupon be permitted to enter the quantity of land already specified. *Provided, however*, That no certificate shall be given or patent issued therefor until the expiration of five years from the date of such entry; and if, at the expiration of such time, the person making such entry, be dead, his widow, or, in case of her death, his heirs or devisee; or, in case of a widow making such entry, her heirs or devisee, in case of her death, shall prove by two credible witnesses that he, she, or they have continued to reside upon and cultivate said land, and still reside upon the same, have not alienated the same, or any part thereof, then in such case, he, she, or they shall be entitled to a patent, as in other cases provided for by law. *And provided further*, That in case of the death of both father and mother, leaving an infant child or children under fourteen years of age, the right and the fee shall inure to the benefit of said infant child or children; and the executor, administrator, or guardian may at any time within two years after the death of the surviving parent, sell said land for the benefit of such infants, but for no other purpose; and the purchaser shall acquire the absolute title by the purchase, and be entitled to a patent from the United States.

SEC. 3. *And be it further enacted*, That the register of the land office shall note all such applications on the tract books and plats of the office, and keep a register of all such entries, and make return thereof to the General Land Office, together with the proof upon which they have been founded.

SEC. 4. *And be it further enacted*, That all land acquired under the provisions of this act shall in no event become liable to the satisfaction of any debt or debts contracted prior to the issuing the patent therefor.

SEC. 5. *And be it further enacted*, That if, any time after filing the affidavit as required in the second section of this act, and before the expiration of the five years aforesaid, it shall be proven by two or more respectable witnesses, upon oath, to the satisfaction of the register of the land office, that the person having filed such affidavit shall have actually changed his or her residence, or abandoned the said entry for more than six months at any one

time, then, and in that event, the land so entered shall revert back to the Government, and be disposed of as other public lands are now by law.

SEC. 6. *And be it further enacted*, That if any individual, now a resident of any one of the States or Territories, and not a citizen of the United States, but at the time of making such application for the benefit of this act shall have filed a declaration of intention as required by the naturalization laws of the United States, and shall become a citizen of the same before the issuance of the patent, as made and provided in this act, shall be placed upon an equal footing with the native born citizen of the United States.

SEC. 7. *And be it further enacted*, That no individual shall be permitted to make more than one entry under the provisions of this act; and that the Commissioner of the General Land Office is hereby required to prepare and issue such rules and regulations consistent with this act as shall be necessary and proper to carry its provisions into effect; and that the registers and receivers of the several land offices shall be entitled to receive the same compensation for any lands patented under the provisions of this act, that they are now entitled to receive when the same quantity of land is entered with money, to be paid by the party to whom the patent shall be issued; *Provided, however*, That all persons entering land under the provisions of this act, shall, as near as may be practicable, in making such entries, be confined to each alternate quarter section, and on land subject to private entry; *And provided further*, That nothing in this act shall be so construed as to impair or interfere in any matter whatever with existing pre-emption rights.

The bill was then passed—yeas 107, nays 55.”

The large vote by which this bill passed in the House of Representatives warrants the belief that the measure will be brought up again at the next session, and hence the propriety of discussing the subject at the present time. Now with due deference to the one hundred and seven members of Congress who voted for this Bill, we are compelled to say that to our view it appears more like a popular movement on the part of its advocates, than a measure originating in the patriotic and wise conceptions of statesmen whose minds are capable of comprehending the subject in all its bearings. If the settlement and cultivation of the public lands were the chief objects aimed at they should have been opened to the occupation of all classes without restriction; or, if the object was to assist the poor, none should have been entitled to a grant who were able to purchase. The Bill contemplates a division of the citizens of the United States into two classes: landholders and

non-landholders. An individual possessed of a few acres of poor land which, with all the labor he can bestow upon it, scarcely yields bread sufficient to support his family, can take nothing by the provisions of this law unless he gives his land away; while one whose estate consists in personal property only is entitled to one hundred and sixty acres, though he may possess money to the amount of a million dollars. Besides, a large portion of those who own no land in the old States, do not possess means which will enable them to remove their families five hundred or a thousand miles, and sustain them in a new country, until they can build a shelter, open a farm, and raise a crop; therefore, that class which of all others stands in most need of assistance will receive no benefit.

Again, more than one million of foreigners have landed in the United States within the last four years, and but a small portion of these, we imagine, have purchased land: many of them possess money, and are able to purchase. Hence it is doubtless true that a much larger proportion of our foreign than of our native population would be benefitted by the measure under consideration. This is an incidental discrimination, it is true, but it proves the want of statesmanship on the part of those who framed and voted for the Bill.

Another instance of incidental discrimination is found in the fourth section of the Bill, which declares that "all lands acquired under the provisions of this act shall in no event become liable to the satisfaction of any debt or debts contracted prior to the issuing the patent therefor." Now there is no provision in the Bill requiring the occupant to apply for his patent at the end of the five years; hence he may hold the land during his life without a patent, and may devise it, or it will descend to his heirs exempt from the operation of all contracts made by their ancestor; nor would it be subject to taxation, we imagine, until the patent was issued.

It may be admitted that Congress possesses the right of donating the public land to individuals upon such conditions as it may deem proper to annex; but we hold that it has no power to exempt the land thus donated from the operations of the laws of the State in which it is located, after the donee has complied with the conditions and received a title. By the laws of Missouri the real estate which an individual acquires, no matter from what source, is liable to the satisfaction of contracts entered into before as well after such

acquisition; and we cannot assent to the proposition that Congress possesses the power of modifying this rule in a sovereign State. With equal propriety it might exempt lands purchased at public sale from being liable to the satisfaction of debts previously contracted by the purchaser. Under this provision an individual possessing large means, but in failing circumstances, may take possession of one hundred and sixty acres of public land, build a palace on it, and make other expensive improvements; and then setting his creditors at defiance, spend his days in luxurious indulgence, provided he is not the owner of land elsewhere, or has not sold other lands with a view to the benefits to be derived from this law. But should he be so unfortunate as to possess other land, it would require but little ingenuity to procure it to be sold for the payment of his debts, and thus remove his disability.

It is impossible to establish any data from which we can estimate the quantity of land that will be taken by the beneficiaries contemplated in this bill. That every acre of the public domain, not otherwise disposed of, is liable to be taken under its provisions there is no doubt. For according to our construction the first proviso of the 7th section does not limit the grants to alternate quarter sections merely. Certain persons described in the bill are entitled to land which shall, "as near as may be practicable," be taken in alternate quarter sections, but the right to enter does not cease when all the alternate sections shall have been occupied: that right will still continue under the law as long as any public land remains. Nor can any calculation be made that could be regarded as approximating the truth in respect to the number of persons composing the class provided for by the bill; for like waters flowing from an exhaustless fountain, the absorption of the stream will not reduce the source from which it springs. The unceasing changes in the condition of men will continually add to the non-landholding class. It may be fairly assumed that not more than one man in five in the United States is the owner of land at the time of his marriage, and from this source alone the number of claimants will continually be increased until all the lands worth owning are occupied.

To enable the reader to form some idea of the number of persons composing the class entitled to claim lands under this bill, and also to show how little time it will require to dispose of the public domain by virtue of its provisions, we have assumed the

the following data as a basis of calculation. Estimating the white population in 1853 at 22,000,000, and seven individuals to a family, and then assuming that one family out of every ten belongs to the non-landholding class, we have 314,285 families destitute of land who would be entitled to 50,285,600 acres. And assuming that one marriage for every two hundred of the population takes place annually, and that in four cases out of five the parties own no land, it will require 6,180,000 acres annually to supply these with homesteads. Now let us estimate the quantity of lands owned by the government, and in a condition to be divided amongst these beneficiaries.

By an official report from the proper department it appears that on the first of January, 1849, there remained of the public domain in the twelve new States which contain public land, 245,913,343 acres unappropriated. Now deduct 20,000,000, which is about the quantity which will have been disposed of at the end of the present year including Mexican war claims &c.; 22,000,000 acres which will be required according to the estimate of the Secretary of the Interior, to satisfy the claims under the bounty land law of 25th September, 1850; 5,000,000 acres donated to railroads; 25,000,000* acres swamp lands granted to the States, and 2,000,000 acres Mexican war claims not located, and there will remain about 172,000,000 acres unappropriated. Much of this land has been in market more than twenty years, and it is safe to affirm that at least one half of it is absolutely worthless for the purposes of cultivation until improved by the aid of science. Deduct one half for poor land, and there will remain 86,000,000 acres. Now if we assume that one half of the non-landholders will take the benefit of the law, there will then remain about 61,000,000 acres, which would only be sufficient to endow the marriages for ten years, but if we suppose that only half of these should claim, and that the changes which take place in the condition of the population should create a demand for 1,000,000 acres annually, in that case all the arable land in the twelve States would be taken in fifteen years. But if we deduct the 38,288,340 acres proposed to be distributed amongst the States for railroads

* The quantity of swamp lands reported by the Register, is 20,785,336; but it is obvious that the entire quantity had not then been reported by the Surveyors, for only 562,170 acres were set down for Florida in which, as we believe, there will be found not less than 5,000,000.

and schools, to say nothing of the quantity proposed to be appropriated for the benefit of the indigent Insane, and other purposes, then the quantity of arable land left for marriages &c. would be reduced to about 23,000,000 acres which would be taken according to the data assumed in about five years.

We have confined these estimates to the twelve States, because they contain nearly all the land to which the Indian title has been extinguished on this side of New Mexico and the Rocky Mountains; and because we are fully persuaded that under the most rigid construction of this Homestead Bill, the class of persons which it is designed to benefit, will be sufficiently numerous to occupy the whole of the public domain in future, as fast as it will be acquired by the government from the Indians. We do not affirm that all the lands would be taken by those entitled to them under the provisions of this bill; but we do confidently predict that from and after the period of two years from the passage of the bill the money accruing from the sale of the public lands would never again exceed the cost of surveying and other expenses incident to their management, to say nothing of the price paid to the Indians.

Now, we ask the people of the United States if they desire such a change in our land system as will result from the passage of this bill? Are the people of the old States content to abandon the public lands as a source of revenue? Are the landholders and manufacturers in those States willing to part with their best laborers and operatives, many of whom, attracted to the new States and territories by this law, will doubtless emigrate, unless their wages are greatly increased? Are those of the new States willing to see the country filled up from the ranks of paupers, to give up all hope of improving the commercial and traveling facilities of the West and South, and of establishing a liberal and permanent fund for schools by the aid of the public lands? Having paid for their own lands, and suffered the privations incident to settling a new country, are they willing to see the unsold land, improved in value by their own toil, donated to strangers with the privilege of holding it against the just claims of creditors, and exempt from taxation, while the market value of their own land will be depreciated by the operation of this unjust policy?

But our objections to this bill are not confined to the unjust operations of its details: we object to it because throughout all its provisions it contemplates the special benefit of classes and indi-

viduals, and contains none of those comprehensive conceptions which characterize a national measure.* It belongs to that class of legislation which looks to the temporary relief of individuals without providing for the improvement of the general condition of the nation. It encourages the people to look to the Government for support rather than to their own well directed exertions, and, withal, it is calculated to beget and cherish a spirit of aggression, and a desire for the conquest of other countries. There is a praiseworthy humanity in administering to the wants of the needy, and in affording them the means of improving their condition; but should Congress donate all the public lands to the settlers, it will not improve the condition of either the old or new States; it may be the means of increasing the population of the latter more rapidly, but the gain in numbers would not compensate the want of intelligence, enterprise and capital, on the part of the emigrants. Nor can we see any reason for supposing that in a national point of view the next generation would, in any respect, be benefitted by the measure. For notwithstanding the great extent of our public domain, the present generation will not pass away before every part of it worth cultivating will be fully occupied; and whether it be sold or whether it be given away will, in our opinion, make little or no difference in the condition of the succeeding generation.

The public domain of the United States may be regarded as an immense source of moral and political power; and if managed with wisdom, this power may be preserved and enlarged for the benefit of the nation throughout an indefinite period of time. Let a portion of it be applied to the construction of great lines of railways, calculated to bring the inhabitants of the Atlantic coast in speedy communication with the dwellers on the shores of the broad Pacific; and others that will bring the people of the South in close communion with those of the extreme north; and along these iron bonds, as the electric fluid along the wires of the telegraph, a current of human sympathy will continually flow in every direction throughout the land, harmonizing the hearts as well as the interests of those most distant from each other. Then, let another portion be appropriated for the indigent Insane, as already proposed in Con-

* It may be proper to state that in our review of Senator Douglass's Bill we favored the measure of donating 80 acres of land to each settler on the public land, but subsequent reflection has changed our opinion on that point.

gress. But above all let us appropriate an amount to the purposes of education which shall be sufficient to ensure a reasonable degree of instruction to all the indigent of the respective States, to the end of time. The public domain is quite sufficient for the accomplishment of all these objects,—national attainments which would make the American people the marvel of the earth, and the means of improving the condition of all other nations.

With such glorious objects in view, and possessing ample means for their attainment, the nation will stultify itself and disappoint the just expectations of mankind, if, like an inexperienced youth,—a spendthrift,—it should squander its rich inheritance upon transient objects, and divest itself of the power bestowed upon it by a benevolent Providence for the benefit of future generations.

With a view to the objects enumerated we would abolish the policy of looking to the public land as a source of national revenue. But continuing their management under the control of the General Government, we would, after a judicious appropriation to the purposes of internal improvement and education, subject the price to a scale of graduation regulated by the time the land had been in market, and within a reasonable time after they had reached the minimum, convey them to the respective States in which they lie. By this plan a few years would put an end to the ownership of the soil on the part of the nation in the respective States, a consummation in all respects to be desired by all parties. The money accruing from the sales might be held by the general government, until distributed among the States according to such rule as Congress should agree upon.

By adopting this policy, and refusing grants to individuals, even for public services, a salutary check would be put to the popular desire for conquest, and there would be less danger of getting into wars with other nations.

GENERAL RAILROAD BILL.

This is another measure respecting the public domain which was discussed at the late session of Congress, and from the favor it received in that body it will, in all probability, be renewed at the approaching session. Judging from the nature of its provisions, we conclude that it was intended by the old States as a compromise by which they were to receive a part of the public domain for the support of schools in consideration of certain donations to the new

States in aid of railroads. Thus far the conception was just: for regarding the public land as the common property of the nation, no one could deny that the old States were entitled to an equitable share of the benefits to be derived from them. But when we come to examine the details, the terms of this compromise, we find the advantages, so far as respects a division of the land, all on the side of the old States.

Let us see how the account stands, at present, against the new States. Assuming that they have all received an equal quantity of land in proportion to the area of each, we will examine the account of Missouri, and regard it as representing the condition of all. This State has received for common schools, consisting of the sixteen sections, 1,108,073 acres; for internal improvements, exclusive of the recent donations to railroads, 500,000 acres; for University 46,080 acres; for seat of Government 2,560 acres; and is entitled to a sum of money, the three per cent. fund accruing from sales of land in the State, which is equal to the proceeds of about 300,000 acres: amounting in all to 1,956,713 acres. Now, without claiming any credit for the value imparted to the public domain by the settlement and improvements made by the people of Missouri, let us see what further donation this Bill proposes to make, and how much the revenue accruing from sales of the public lands is likely to be diminished by the grant. Missouri will be entitled by the provisions of the Bill to a quantity of land, which added to the quantity granted at the late session in aid of railroads, will amount to 3,000,000 acres; but in this as in the other new States the land must be applied exclusively to the construction of railroads. The second section of the act provides that the land shall "be taken along the entire length of the line or route of said several railroads, so far as the United States own lands on the line of said several roads, in manner following, viz: every alternate section of land designated by even numbers for six miles in width on each side of said several roads." And it is further provided that in case any even numbers within six miles of the road shall have been sold, then the quantity shall be made up by alternate tracts to be taken from lands most contiguous to the tiers of sections first specified; and it declares that said lands shall be sold and disposed of only as the work on said roads progresses. Now, it is to be observed that the States are not allowed the privilege of making selections: they must take tracts designated by even num-

bers whether they be rich or poor, and in case no road should be made, they get no land. It may be admitted that these grants are as beneficial to the new States as they would be in case the revenue of the United States was diminished to the full extent of their value; but when the measure is regarded as one of compromise proposing a distribution of the public domain among the States, the injustice of the scheme is so glaring that one is almost surprised that any member of Congress possessed sufficient boldness to propose it.

Whatever public lands may be worth at a distance of from fifty to one hundred miles from a navigable stream or railroad, no intelligent man of the present day will deny that the construction of a railroad leading to a market would double their average value in money, for the distance of six miles from the line. Then, in substance, the proposition resolves itself into this: if the State of Missouri will, by the application of her capital and labor, add one hundred per cent. to the present value of 3,000,000 acres of public land, Congress will remunerate her by a grant of an equal quantity. Thus far the proposition is equitable; but the old States are not willing that it should rest upon this ground: they insist that in addition to a fair equivalent they shall receive the proceeds of certain quantities of land for their assent to a fair bargain.

The old States, respectively, demand a quantity of land equal to 150,000 acres for each of their Senators and Representatives in Congress, which they are authorized (not required,) to apply to the support of schools. In Missouri one section out of thirty-six has been reserved by Congress for schools, which amounts to 1,108,073 acres. But the State was not allowed to select it: each township was compelled to take the sixteenth section, be it rich or poor. By the provisions of this bill, New York is entitled to 5,400,000 acres; equal to one acre for about every five acres and a half of her own land. And more than this, the holders of the warrants to be granted in her behalf, have the privilege of selecting for themselves; which makes the grant worth at least fifty per cent. more than if the State were compelled to take by certain numbers without regard to quality. New York, in area, about one third less than Missouri, would receive for the support of schools, by virtue of this bill, about 450,000 acres more than the amount of all the lands granted to Missouri since its admission into the Union, including the 3,000,000 acres proposed by this measure. Indeed,

she would even receive more land in proportion to the number of her Senators and Representatives in Congress, than Missouri has hitherto received for the support of schools; and, besides, her assignees have the privilege of making selections. As a rule by which to determine the mode of dividing the public lands amongst the old States, that contained in the Bill may be fair; but as between the old and new States it would be obviously unjust to make a division according to the number of Senators and Representatives in Congress. But when we look into the merits of the Bill, and regard the public domain as the common property of the nation, it is evident that while it is proposed to give the old States 150,000 acres of land for each Senator and Representatives in Congress, the new States are to get nothing except what they pay for; in effect, they are required to add as much to the value of the common property as they take out.

Besides, while the grants proposed to be made to the new States are calculated to increase the revenue by encouraging sales, those proposed in favor of the old States will put an end to almost all sales for cash for a considerable number of years. The latter will be entitled to warrants covering 29,250,000 acres which, with the bounty land warrants and the Mexican war claims unlocated, will swell the amount to over 50,000,000 acres; which, at the rate of entries since 1849, will supply the market for more than ten years. During all this time the old States would enjoy a revenue accruing from what is now the common property of the nation, while the new States would receive nothing without an equivalent.

We say again, we are in favor of giving up the public domain as a source of national revenue; and we desire that, according to some just rule, the benefits to be derived from them should be enjoyed in an equal degree by the people of all the States: not during the present generation only, but throughout all time. But we protest against the distribution of the public lands, upon the principles involved in Mr. Bennett's Bill; and especially against the idea that the new States become debtors to the old on account of lands granted in aid of railroads on the terms proposed. Instead of being founded on principles of liberality and national justice, the Bill, in all its details, denotes the shrewd conceptions of a sharper, seeking to obtain an advantage over a weak and inexperienced individual.

When the new States ask for lands in aid of railroads, they are

met by the objection that they are claiming too large a share of the public domain. Even the incidental benefits which may possibly accrue from the construction of public works are charged against them, as so much of the common property advanced; and great caution is exercised to prevent a diminution of the public revenue, while the same body pass a Bill, by a vote of about two to one, which is calculated to put an end to the perception of all revenue from that source in future.

In reviewing the proceedings of the last and present Congress, the conclusion is forced upon us that, instead of being viewed as a source of national glory calculated to improve and elevate the social and intellectual condition of the whole people, the public domain is beginning to be regarded merely as a political fund which may be bartered away and gambled for by individual States and speculating politicians without the slightest regard to national objects. And while these things are being enacted, we regret to observe that the conductors of the public press,—the sentinels upon the watch-tower of the nation,—seem to be slumbering at their posts, as though they had been drugged. None of them, as far as we have observed, have taken upon themselves the trouble of analysing the measures touching the public domain lately under consideration in Congress. The title of the Homestead Bill appeals to the popular sentiment; Bennett's Bill addresses itself to the prejudices and interests of the old States; a presidential election is pending; and neither party dare openly to oppose these measures. Such at least is the aspect in which the subject is presented to our view. If in these remarks we do injustice to the public press, their vindication of themselves against the imputation of neglecting a great national interest will afford us pleasure.

The policy to be pursued in disposing of the public domain is the great question of the age—of more importance than a dozen presidential elections—and, we respectfully, but earnestly, invoke the people as well as the conductors of the press, especially of the West, to give the subject a critical and close investigation.

ARTICLE II.

WISCONSIN.*

At the opening of the 19th century, the "Territory North-West of the Ohio" was an unbroken wilderness, shared in doubtful supremacy, by the aboriginal man, and the other denizens of the forest and prairie.

It were needless to except from the universality of this description, the occasional advent of the Indian trader, the nascent settlements on the Ohio, which were attempting a precarious existence, or the Military posts which were pushed into this outer domain of our Republic, in token of our political dominion, and as heralds of an advancing civilization.

In 1802, the State of Ohio was carved out of the body of the North-West, and admitted into the federal Union. Steadily advancing in population, wealth and respectability to its present enviable position in our political system, her brief but impressive history commands the admiration of older communities, and awakens the generous emulation of the new. Her population, in 1850, had reached nearly 2,000,000, souls, and she ranks the third in the sisterhood of States.

The history of Ohio has been the history, in succession, of Indiana, Illinois and Michigan. Their advance has been, in like manner, rapid in population and in the other elements of political greatness. The four States, above enumerated, contained in 1850, 4,000,000 of freemen.

Surprising as these results are, transcending all that the world had previously known of the creation of new political communities, by the peaceful migration of men and of the arts, distancing even, all previous experience in the settlement of the new world, it might seem enough for Wisconsin, the youngest of the creations of the Ordinance of '87, to say, that she is of the North-West, and shares with her kindred States, in the experience of a like early development.

But to say this, is not enough. The settlement of Wisconsin has thus far been on a scale, unapproached even by that of the four States above enumerated, and constituting with her, the area long familiarly known as the "Territory North-West of the Ohio."

That this is not a vain boast, is a fact too broadly and familiarly known, to need the formality of demonstration. For the satisfaction of the curious, however, there is appended hereto a tabular

* We are indebted to our highly esteemed friend, J. H. Lathrop, Chancellor of the University of the State of Wisconsin, for the following interesting account of the settlement and growth of that wonderful young State. The source from which we received the pamphlet warrants its publication in our Journal as historical matter, entitled to the fullest credit.—*Editor.*

view of the population of the five States of the North-West, for decades of years, constructed by collating the census returns from 1800 down to 1850.

From this table it appears, that during the decade 1840—'50, the population of Wisconsin advanced from 30,000 to 305,000, while at corresponding decades of their growth, Ohio presents the figures from 45,000 to 230,000, Michigan from 31,000 to 212,000, while the corresponding increase of Indiana and Illinois was in a much smaller ratio.

It will be observed that the increase of Wisconsin, for the ten years ending in 1850 was 900 per cent. By examination of the census returns of that year, it will be found that the increase of Iowa, was 345 per cent.; that of Arkansas, 114 per cent., and of no other state over 100 per cent. during the same period.

This migration to Wisconsin, unparalleled as it is, in the experience of States, has not been the fitful result of the gambling mania which is luring its hordes of victims to the land of gold. It has been the steady and persistent flow of men and capital, seeking a permanent home and a profitable investment. After filling up the southern tier of Counties, the unbroken tide is setting strongly to the fertile valleys of the Fox and Wisconsin rivers, with their tributaries, and to the Mississippi border.

Wisconsin is no less distinguished in the *character* of its early settlers, than in their number. Recklessness and wild adventure has found little place in the history of this migration.

Michigan was fairly open to survey and settlement as early as 1830, and in the course of the succeeding ten years its capabilities were explored and appreciated; during which period its population rose, by a massive immigration, from 31,000 to 212,000.

In 1840 the relations of Wisconsin to the intelligent enterprise of the eastern States, where what those of Michigan were ten years earlier. The straits had been passed by sails and by steam, and the Territory of Wisconsin was open to settlement.

The conviction, however, had fastened itself on the mind of New England and New York, that the physical elements of prosperity were more decided and more readily available in Wisconsin, and would work out an earlier maturity, economical and social, than had been realized in the history of other States.

In accordance with these impressions, it is confessedly true, that the basis of the social character of Wisconsin has been laid in a migration as distinguished in character, as it has been surpassing in numbers. The intellect, the education, and the integrity—the head and the heart,—as well as the enterprise, the wealth, the industry and the skill of New York and New England, have been laid broadly and deeply under requisition, to furnish out the staple of the population which is to leave its impress on the State for generations to come.

Wisconsin has been equally fortunate in the numbers and the material of her foreign immigration.

The great European movement, which is likely to characterise the latter half of the 19th century, will consist, not so much in the improvement of the forms of social organization at home, as in the reproduction of her civilization under greatly improved conditions, by a massive emigration to the new world, whose broad surface of land still unoccupied, is demanding settlement and cultivation, with a voice now familiar to the ear, and attuned to the heart of Europe.

There is a Germany in America which is destined to be greater than the German's fatherland. Ireland is already Cis Atlantic, and regenerate.—The Scandinavian, with a remarkable power of assimilation, touches our shores and is American in thought, feeling and language.

From all these sources, Wisconsin is deriving large and steady accessions of numbers and of wealth, of enterprise and of cultivated intellect; not of those who drop down by accident within our borders, but of those who leave their native shores with no other intention than to find a home in Wisconsin.

Through those several channels of increase and progress, Wisconsin presented in the year 1850—the *third* of her existence as a Sovereign State and a member of our National Union—a population of 305,000 souls, a result absolutely without parallel in the settlement of States.

And it is equally true that the opening of her career as a sovereign State, has been from a point of nearer approximation to the standard of social maturity which prevails on the Atlantic border, and with far less sacrifice of the advantages and refinements of modern civilization, than has been true of other new States, whether of the North-West, or of other portions of the great valley.

It is, therefore, an interesting question, and one which has attracted attention, public and private, what are the natural capabilities of Wisconsin, which have made so broad and permanent an impression upon the mass of mind at home and abroad, as to bring to her shores so large a portion of the men and the capital that are annually seeking a home and investment in the West?

The answer to this inquiry naturally arranges itself under a variety of heads which will be very briefly considered.

GEOGRAPHICAL POSITION.

The State of Wisconsin comprises most of that portion of the original Northwestern territory which lies north of the parallel of Latitude 42° 30', and between Lake Michigan and the Mississippi river, and extending to Lake Superior on the north. A portion of this expanse of territory, lying between Green Bay and Lake Superior and to the north and east of Menomonee and Montreal riv-

ers, is attached to Michigan; and another portion, west and north of the St. Croix and St. Louis rivers, to Minnesota.

The area of Wisconsin, exclusive of the waters of Lake Michigan and Superior, comprises fifty-four thousand square miles, or thirty five millions of acres.

CLIMATE.

Included between parallels $42^{\circ} 30'$, and 48° north, the climate of Wisconsin is of the same general character with that of New York and New England. The average annual temperature, however, of Wisconsin is not of so low a figure as that of the same parallels on the Atlantic border. The atmosphere is drier, more transparent and salubrious, and the whole area of the State is remarkably free from those causes of endemic disease which were by no means unknown in the settlement of western New York, which have been the misfortune of large portions of Michigan, and the scourge of Indiana, Illinois, Missouri and, in part, of Iowa. Wisconsin is conceded to be the healthiest of the western States. Its Summers are adapted, in temperature and duration, to perfect all the products natural to the latitude, but are not oppressive. Its Autumns are proverbially delightful. Its Winters are close and uniform, but not harsh or generally severe.

GEOLOGICAL FEATURES, SOIL, &c.

The limestone, underlying the coal fields of Illinois, forms the immediate basis of the alluvion of Southern Wisconsin. This geological district, in addition to that portion of the State which lies southerly of the valley of the Wisconsin river, comprises the whole of the slope towards Lake Michigan.

In many portions of this district the lime rock disappears, and the out-cropping sand stone furnishes a fine material for building.

The lead bearing rock of the mineral region is a porous lime stone, prevailing throughout Grant, La Fayette and Iowa Counties, comprising four fifths of the "Lead District" of the Upper Mississippi; the remaining one fifth being in the States of Illinois and Iowa.

Deposits of Iron ore, water lime stone, and beds of Gypsum, together with other varieties of minerals, are found in localities more or less numerous throughout the lime stone region.

All of that section of the State, which lies between Lake Superior on the North, and the Falls of St. Anthony on the Mississippi, and the falls of the other rivers flowing southerly, is primitive in its prevailing Geological character; and it is within this primitive region, that the copper mines of Lake Superior are found—probably the richest in the world, and apparently inexhaustible.

In all that portion of the State, lying between the primitive region just described, and the lime stone formation of the South and

East, the transition sand stone prevails; interspersed with lime stone, and more sparsely, with rock of a primitive character. This formation comprises that section of country drained by the Wisconsin and other rivers tributary to the upper Mississippi, and below the falls of those streams. Within this Geological District, are found quarries of white marble, which promise to be abundant and valuable.

The character of the soil of Wisconsin is, of course, indicated to some extent by its geological features. The lime stone district of the State is overspread by a soil and subsoil similar to that which prevails in other portions of the great valley, and unsurpassed by any in fertility. It is the distinction of the mineral region of Wisconsin, that it is overspread by a surface of the very finest agricultural qualities; contrary to the general fact, that a mining district is worthless for the purpose of culture.

Proceeding northerly, and westwardly of the dividing ridge between the waters of Lake Michigan and those that flow into the upper Mississippi, the soil will be observed to become more sandy and porous; a character which will be found to prevail throughout the sand stone region above described. This portion of the State admits of easy cultivation. The soil is warm and highly productive, and the growth luxuriant.

FACE OF THE COUNTRY, SCENERY, &c.

The surface of Lake Michigan is about six hundred feet above the level of the Ocean. The surface of the State is every where undulating; not hilly, much less mountainous. Its average level below Latitude 46° is about 250 feet above Lake Michigan; seldom falling so low as 100 feet and rarely rising above 400 feet. The highest of the Blue mounds, on the line between the Counties of Dane and Iowa, rises 1170 feet above Lake Michigan, and is perhaps the most elevated land in Wisconsin.

There is a remarkable depression in the surface of the country, running across the State, from Green Bay to the Mississippi, the bottom of which furnishes the channels of the Fox and the lower Wisconsin. The portage between these two rivers is less than two miles.

This portage is but 223 feet above the level of Lake Michigan; being the elevation of the dividing ridge, at this point, between the basin of the Lakes and the valley of the Mississippi. At the mouth of the Wisconsin, the western terminus of this depression is about 60 feet above Lake Michigan; that of Lake Winnebago, at the head of the rapids of the Fox being 160 feet.

From the North into this valley flow the upper Wisconsin, and the Wolf, and on the South the country rises to the level of the head waters of the Rock, 316 feet above the surface of Lake Michigan. Thence there is a gradual inclination of the surface south-

erly to the line of the State; the elevation of which at the egress of the Rock is 128 feet above the Lake.

It is characteristic of the State, that the streams uniformly flow in beds but very slightly depressed below the general level of the adjacent country, and present no difficulty in the way of construction of roads of easy grade, transversely, as well as in the line of water courses. There is also, from this cause, much less to be apprehended from the sudden and destructive swell of the volume of water, from copious rains—two considerations, which they know best how to appreciate, who have dwelt where rivers and their branches make their beds in deep valleys, while the general elevation of the country is but a succession of intervening ridges.

Such being a general description of the surface of Wisconsin, the immigrant will not look for Alpine Scenery, or the bolder and sublimer features of the country of high mountain and deep valley. But in all that constitutes the beauty of the landscape, whether in the vestments of nature, or in those capabilities which cultivation can alone develop, Wisconsin is without a rival. Among her ten thousand undulations, there is scarcely one which lifts its crown above its fellows, which does not disclose to the prophetic eye of taste, a possible Eden, a vision of loveliness, which time and the hand of cultivation will not fail to realize and to verify.

The only forests, of a growth approximating towards that of Western New York, Pennsylvania and Northern Ohio, are found in a small portion of the Rock river valley, and in a narrow border on Lake Michigan, widening as it is traced northerly; evergreens becoming more freely interspersed, and finally predominating.

The evergreen growth prevails in the valleys of the streams of the sand stone district. The most extensive pinery in the State, is found on the upper Wisconsin. The same valuable growth prevails in the valleys of the Wolf, the La Crosse, the Black, the Chippewa, the St. Croix, and other streams penetrating the sand stone region.

Aside from these localities and the primitive region of Lake Superior, the elements of the Wisconsin landscape are the rolling prairie, the sparse wood-land, the opening, the natural meadow, and the lake. These, in their infinite variety of combination, and in their unrivaled loveliness, make up the natural scenery of the State. Three hundred and fifty thousand souls have, in a day as it were, found a happy home in Wisconsin. But her millions of acres, equally beautiful, and all untouched, are still courting the hand of cultivation, and the adornings of art.

EDUCATION.

The bounty of Congress has set apart the 16th Section of every township in the State for the support and maintainance of common Schools. From this source, nearly 1,000,000 acres will accrue to

the State, the proceeds of the sales of which are to constitute a permanent fund, the income of which is to be annually devoted to the great purpose of the grant.

This magnificent foundation has been wisely enlarged by Constitutional provisions, giving the same direction to the donation of 500,000 acres, under the act of 1841, and the five per cent. reserved on all sales of Government lands within the State. A still larger addition will accrue from the grant of the Swamp and overflowed lands, which the settlement of the country, the lapse of time, and easy processes of reclamation, will convert into the best meadow land in the world, and a large portion, ultimately, into arable.

For the support of a State University, seventy-two Sections of choice land, comprising 46,080 acres, have been already granted, and it is not improbable that this provision may be also enlarged by subsequent grants. If these trusts are administered with ordinary wisdom, the educational funds of Wisconsin, cannot be less, ultimately than \$3,000,000 and may reach \$5,000,000.

The University is already chartered and in successful operation. The school system has been wisely designed, and the progress of organization, under the law, keeps pace with the progress of settlement. There are already not far from two thousand five hundred school districts in the State. The annual income to be divided, has already reached \$70,000, and will be greatly increased from year to year.

The system contemplates, by the introduction of union schools, to extend academic instruction to each town in the State.

In addition to this munificent public provision for common and liberal education, there are, in different parts of the State, educational incorporations, both academic and collegiate, founded on private subscription. The most promising of these are the College at Beloit, well endowed, and in successful operation: and similar Institutions at Milwaukee, Racine and Waukesha in Eastern Wisconsin, and at Appleton, in the North.

Indeed, in none of the new States, even in the Northwest, will the means of education be more ample; and in none is there a more rational appreciation of the importance of this paramount public interest.

In Wisconsin, as in the other States of this Union, there is, and ever will be, an entire freedom of ecclesiastical organization, and an equal protection of every religious institution and arrangement, conservative of good morals, and protective of the highest and most enduring interests of man.

In consideration of all these elements of prosperity, economical and social, such as have never, till now, gathered around the opening career of a new political community, there is little ground for wonder that the early growth of Wisconsin has been without a parallel in the history of States; and it may be very safely assumed,

that the advent of men and capital to that favored portion of the Northwest, will continue, in increasing volume, for many years to come.

MINING.

To the practical miner, as capitalist or operative, *the lead region of the Upper Mississippi offers the most substantial inducements to settlement.* The exceeding abundance and richness of the mineral; the comparative ease with which it may be mined; and the high price it commands the moment it is brought to the surface, open to the industrious and prudent operator a highway to wealth.

New leads of the richest promise, have been recently discovered in the mineral district, and an increasing emigration to that section of the State, promises to replace the California draft, and to meet the growing demand for the mineral.

The steady advance in the price of lead which has prevailed for five years past, is indicative of a gradual but decided extension of its uses in the arts.—There is no ground for apprehension, that the supply will outrun the demand, or be able to work a reduction of the wages of labor and profits of capital in this industrial occupation, for some years to come.

The copper mines of Lake Superior are of established celebrity throughout the world, and open an inviting field for enterprise. The mining interest in that region is fast losing its character of adventure, and is attracting the attention of the prudent capitalist and the practical miner, as a remunerative branch of business.

The iron mines of Wisconsin have not yet been opened to any extent, but are worthy of the attention of the immigrant. There are rich localities of ore near the head waters of the Rock, and on the Upper Mississippi and its branches.

LUMBERING.

To the lumberman, the pineries of Wisconsin present inducements for investment and settlement, which can be hardly overrated. That of the Upper Wisconsin and its tributaries, is the most extensive; and distinguished still more for the fine quality, than the inexhaustible quantities of its timber. The other localities of the white pine and other evergreens, are mainly on the Wolf, the great northern affluent of the Fox, and on the La Crosse, the Black and the St. Croix, branches of the Upper Mississippi.

The rapids of these streams furnish abundant water power for the manufacture of lumber, and on the annual spring rise, and occasional freshets at other seasons of the year, the yield of the mills is floated from the Wolf into Lake Winnebago and the Lower Fox; and from the other streams into the Mississippi.

Scarcely ten years have elapsed, since the Alleghany pine of Western New York and Pennsylvania, had undisputed possession of the market, not only of the Ohio valley but of the Mississippi and its tributaries, above New Orleans; at which point it competed with the lumber of Maine and New Brunswick.

The course of the lumber trade may now be considered as permanently changed. The pineries of Wisconsin now control, and will soon hold exclusive possession of the market of the valleys of the Mississippi and its great western affluents.

AGRICULTURE.

But it is to that great body of emigrants who are seeking a home in the West, as cultivators of the soil, that the natural capabilities of Wisconsin most of all, address themselves.

The prairies of Wisconsin, unlike those of Illinois, Missouri, Iowa and Minnesota, are none of them extensive; and are so skirted and belted by timber, as to be adapted to immediate and profitable occupation and improvement to their very centre.

The openings, which comprise a large portion of the finest land of Wisconsin; owe their present condition to the action of the annual fires, which have kept under all other forest growth, except those varieties of oak which can withstand the sweep of that element.

This annual burning of an exuberant growth of grass and of under brush, has been adding, perhaps for ages, to the productive power of the soil, and preparing it for the plough-share, without the life-long process which was necessary to bring the densely timbered lands of Ohio to the same advanced point of preparation, for immediate and profitable cultivation.

It is the great fact, that nature has thus "cleared up" Wisconsin to the hand of the settler, and enriched it by yearly burnings, and has at the same time left sufficient timber on the ground for fence and firewood, that explains in a great measure, the capacity it has exhibited, and is now exhibiting, for rapid settlement and early maturity.

There is another fact important to be noticed in this connection. The low level prairie, or natural meadow, of moderate extent, is so generally distributed over the face of the country, that the settler, on a fine section of arable land, finds on his own farm, or in his immediate neighborhood, abundant pasturage for his stock in summer, on the open range; and hay for the winter, for the cutting—the bounty of Nature supplying his need in this behalf, till the cultivated grasses may be introduced and become sufficient for his use.

It is this very rapid transition of a quarter section of government land into an *old farm*, without a tittle of the privations and hardships which hung around the life time of the early pioneers of Ohio, which distinguishes the early settlement of Wisconsin.

Every description of husbandry suitable to the latitude, may be successfully prosecuted. In addition to the usual routine of crops, the business of stock-raising, of dairy, of wool growing, and the culture of flax, are beginning to engage the attention of settlers, with promise of eminent success.

The steady and exclusive prosecution of agriculture on the fertile soil of the mineral district, has the advantage of an active home market and ready pay.—Hitherto, in consequence of the tempting and absorbing nature of the mining business, the cultivation of the soil has given place to “prospecting” for mineral. Agricultural lands, therefore, though of the very first order of fertility, have been neglected, and may be purchased at very low rates.

The same general remarks apply to the agricultural lands in the pineries.—Though of different elements from the soil which prevails in the limestone region, it is easily worked, and of undoubted productive power. The home market is still more importunate in its demands, and as promptly remunerative.

And of the millions of acres comprised in the area of Wisconsin, by far the greatest portion may still be entered at the land offices at \$1.25 per acre, paid down, in specie, or in land warrants.

Several hundred thousand acres of school lands, in the older counties, are now open to entry at their appraised value, at the office of the Secretary of State, at the capitol in Madison; one-tenth of the purchase money down, and the residue on a long credit at seven per cent. per annum.

Choice lands, located for the maintenance of the State University, may also be entered at their appraised value, at the office of the Secretary of State, on even better terms of payment than the school lands.

It is worth while to add, that the California emigration and other temporary causes have thrown in market, at reduced prices, many improved farms in choice locations in the older counties. The opportunity for investment thus offered, is worthy of the attention of the emigrant; and facts relative thereto may be easily ascertained on inquiry at private land offices in the larger towns in the State.

MANUFACTURES.

The artisan will find a fair field for his labor, and for the employment of capital in Wisconsin.

For the ordinary mechanic arts which are inseparable from agricultural thrift anywhere, the demand is importunate. Builders of every class and degree are liberally paid in the larger towns. Millwrights are sure to find employment in town or country, whether the mill power be water or steam. Carriage making, from the manufacture of the railroad car to the simple vehicle, whether useful or tasteful, is greatly in demand and cannot fail to do well.

Among the larger operations of manufacture, those of flour and lumber are becoming sources of profit to the capitalist and laborer, and beneficial to the farmer. Woolen, flax and cotton mills must soon become fixed facts in Wisconsin. The raw material for the two former, will soon be among the larger and more profitable home productions of her agriculture, while the supply of cotton will, through the channel of the Mississippi, be more direct, safe and easy, than by sea, to towns on the Atlantic border. For all these operations there is abundant water power in suitable locations.

For the construction of steamboats and every variety of lake craft, the western coast of Lake Michigan is eminently adapted; and it may be reasonably anticipated that a large share of the ship and boat building for these inland waters, will be done in the ports on that shore. The iron and lumber of Northwestern Wisconsin, will attract to that quarter much of the boat building for the Mississippi and its branches.

Nor is it to be presumed that Wisconsin will be long tributary to Buffalo or Pittsburgh for its engines, whether for the steamer, the locomotive or the mill. No point on the Lakes presents more advantages than Milwaukee for foundries, for castings and machinery of every description.

All these, and the thousand unenumerated arts which go to constitute the social maturity of a State, will be hospitably entertained, and meet an early development in Wisconsin.

TRADE.

Bordered on the east and the west, throughout its entire length, by Lake Michigan on the one hand, and by the Mississippi on the other, every portion of the State has easy access to the Ocean, and a complete command of the eastern and southern markets—an advantage which will be appreciated by those who are acquainted with the mutations, as well as the fixed laws of trade.

On the Michigan side, have sprung up the towns, Milwaukee, Racine, Kenosha, Ozaukee, Manitowoc, Sheboygan and Green Bay, all flourishing and promising.

The growth of Milwaukee, like that of the State of which it is the commercial mart, has been unexampled in the history of American cities. Scarcely visited by the white man in 1835, it has now, (1852,) a population of twenty-five thousand souls.

On the Mississippi border, the elements of wealth, bountiful as nature has been, have scarcely begun to be developed; and the question is still open, as to the position of its principal commercial mart. The more prominent points at present, are Potosi, Prairie du Chien, Prairie La Crosse, and Willow river.

Of the interior towns, there are in the lead district, Mineral Point and Platteville; in the basin of the Fox and Lower Wiscon-

sin, Fort Winnebago, Oshkosh, Fond du Lac and Menasha. On the banks of the Rock, Watertown, Janesville and Beloit. Between the Rock and Lake Michigan, Whitewater and Waukesha. Madison, the Capital of the State, the seat of justice of Dane county, and the seat of the University, is beautifully located in the basin of the Four Lakes, midway between Lake Michigan and the Mississippi.

Janesville, the most populous of the interior towns, is the seat of the State Institution for the education of the Blind.

The population of the villages of the interior above enumerated, ranges from twelve hundred to four thousand each. The list of towns might be greatly enlarged, did it fall within the scope of this article to do more than to present to the emigrant a general view of the natural capabilities, and the present aspects of Wisconsin.

All around is in rapid, though unequal progression, and the town unenumerated to-day, may take its place in the first class to-morrow.

INTERNAL IMPROVEMENTS.

Plank roads are in process of construction, connecting the leading towns of the interior with each other, and all with the Lake and the River. Most of the towns on Lake Michigan are penetrating the interior with these facilities of trade and intercourse, to the mutual advantage of themselves and the country.

Of the several railroads projected and chartered, most of which are destined to completion at an early day, two—the “Milwaukee and Mississippi,” and the “Rock River Valley roads” are already under progress.

Cars are already running over the track of the former, from Milwaukee to Eagle Prairie, nearly forty miles. It will be finished to Rock River this season, and to the Wisconsin during the summer of 1853. Another year will carry it through to the Mississippi. The track is laid with heavy T rail, and the road, with all its appurtenances, will be a work of the first class. This road will pass through Madison, the Capital of the State, and terminate at or near the mouth of the Wisconsin.

The Rock River Valley road, connecting Fond du Lac with Janesville, and to be ultimately extended to Chicago, has been commenced simultaneously at Fond du Lac and Janesville. Several miles have been graded, and are nearly ready for the rail.

A road has been chartered, to run from Fort Winnebago, through Madison and Janesville, to Beloit; there to connect with a branch from the Chicago and Galena road; thus furnishing a continuous route from the valley of the Fox and Wisconsin, through the Capital of the State, to Chicago. This route is attracting the attention of capitalists; and the business of the country demands

and will effect the early construction of the road, by means of which a continuous line of railroad travel to the Atlantic, will be secured to Central Wisconsin.

The Lake shore road, from Milwaukee, through Racine and Kenosha, to Chicago, is an enterprise of general interest, and the construction of it cannot be long deferred.

Other railroads to intersect the State in various directions, either new routes or extensions of old ones, are projected. Some of these doubtless will be carried through, though the period of their completion is more distant than that of those above named.

The State is now in the administration of a large trust fund, derived from the sales of lands, granted by Congress, for the construction of a steamboat communication, from Green Bay to the Mississippi, along the bed of the Fox and Wisconsin rivers. This great work when completed is destined to form an important and valuable water communication between the basin of the St. Lawrence and the great valley of the Mississippi. Once completed heavy freight between St. Louis and New York will inevitably seek this channel, in preference to that by the Illinois and Michigan canal, as now it seeks the latter in preference to the eastern routes.

This great work, furnishing the most capacious outlet from our MEDITERRANEAN RIVER, into our inland seas, and thence, through the enlarged Erie canal and the Hudson, into the Atlantic, will be completed at no very distant day.

The improvement of the harbors on lake Michigan is imperiously demanded at the hands of the General Government, and in the existing condition of the Treasury cannot be longer delayed. And manifestly no object of expenditure could be more eminently national than the improvement of the outlet of Lake Superior, affording to the ordinary lake navigation free access to the copper region of northern Michigan and Wisconsin.

In connexion with the subject of works of general utility it remains only to say, that the telegraphic wires made early entry into Wisconsin. The line from Chicago to Milwaukee, and thence to Madison and Galena, has been for some years in operation. A net work of wires now overspreads the State, and all the larger towns are brought into the circuit of instantaneous communication, and into enjoyment of the advantages of this commerce of thought and feeling.

It need hardly be said in conclusion that these evidences of social advancement which meet the immigrant on his arrival in Wisconsin, and rapidly gather around the settler in his new home contrast cheerfully and hopefully with the privation, the hardship, the toil and the danger which fifty years ago environed the pioneer in the forests of Ohio.

Indeed, looking at the fact that nature has prepared the soil of Wisconsin for the plow, and its herbage for the immediate susten-

tation of domestic animals, contemplating the appliances of civilization, which art brings to the very doors of his cabin, he will not doubt—as in truth he need not—that twenty years will do for Wisconsin, what fifty years have barely sufficed to do for Ohio; that in all that goes to constitute a healthy and refined civilization, Wisconsin is destined to a more rapid development and an earlier maturity, than has heretofore marked the history of States, under the most favorable conditions.

These views are not extravagant. They are conclusions fully warranted by the premises. The predictions of to-day, will be sober history in 1872.

ARTICLE III.

PACIFIC RAILROAD.

Railroads for Missouri and the West.

Public attention seems now, in this State, to be fully awake to the necessity for railroads to develop the resources and hidden wealth of the country, and it is all-important that there should be full examination and free discussion of the subject, in order to bring to light the true system of railroads for the West, and how, in the speediest and safest manner, they may be built. Every variety of plan may be expected, modified by the knowledge and sectional interest of the individual, but each one will throw some light on the question.

It is easy to project on paper thousands of miles of railroad, but each road has to be built mile by mile, paid for as it progresses, and it should so far as possible pay back dividend as it progresses—for capital in this country cannot wait years for a return. Hence it is important to consider the country a projected railroad is to pass through as well as its ultimate destination; but it is equally important in starting a simple local railroad, if but ten miles in length, to look at what its end in time may be, and attempt to suit it to its destiny. A railroad once commenced, if laid to naturally suit the business of the country, must keep on as surely as the water from a spring must keep running.

It may seem to some folly to talk of thousands of miles, when perhaps only tens can at present be built, and objections may be made that too much is being undertaken, to the jeopardy of what can be done; but however large the plan, it will only be perfected as money is forthcoming for it, and it is all-important to look at the whole subject in order to start the details right. This is especially true of railroads from St. Louis—the natural centre of the Mississippi valley.

It is not necessary in this article to consider the routes Eastward, (already started) for it may be safely asserted that the Eastern States will build toward Missouri when she has made herself the centre of commerce of the West. Missouri has to build roads north, west and south.

Looking to the North and West the first difficulty that presents itself is the lack of any commercial point, within a reasonable distance to build to, but on the other hand the country to build through is all valuable, either for mineral or agricultural products. The necessity appears then of reversing the habits of the old countries, and instead of building roads to accommodate a business in existence, build them in order to create the business that is to maintain them. To the North the route naturally suggests itself as along the dividing ridge between the Mississippi and the Missouri rivers, and following into and beyond Iowa, there is found the valley of the Des Moines river, and beyond the valley of the St. Peters, and still beyond the valley of the Red River of the North, leading into the heart of the Upper Canadas—and all in the direct route northward. Every foot of the country passed thro is valuable, and it is understood to be one over which a railroad can easily be constructed. The route through Missouri, about 250 miles, is probably the easiest one for its length in the United States. Magnificent as this project appears, it is still more so, when, turning to the South, a route is projected by the Iron Mountain to the Gulf of Mexico, at New Orleans. Then is it seen to be a main trunk road north and south—grand as the Mississippi river itself—passing from the Gulf of Mexico, by the Iron Mountain and by St. Louis, and stopping only when it reaches the limit of civilization.

Missouri can start this by simply commencing the construction of the "North Missouri Railroad," and the "Iron Mountain Railroad." The States to the North and to the South will take it up, and carry it on, and while each State will work for its particular interest, it will at the same time be for the good of all. Louisiana, Arkansas, Iowa and Minnesota can all be interested in the work going on in Missouri, and in turn draw out for their work the interest of this State.

To the West the natural route seems to be generally by the valley of the Missouri river to the mouth of the Kansas, and following it out, by the South Pass to the Pacific ocean. This has already been commenced. Here again we see the Gulf of Mexico, connected through St. Louis with the northwestern plains of the country.

Another route strongly recommends itself, a route to the southwest corner of the State. The other projected routes do not accommodate that section, and when this route is followed out through Texas to the Gulf at Galveston, or some other point, intersecting as it does all the routes passing to the South toward the Pacific ocean, it is found a trunk road equally important with the others.

The four roads mentioned above, with the eastern roads now being built, are the main trunk roads that will fix for all time Missouri as the seat of empire in the West, with arms stretching to the Atlantic, to the Gulf of Mexico, to the Pacific, and to Northern Canada.

They are not roads that will make themselves *unless they are started*, and there is some danger that, unless started soon, other projects emanating from influence foreign and antagonistic to the State, may throw them back for many years, if not for all time.

Having considered this general system for the *results to be obtained*, it may be well to look at these roads as State roads, and bringing the system down to something at present practicable, test their worth for local improvement and development of the State, and as stock paying roads as they progress within the State.

These roads are the North Missouri road—the Pacific road—the Southwest Missouri road, and the Iron Mountain road. It is understood that the Pacific Railroad Co. are making surveys for the three last named routes, with a view of making reliable comparative estimates. These surveys are not yet complete but have progressed sufficiently to satisfactorily determine the practicability, at reasonable cost, of all the routes.

The North Missouri Road. The route for this road after crossing the river at or near St. Charles would naturally follow the level, fertile prairie ridge between the Missouri and Mississippi rivers, passing through St. Charles, Warren, Montgomery, Callaway, Andrian, Boone, Randolph, Macon, Adair and Schuyler counties. Some of these counties are among the richest in the State. Every foot of the land is fertile, and the whole country as capable of supporting as dense a population as anywhere in the United States. The St. Joseph and Hannibal road, the construction of which is secured by the grant of lands lately made to it, will be but two branches, from the East and West—and other branches will spring up from the river on each side, to pour the whole produce of that part of the State between the two rivers, now containing one half of the population of the State, over the North Missouri road. There can be no earthly doubt but that it must be a stock paying road *from the commencement*. The length of the road may be 250 miles, and \$18,000 per mile a large estimate. The total cost might thus be \$4,500,000. The ten counties that it passes can easily subscribe on an average (those nearer the river more, and those inland less) 100,000 each, yielding from county subscription \$1,000,000. Individuals in St. Charles, and some of the other richer counties may easily subscribe \$500,000.—St. Louis may bring in the same amount, and with the credit of the State to the amount of \$1,500,000, less 15 per cent. for interest to be paid on whole sum for say $\frac{1}{2}$ of five years time of construction ($2\frac{1}{2}$ year at 6 per cent.), means for building may be counted on to the amount

of \$3,275,000—leaving only \$1,225,000 for the credit of the road to furnish.

It may be safely asserted that, when any road properly located can furnish from the half to two thirds of the amount necessary to build it, that its own credit will furnish the rest, when needed. To secure the State from harm for its credit, the road has only to earn \$360 per mile of road. The earnings must be five times that.

An article on the Railroad shows the earnings of the following roads in the West to be

Little Miami.....	\$3,541 per mile
Columbus and Xenia.....	2,778 “
Michigan Central.....	2,116 “
Madison and Indianapolis.....	2,378 “

The charter for the Pacific Railroad Co. is for a road from St. Louis to the western limit of the State. As yet that company have not determined this route, whether it shall be for the trade of the Missouri river, or toward the Southwest. As carrying out the system of roads, it may be assumed that the Pacific railroad proper will be located on the shortest route to the mouth of the Kansas river, and that the Southwest road will be built as a branch to the Pacific railroad, on which the land grant may be applied as “a Railroad from St. Louis to the western line of the State.”

Pacific Railroad to Kansas. Referring to the report of the surveys of this road, made by Mr. Kirkwood, it will be seen that the shortest route is by the Missouri river to Jefferson City, and thence as direct as possible to Kansas, passing through St. Louis, Gasconade, Osage, Cole, Moniteau, Pettis, Johnson, Lafayette and Jackson counties.

It may be said of this route that the means of transportation on the Missouri river has already created a business that will go far toward making a railroad profitable, and there can be no doubt that the construction of the road will so rapidly develop the resources of the country, that a full business will be found. It will be seen by Mr. Kirkwood's report that the ordinary railroad charges are something below the average river charges, and it is understood that the surveys lately made show the practicability of shortening the route twenty miles or more, thus still reducing the railroad charge. The competition with the river, and with the routes directly connected through the St. Joseph and Hannibal Railroad with the Lake cities, must obligate the company to build the shortest route to Kansas as the only way to secure by low railroad freights the greatest amount of business. It must be borne in mind that the uncertain and dangerous navigation of the Missouri river must always keep the river charges for eight months of the year above those of a railroad. Looking at this route as a main trunk line westward toward the Pacific ocean, it seems still more important to shorten it as much as possible.

The distance it is believed will be about 280 miles, and the highest estimate \$6,500,000.—The means for building this road may be stated as follows:

Present subscription.....	\$1,500,000
County subscription that may be easily procured from Franklin county \$50,000; Gasconade, 25,- 000; Osage 50,000; Cole 50,000; Moniteau 50,- 000; Pettis 100,000; Johnson, additional, 100,- 000; Jackson, additional, 150,000.	575,000
Private subscription through same counties.....	150,000
State credit at present granted.....	\$2,000,000
Do. additional.....	1,000,000
Deducting 15 per cent. interest	2,550,000
	<hr/>
	\$4,875,000

Leaving \$1,625,000 to be made up by additional subscription in St. Louis, and by stock to contractors (that so far has been 10 per cent.), or by the credit of the road, that would doubtless furnish it.

To secure the payment of interest on State credit, the road has only to earn about \$640 per mile.

The engineer's estimate for earnings, made on apparently moderate data, is about \$1,660 per mile.

Southwest Missouri Road. Supposing this road to branch from the Pacific road about 40 miles from St. Louis, the distance in branch would probably be about 300 miles. Estimating this at \$23,000 per mile, would \$6,600,000 as cost. It cannot so safely be said of this route that it would be in the start a stock paying road, although perhaps it would be more valuable than any other in developing the resources of the State. With the bonus of the land grant given to this route, it may be called as safe for investment as any of the others. From St. Louis to the Gasconade river, following the ridge between the Marmac and Bourbeuse, the route would be through the heart of a very rich mineral country, (iron, lead and copper,) and after reaching the eastern edge of Green county, from there to the west line of the State the country is rich, well wooded, possessed of abundant water power, and competent to support a dense population. Lead and coal too is found in abundance. Already Green county, shut out from market as it is, is second in population and wealth to but few counties of the State. To this route would come all the trade of Northwest Arkansas, and the Cherokee country, with its salt and coal.

The means for building this road may be stated as follows:

County subscriptions from Franklin \$25,000; Crawford \$50,000; Pulaski \$50,000; Camden \$25,000; Laclede \$50,000; Dallas \$25,000; Wright \$25,000; Green \$200,000; Lawrence \$100,000; Jasper, Newton and Barry \$50,000.....	\$600,000
--	-----------

This route opening a new section of country, would draw subscriptions from the neighboring counties, which, with the private subscriptions that can be obtained, would probably amount to..... \$400,000

St. Louis, city, county and private.....	500,000
Credit of the State 1,000,000, which, deducting 15 per cent. interest, would yield.....	850,000
Between 1,000,000 and 1,300,000 acres of land, say worth.....	2,500,000
	4,850,000

Leaving to make up by stock or credit of road about \$1,750,000. With the credit to the stock of the bonus of land this could easily be procured when needed. To pay interest on State bonds the road need only earn \$200 per mile.

Iron Mountain Road. Several routes for this road present themselves, and the selection of either must be governed by careful surveys. It was stated before the Legislature that the late surveys show a practicable route, about 70 miles in length, and costing about \$1,750,000. The immense mineral wealth of the country through which this road must pass, is so world-wide known that it does not seem worth while to specify it for the purposes of this article. Its iron, lead, copper, kaolin, marble, granite, pine-timber and fair proportion of arable land, all warrant fair dividends. A moderate estimate made by the member from Washington co., (Mr. Johnson) at the Extra session, founded on the simple development of the works *already in existence*, gave a dividend of 10 per cent. on \$1,750,000.

The means for building this road may be stated as follows:
Subscription of counties and individuals on line of road

say.....	\$450,000
St. Louis, city, county and individual.....	300,000
State credit \$750,000, deducting 15 per cent.....	637,000

\$1,387,000

Leaving only \$363,000 to be got on credit of road. To pay interest on State bonds the road has only to earn about \$640 per mile.

A summary of these roads will show as projected for the State, independent of the St. Joseph and Hannibal railroad, 900 miles of railroad, the estimated cost of which is \$19,350,000, and the means estimated, independent of the credit of and contractors' stock in each road, are \$14,387,000. In this it is proposed that the State should advance her credit \$4,250,000, which added to the credit already advanced to the Pacific road, and the St. Joseph and Hannibal road, loans the State credit for \$7,750,000, secured by mortgage of all the roads, and advanced dollar for dollar with the capital of stockholders.

Two questions naturally present themselves. 1st. Is it policy to commence all these roads at once, or build the first and then another &c.? 2d. Is there any danger to the credit of the State by advancing it for all of these main lines of the State?

A few brief remarks as to these two points will not be out of place here.

An examination of the estimates given above will show that, with the exception of the State credit, the means for the construction of each road come from that particular road, and would not in any event be applied to the construction of either of the others. It is true that St. Louis in a small way assists all, but not to the extent that her wealth and credit is *added* to by the projection of each one. The State may be likened in this case to the father of four sons. The father starts, with such aid as he can give, each son in *his* particular path in life, and does not say to the second: "wait until your brother has made his fortune, then you may start," and so to the third and fourth. Should the energies in the North Missouri route lay dormant until the Kansas is finished? Should the energies in the South-west route lay dormant until both are finished, and those in the Iron Mountain route, until all others are finished? Plain common sense answers No, and as four different men may start at the same instant of time, and walk in four different directions, so may all these roads start. Each one will take from three to five years to build, and a year in the West accomplishes much more than in an old country, for good or bad. During the construction of the Kansas road alone, the trade of North-west Missouri might be diverted eastward, and that of South-west Missouri diverted southward, or during the construction of the south-west road alone, the national Pacific road might be fixed on the southern route.

At this particular time, when a large donation of land starts internal improvements in the State, and when by the proper disposition of the lands the Pacific railroad *may be* duplicated, it seems but wisdom in the State to start its true system of railroads by a judicious, but at the same time liberal loan of State credit to the companies formed, or to be formed, for the construction of the several roads mentioned.

The credit that has been loaned to the Pacific railroad, is only available to that company when a liberal subscription has been made, and as they spend on their work a certain amount of money to be furnished by the stockholders. After the expenditure of each fifty thousand dollars of private capital, the State bonds are issued to an equal amount, the State taking a first mortgage on the whole road. The Pacific railroad company is bound to pay the interest on these bonds, and in case of failure so to do, the State may foreclose the mortgage, on a work that must, from the law of the case, have cost at least double the amount of the State credit loaned to it. The State must be safe, if the road is one at all called for by

the wants of the people, or has any tendency to develop the wealth of the country. This is equally true of the other roads, but some of them may not start into present existence without the assurance of a loan of the State credit. By it persons interested may see a possibility of accomplishing the work desired, and come forward, subscribe their own means, and show the worth of the road by spending their money for its construction. Then, and not until then, can they use the State credit, but without the assurance of that, they might not attempt the work. No sane person will invest his money merely to get State credit to an equal amount, nor in any work that does not give fair promise of profit. The State, therefore, is safe that her credit, if granted as to the Pacific railroad, will not in fact be applied to any work except such as is evidently good, for on a useless one private capital will not be invested in it to an amount sufficient to use the credit.

The four roads mentioned are the trunk lines of the State *and of the West*. Each one may bear the closest examination, and stand on its own merits, and yet from the peculiarities of circumstances and the jealousies of legislation, all may have to act and pass together. The credit from the State will only be applied within the next five years, and is not at once thrown into the money market to the extent granted. The credit is dollar for dollar with private capital, and applied only to main trunk roads, that a man running can see are all good in themselves. The foreign capitalist looking as he does closely, will quickly see that *each of these roads adds to the wealth of the State ten-fold what she lends*; and seeing at the same time that this credit is only applied to the main lines, and does not extend itself, for the time being, to the numerous branches that, for local benefit will extend from each line—some good and some bad—will feel safe in his investment. The very combination of these interests at this time can prevent, for their own defence (all being interested in the safety of the State credit) the extension of that credit to the local branches of the State; *and herein is one element of safety in acting together in the State Legislature.*

A general railroad law may safely and wisely be enacted granting to any set of men who will take the proper steps, and advance the necessary money, a charter to build any railroad. This will prevent any monopoly. But the credit of the State should only, for the time being, attach to the leading lines of whatever system is adopted. So far it may go safely, but farther a log-rolling legislation might endanger that credit.

In this article nothing has been said as to the worth of these roads for their effect on the value of lands on their routes, and the consequent enrichment of the State. An interesting article might be written on this subject, and one that would force on the mind of every thinking man the importance of starting all as quickly as possible.

One important question presents itself in connection with a system of railroads for the West, and that is the "gauge" of railroads. All should be alike. It is to be hoped that this may be taken up in time to prevent the confusion that must arise from a diversity of gauge west of the Mississippi river. E. E.

ARTICLE IV.

Mississippi Valley Railroad.

ORIGIN, LENGTH, COST, WAYS AND MEANS &C.

The Good Book intimates that, when a man begins to build a house, he should sit down first, and count the cost; we will heed this suggestion, and count the cost of the *Mississippi Valley Railroad*.

But first, for the sake of showing that a great movement is in operation to determine the preliminaries of its construction, and for the sake of preserving the history of its origin, we copy the following CALL, and *Proceedings of the citizens of St. Louis*, from the columns of "The St. Louis Daily Evening News," one of the first, enterprising and unflinching supporters of this measure.

A CALL.

NORTH MISSOURI, ST. LOUIS AND NEW ORLEANS RAILROAD CONVENTION.

Whereas, movements have been made in favor of the *Missouri and Arkansas Railroad*, the *Railroad from St. Louis to New Orleans*, and the *North Missouri Railroad*, and whereas, each one of these roads would contribute to the prosperity of the other, by a judicious location of the routes, would allay sectional feelings, by a union of the interests of the North and South, and would also give a new impulse to the success of latitudinal railroads, by pouring additional produce and passengers on them; and whereas, it is the part of wisdom to hear and fully understand the wants of every portion of the country along the lines, in order to provide for the whole by one grand plan, to devise ways and means, and to ensure combination of action for its speedy execution; therefore, we propose that a meeting of the citizens of St. Louis be held at the Court House, on Saturday evening, October 9th, at half past seven o'clock, to consult about the propriety of

calling a Convention at St. Louis, on the first Monday in December next, to obtain the co-operation of the North and South along the Mississippi Valley, in behalf of a line of longitudinal railroads from Louisiana to Minnesota.

Henry Cobb,	R. P. Hall,	A. G. Switzer,
H. A. Prout,	Wm. C. Jewett,	W. N. Switzer,
Mann Butler,	T. T. Gantt,	D. A. January,
L. M. Kennett,	A. H. Evans,	J. Stettinius,
S. T. Glover,	Peter Lindell,	Jos. A. Sire,
T. Grimsley,	Edwd. Bates,	Jas. E. Yeatman,
J. O'Fallon,	James Jennings,	Thos. Allen,
Wm. Glasgow, jr.,	J. R. Barret,	H. King,
Jos. Charles,	Jno. Maguire,	Louis Winkelmaier,
Henry T. Blow,	Philip Tippet,	Pierce C. Grace,
Wm. T. Christy,	M. S. Cerre,	John S. Watson,
R. J. Lockwood,	George Taylor,	Chas. P. Chouteau,
W. R. Carter,	Charles Semple,	A. Hamilton,
Wm. G. Pettus,	Wm. H. Belcher,	J. W. Skinner,
H. Singleton,	J. W. Hall,	R. S. Holmes,
J. A. Brownlee,	Wm. C. Anderson,	Jno. M. Wimer,
K. Mackenzie,	H. Von Phul,	Alton Long,
Oliver Bennett,	Jas. L. Waters,	Jas. B. Bowlin,
Charles K. Dickson,	Jno. B. Taylor, jr.,	B. B. Dayton,
John J. Murdoch,	Frederick Ray,	A. L. Mills,
H. D. Bacon,	Adolphus Meier,	Henry Chauteau,
Edwd. Walsh,	Jno. Baker,	John Simonds,
Jos. H. Conn,	J. H. Lucas,	Amedee Berthold,
John H. Gay,	E. C. Angelrodt,	R. C. McAllister,
J. G. Shelton,	R. Barth,	J. B. Brant,
Edwd. Stag,	Jas. Harrison,	Thos. S. O'Sullivan,
John D. Daggett,	E. C. Wiggins,	Henry Kayser,
Samuel Treat,	B. Stickney,	Charles G. Ramsey.
John Y. Page,	L. Scollay,	

MISSISSIPPI VALLEY RAILROAD.

In pursuance of a call which had been extensively signed and published in the newspapers of St. Louis, a meeting was held in the Court House on Saturday evening, the 9th inst. On motion of Col. Thornton Grimsley, Hon. L. M. KENNETT, Mayor of the city, was called to the chair. HENRY COBB and A. S. MITCHELL were appointed Secretaries.

The call for the meeting was then read, and after some remarks from the Mayor in further explanation of the subject of the call, Dr. J. W. Hall moved that a committee of five be appointed by the Chairman to prepare resolutions expressive of the sense of the meeting, which was adopted; and the Chairman appointed Dr. J. W. Hall, Henry Cobb, Louis A. LaBeaume, Geo. R. Taylor, and Wm. M. McPherson, on said committee.

The committee, after a brief absence, returned and reported the following:

Whereas, the population west of the Mississippi is already very large and increasing rapidly, and the rich and fertile country lying between said Mississippi and Missouri rivers north, and the mineral wealth of the States of Missouri and Arkansas, and the rich plains of the Southern States of the Mississippi valley, require new channels to develop the resources of this vast extent of country; and the best way of doing so is by building a railroad from the Falls of St. Anthony to the Gulf of Mexico.

Therefore, be it resolved, That the people of the States and the Territory interested in building the aforesaid railroad, be requested to meet in Convention at St. Louis on the third Monday of the ensuing November.

Resolved, That a committee of five be appointed to issue a call for said Convention, and to invite distinguished citizens to attend.

Resolved, That a committee of ten be appointed, by the Chairman of this meeting, to make the necessary arrangements for the meeting of said Convention.

On motion of Mr. Mason, it was

Resolved, That the Chairman of this meeting appoint a delegation of twenty to attend the Convention of the friends of the North Missouri Railroad, to be held at St. Charles, on the 10th of November.

On motion of Harry I. Bodley, it was

Resolved, That the Hon. L. M. Kennett, Mayor of St. Louis, and Chairman of the meeting, be added as a member of the Committee of Invitation and as Chairman thereof.

On motion, it was

Resolved, That all the papers in the Mississippi Valley, friendly to the objects of this meeting, be requested to publish the proceedings thereof.

The meeting then adjourned.

L. M. KENNETT, Chairman.

HENRY COBB, }
A. S. MITCHELL, } Secretaries.

COMMITTEES FOR THE MISSISSIPPI VALLEY RAILROAD CONVENTION.

Hon. L. M. Kennett, Chairman of the meeting on Saturday night, has furnished us with the following list of names appointed by him on the Committees required by the resolutions of Saturday night—his own name being placed at the head of the first by us, by order of the meeting :

COMMITTEE OF INVITATION.

L. M. Kennett,	John O'Fallon,	J. B. Brant
Henry Cobb,	Geo. R. Taylor,	Chas. P. Chouteau.

COMMITTEE OF ARRANGEMENTS.

Col. T. Grimsley,	Edward Walsh,	Samuel Russell,
N. Ranney,	J. R. Barrett,	H. J. Bodley,
Isaac H. Sturgeon,	Louis A. Labeaume,	A. S. Mitchell,
R. S. Elliot.		

DELEGATES TO THE ST. CHARLES CONVENTION.

E. R. Mason,	Col. Jno. O'Fallon,	Bernard Pratte,
Neree Valle,	Jas. H. Lucas,	F. P. Blair,
John S. McCune,	Wm. M. Morisson,	Richard Phillips,
Henry T. Blow,	Col. T. Grimsley,	Isaac H. Sturgeon,
John Kern,	R. Campbell	J. Loughborough,
H. Cobb,	E. A. Lewis,	Thos. Allen,
A. B. Chambers,	L. D. Norris.	

Persons appointed on the above Committee who cannot serve, are authorized to fill the vacancies that will be thus occasioned.

Next it is desirable to know the length of the road.

Among the many facts showing what is saved by the *Mississippi Valley Railroad*, the item of distance exhibits an admirable economy.

From the city of New Orleans to the Falls of St. Anthony, along the bends of the river, the distance is 2050 miles: 1200 from New Orleans to St. Louis, and 850 from St. Louis to the Falls.

Along the *Mississippi Valley Railroad*, via Helena, from New Orleans to the Falls, the distance is only 1180 miles: 650 from New Orleans to St. Louis, and 530 from St. Louis to the Falls; and therefore also it follows that the distance from the Falls to New Orleans, by the railroad via Helena, is shorter than the distance from St. Louis to New Orleans by the river.

As various routes for this road have been suggested through the southern portion of the Mississippi Valley, and as reasonably accurate figures of distances, in round numbers, may afford good data for future arguments, on the whole plan as well as on its minutiae, the following table of distances is presented, each distance specified by the most striking and natural name that occurred.

Distance from New Orleans to the Falls of St. Anthony, *via* Little Rock:

New Orleans and Opelousas Railroad.....	160 miles
North Louisiana Railroad.....	180 "
South Arkansas Railroad.....	120 "
North Arkansas Railroad.....	160 "
South Missouri Railroad.....	175 "
North Missouri Railroad.....	230 "
Iowa and Minnesota Railroad.....	300 "

Total distance *via* Little Rock1325 "

Distance from New Orleans to the Falls of St. Anthony *via* Memphis:

New Orleans, Jackson and Great Northern Railroad, } by branch to Memphis	} 385 miles
Memphis and St. Francois Railroad.....		40 "
St. Francois and the Ridge Railroad.....	100 "
South Missouri Railroad.....	175 "
North Missouri Railroad.....	230 "
Iowa and Minnesota Railroad	300 "

Total distance *via* Memphis1230 miles

Distance from New Orleans to the Falls of St. Anthony *via* Helena:

New Orleans, Jackson and Great Northern Railroad, by branch to Helena	325 miles
Helena and the Ridge Railroad.....	150 "
South Missouri Railroad.....	175 "
North Missouri Railroad.....	230 "
Iowa and Minnesota Railroad.....	300 "

Total distance *via* Helena.....1180 miles

Having shown the beginning of this work, and determined the length, we will now count the cost.

By referring to page 420, volume 8th of the *Western Journal & Civilian*, and examining the Report of the Survey for a Railroad from St. Louis to Fulton *via* Little Rock, by Capt. Barney, United States Agent, we obtain the most reliable data, for the accurate determination of this important point.

As the cost of construction of this road near and north and south of the Iron Mountain is far greater than in Arkansas, we will here re-present the cost of the *South Missouri Railroad* in succinct detail, remarking that by this route the Iron Mountain is 76 miles from St. Louis.

Cost of construction of the *South Missouri Railroad*:

Estimates of the first division, 64 miles, from the City of St. Louis to the St. Francois river, as per Capt. Barney's report of survey.

Total cost of clearing and grubbing.....	\$44,685
Do. excavation and embankment.....	563,370
Do. masonry.....	97,721
Do. bridging.....	67,220

Total cost for grading and bridging\$772,996

Estimates of second division, 81 miles, along the valley of the St. Francois river to Old Indian Ford :

Total cost for clearing and grubbing.....	\$56,040
Do. excavation and embankment	680,857
Do. masonry.....	114,449
Do. bridging.....	206,150

Total cost for grading and bridging.....1,057,496

Estimates to the southern boundary of Missouri, 30 miles of third division, being a liberal proportion of Capt. Barney's estimates, and consisting mainly of clearing, grubbing and grading \$181,564.

Aggregate cost of construction of the *South Missouri Railroad*:

No. of division.	Description of work.	Amount.
1	Clear'g, grubb'g, grad'g, mas. & bridg'g	\$772,996
2	“ “ “ “	1,057,496
30 m. of 3	“ “ “ “	181,564
Total cost of clearing, grubbing, grading, masonry and bridging.....		2,012,056
Cost of construction with iron rail (65 lbs. p. yard) with necessary sidlings and switches,—175 miles at \$7,500 per mile		1,312,500
Cost of engineer department and contingencies.....		190,217
Total cost of construction of the <i>South Missouri Railroad</i> , independent of the costs of construction of depots, station and engine houses, workshops &c.		3,514,773

We will here present the cost of construction of the *North Arkansas Railroad* as determined by an accurate average of Capt. Barney's estimates.

Total cost for clearing, grubbing, grading, masonry and bridging <i>North Arkansas Railroad</i> ; at \$6,052.14 per mile, being the average of Capt. Barney's estimates, 160 miles.....	\$968,343
Total cost of construction with iron rail (65 lbs. per yard) with necessary sidlings and switches, 160 miles, at \$7,500 per mile	1,200,000
Cost of engineer department and contingencies.....	173,920
Total cost of the construction of the <i>North Arkansas Railroad</i>	<u>\$2,342,263</u>

Taking the average cost of construction of the *North Arkansas Railroad*, as estimated by Capt. Barney, at \$14,639 per mile, for the basis of a calculation, assuming that the cost of construction of the *North Missouri Railroad* would be more, allowing it to be \$15,000 per mile, and fixing its length at 230 miles, as stated by Capt. Alderson in the *Western Journal*, vol. 5, page 199, the total cost of construction of the *North Missouri Railroad* would be \$3,450,000.

By applying the same estimate of \$15,000 per mile to the *Iowa and Minnesota Railroad*, 300 miles, its cost would be \$4,500,000.

On the same basis, the *South Arkansas Railroad*, 120 miles, would cost \$1,800,000; the *North Louisiana Railroad*, 180 miles, \$2,700,000; the *New Orleans and Opelousas Railroad*, 160 miles, \$2,400,000; the *New Orleans, Jackson and Great Northern Railroad*, by branch to Memphis, 385 miles, \$5,775,000; the *Memphis and St. Francois Railroad*, 40 miles, \$600,000; the *St. Francois and the Ridge Railroad*, 100 miles, \$1,500,000; the *New Orleans, Jackson and Great Northern Railroad*, by branch to Helena, 325 miles, \$4,875,000; the *Helena and Ridge Railroad*, 150 miles, \$2,250,000.

To the sum of the cost of each route it is proper to add an item excluded from Capt. Barney's estimates, viz.: cost of construction of depots, station and engine houses, workshops &c., amounting, at a respectable estimate of \$3,000 per mile, to \$3,975,000, on the Little Rock route, \$3,690,000 on the Memphis route, and \$3,540,000 on the Helena route.

Arraying the cost of construction of the *Mississippi Valley Railroad*, along the different routes suggested, each route by itself, in tabular form the figures stand as follows :

Cost of construction of the *Mississippi Valley Railroad*, via Little Rock :

New Orleans and Opelousas Railroad	\$2,400,000
North Louisiana Do.....	2,700,000
South Arkansas Do.....	1,800,000
North Arkansas Do.....	2,342,263
South Missouri Do.....	3,514,773
North Missouri Do.....	3,450,000
Iowa and Minnesota Do.....	4,500,000

Total cost via Little Rock.....	\$20,707,036
Extra cost for equipments, 1325 miles,.....	3,975,000
	<u>\$24,682,036</u>

Cost of construction of the *Mississippi Valley Railroad*, via Memphis :

New Orleans, Jackson and Great Northern Railroad, by branch to Memphis	\$5,775,000
Memphis and St. Francois Railroad.....	600,000
St. Francois and the Ridge Do.....	1,500,000
South Missouri Do.....	3,514,773
North Missouri Do.....	3,450,000
Iowa and Minnesota Do.....	4,500,000

Total cost via Memphis	\$19,339,773
Extra cost for equipments, 1230 miles,.....	3,690,000
	<u>\$23,029,773</u>

Cost of construction of the *Mississippi Valley Railroad*, via Helena :

New Orleans, Jackson and Great Northern Railroad by branch to Helena.....	\$4,875,000
Helena and the Ridge Railroad.....	2,250,000
South Missouri Do.....	3,514,773
North Missouri Do.....	3,450,000
Iowa and Minnesota Do.....	4,500,000

Total cost via Helena.....	\$18,589,773
Extra cost for equipments, 1180 miles,.....	3,540,000
	<u>\$22,129,773</u>

From these premises it follows that the cost of construction of the *Mississippi Valley Railroad* via Helena, would be cheaper than the Memphis route by \$750,000, and than the Little Rock route by \$2,117,263.

If the Memphis and Little Rock Railroad be built, Memphis might hold out inducements to make its route preferable.

But advantages might be gained by and from Little Rock, and the country along its route, to produce a great preponderance in its favor.

These points can be determined only by the evidence hereafter to be adduced. May it be "done quickly,"—on the 3d Monday of November next.

The final and main question now arises: How are these \$24,000,000 to be raised?

We answer: By the co-operation of individual people, Towns, Cities, Counties, Parishes, States and the Territory on the route, with the General Government—the great owner of the LAND to be improved.

Funds must and will come from individual and incorporate sources. Material and social feelings, combined with the strong interests of the North and South of the West, will make the people along the *Mississippi Valley Railroad* liberal in their aid to build it up. The anticipated enjoyment of different climes, their fruits and products, fresh, within a few hours, by means of the road, will spur the sense of the people to complete it quickly. The love of the union of the North and South will urge on its consummation. Easy access to every market from the Iron Mountain of Missouri will induce statesmen as well as capitalists to lend it their aid. Easy access to every market from the hemp and corn fields of the North and the cotton and sugar plains of the South will induce farmers, planters, merchants, manufacturers and consumers, to put their "shoulders to the wheel" of this work, and at the same time "call on Hercules for help."

The Government has helped the people, and, like the Supreme Being, the Government will help the people, who help themselves. Liberal amounts of land have been granted by the Government to aid the people in constructing other railroads. Still more liberal amounts of land will be granted by the Government to aid the people in constructing the *Mississippi Valley Railroad*—
THE UNION RAILROAD OF THE NORTH AND SOUTH.

The New Orleans, Opelousas and Great Western Railroad Co. memorialized Congress at its last session to grant the right of way through the public lands and "to grant all the lands of the United States within ten miles of the said road and its St. Louis branch, on each side; or its equivalent in other lands." (See *Western Journal & Civilian*, vol. 8, page 168.)

The action of Congress, at its last session, in favor of the *Arkansas & Missouri Railroad*, manifested a liberal spirit in favor of the road to Cairo.

The State of Missouri has memorialized Congress for a grant of land in behalf of the *North Missouri Railroad*.

The charter of this road directs its route along the ridge, "as near as may be, to the northern boundary line of this State, with a view that the same may be hereafter continued northwardly into the State of Iowa, in the direction of Fort Des Moines, in that State." (See *Western Journal & Civilian*, vol. 7, page 260.)

The northern terminus of the *North Missouri Railroad* must therefore be on or near the same degree of longitude with the Falls of St. Anthony.

The road joining these two points, would afford, by means of branches to the river, the most equal privileges to all the conflicting interests in Iowa, while at the same time it would open the heart of that fertile State, and fill it with population and wealth.

To the Territory of Minnesota this road is of more vital importance than to Iowa.

Let therefore Minnesota and Iowa combine with Missouri, Arkansas and Louisiana on one plan for the *Mississippi Valley Railroad*.

Let the people of the North show that they know their interests, and have the energy to promote them.

Let the *Iowa & Minnesota Railroad* be fixed, on or near a longitudinal line, in conjunction with the *North Missouri Railroad*.

Let there be action, material action, among the people in its favor.

Let memorials be sent to Congress from the North, like those from the South.

Let a joint memorial of the North and South of the West be pressed upon Congress, with facts and arguments showing our immediate wants—the undeveloped wealth of our soil and our mines

—the absolute necessity of new commercial channels that cannot be impaired by high or by low water, by explosions, by snags, or by ice,—and also showing the correct principles of States' Rights, to be applied in the disposition of the Public Domain; so that an Act may be soon passed securing every needful aid.

Finally, let the seven divisions of the road, divided among the several States and the Territory on the line, be constructed at one and the same time; so that when the *New Orleans & Opelousas* and the *North Louisiana Railroad* is in complete operation, the whole *Mississippi Valley Railroad* may be finished.

ARTICLE V.

North Missouri Railroad.

Messrs. Editors of the Western Journal & Civilian.

We desire, through the columns of your Journal, to say a few words to the friends of Internal Improvement, west of the Mississippi river. We shall not, at this time, attempt any exhibit of statistical facts: This part of the subject, we, with others, have labored to place before the public, and have endeavoured to make plain the necessity of a railroad from St. Louis northward; but half discouraged, for months past have been silent, waiting for the multitude to reflect and consider the matter, not doubting that in time the people would step forward, and act promptly for their self-preservation. And we now rejoice that the northern, southern and central interests are commingling, and are becoming to be regarded as one and the same—that the light which burst forth at New Orleans, fresh from under the rays of a tropical sun, and shot up through Louisiana and Arkansas, and taking the trail marked out by Capt. Barney for a railroad from St. Louis through Southern Missouri and Arkansas to Fulton on Red River—has at length reached St. Louis, and with the strength and vividness which it received, by the rubbing of mind against mind, every mile as it rolled northward, and her enterprising citizens imparting a new and vigorous impetus to the idea, the volume has been hurled away up through Northern Missouri, Iowa and Minnesota, to the Red river of the North, where it will waste its life-giving rays on the Selkirkers, and warming with its genial influence regions far away to the North, will melt down the icebergs which linger along the shores of the Hudson's Bay.

At the dawn of bright prospects ahead, we have reason to rejoice; and now let our motto be: Union, Harmony and Action, and there shall soon be achieved one of the most splendid schemes of internal improvements ever conceived by Americans—a railroad from New Orleans, the southern emporium, via St. Louis, the great central city of the West, to the Red river of the North.

We take the ground that this road, or line of roads, should be made as the great trunk road west of the Mississippi river; and the necessary branches will follow, and come into it, just as naturally as do the thousand tributaries, great and small, pour their floods into the Mississippi, the great trunk of rivers.

And it can be easily shown that the whole line of this road from north to south is in accordance with the laws of trade, and the necessities of the people, and must be a paying road, and vice versa, it can be as easily proven, that to run and terminate roads contrary to those fixed facts, will prove as fatal to success, as would be an attempt to turn the Mississippi river up stream.

These truths are amply demonstrated by the teachings of railroad history, in all past time. If a road be commenced in the woods, at some point on the Mississippi river, and runs out indefinitely into the country, it may be set down as a non-paying road. Roads, to be profitable, must terminate where there is a natural aggregation of the travel, produce, capital and business of the country. With these requisites, roads judiciously constructed and managed, are paying roads—without these requisites, railroad charters are dead letters on the statute book.

Of the paying character, we hold, will be the North Missouri and the St. Louis and New Orleans roads—together with all branches judiciously located. The North Missouri road running near midway between the Missouri and Mississippi rivers, one of which is closed by ice from one to three months of the year, the other closed by ice and low water for five or six months of the year, and of dangerous navigation the other six months;—we say the North Missouri road must take nearly all the business of the country lying between these rivers. This will be accomplished by plank and macadamized roads, combined with a judicious system of well located and permanently constructed branch railroads connecting the river and country towns with the central trunk road, which terminates at St. Louis, a great and growing market, and which will always be adequate to the purchase of all the surplus produce: fish, furs and peltries of the vast country from the mouth of the Missouri river to the Yellow Stone, and across to the Hudson's Bay.

In former articles we have proved satisfactorily the adaptedness of North Missouri to the construction of railroads, especially our great trunk road, a wide spreading ridge from St. Charles to the Des Moines river, not a stream to cross in its whole length, unless

it may be drawn off to the right or left, in order to save distance by cutting across some interlocking streams.

Now in view of the convention called at St. Charles, on the 10th of November, and that at St. Louis, on the third Monday of the same month, let the people come up from the whole length of the Mississippi river; and the whole breadth from the river to the mountains, and uniting on some well digested plan, all pull together, petition the Legislature at its regular session, to give us the credit of the State, to as liberal an amount as other roads now enjoy, and send up such an influence to Washington City, as will make each member of Congress feel that the rappers have hold of him, and drawing the electric sparks from his finger-ends cause his hand involuntarily and convulsively to grasp his pen, and write out a bill, giving us a just and liberal portion of wild lands to be applied to the construction of these roads.

This will build up St. Louis and New Orleans as well as a thousand towns and villages along the whole length of these roads.— But above all, it will build up and place in a more flourishing condition the farmer and mechanic, the miner and the artizan, while many an elderly matron who has scarce been cheered by a new calico, since the last vestige of her wedding prints was laid aside, will be clothed in direct importations from China, via California, El Paso and the great western road, and the South Pass of the Rocky mountains, to St. Louis and New Orleans, and all intermediate towns and neighborhoods, while at every rustle of new silken gowns the silent breathings of gratified hearts will be for blessings to rest upon the energy and enterprise of a noble brotherhood.

Western Towns.

MANKATO.—This is the name of a town recently laid out at the south bend of the Minnesota river, Minnesota Territory. We learn from the "Dubuque Herald" that at "this point a town has been laid out by a wealthy and energetic company of gentlemen residing at St. Paul, and arrangements have been made for erecting several buildings there immediately. Two steamboats run to that point now (July, 1852) twice a week from St. Paul, and they find enough to do."

The following paragraph which we extract from the same paper under date of July 27th, 1852, will give our readers some idea of the place on the map where Mankato may be found, as well as of its future prospects.

"The steamers Black Hawk and Jenny Lind are now in the trade between St. Paul and Mankato, a town at the South Bend of the Minnesota River. This town is about 180 miles from Dubuque by land, and is the center of one of the most fertile regions on the face of the earth. Douglas' Railroad project will meet the wants of that region if it should ever be matured. Till then a good wagon road should not be despised."

COMMERCIAL STATISTICS.

COMMERCE OF NEW ORLEANS.

The following statistics which we copy from the "New Orleans Commercial Bulletin," appear to have been extracted from the New Orleans *Price Current*, a paper which enjoys a high reputation for fidelity and accuracy of detail.

VALUE OF PRODUCE OF THE INTERIOR.

A TABLE, showing the receipts of the principal articles from the Interior, during the year ending 31st August, 1852, with their estimated average and total value.

Articles.	Amount.	Average.	Value.	Value corresponding receipts in 1850-51.	1841-42.
Apples, bbls.	20,356	\$3 00	\$61,068	\$174,424	\$46,274
Bacon, assorted, hhds & casks	46,734	75 00	3,505,050	2,916,120	921,812
Bacon, assorted, boxes.....	3,626	35 00	126,910	278,220	
Bacon Hams, hhds & tierces	38,488	70 00	2,694,160	2,668,680	
Bacon, in bulk, lbs.	281,280	8	22,502	16,450	
Bagging, pieces.....	60,044	13 00	780,572	903,800	783,991
Bale Rope, coils.....	90,272	7 50	677,040	804,180	443,149
Beans, bbls.....	6,593	10 00	65,980	21,180	21,986
Butter, kegs and firkins....	44,786	8 00	358,288	374,835	50,572
Butter, bbls.....	1,778	30 00	53,340	68,000	
Beeswax, bbls.....	171	45 00	7,695	10,350	10,989
Beef, bbls.....	41,227	12 00	494,724	361,640	86,511
Beef, tierces.....	11,523	15 00	172,845	178,800	
Beef, dried, lbs.....	26,100	8	2,088	1,071	
Buffalo Robes, packs.....	1,300	75 00	97,500	10,850	156,100
Cotton, bales.....	1,429,183	34 00	48,592,222	48,756,764	24,425,115
Cornmeal, bbls.....	2,514	3 00	7,542	10,986	7,528
Corn, in ear, bbls.....	163,008	70	114,105	38,273	357,434
Corn, shelled, sacks.....	1,397,132	1 20	1,676,558	1,688,608	
Cheese, boxes.....	72,441	3 50	253,543	276,129	27,940
Candles, boxes.....	53,936	6 00	323,616	484,488	14,373
Cider, bbls.....	300	3 00	900	735	3,390
Coal, Western, bbls.....	850,000	50	425,000	350,000	55,292
Dried Apples & Peaches, bbls	804	5 00	4,020	20,559	3,956
Feathers, bags.....	2,065	35 00	72,275	127,575	10,422
Flaxseed, tierces.....	519	10 00	5,190	2,448	9,588
Flour, bbls.....	927,212	4 00	3,708,848	4,234,977	2,198,449
Furs, hhds, bundles & boxes	2,136		1,000,000	800,000	250,000
Hemp, bales.....	17,149	15 00	257,235	452,088	18,165
Hides.....	123,687	2 00	247,374	140,338	32,461
Hay, bales.....	53,434	3 00	160,302	144,843	65,540
Iron, pig, tons.....	62	30 00	1,860	3,800	7,084
Lard, bbls and tierces.....	125,466	25 00	3,137,400	2,773,680	1,138,919
Lard, kegs.....	157,689	5 00	788,445	607,724	
Leather, bundles.....	7,572	25 00	189,300	212,250	16,920
Lime, Western, bbls.....	42,305	1 25	52,881	56,607	415
Lead, pigs.....	267,564	3 20	856,204	1,041,616	1,059,815
Lead, bar, kegs and boxes...	1,138	20 00	22,760	12,580	
Lead, white, kegs.....	1,368	3 00	4,104	13,510	
Molasses (estimat. crop) gals	18,300,000	22	4,026,000	625,000	450,000
Oats, bbls and sacks.....	463,273	75	347,454	479,741	337,969
Onions, bbls.....	17,184	2 00	34,368	28,558	66,676
Oil, Linseed, bbls.....	758	26 00	19,708	6,230	10,675
Oil, Castor, bbls.....	4,291	28 00	120,148	207,250	183,300
Oil, Lard, bbls.....	14,114	28 00	395,192	446,082	

VALUE OF PRODUCE OF THE INTERIOR.

[Continued.]

Articles.	Amount.	Ave- rage.	Value.	Value cor- responding receipts in 1850-51.	1841-42.
Potatoes, bbls	228,095	2 00	456,190	325,844	\$39,302
Pork, tierces and bbls	276,606	16 00	4,425,696	3,433,008	1,542,467
Pork, boxes	303	36 00	10,605	49,500	
Pork, hhd's	2,478	30 00	198,240	73,860	
Pork, in bulk, pounds	8,800,000	7	616,000	578,264	
Porter and Ale, bbls	406	10 00	4,060	3,840	4,112
Packing Yarn, reels	2,093	7 00	14,651	29,330	4,552
Skins, Deer, packs	998	25 00	24,950	27,975	32,194
Skins, Bear, packs	16	15 00	240	105	2,500
Shot, kegs	2,704	25 00	67,600	51,100	51,240
Soap, boxes	5,308	3 00	15,924	28,452	5,796
Staves, M.	7,319	38 00	278,122	315,000	35,000
Sugar [estimated crop] hhd's.	236,547	50 00	11,827,350	12,678,180	3,600,000
Spanish Moss, bales	4,372	8 00	34,976	35,844	12,192
Tallow, bbls	1,307	20 00	26,140	147,936	76,665
Tobacco, leaf, hhd's	75,816	75 00	5,686,200	6,327,600	
Tobacco, strips, hhd's	11,741	\$125	1,467,625	1,365,000	
Tobacco, stems, hhd's	2,118	20 00	42,360	44,000	
Tobacco, chewing, kegs & box.	4,779	20 00	95,580	123,450	3,099,160
Twine, bundles and boxes ..	2,341	8 00	18,728	31,560	10,790
Vinegar, bbls	92	6 00	552	534	1,563
Whiskey, bbls	146,352	7 50	1,097,640	1,261,928	36,007
Window Glass, boxes	19,251	2 50	48,127	82,140	11,044
Wheat, bbls and sacks	64,916	2 00	129,836	177,594	337,215
Other various articles, estimated at			5,500,000	5,000,000	3,000,000
Total value	Dollars		108,051,708	106,924,083	\$45,716,040
Total in 1850-51			106,924,083		
Total in 1849-50			96,897,873		
Total in 1848-49			81,989,692		

The tonnage entered at the port of New Orleans from June 30, 1851, to June 30, 1852, 2266 vessels, 910,855.08, showing an excess over the previous year of 212 vessels and 142,827.04 tons. Tonnage cleared, same period, 2202 vessels, of 929,042.66 tonnage, which is an excess over 1850-51 of 105 vessels and 154,960.92 tons.

Exports of American produce to foreign countries, for the year ending June 30, \$48,076,197; do. coastwise, \$28,268,372; do. of foreign produce to foreign countries, \$250,716; total, \$76,595,285.

Imports of Specie, year ending August 31, \$6,278,523; 1850-51, \$7,937,119; 1849-50, \$8,792,662; 1848-49, \$2,501,250; 1847-48, \$1,845,808.

It will be seen that, although the receipts of cotton show an excess in quantity of 434,147 bales, there is an actual decrease in value of \$164,542. The excess of value in the crop of molasses is \$1,400,500, and the deficiency in sugar \$850,830. With a considerable decrease in the quantity of pork, there is an excess in value of \$992,688. There is an excess in bacon and bulk meat of \$592,373; in lard of \$544,441, and in corn of only \$63,782: and there is a deficiency in tobacco of \$539,515; in flour of \$526,129; in oats of \$132,287; in whiskey of \$164,288; and in lard oil of \$50,892. The aggregate value of the products of the hog is \$15,131,755.

LITERARY DEPARTMENT.**ARCTIC SEARCHING EXPEDITION.**

A Journal of a Boat-Voyage through Rupert's Land and the Arctic Sea, in search of the Discovery ships under command of Sir John Franklin, with an Appendix on the Physical Geography of North America. By Sir JOHN RICHARDSON, C. B., F. R. S. &c. &c. New York, Harper and Brothers.

Review by Dr. Prout.

Conclusion.

At the junction of Clear-water with the Elk or Athabasca river, the banks are formed by limestone strata covered by a thick deposit of bituminous shale. This formation which probably corresponds to the Marcellus shale of the New York system, forms the banks of the Athabasca for some 36 miles below the junction of Clear-water river.

Three miles below the mouth of Red river a copious spring of mineral pitch issues from a crevice in a cliff composed of sand and bitumen; several small birds were found suffocated in the pitch.

These limestone and bituminous formations were observed for many miles in descending the Athabasca, and they seem to prevail generally through the country. The bitumen flows readily into pits dug a few feet below the surface.

The Athabasca river rises near the base of Mount Brown, a peak of the Rocky Mountains, 16,000 feet above the ocean. Its course in a straight line to the mouth of Clear river is 300 miles. The elevation of its source is probably 7 or 8000 feet. Lesser Slave Lake, about midway of its source, is estimated by Capt. Lefroy to be 1800 feet above the sea. Some of the tributaries of the Oregon arise very near the head of the Athabasca, and some of the feeders of the Sackatchewan take their origin not far to the southward. It may be considered as the source of the Mackenzie.

The height of Lake Athabasca above the ocean is estimated by Capt. Lefroy at 600 feet. Its basin offers another instance of the softer strata having been swept away at the line of their junction with the primitive rocks.

A delta, intersected by several channels, exists at the junction of Peace river with Athabasca Lake and its outlet. The source of Finlay's branch of this river is nearly in the same parallel with its mouth, but in its course the trunk of the river makes a great curve to the southward, and its southern tributaries rise in the same mountains from which Frazer river issues on the west side of the Rocky Mountains, the upper waters of the Peace river coming in fact through a gap in the chain which forms one of the passes leading to the Pacific coast.

The vegetation of this district is thus described: "The oaks, the elms, the ashes, the Weymouth pine, and pitch pine, which reach the Sackatchewan basin, are wanting here, and the balsam-fir is rare; but as these trees form no prominent feature of the landscape in the former quarter, no marked change in the woodland scenery takes place in any part of the Mackenzie river district until we approach the shores

of the Arctic sea. The white spruce continues to be the predominating tree in dry soils whether rich or poor; the Banksian pine occupies a few sandy spots; the black spruce skirts the marshes; and the balsam-poplar and aspen fringe the streams; the latter also springs up in places where the white spruce has been destroyed by fire. The canoe-birch becomes less abundant, is found chiefly in rocky districts, and is very scarce north of the Arctic circle. It still, however, attains a good size in the sheltered valleys of the Rocky Mountains, up to the 65th parallel. Willows, dwarf birches, alders, roses, brambles, gooseberries, white cornel, and mooseberry, form the underwood on the margins of the forest; but there is no substitute for the heath, gorse, and broom, which render the English wild ground so gay. On the barren lands, indeed, the heath has representatives in the Lapland rhododendron, the *Azalea*, *Kalmia*, and *Andromeda tetragona*, but these are almost buried among the *Cornicularia* and *Cetraria nivalis* of the dry spots, or the *Cetraria islandica*, and mosses of the moister places, and scarcely enrich the colors of the distant hills."

Granite knolls and ledges forming rapids were found, as our party proceed down Slave river from lake Athabasca; an extensive cliff of limestone with bitumen in its seams, is found 30 miles below Fort Chipewyan. The clustered nests of large colonies of the republican swallow (*Hirundo fulva*) adhere to the ledges of the limestone cliffs, and the bank swallow has pierced innumerable holes in the sandy brows."

That part of Slave river which flows over so many ledges, and which forms so many cascades giving rise to frequent portages between the Isle de Carreboeuf and the Portage of the Drowned, traverses the northwestern flank of the table land which supports the basin of the Athabasca, a line extended from this point to the Rocky Mountains nearly S. W., and another prolonged to the N. E., would indicate the limit of the Athabasca system towards the Northwest.

Some idea may be formed of the temperature of this latitude, 60° N., in July, from the following extract: "The power of the sun, this day, in a cloudless sky, was so great, that Mr. Rae and I were glad to take shelter in the water while the crews were engaged on the portages. The irritability of the human frame is either greater in these northern latitudes, or the sun, notwithstanding its obliquity, acts more powerfully upon it than near the equator; for I have never felt its direct rays so oppressive within the tropics as I have experienced them to be on some occasions in the high latitudes. The luxury of bathing at such times is not without alloy; for, if you choose the mid-day, you are assailed in the water by the *Tabani*, who draw blood in an instant with their formidable lancets; and if you select the morning or evening, then clouds of thirsty mosquitoes, hovering around, fasten on the first part that emerges. Leeches also infest the still waters, and are prompt in their aggressions."

After leaving the Portage of the Drowned, the granitic and volcanic rocks disappear, and are seen no more on the course of the Mackenzie to the Arctic ocean. The granitic rocks are found flanking the northeast and eastern shores of Great Bear Lake, the last in the line of junction between the primitive and silurian rocks. Some distance up Salt River, one of the tributaries of Slave River, seven or eight co-

pious springs flow from the base of a long ridge, and spreading their waters over the plain, deposit much pure common salt in large cubical crystals. The Athabasca and Mackenzie River districts are supplied from these salines. Gypsum is found near these springs. From the fossils collected on Slave river being silurian, Dr. Richardson is inclined to refer this formation to the Onondaga salt group of the New York system. Fish abound in Slave River and Slave Lake. The *Inconnu* or *Salmo Mackenzii*, and the *Coregoni*, or White fish, are the staple fish of the lakes: here pike, burbot and trout are also found of excellent quality. The country between the Portage of the Drowned and Slave Lake is generally level, with sandy terraces rising from the river to the height of from 20 to 80 feet; near the Lake the banks are alluvial. A delta is formed at the mouth like that formed by the Athabasca; it is at least 20 miles in extent.

July 16th our party reached Fort Resolution. "Domestic cattle have been introduced at this place, and at the posts generally throughout the country, even up to Peel's River and Fort Good Hope, within the Arctic circle." At no place on our route were the musquitoes in denser clouds than this day at Fort Resolution." * * *

"Hay River enters the lake at the distance of eleven or twelve miles from Canoe River. It is formed of two branches, the westernmost of which rises from Hay Lake and the other one originates not far from the banks of Peace River, and flows past Fort Vermilion. Hay River Fort, now abandoned, stood at the junction of the two. On the eastern branch, the country is an agreeable mixture of prairie and woodland, and this is the limit of these vast prairies which extend from New Mexico. Below the forks of Hay River the country is covered with a forest intersected by swamps.

The range of the Wapiti is nearly coincident with the boundaries of these prairies. The bison, though inhabiting the prairies in vast bands, frequents also the wooded country, and once, I believe, almost all parts of it down to the coasts of the Atlantic; but it had not until lately crossed the Rocky Mountain range, nor is it now known on the Pacific slope, except in a very few places. Its most northern limit is the Horn Mountain mentioned above. The musk-ox does not come to the south of the Arctic circle."

In latitude 61 the barking crow, the *Corvus Americanus*, finds its limit. "It becomes rare before it ceases altogether to be seen, and we have not noticed it in flocks since leaving the Sackatchewan. In its gregarious habits on that river it resembles the European rook, but differs from that bird in the care with which it conceals its nest."

The following extract will give us a view of the structure of this region: "Between Desmarais's Fishery, on Slave Lake, and Fort Simpson, the direct distance is about 155 geographical miles. In the wider parts of the river the coast is shelving, and not easily

approached, in boats, from the shallowness of the water; but in the narrower places the beach is steep, and the channel is full of boulders. In a few spots where sections of the strata are visible, a bituminous shale, containing many fragments of the small pteropodous shell, *Tentaculites Fissurella*, indicates the formation to be the same with that on the Athabasca River and Slave Lake, which has been said above to be probably the Marcellus shale. Between the old fort and Hare-skin River, the basis of the bank is formed of a grayish green slate-clay, which, under the influence of the weather, breaks into scales like wacké, and at last forms a tenacious clay. The whole banks of the river seem to belong to a shale formation; but from the want of induration of the beds, they have crumbled into a slope more or less steep, and the capping of sand, clay and boulders has fallen down and covered the declivity. On the south, a long even rising ground, named the Trout Mountain, which runs parallel to the river at a distance of from 10 to 20 miles, is visible at intervals the whole way; and a similar but higher range, named the Horn Mountain, exists on the north."

The following notice of the limit of the *Cerealia* is interesting: "Barley is usually sown here (Fort Simpson) from the 20th to the 25th of May, and is expected to be ripe on the 20th of August, after an interval of 92 days. In some seasons it has ripened on the 15th. Oats, which take longer time, do not thrive quite so well, and wheat does not come to maturity. Potatoes yield well, and no disease has as yet affected them, though the early frosts sometimes hurt the crop. Barley, in favorable seasons, gives a good return at Fort Norman, which is further down the river; and potatoes and various garden vegetables are also raised there. The 65th parallel of latitude may, therefore, be considered as the northern limit of the *Cerealia* in this meridian; for though in good seasons, and in warm, sheltered spots, a little barley might possibly be reared at Fort Good Hope, the attempts hitherto made there have failed. In Siberia it is said that none of the corn tribe are found north of 60°. But in Norway barley is reported to be cultivated, in certain districts, under the 70th parallel. It takes 3 months, usually, to ripen on the Mackenzie, and on our arrival at Fort Simpson we found it in full ear, having been sown 75 days previously. In October, 1836, a pit sunk by Mr. M'Pherson, in a heavy mixture of sand and clay, to the depth of 16 feet 10 inches, revealed 10 feet 7 inches of thawed soil on the surface, and 6 feet 3 inches of a permanently frozen layer, beneath which the ground was not frozen."

Here is a track for a railroad, marked out from the Mackenzie to the Pacific coast, if the *mania* should last until this upper region shall have become populated. "Fort Simpson stands on an island at the junction of the River of the Mountains (*Rivière aux Liards*) with the Mackenzie. This large tributary originates in the recesses of the Rocky Mountains, by many small streams

which, uniting, form two branches. Both branches rise to the westward of the higher peaks, and afford another of the many instances of streams of magnitude crossing the chain."

In nine hours after leaving Fort Simpson, our party gained the first view of the Rocky Mountains, which are described as follows: "When the mountains are first seen, in descending the river, they present an assemblage of conical peaks, rising apparently about 2000 feet above the valley; and it is not until we come opposite to the end of the first mountain, that we observe them to be disposed in parallel ridges, having a direction of about south-southwest and north-northeast; which makes an angle of rather more than 45 degrees with the axis of the great chain, from which they project like spurs. The circumstance of the valleys pervading the chain transversely, though with more or less of ascent, explains the reason of the principal rivers on both the eastern and western slopes having their sources beyond the axis of the range, and flowing through it. From some passages in Dr. Hooker's letters I infer that the Himalayas have a similar configuration."

* * * Traders who have crossed from the Atlantic to the Pacific slopes of the continent say that there are 14 or 15 ranges of hills, and that when they are viewed from the summit of a peak, the mountain tops appear to be crowded together in great confusion, like a sea of conical billows."

The geological formations on this portion of the Mackenzie are thus referred to; "On the Mackenzie, a shaly formation makes the chief part of the banks, and also much of the undulating valleys between the elevated spurs. It is based on horizontal beds of limestone, and in some places of sandstone, which abut against the inclined strata of the lofty wall-like ridges, or rest partially on their edges. Covering the shaly beds, there exists in many places a deposit of sand, sometimes cohering so as to form a friable sandstone; and where a good section of the bank occurs, a capping of gravel and boulders, of various thickness, is seen crowning the whole. The shale crumbles readily, and often takes fire spontaneously, occasioning the ruin of the bank, so that it is only by the encroachments of the river carrying away the debris that the true structure is revealed. The boulders that have dropped from above pave the beach in many places as closely and regularly as if it were a work of art, the passage of ice over them driving them firmly and evenly into the bed of tenacious clay which the shale in breaking down produces."

"I have no evidence whereby the geological age of the shale may be certainly deduced, but am inclined to consider it as belonging to the epoch of the Marcellus deposit, on account of its exact lithological resemblance to the bituminous beds of Athabasca River, and the occurrence of the *Tentaculites Fissurella* in the fragments which line the beach at the west end of Great Slave Lake. The difficulty of deciding upon the age of the beds through which

the river flows is increased by the occurrence among them of a tertiary lignite formation, which also takes fire spontaneously. This general account of the rocks of the Mackenzie is here introduced to facilitate the subsequent descriptions of such points as I landed upon ”

Among the animals of this region the *Ovis Montana*, the mountain sheep, or the Foolish Bear of the Slave Indians, is found as far as the Arctic ocean; its hair is coarse and not wooly. The goat-antelope, *Antilocapra Americana*, which has a long-stapled wool, does not range above the Liards River. The Reindeer frequents the valleys here, and the moose deer ranges nearly to the Arctic Sea. The musk-ox and buffalo are not found in this region, the latter being limited to the Horn Mountain, and the former keeps within the Arctic circle to the east of the Mackenzie. The little Pika, or tail-less hare, is found here. Say's grouse, *Tetrao Sayi*, has not been killed further north than Nohannè Bute; the pin-tailed grouse is found near the Arctic Sea; the *Tetrao Canadensis* is found on Peel's River; the willow and white-tailed ptarmigans are also found here, the last named is an Alpine species. The American magpie has not been seen to the north Liards River, and is rare even there.

From the first spur of the Rocky Mountains chain to the points where the Mackenzie breaks through the second or the Rock by the River's Side, shaly beds of bituminous limestones and sandstones prevail, and the surface is often covered with boulders and gravel. The formations here seem to be similar to those on the Clear-water and Athabasca Rivers.

A very interesting tertiary formation abounding in coal and lignite was found, between Fort Norman and Bear Lake River. We extract a part of our author's notice of it, as it will throw light upon the formation of our own coal measure and account for the pseudo-vulcanoes found upon the Missouri River: "The coal, when recently extracted from the beds, is massive, and most generally shows the woody structure distinctly, the beds appearing to be composed of pretty large trunks of trees lying horizontally, and having their woody fibres and layers much twisted and contorted, similar to the white spruce now growing in exposed situations in the same latitude. Specimens of this coal, examined by Mr. Bowerbank, were pronounced by him to be decidedly of coniferous origin, and the structure of the wood to be more like that of *Pinus* than *Araucaria*; but on this latter point he was not so certain. It is probable that the examination of a greater variety of specimens would detect several kinds of wood in the coal, as a bed of fossil leaves connected with the formation reveals the existence at the time of various dicotyledonous trees, probably *Acerineæ*, and of one which I am inclined to consider as belonging to the yew tribe. To these I shall refer again."

“When exposed for even a short time to the atmosphere, the coal splits into rhomboidal fragments, which again separate into thin layers, so that it is difficult to preserve a piece large enough to show the woody structure in perfection. Much of it falls eventually into a coarse powder; and if exposed to the action of moist air in the mass it takes fire, and burns with a fetid smell, and little smoke or flame, leaving a brownish-red ash, not one-tenth of the original bulk of coal taken from the purer beds, for some contain much more earthy matter.”

“From the readiness with which the coal takes fire spontaneously, the beds are destroyed as they become exposed to the atmosphere; and the bank is constantly tumbling down, so that it is only when the debris have been washed away by the river, that good sections are exposed. The beds were on fire near Bear River, when Sir Alexander Mackenzie discovered them, in 1785, and the smoke with flame visible by night, has been present in some part or other of the formation ever since.”

“From one to four beds of coal are exposed above the water level on the banks of the river, the thickest of which exceeds 3 yards, and was visible a short way above Bear River in the autumn only—the Mackenzie being then seven or eight feet below its spring level.”

Beds of gravel, potter's clay and pipe-clay are found associated with the coal. The natives use the pipe-clay as food in times of great scarcity, a custom which Humboldt says, prevails with a tribe on the Oronoka.

It is evident from the following account that a student of nature may find more to interest him in this ice-bound region than he ever dreamed of in his boldest closet reveries. “As has been already said, the general aspect of the forest does not alter in the descent of the Mackenzie. The white spruce continues to be the chief tree. In this quarter it attains a girth of four or five feet, and a height of about sixty in a growth of from two to three hundred years, as shown by the annual layers of wood. One tree, cut down in a sheltered valley near Clark's Hill, measured the unusual length of 122 feet, but was comparatively slender. Most of the timber is twisted, particularly where the trees grow in exposed situations. The Banksian pine was not traced to the north of Great Bear Lake River; but the black spruce, in a stunted form, is found on the borders of swamps as far as the woods extend. The dogwood, silvery oleaster (*Elæagnus argentea*), *Shepherdia*, and *Anelanchier* grow on banks that in Europe would be covered with gorse and broom, and the southern *Salix candida* is replaced by the more luxuriant and much handsomer *Salix speciosa*, which is the prince of the willow family.”

Besides these the *Hedysarum Mackenzii* and *boreale*, the *Dryas Drummondii*, the *Androsace Chamæjasmii*, *Calipso borealis*, the lady slipper (*Cypripedia*), and many other flowering plants adorn

and many feathered inhabitants enliven the forests of this district on the borders of the Arctic. "The cheerful and familiar *Sylvia æstiva* is one of the earliest arrivals in spring, coming in company with the well-known American robin (*Turdus migratorius*) and the purple and rusty grakles. A little later, the varied thrush makes its appearance from the shores of the Pacific. The white-bellied swallow (*Hirundo bicolor*) breeds, at Fort Norman, in holes of rotten trees; and the *Sialia artica*, a representative of the blue-bird so common in the United States, enlivens the banks of the Mackenzie, coming, however, not from the Atlantic coasts, but from the opposite side of the Rocky Mountain range. On the Mackenzie, there is an intermingling of the floras of both coasts, as well as of the migratory feathered tribes, the Rocky Mountain range not proving a barrier to either."

The Bonapartean gull, the short-billed gull, the harlequin duck, the golden-winged woodpecker, and other birds are found about great Bear Lake. Frogs are said to reach to the 68th parallel; a few snakes to within the Arctic circle, while turtles are limited to the 51st degree of north latitude.

But little occurs to excite interest in the voyage from Bear Lake to the Arctic sea. Down to Fort Good Hope, bituminous shales, sandstones and limestones prevail, which are referred by Dr. Richardson to the oolite.

The *predacity* of the falcon is thus noticed: "This falcon is not rare throughout the Mackenzie, where it preys on the passenger pigeon and smaller birds. Mr. M'Pherson related to me one of its feats, which he witnessed some years previously as he was ascending the river. A white owl (*Styx nyctea*), in flying over a cliff, seized and carried off an unfledged peregrine in its claws, and, crossing to the opposite beach, lighted to devour it. The parent bird followed, screaming loudly, and, stooping with extreme rapidity, killed the owl by a single blow, after which it flew quickly back to its nest. On coming to the spot, Mr. M'Pherson picked up the owl, but, though he examined it narrowly, he could not detect in what part the death blow had been received; nor could he, from the distance, perceive whether the peregrine struck it with wing or claws."

On the 28th of July, our party met at the Ramparts a body of Indians, the first met with on the route from Cumberland House.

"On the top of Rampart Cliffs we found a large body of Hare Indians encamped. This is a common summer haunt of these people, who resort thither to avail themselves of the productive fishery which exists above the defile. At this time, owing to the river not having subsided so rapidly as usual, they were taking only a small number of fish, and, consequently, were complaining of want of food. This people, and most of the tribes who live the whole year on the immediate banks of the Mackenzie, depend greatly for subsistence on the hare (*Lepus Americanus*). Of these animals

they kill incredible numbers ; but every six or seven years, from some cause, the hares disappear suddenly throughout the whole country; so that not one can be found either dead or alive. In the following year a few re-appear; and in three years they are as numerous as before. The Canadian lynx migrates when the hares, on which it chiefly preys, become scarce. The musk-rat is subject to periodical murrains, when great numbers lie dead in their nests; but the dead hares are not found, whence we may conjecture that when their numbers become excessive they disappear by migration. I could not learn, however, that the Indians had ever seen them traveling in large bands."

"The Hare Indians are a tribe of the Tinnè or Chepewyan nation, and speak a language differing only as a provincial dialect. They are, like the rest of the nation, a timid race, and live in continual dread of the Eskimos, whom they suppose not only to be very warlike and ferocious, but also endowed with great conjuring powers, by which they can compass the death of an enemy at a distance. The possession of fire-arms does not embolden the Tinné to risk an open encounter with the Eskimo bowmen; and unless when they are assembled in large numbers, as we found them at the Ramparts, they seldom pitch a tent on the banks of the river, but skulk under the branches of a tree, cut down so as to appear to have fallen naturally from the brow of the cliff; and they do not venture to make a smoke, or rear any object that can be seen from a distance. On the first appearance of a canoe or boat, they hide themselves, with their wives and children, in the woods, until they have reconnoitred, and ascertained the character of the object of their fears. More than once in our descent of the river, when we had landed to cook breakfast or supper, and were not at all aware of the vicinity of natives, a family would crawl from their hiding-places, and come to our fire. They always pleaded want of food; and as their wretched appearance spoke strongly of their necessities, they invariably shared our meals; but not unfrequently they sold us a fish or two before we parted; being probably what they had reserved for their next meal, if we had not furnished them with one. We never found them with abundance of food; for, in times of plenty, they do not think it necessary to lay up a stock, but let the future provide for itself."

"It is supposed that formerly the Eskimos were in the habit of ascending the river to the Ramparts, to collect fragments of flinty slate for lance and arrow-points; but they have been only once so far up, since the trading-posts were established. An old Indian, who was alive within a few years, told Mr. Bell that on that occasion he was wounded by an arrow; but that he succeeded in escaping to the top of the cliff, from whence he killed two Eskimos with his fowling-piece."

The Mackenzie forms an extensive delta before it reaches the ocean, similar but more extensive than those formed by the Atha-

basca and Slave Rivers, before they enter their respective Lakes. Our travelers reached the Arctic ocean on the 3d of August, where we must take leave of them, as we have already extended this abstract beyond the limits assigned us, in endeavouring to present some of the more important facts and discoveries, and at the same time preserving a view of the entire line of travel through Rupert's Land, a portion of our continent whose physical characters are so ably portrayed in the work before us. We regret that we are prevented from selecting many of the beautiful descriptions of this country, and more of the facts which relate to its geography and natural history.

That part of the work which refers to the further progress of the expedition, to the difficulties and dangers which Dr. Richardson and his party met with, in navigating the Arctic, the loss of their vessels amidst the icefloes, their toilsome journey up the Copper Mine river to Fort Confidence on Great Bear Lake, where they went into winter quarters, is full of interest, but such details are familiar to those who have read the several Arctic voyages already published.

The result of this expedition as well as that of all others undertaken to relieve this brave and intrepid commander, this noble-hearted and excellent man, is well known to every one.

Sir John Richardson after remaining in winter-quarters at Fort Confidence, returned to England in 1849. The facts and observations made at this post will prove of much value to science. As an addition to his narrative, he gives us a Journal of Mr. Rae's Expedition—Four chapters on the manners and customs of the various Indian tribes inhabiting Rupert's Land; a discourse on Physical Geography, one on the geographical distribution of plants, a catalogue of insects, a chapter on climatology, and several vocabularies of the Indian tribes of this region, all of which materially enhance the value of the work. It may be considered as one of the richest contributions to general knowledge which has appeared in the present age, and should be in the library of every intelligent reader and true lover of science. We trust the Messrs. Harpers' in their next edition, will give us a map with the work; this was an oversight in its publication.

LIGHT OF LOVE.

We hear of rich pearls in the waters below,
Bright stars in the heavens above;
But yet there's a ray which neither bestow:
'Tis the mild, liquid glance of true love.

This, this is the jewel, the fairest on earth,
That charms even Angels on high,
That 'rouses faint spirits of glorious worth,
To win their way home in the sky.

21st August, 1851.

ORATORY.

Random Thoughts by an Occasional Writer.

NO. V.

"If we represent to ourselves the numerous assemblies of Athens or Rome, in which the greatest interests of those States are considered, and where the orator from the tribunal of harangues reigns by his eloquence over an immense people who hear him with a profound silence interrupted only by applause and acclamations; of all that the world ever contained of magnificent in appearance or most capable of dazzling the mind, is there any thing so grand, so soothing to self-love as this This is the talent that exalts the orator above the vulgar of mankind and almost above humanity itself."—[Rollin.]

It is gratifying to believe that amidst all the vicissitudes of time, though for a moment a cloud may have rested on the intelligence of the world, in the main, the intellectual improvement of mankind has been progressive; and the channel of human knowledge has been broadening and deepening as it has come down to us from remoter generations.

Since the extinguishment of the lights of knowledge in the wreck of the ancient Republics we have seen all that was lost, in many instances, entirely recovered.

In others we have had occasion to remark the vast superiority in extent as well as value of modern attainments.

It may, however, be observed that the general fact in this case as in many others is not without its exceptions; and in certain particulars a regard for truth requires us to yield the palm of merit to the ancients. Among these *oratory* may be mentioned as not the least remarkable. This is an art which it would seem was designed to flourish contemporaneously with learning: and to exhibit its maturest growth and greenest vigor when learning asserts most triumphantly her dominion over the mind of man. Nevertheless it appears to have declined in the same degree that the sciences have advanced, and knowledge has spread its influence abroad.

Why is it that while many other arts and sciences have made such immeasurable acquisitions, the art of speaking, their twin sister, and coequal luminary in the constellation of letters should have nearly dwindled out of sight.

Among all the faculties of our nature, none is more valuable, none contributes more to the dignity of man than that of speech. Possessed of this he rises at once above the level of the mere animal creation.

It is by the communion and collision of thought that reason is stimulated into action.

Emulation springs out of the capacity to exchange our ideas, and to emulation justly belong the power, the struggle and the triumph of genius. It is speech that ministers alike to our most common, as well as our greatest wants.

It is our readiest and most reliable dependance in every emergency. How great therefore, should be the inducements to develop all its native powers and latent energies, and to call forth all its inherent graces and attractions. Who has not seen the value of an ability to speak with self-possession merely before a public audience? Whose condition in life is so obscure, whose so high that he may not be required to speak in defence of his liberty, his character, or his life?

Recurring to the past, how many recollections arise upon the mind, of empires suddenly mounting to celebrity, or governments revolutionized; when old landmarks have been blot'ed out, and confusion and disorder have assumed the places of peace and quiet; where in the one case it has been the distinguished share of the orator, to summon the energies of a nation to the great work, and in the other to stand forth a dauntless advocate of truth and mercy curbing the passions of lawless men, and staying the hand of violence.

It is not a little surprising that such an art should have diminished ever so slightly in the respect of the world; appealing so powerfully as it does to the pride of man; and invoking in its pursuit the loftiest motives of human ambition.

Rome and Athens, more than any other nations, were the nurses of oratory. Of all their Gods and Goddesses Mercury alone appeared to challenge a pre-eminence of adoration: and in proportion to the offerings they laid at his feet, did he reward

them "with outpourings of his inspiration. Jupiter was revered for the thunders which he brandished; but often ere the bolt had fallen, his arm was paralyzed, and his vengeance dissipated by the melting strains of this enchanting Divinity. So high was the regard in which the *speaking art* was held, that under the authority of senates, public institutions were founded, and teachers employed to preside over them in the instruction of youth.

Here were produced the most perfect models of oratory the world has ever seen. But why is it, I have asked, that after the lapse of so many centuries, when even the improvements in the single science of geography must fail to suggest an adequate idea of the extension of knowledge, when old sciences have been making so many strides towards perfection, and new ones formerly unknown, have been brought to light, pouring upon the mind such a flood of sublime and beautiful images, oratory in the meanwhile should have been retrograding? The moderns may justly boast of their Lockes, their Bacons, their Newtons, their Davys and their Franklins, names that shine as stars of the first magnitude in the heavens of moral and natural philosophy and astronomy, but where shall we find a Hortensius or a Cicero, a Pericles or a Demosthenes? Alas—nowhere!

It would not be an uninteresting or unimportant inquiry: what are the causes of those revolutions in taste or sentiment that at different periods of human affairs have widely diverted the course of thought, and sometimes totally arrested the march of improvement? Certainly, we can have no motive to disparage the character of those specimens of oratory which have won an unbounded applause in Europe and America during the two past centuries: and which have been often supposed to have reached the acmé of human powers.

It may well be conceded that such names as Somers, Chatham, Curran, Sheridan, Bossuet, Massillon, Henry, Pinkney, Clay and Webster will ever stand upon the historic page in close association with all that is profound in logic, or splendid in imagination. But these are not the only essentials to a perfect oratory: and he whose claims to distinction, (however eminent they may be,) can rest on nothing further, is destined to shine with a diminished luster.

Such is the stamp of the best oratory of modern times. It falls short: far short of what it might be. It is not the light of the sun, eclipsing by his refulgent beams all other lights. It is rather that of the moon paling without hiding the lesser stars. Whether we consider the effect produced by the ancient orators on the minds of those to whom they spoke; or the opinions of the most competent judges of their day, touching the degree of excellence which they had reached, we shall be forced to admit the inferiority of the moderns.

When Demosthenes was to speak on any important occasion, we are told, that the report going forth drew all ingenious men to Athens, as to the greatest wonder of the world. And there was a time in Rome when all the wealth of India would not have been half so attracting, nor could all the spices of Arabia have breathed half such fragrance to a Roman audience, as the tongue of Tully.

But to return from this digression: to what cause are we to attribute the inferior character of our modern orators? Are we to say, there are no longer any occasions adapted to that higher order of the art exhibited by the ancient masters? Shall we say, that tyrants were once more cruel and oppressive, and the spirit of liberty more ardent in its aspirations? Or shall we admit that other more ridiculous excuse, that nature is growing old, and is at last incapable of producing works of as solid merit as she did in days of yore?

These reasons, if they deserve the name, have not been adverted to for the purpose of discussion: but rather by leaving them to show their own futility, to direct the mind of the reader more readily to the truth. It is not unnatural that we should frame excuses to cover our imbecility, but it is unmanly to do so. There is no question, we presume, but that the discovery of the art of printing, about the middle of the 15th century, exerted an influence unfavorable to the promotion of eloquence. This was also the era of the revival of letters. The speaking art which had always been the principal medium of popular information, awakening from the sleep of ages, found a rival in the press. Composition was easier than oratory. To reach an eminence in it required far less time and study. Withal it was adapted to operate through the medium of the press upon a much more extended sphere. Oratory under these circumstances first, fell into the back ground, and soon after ceased entirely to be cultivated as an art. It never has been taught in modern times, as it was by the Greeks and Romans. There is really no education of our modern orators at all as such. It was remarked by an American

author, in 1841, that "among the numerous colleges with which our country abounds, there is not a single one endowed with a professorship of elocution." A few lessons in declamation to wear off his embarrassment as it is expressed, is about the extent of all that can be denominated the education of the modern orator. With this, he is ushered forth upon the arena a candidate for honors and distinction. The result is, that some borne up by the strong wing of genius, have succeeded beyond all reasonable expectation; but oftener than otherwise, disappointment has marked the course of the youthful aspirant. The space appropriated to these remarks is small: but a few moments employed in elucidating the ancient method may not be regarded as wholly lost. The education of a Greek or Roman orator was *sui generis*, and commenced at the earliest possible age. The regulation of the voice came first: and this was effected as well by rehearsals as the less embarrassing course of causing the pupil to apply his rules in conversation. In this way all the force and melody and modulation of tone of which the human organs are susceptible, were readily acquired at the age in which imitation is easiest, and before habit has become inveterate. This was the source of that clear distinct articulation conveying every word and every syllable of every word directly to the ear of the listener: of that ravishing harmony of intonation, for which the ancient orators were so famous; and which whether falling in whispers, or rising with majesty and power above the commotions of the most turbulent popular assemblies, it has been said, could almost compensate the hearer for the want of argument. "Action" was another part of tuition. What Demosthenes thought of its importance, is known to every one. To adjust the person to the happiest attitudes; to accustom its members to assume every necessary posture with ease and grace: to represent and enforce every emotion with a fitting natural sign, was the work not of a day, a week or a year; but of many years of care and study. A critical acquaintance with the meaning of terms, indeed a perfect knowledge of language was another indispensable requisite in the opinion of the masters. Accordingly, we are informed, it was sometimes contested between them, whether one could express a sentiment by a greater variety of chaste and elegant phrases, or the other by more appropriate natural signs. To penetrate into the inmost recesses of the human heart, to scan its impulses, and analyze its motives, to learn its fortresses and its passes, to invoke with equal facility and power, the reason and the passions of their auditors, was the crowning effect of their system. And hence, it is they are described, on certain great occasions, as speaking rather like Gods than men. They "thundered and lightened," they broke up the fountains of the deep, and sent them pouring forward in a resistless flood; again at their bidding the angry billows retired sullenly back, and sunk into their secret homes. This is the *oratory* which it is said "shook distant thrones, and caused the extremities of the earth to tremble." But its like is no longer to be found among men. Once, no work of genius was thought to depend so essentially, upon great parts and industry as to speak in public; but now there is scarcely anything that we undertake to do with less consideration.

THE SPIRIT-BRIDE.

1.

My mind often wanders, and roams through the world,
Not only through this, but with pinions unfurld,
It soars through the clouds, and with rapturous eye,
Catches visions of bliss, in the realms of the sky.

2.

Then again it alights, by the brow of wild mountains,
Where mingle together, bright cascades and fountains,
Where the carol of birds, and the dashing of spray,
Are as pleasant as zephyrs, with flowers at play.

3.

But these charms delight not, although they are, even,
As to Adam, without Eve, was primeval Eden—
He wanted a bride, she was made—Eve—the real;
I want and create my own Bride—the Ideal.

4.

Each line of the figure is drawn from the mind,
Decked with pure grace and beauty and sweetness combin'd.
Her perfections distract me—I beckon—the Fair—
She consents—"Tis all Fancy—I clasp—the thin air.

18th October, 1844.

SPIRITUAL COMMUNION.

Bin ich ein Gott? Mir wird so licht!
 Ich schau' in diesen reinen Zügen
 Die wirkende Natur vor meiner Seele liegen.
 Jetzt erst erkenn' ich, was der Weise spricht:
 „Die Geisterwelt ist nicht verschlossen;
 „Dein Sinn ist zu, dein Herz ist todt!
 „Auf, bade, Schüler, unverdroffen,
 „Die ird'sche Brust im Morgenroth!“

Götze's Faust.

Am I a God? I've so much light?
 In those clear traces I am viewing
 Nature, herself, before my soul renewing.
 And feel that what the Sage has said is right:
 "The spirit-world is not debarred;
 "Thy sense is shut, thy heart is dead!
 "Up, scholar, and let naught retard,
 "Thy progress in the morning-red!"

J. E.

Some fear and doubt, others revere and believe, too blindly, the phenomena of nature.

Superstition results from excessive fear and doubt, as well as from excessive reverence and faith.

Common sense is too cunning to disclose its superstition.

Philosophy displays the most perfect propriety, distinguished by a freedom from bias and from prejudice, and by a loving disposition for facts—for their development, their accumulation and for their classification in systematic order.

Let the secret, yes, the sacred truths of nature be investigated by this freely-loving, philosophic disposition—the Franklin—the true American disposition; and then even the superhuman power of magic—the black art—may be brought forth into the clear light of every day life, and mystery become matter-of-fact.

But little children should not meddle with edged tools—they are dangerous,—are apt to cut unskillful managers.

Little children should not go too near a fire—it is dangerous, is apt to burn their fingers.

Yet edged tools are good for a mechanic, and a fire is comfortable in cold weather.

Steam is dangerous, and so is lightning; yet Watts brought the one, and Franklin the other harmlessly under his thumb.

Fire, sword, steam and lightning, which in their lawless fury have caused the death of thousands, and made millions mourn, are now our most obedient servants.

But we have not yet conquered every power in the material kingdom.

"The wind bloweth where it listeth, and thou hearest the sound thereof, but canst not tell whence it cometh and whither it goeth."

This aerial substance has through all ages been driving its 'sightless couriers', sometimes gently as the evening zephyr, sometimes wildly as the raging tempest, over the earth.

Ericsson, of New York, has caught these invisible horses. He is now hitching them to his engine, and we are daily expecting to hear of him ploughing the ocean with his airy team.¹

1. See Ericsson's Caloric Engine, quoted from "Hunt's Merchants' Magazine," in the *Western Journal & Civilian*, vol. 8, page 276.

The age of steam is passing away. The age of air is advancing.

Flat-boats were, steam-boats are, air-boats will be our commercial vessels.

Reichenbach, of Vienna, has discovered a new material force. He calls it Odic Force.

Magnets, crystals, sun, moon, stars, heat, friction, light, chemism, digestion, matter in general, and the whole universe are its sources.

Its most sensible manifestations are light and aura.

One of the applications of its laws proves the grave-yard-ghost to be nothing more than illuminated aura, resulting from the decomposition of the buried body and a play of chemical affinities; that this very apparition may be felt as well as seen by morbidly sensitive people; and thus shows that that which some feared, some scouted, some believed and some revered as a spirit, is only an interesting production of nature, which a chemist may re-produce in his laboratory.²

We may soon hear more of Reichenbach and the Odic Power.

The Rev. Dr. Hitchcock, President of Amherst College, has published a work on the *Religion of Geology*.

In his XI. lecture, on '*The future condition and destiny of the earth,*' by an admirable series of biblical, analogical and inductive reasoning, based on the science of matter and of mind, he arrives at the probable conclusion that the spiritual body will be composed of the material substance of *luminiferous ether*, which, with some of its laws, he describes as follows and applies to the spiritual body:

"Now, the question arises, Do we know of any form of matter in the present world which remains the same at all temperatures, and in all circumstances, which no chemical or mechanical agencies can alter?—a substance which remains unchanged in the very heart of the ice around the poles, and in the focus of a volcano; which remains untouched by the most powerful reagents which the chemist can apply, and by the mightiest forces which the mechanic can bring to bear upon it? It seems to me that modern science does render the existence of such a substance probable, though not cognizable by the senses. It is the luminiferous ether, that attenuated medium by which light, and heat, and electricity are transmitted from one part of the universe to another, by undulations of inconceivable velocity. This strange fluid, whose existence and action seems all but demonstrated by the phenomena of light, heat, and electricity, and perhaps, too, by the resistance experienced by Encke's, Biela's, and Halley's comets, must possess the extraordinary characteristic above pointed out. It must exist and act wherever we find light, heat, or electricity; and where do we not find them? They penetrate through what has been called empty space; and, therefore, this ether exists there, propagating its undulations at the astonishing rate of two hundred thousand miles per second. They emanate in constant succession from every intensely heated focus, such as the sun, the volcano, and the chemical furnace; and, therefore, this strange medium is neither dissipated nor affected by the strongest known heat. Both light and heat are transmitted through ice; and, therefore, this ether cannot be congealed. The same is true of glass, and every transparent substance, however dense; and even the most solid metals convey heat and electricity with remarkable facility; and, therefore, this ether exists and acts with equal facility in the most solid masses as in a vacuum. In short, it seems to be independent of chemical or mechanical changes, and to act unobstructed in all possible modifications of matter. And, though too evanescent to be cognizable by the senses, or the most delicate chemical and mechanical tests, it possesses, nevertheless, a most astonishing activity.

Now, I am not going to assert that the spiritual body will be composed of this luminiferous ether. But, since we know not the composition of that body, it is lawful to suppose that such may be its constitution. This is surely possible, and that is all which is essential to my present argument.

Admitting its truth, the following interesting conclusions follow:

In the first place, the spiritual body would be unaffected by all possible changes of temperature. It might exist as well in the midst of fire, or of ice, as in any intermediate temperature. Hence it might pass from one extreme of temperature to another, and be at home in them all; and this is what we might hope for in a future world. Some, indeed, have imagined that the sun will be the future heaven of the righteous: and on this supposition there is no absurdity in the theory. Nor would there be in the hypothesis which should locate heaven in solid ice, or in the centre of the earth.

In the second place, on this supposition, the spiritual body would be unharmed by those chemical and mechanical agencies which matter in no other form can resist.

The question has often arisen, how the glorified body, if material, would be able to escape all sources of injury, so as to be immortal as the soul. In this hypothesis, we see how it is possible; for though the whole globe should change its chemical constitution, though worlds should dash upon worlds, the spiritual body, though present at the very point where the terrible collision took place, would feel no injury; and safe in its immortal habitation, the soul might smile amid "the wreck of matter and the crush of world."

In the third place, on this supposition, the soul might communicate its thoughts and receive a knowledge of events and of other minds, through distances inconceivably great, with the

2. See Reichenbach's *Dynamics of Magnetism*, page 141, see's 156, 157 and 166.

speed of lightning. If we suppose the soul, in such a tenement, could transmit its thoughts and desires, and receive impressions, through the luminiferous ether, with only the same velocity as light, it might communicate with other beings upon the sun, at the distance of one hundred million miles, in eight minutes; and such a power we may reasonably expect the soul will hereafter possess, whether derived from this or some other agency. We cannot believe that, in another world, the soul's communication with the rest of the universe will be assimilated as in the present state. On this supposition, she need not wander through the universe to learn the events transpiring in other spheres, for the intelligence would be borne on the morning's ray or the lightning's wing.

Finally, on this supposition, the germ of the future spiritual body may, even in this world, be attached to the soul; and it may be this which she will come seeking after on the resurrection morning.³³

In his XIIth lecture on *The Telegraphic System of the Universe*, President Hitchcock alludes to Reichenbach's researches, and his discovery of the Odic Force as follows :

"The inquiry seems to have been conducted with great fairness and scientific skill, and the author has the confidence of several of the most distinguished scientific men in Europe. If there be no mistake in the results, they promise to explain philosophically many popular superstitions, and also the phenomena of mesmerism, without a resort to superhuman agency, either satanic or angelic. They yield, also, an interesting support to the principle of this lecture."³⁴

"By the experiments here referred to by this author, he had endeavored to show, that even the light of the stars exerted an odic influence upon the human system; that is, certain effects independent altogether of their light; and if there be no mistake in the experiments, they certainly do show this. Such a fact almost realizes the suggestions already made, that beings in other spheres may possess such an exaltation of sensibilities as to be able to learn what is going on in this world; and that it is easy to conceive how our sensorium may be raised to the same exalted pitch."³⁴

We refer to these works, as reliable sources of facts and arguments significant of a rapid progress in the science of matter and mind.

In the 5th volume of the "Western Journal," we published an article on *Spirit-Culture*, and one on *Spirit-Power*; and also in the 7th volume a treatise on *Spirit-Glory*.

These pieces had their origin in individual meditation. They were the offspring of the heart—the outgushing of a natural, though intense personal feeling of truth from the fountain of intuitional consciousness.

Now we hear of manifestations of Spirits all around us. We hear that invisible spirits address themselves to the senses of the human family. We hear that these spirits speak through wood and stone. That they imbue inert matter with a motive force, that they control the hand, entrance the form, employ the tongue, and even present themselves before the eyes of certain sensitive and sensible human beings.

We further hear that their sign-language through wood and stone is significant of a higher intelligence than that of the whispers or the loud voices of the winds amid rocks and trees; than the ripples of water, the peelings of thunder, the bellings of cattle, or the songs of birds. We hear that the hand writes, the form feels, the tongue utters, and the eyes see, certain natural and intelligent though sometimes *infra-*, sometimes *super-human* things. At one time legions purport to come from their infernal abode and by their oaths, lies, nonsense, delusion and fury make one almost exclaim with Ferdinand in the Tempest :

'Hell is empty,
And all the devils are here.'

At another time hosts purport to come from their celestial mansions, and write out :

'This is allowed from on high, my child, to bring you to God through Christ.' 'Repent, believe, and be baptized' &c.

Then, again, comes an invisible intelligence who purports to be the guardian spirit of one with whom he holds communion on earth. And he says through the vibrations of wood :

3. See Hitchcock's *Religion of Geology*, page 399 & fol.

4. See Hitchcock's *Religion of Geology*, pages 424 & 425.

'Praise God, my beloved friend, with sprightness of heart, and keep diligently his commandments.' 'Forget not your God, my friend. Acquire knowledge, pursue science—whilst of the earth—preparatory to a home in this more extensive field of science. Science is more elevated in this realm. The principles are the same here but more clearly elucidated.'

While reading the lecture of President Hitchcock, from which the first quotation above is made, a voice arose from the table, which purported to come from the last mentioned spirit and said :

'That is correct. Read on, I wish to comment.'

While yielding to this request, the lecture was being read, the voice of approval was often heard, and occasionally the voice of dissent was uttered; and when the last paragraph was ended, these words were spoken through the fibers of the wood :

'True. His speculations are correct on the soul.'

'Not despise, commiserate.'

Here is the paragraph on which these last comments were made :

'Let us, then, live continually under the influence of the scenes that await us beyond the grave. They will thus become familiar to us, and we shall appreciate their infinite superiority to the objects that so deeply interest us on earth. We shall be led to look forward, even with strong desire, in spite of the repulsive aspect of death, to that state where the soul will be freed from her prison-house of flesh and blood, and can range in untiring freedom through the boundless fields of knowledge and happiness that are in prospect. Then shall we learn to despise the low aims and contracted views of the sensualist, the demagogue, and the worldling. High and noble thoughts and aspirations will lift our souls above the murky atmosphere of this world, and, while yet in the body, we shall begin to breathe the ethereal air of the new heavens, and to gather the fruits of the tree of life in the new earth, where righteousness only shall forever dwell.'⁵

This spirit on being asked :

'Is the sound, which I hear, produced through the instrumentality of the Odic Force?'

answered :

'It is an agent by which we communicate.'

Other spirits have answered this question categorically: 'yes.' Many men of common sense say that the words, instrument and agent are synonymous, though an agent is active, and an instrument passive.

May not the medium be the instrument, and Odic Force the agent by which spirits communicate, as wire is the instrument and electricity the agent by which the human family communicate?

We will not now presume to build theories, or declare laws over this new province of science. We must make greater discoveries, we must have more reliable data. Facts must become more numerous. They must be analyzed and classified with a patient investigation, a cautious induction, a free, loving intelligence.

Let not little children, no, nor big children tamper with spirits; and sensualists might as well yield themselves victims to their brutal passions, as allow themselves to be led away by the imps of Satan.

Let neither the believer nor the sceptic be despised or condemned.

Let Doctors of Medicine, Doctors of Law, and Doctors of Divinity take charge of this subject; and let them find out and test the hallowed action and reaction, if such there be, of mental and of odic force.

Here we would present the following extract of a letter from one of our most distinguished lawyers to his brother; and closing these suggestions, we would say to the slanderers of media, as 'Gamaliel, a doctor of the law,' more than eighteen hundred years ago, said to the Jews—the persecutors of Christians:

'Refrain from these men, and let them alone: for if this counsel or this work be of men, it will come to nought.

But if it be of God, ye cannot overthrow it; lest haply ye be found even to fight against God!'

JUNIOR EDITOR.

5. See Hitchcock's *Religion of Geology*, pages 407 & 408.

EXTRACT.

You ask my views on what are called "Spiritual Rappings." When we meet, I will talk to you touching them, and furnish the evidence presented by their varied manifestations. For the present, I suggest that it is always safe, to wait for evidence, before we pronounce judgment. I do not ask you to believe anything I may state concerning this so called mystery; but be assured, my brother, that the spirit of your mother has never made—will never make any manifestation, nor breathe an inculcation *at war* with the teachings of the Bible. Least of all will she deride the special providence of God, in human affairs. If she has revisited earth to commune with her children, it was but to turn them from the world to God. Build up no theories, my brother; wait for facts, you have ample time to be patient. It is a common, but great error of the mind to establish some inflexible theory—to resist all facts which seem to conflict with it, and by the process of bending, or breaking, or both, to coerce a harmony with previous speculation. This error so hurtful to truth, springs from the pride of intellect—a quality of mind, essential to its usefulness—but like all human qualities, capable of perversion. I venture to declare [in spite of your declaration to the contrary], that you will find before you shall occupy any one of them, that our "Father's house" contains not only "many mansions," but that there is, also, some difference in their furnishing. You will, I think, discover that discriminations, from the necessity of the case, must arise, from the relative exaltations of spirits—from their greater or lesser capacity for holiness and spiritual attainment:—that these distinctions spring from the nature of moral government, and are indeed inseparable from it. A priori, independent of authority, it is reasonable to believe, that the *capacity of souls* may vary as widely, as intellect from intellect. Every analogy in nature tends to this conclusion, and I know of nothing in the revelation of God to man, against it.

Without being able in one, or in many letters to furnish you the evidence to support them, I have been convinced of the truth of the following propositions:

1. That disembodied spirits have always visited this earth as ministering agents of good and evil:

2. That man will ever be, while he remains on earth, subject to the antagonism of these two principles:

3. That whereas heretofore these agents operated on us, without any clear consciousness on our part of the operation; they now are, in the providence of God, endued with the power to make themselves manifest to us:

4. That they are true to their respective missions—subject to this exception, that sometimes a lost spirit will give warning of its fate, and exhortation to avoid it:

5. That man is left to distinguish between good and evil spirits, just as between all *other* evil and good;

6. That he must judge them by their inculcations—the revelation of God's word being the standard and rule of judgment;

7. That there is no real difficulty in making this discrimination—first because the great object of attack, of evil spirits, is the Bible, the authority of which they deny in whole, or in part; while good spirits invariably enforce the infinite authority, and binding obligation of the volume—and secondly because there are other collateral tests quite decisive, among which is the *mode* of the manifestation;

8. That a new theology, such as is set forth in the works of Andrew Jackson Davis, is the product of lost spirits, of great intellectual power—who endeavored while they lived on earth to destroy the Bible, and who now are, with greater power, seeking to undermine it, by a splendid atheism, disguised under the mask of the theory of progression and development;

9. That the Harmonia of Davis is dictated by them—he being first placed by them in a superior or magnetic state—and presents the most fascinating system of scientific infidelity, ever developed on earth;

10. That evil spirits and good spirits are limited in knowledge, and ignorant of many things which relate to the past, the present and the future; with this marked difference, that while all good spirits recognise and respect the boundaries of their knowledge, bad spirits are prone to assert, universal prudence—detailing recklessly what they do not know—and perverting what they do;

11. That truth or falsehood in the manifestations is no test of their spirituality, though it is a decisive test of their character—or in other words, a spirit may

speak to you nothing but falsehood, and yet convince you, it is a spirit that speaks;

The evidence embracing and establishing the foregoing, is moral, intellectual, spiritual and physical, almost indefinitely varied in each department—presenting a body of proof so strong [in my case], that no man claiming to be rational, can disbelieve it, unless he is prepared to overturn the basis of all human faith. The testimony is external and internal, appealing to our eyes and ears, and touch—to memory and to consciousness.

12. That all lost spirits do not suffer the same amount of punishment; nor do all the redeemed enjoy the same amount of happiness;

13. That there are seven spheres of happiness, and seven spheres of misery, but while there is progress from a lower to a higher sphere of happiness, the destiny of a lost soul is unchangeable even in degree.

The last two propositions rest upon the authority of many spiritual communications, and especially upon those made to me by our mother, and two of our brothers, who are in the seventh or highest sphere of happiness, by our sister, who is in the sixth sphere, and by our brother H—, who is in the first or mildest sphere of punishment.

The spirit of this last mentioned unfortunate brother visits me frequently, and his communications, pregnant with internal evidence of his identity, have a deep but melancholy interest in them. That you may form some idea of their general nature and import, I give you his first words:

‘Uriel, never be satisfied with anything short of heaven.’

I said in reply speaking truly what I thought and felt: ‘My brother, you do not know how much pleasure it afforded us to learn as we did last night, that you were happy.’ He rejoined: ‘I do not wish you to come where I am.’ ‘Are you not happy, my brother?’ I added. ‘The deepest punishment is not mine,’ was his answer. And then without any question being put, he continued in these words: ‘O! that I had your chance, my dear brother, I would escape the damnation of hell, but it is too late—too late—too late!’

He then indited a letter to his only child, in Virginia, in deeply impressive phrase, and requested me to forward it to her.

I should swell this letter to a volume, if I attempted to furnish the evidence of the manifestations, made to me, for three months. Nor is it necessary that I should do so. Every man will, I am persuaded, decide for himself, by what he witnesses, how much importance is due to such manifestations. I know my own mind is so constituted, that I could not repose upon any hearsay—however credible; and I therefore cannot quarrel with such skepticism in others. I asked H—: ‘If he found fault with God for his destiny?’ His answer was in these words: ‘No—he gave me ample time, I refused—I heeded not admonitions, I rejected those of our dear mother—it is right that I suffer—God is just—I rejected a Savior who died for me, till it was too late.’

I asked him, if he could hold communion with the spirit of his mother and sister and brothers? His reply was: ‘I cannot go to them, or they cannot come to me.’

I endeavored to ascertain the nature of his punishment, and I give you all that he has yet disclosed on that subject. It is in these words: ‘No mortal can conceive of it—part of my punishment is absence from God—I have an acute sensibility to pain—it is more than the pangs of conscience—more than remorse—I have hard tasks to perform—I bear not only my own sins, but I witness the anguish of others more miserable than myself—the truth which I now tell you, will bring me punishment.’

I asked him, if he entertained *no hope* that God in his mercy, in consideration of his true and faithful testimony, and warning to others to flee the wrath to come, *might make his an exceptional case*, and ultimately modify his destiny?—His answer was in these words: ‘None; he gave me time, light, admonition, and a Savior to die for me—I rejected all; there is no hope.’

The spirit of our father has not yet communicated with me. I expressed my surprise at this. ‘It is not strange,’ said the spirit of our mother, ‘he cannot yet come to you, my son.’ His position, as we learn from her, and H— [lost as the latter is] is in the sixth sphere of happiness.

On last night the following singular communication was made by our unhappy brother. After speaking of the state of mind, of a visitor of mine, as to belief in these manifestations, of me, he said: ‘Uriel has no doubt, because he knows that he has internal evidence of the fact, and when our dear father shall commu-

nicate to him [as he soon will do] a fact of which he is now ignorant, he will then have conclusive evidence both of my father's identity and my own.'

I have not the remotest idea of what is meant by these words; but if anything shall transpire to give them application, I will preserve the record of it, and send it to you.

Among the truths enforced by these spirits, who in this life were very dear to us, are the following;

1. The creation of the world by God.
2. The Bible origin of man [on this planet] from a single pair.
3. The Trinity—Father, Son and Holy Ghost.
4. The death, resurrection, ascension and mediation of Christ.
6. The eternal perdition of a soul impenitent.
6. Faith in Christ and trust in him, the only ground of salvation.
7. The importance of baptism, irrespective of *mode*, but its omission excusable under proper circumstances.
8. The final extinction of the principle of evil, and the total exemption of the redeemed from its operation.

According to their uniform testimony, there is no interval of time between what we call *death*, and the *destiny* of the spirit, freed from the body. It sees whither it is going even before it leaves its casement. There is *no period of time* in the process of death, when the spirit is *unconscious* of what is going on around it. It sees its corpse, its grave, its funeral, and all attendant circumstances. Our brother J—n gave an interesting and truly faithful account of his own death, embracing events which transpired after you and I supposed the time of consciousness on his part was over.

The *body* of Christ [they say] remained in the tomb three days, but his spirit was not there. That *body* is now in heaven, to remain there as long as one sinner is left on earth. 'At the crucifixion,' to quote their precise language, 'the spirit of Christ, which was God, suffered, and so did the Father.' 'The Father grieves also, whenever one of his children commits sin.'

[What a contrast, my dear brother, does this last idea present—to the *fine rhetoric* of the celebrated Dr. Knott—'God is equally *unmindful* of the great wave of national turmoil, as of the little ripple of individual calamity.']

'Every planet [they teach] is inhabited—inhabited by *human* beings [the moon with her supposed volcanic structure and missing atmosphere forms no exception], and every inhabitant of the most remote orb involved personally in the tragedy on calvary!' This last idea is yet by me incomprehensible. I cannot conceive how they can be involved in the *atonement*; because I do not know how to connect them with the *fall*; unless, indeed, the same unhappy career of sin has been run by man on every orb. In that case, the crucifixion of a God might answer for an universe of sin, but even this hypothesis is full of difficulties.

What is a spirit?—has been answered me by good spirits and evil, and all the same way.

'We are an organization of essence; a substance, as all *organizations* must be; we have form and features, like those we wore on earth: 'you would know me instantly, brother U.,' said our brother J—n to me, 'if I should now make myself palpable to your vision' We move with great celerity from place to place. It is never necessary, but we could penetrate opaque bodies. We neither eat, nor drink, nor sleep: we live by the fiat of the Almighty. He has spoken *our* eternity, as he spoke light into being. The principle of decay is unknown to the spiritual organization, and hence no nutrition or rest is necessary to its vitality. We are not subject to the action of the elements—lightning, tempest, rain, hail, snow, heat, cold, are all inoperative on us.'

'Our functions and offices [say the good spirits] are many and various. We are made familiar with higher and more glorious adaptations, than belong to earth and mortals. One of our delights is melody—vocal melody.—'The harps of gold of the Bible,' said Johnson, 'is a figure of speech, my brother.'—'There is no instrumental music in heaven—but we have exalted vocal harmony; and to this end our faculties and organs of sound are improved, enlarged and refined. Yet if I now sang, you would be reminded of my voice.'

'Heaven is a *condition* or *state* of being, and also a *locality*: wherever a good spirit is, is heaven; wherever a bad spirit is, there is hell. But it is also true that there is an actual city of God, and an *actual locality* of punishment.

'There is no music in hell,' is affirmed by those who profess to speak with knowledge.

Thus, my dear brother, much against my intention when I sat down to write, I have given you some of the results of an investigation, embracing a period of four months, since I began it. Starting in profound skepticism, applying carefully every test of truth known to me, my unbelief has yielded to conviction quite as profound. I no more doubt the fact, that I have communicated often with the spirits of our departed mother and brothers—than I doubt that you are my brother, or that the sun rose to-day. You will judge, how far my views are calculated to elevate, or depress the soul of man. For myself, freely granting to all men the unquestioned right of opinion and remark, on a matter so mysterious, I do not fail to thank God, that he has made me familiar with such manifestations, as I have witnessed. I see in them only wonderful evidence of his power and goodness, vouchsafed to me by more than ordinary manifestations. As far as I am conscious of their operation, they furnished me the first *conclusive evidence* I ever had of the immortality of the soul. On that, as a first principle, I sought the Bible, resolved that, if there was a Savior of souls, I would find him; and I trust, I did not search in vain. And now I feel that death has achieved no triumph. I cannot realize the idea of death in connection with the departed, so dear to us. They not only live, but seem come back to me.

It is but mental trifling to attempt to account on any known principles of human science, for what I have heard and felt and seen. It is beyond all the conjectured magic of "electricity"—outside of all the channels of supposed or actual "mesmeric currents"—far out of the reach of the fabled or real power of the human will over inert or animated matter; or the assumed reflection of one's own mind, seen like our image in a glass.

Electricity is not *thought*—the will, if it could, *would not* accomplish what is oft so painful to the wish; and if the mind had power to reflect itself, as by a mirror, it would never be found reflecting that of which it has neither knowledge nor consciousness: least of all would it reflect painfully the opposite of what it is. I defy the strongest will of man, to make one single 'rap'—[the first step in these phenomena]—to say nothing of the absolute impossibility of maintaining a conversation with me—I propounding questions by inaudible and unwritten thought; he answering by conventional signs of ideas, made by vibrations or 'raps.'

I have never been able to ascertain *how* the vibrations or raps are made. The only explanation furnished by the spirits, to me, being that *two* powers are invoked, *one* inherent in the organization of the spirit, for which there is no mortal nomenclature; the *other* a power which belongs to the human frame, called the odic force. The nature of this latter power has been exemplified and illustrated by Reichenbach, in a work almost exclusively devoted to that object. His researches and opinions have not, I believe, as yet received the assent of all physiologists.

Good men and pious christians there are who fear the influence of these phenomena on their religion. Many are disposed to ascribe them to evil spirits—no man who has even slightly *investigated* the subject, will pretend to account for them on the ground of fraud or collusion. Now it is unquestionably true, that very many of these communications are made by very wicked beings. It is also true that most *evil* spirits are engaged in active warfare against the Bible—and are industriously at work to build up a system of religion, in harmony with the natural depravity of the human heart; but if evil be an active principle, good is active also, and in the long run will master its great adversary.

I cannot share in the apprehension that the Bible is put in peril, by any one, or by all of the agencies of the Prince of Evil. On this new field of warfare [if indeed it be *new* in any respect save that we *now see the conflict*], he will I apprehend, be routed and overthrown, as on every other theatre of action. The principle involved in this struggle, presents no novelty in the history of man. He has always been subject to the antagonism of two principles. He has always had the power to choose between them, being responsible for his choice. He has it now, and the responsibility also. He has also the same means he ever had of discriminating between them. It is quite as easy for him, to distinguish between a good and evil *spirit*, as between a good and bad *man*, or a good and bad *book*.

In truth, in so far as the Bible is concerned, in the matter of construction, there is less difficulty presented by the spirits, than by mortals. For good spirits affirm the infinite authority, and by consequence, the infinite obligation of the Book as

a revelation of God—while in the main, evil spirits deny both. The issue they make is a broad one—the line between them is easily drawn—it is the Bible or nothing. But with mortals controversy, occupying narrower ground, may give rise to serious error: a vital truth may be lost sight of in the conflict of constructions.

I am satisfied that, unless you take the ground assumed by the Pharisees against Christ, you will not be swift to believe that the spirits who gave the inculcations I have recorded, are evil—unless indeed the Devil has changed his policy, and is resolved to prevent all further increase of his subjects, by fitting mortals for another and higher destination.

So you see what you have brought upon yourself by an unfortunate opinion, and a yet more unfortunate criticism! But brother mine—however we may differ about politics or “spiritual rappings,” we do not differ as to the God whom we love and serve, nor in our aspirations to meet the redeemed of his kingdom. Invoking upon you and yours his choicest benedictions, I am as ever,
Your Brother

August 30th, 1852.

THE PLAINS,

Being a Collection of Veracious Memoranda, taken during the Expedition of Exploration in the year 1845, from the Western Settlements of Missouri to the Mexican Border, and from Bent's Fort on the Arkansas to Fort Gibson, via South Fork of Canadian—North Mexico and North Western Texas.

By FRANCOIS DES MONTAIGNES, of St. Louis.

THE PLAINS—CHAPTER ONE.

Which kills two birds with one stone, as it introduces the youth Francois des Montaignes to some fellow-voyagers, and the steamer Henry Bry to Kansas on the Missouri River.

Be it known to all good readers, that during the third, fourth and fifth days of June, 1845, the good steamer, Henry Bry, Chouteau master, had been threatening and promising to start for Missouri river every hour, yet the sixth came, and she had but just left the port of St. Louis. On this craft, there were some twenty odd souls who, from their independent swagger and jovial carriage, appeared to belong to some party about to start for Oregon or California. They were mostly young Americans, healthy and full of fun and elasticity, yet, there were some four or five others aboard the vessel, who preserved a more serious exterior, and now and then gave utterance to some pithy ejaculation of contempt at the sayings and doings of the set of greenhorns, who they felt confident of being their inferiors in the coming profession of mountain traveling. They spoke that mongrel language, so extensively in use among the Creoles of the West, and which although a piebald patois of the French, is much better known by the appellation of Canadian. These men were Canadian men, experienced in the manner and modes of exploring wild mountainous regions, of threading desert plains, of killing the wild beasts of these regions, of trading with and of conciliating the barbarous inhabitants thereof, of packing animals—of every thing, in fact, which is necessary to be done during an expedition among wild and savage Indians and through untrodden regions. Several had already been engaged in previous trips of the kind, whilst every one of them had been engaged, at least a year or two, at some trading post of the American Fur Company. Therefore, when such men as these, who, experienced in every thing of the kind, were well aware of what was yet to come, cast a dubious and almost sneering look at the too playful and sanguine group of verdant ones on board, it should have tamed their fun toute-desuite, and ought, by all means, to have terrified some of the rascals into seriousness. But they, sorry devils as they were, would not so much as cast a glance at the vieux voyageurs, much less keep their company. To speak plainly, the

present cargo of the *Henry Bry* was by no means a choir of Psalm-singers, nor quakers. They ate, drank, talked, sang, played cards and smoked cigars when they pleased and as much as they pleased. When the boat stopped at a wood yard, every one of them must needs go ashore and shoot at a spot. When they had no balls, they must go ashore anyhow to jump and run foot races; and when they did not feel in humor of jumping or racing, they must go ashore, by all means, for the sake only of being ashore. This conduct on the part of the American engagés might, perhaps, have pleased the captain, who was on board with us, but no doubt, he frequently shook his head and muttered to himself: "These chaps are green and nimble enough now, but by the time they are a month's travel on the prairie, I'll lay a wager, there be not much desire to run foot races."

There were also on board the *Henry Bry*, besides the captain and hands, several officers, lieutenants of the Army, gay young fellows, who run about to accompany the expedition apparently more for the purpose of killing dull time than any thing else.

The voyage from St. Louis to Kansas was soon made, for the days slipped by most pleasantly to all hands, occupied in the manner I have stated, in doing everything but anything.

Finally, after passing numerous towns and pseudo-cities in embryo, which spotted the banks of the Missouri on each side, on the morning of the ninth, being Monday, the little port of Kansas, the Westport landing came in sight, and now all was hurry and confusion.

Each man grasped his possible sack, which by the way is a provincial name for clothes sack, in one hand, and his blankets and rifle in the other, and stood ready to leap ashore.

As the boat touched the shore, there ensued no tremendous rush of draymen, friends, relations and porters, such as welcome the arrival of a steamer in some great port; but there did ensue a rush of Americans, Canadians, officers, &c., to land.

It was raining in one of those dull moods in which a hazy morning in Missouri is so frequently opened, and by the time we had carried our guns and baggage to a place of security, the wharf or landing was a complete mudhole. The horses had been taken out some three or four miles below us, and we next proceeded to take forth the barrels of flour, of sugar, of coffee, the boxes of rice, or this and that, the bales of one thing and another, the bundles of iron pickets, the long and short boxes of rifles and of instruments of this and that, and lastly several hogsheads of bacon.

I wish not to weary the reader with too many trifling particulars and shall therefore omit many things which might be included in what is denominated a journal. Those, however, which I shall omit, have no relation with the main important subject, and I shall not consider anything as lost by their omission.

Suffice it, therefore, to say, that we and our share of the boat's cargo were unshipped. The boat proceeded on her way up the river, and we endeavored to make ourselves as comfortable as circumstances would permit, by eating a hearty breakfast, taking a hearty dram and strutting along the little landing.

Waggons arrived from Westport about eleven o'clock, to transport baggage and plunder to the camp which some said was near Westport. But as we were all green, and did not happen to know very well the situation of Westport and consequently of the camp either—the conclusion was that none of us knew or could be expected to know where the camp was.

However, as soon as the wagons were laden, we started out, one and all, in parties of ten and six for the first camp near Westport.

The first group was composed of ten or twelve, whereof one among the rest was Francois des Montaignes, who with his rifle on his shoulder, trudged along ahead of his companions with much sprightliness and gaieté du coeur. Mile after mile was passed, the day was fast drawing to a close, and the voyagers now hoped soon to see the camp. Yet on they went, the road had no end, and they were fast becoming tired. A wagon passed at a swift pace, a few words passed, and when we arrived at Westport, a wagon stood waiting at the tavern door to transport us to Boone's Fork, six miles farther.

Finally, an hour by sun we reached the edge of that great plain or prairie which stretches out far and wide from the western boundary of Missouri to

the foot of the Stony or Rocky Mountains, and in its extent from north to south it has no confines. The rolls of the prairie before seemed heaved into beautifully rounding waves or surges by some great power, and when we reached the pinnacle of a lofty eminence and beheld the American camp on the prairie below us, it seemed like some distant fleet of vessels at anchor on a heaving sea.

Indeed, we were all in an admirable condition to speculate on matters and things, for at the tavern of Westport all hands made a simultaneous rush at the bar, and the whole crew, one and all, by the time we left the town, which we did with extraordinary eclat—yelling and shouting—were in a most pitiable condition of gloriousness and well adapted in every way to appreciate the beauty of landscapes and to poetize thereon.

“Old Dan Tucker,” that well patronized air, and “Lucy Neal” were sung with rapture; and with a strain of most mournful music, proceeding from our throats in the shape of some five or six different songs at once, our little wagon whirled into the camp.

Our Captain was already there; a couple of old and temporary tents were up, and whilst several large rawboned fellows were cooking a meal, the whole place was a crowd of hangers-on or spectators who, as was supposed, had been lying in wait there for a week or more, in order to make arrangements with Captain Fremont to accompany his expedition.

The herds of mules and horses which belonged to the expedition, were feeding in the distance, whilst every now and then a figure on horseback would flit across the darkening horizon, marking the presence of the horse guards.

The drove of animals were driven up to the camp at dark, and confined in an enclosure made by felling trees in such a manner as by their fall to form a circle, called in Spanish a “caral.” Such was the appearance of the camp when our advanced guard took possession of it.

The first night of our sojourn at this camp on the prairie was rather inauspicious, for the clouds grew black as ebony, and the thunder rolled overhead in threatening murmurs. About eleven o'clock at night the heavy rain drops began to descend; they increased to astonishing violence, and about twelve, the storm was at its height.

The heavy tent cloths flapped about like thread under the violent power of the wind; the water ran down from the hills in streams, passing through the blankets, robes, baggage, &c., which impeded its progress. The tents afforded no security against the water, though they warded off the descending rain and the poor voyagers who lay crouched like a flock of partridges beneath them, felt their bed cloths and their apparel become wet and heavy. They, however, were not to be pitied when we say that many, unable to find a place within the tents, had been compelled to spread their blankets in the open air and in the empty uncovered wagons. These were of course forced to bear patiently the pitiless pelting of the storm, and to be kept awake by the continual glare of the sheet of lightning which lighted up the prairie equal to a noon-day sun. Amongst this latter class was the unfortunate Francois. He lay crouched in the corner of an uncovered wagon; his gun lay by him and his baggage was strewed around. Another individual there was at the other end of the wagon, but he—fortunate fellow—slept and snored away in the rain as if on a bed of warm feathers. He, no doubt, was used to such fare, and had been in a thousand storms like this, for he was a Canadian voyageur. Some were kept on foot, and one poor fellow stalking about in the mud and rain without shoes and asking in a pitiful voice for information, concerning the whereabouts of his hat which the wind no doubt had borne away, looked not unlike some unfortunate ghost among the ruins of Babylon or Colma, on the hill of storms.

Thus passed the first night at Boone's Fork.

“It is night. I am alone, forlorn on the hill of storms. The wind is heard on the mountain. The torrent pours down the rock. No hut receives me from the rain; forlorn on the hill of winds!”

THE SONGS OF SELMA.

From the German of Krummacher.

SELECT PARABLES.

THE APPLE.

There was a rich man at the court of king Herod, who was his high chamberlain, and he was clothed in purple and fine linen, and every day lived lordly and in pleasure. A friend of his youth, from a distant land, came there to see him. He had not seen him for many years. And the chamberlain, to honor him, prepared a great banquet, and invited all his friends. On the table were sumptuous viands in gold and silver, and many costly vessels with oil and wine of every kind. And the rich man sat at the head of the table, and on his right hand sat his friend who had come from distant lands. And they ate and drank, and were satisfied.—

Then spoke the man from distant lands to the chamberlain of king Herod: 'Such splendor and magnificence as I find in this house, I never beheld in the length and breadth of my land!' And he extolled all the splendor, and boasted that he was the happiest of all men on earth.

But the rich man, the king's chamberlain, took an apple from a golden vessel. The apple was large and beautiful, and on the outside ruddy as purple. And he took the apple, and said: 'Behold, this apple was resting on gold, and its appearance is very beautiful.' And he gave it to the stranger and friend of his youth. The stranger cut the apple, and, lo, in its heart there was a worm!

The stranger looked side-wise toward, then away from the chamberlain—but the High Chamberlain cast down his eyes and sighed.—

THE JEWEL.

A rough jewel was lying in the dust concealed for years among many common worthless stones. Various people walked over it, or trod it under foot, and never picked it up. It also concealed its brilliancy before the eyes of travellers. For its beauty did not disclose itself, but shone in simplicity.

A friend of nature, at last, came in the borders. He sought after flowers and insects, and found the jewel. Smiling he gazed at the stone, and said: 'Thou art yet ever kind toward thy adorer, lovely mother nature! finds he not, what he with love and stirring sense of truth seeks after, yet finds he surely something, which also was well worthy of the search.'

He took the stone home with him. But, said he, thou rough child of nature—how shall I now begin to polish thee? How shall I take off the gross cover which conceals thy brilliancy?—Yet how can what is noble, otherwise than by the noble, become properly fashioned?—He polished the diamond with the dust of diamonds. Incomparably beamed its ray, and its fame filled the land.

Then the wise friend of nature took the precious stone, and brought it to the good, beloved ruler of the country, and spoke: 'I found this finest production of nature; I polished it to its lustre; I consecrate it to the First of the land, that the jewel may adorn his crown, for it is considered the brightest amount of a princely crown.'—

But the prince asked: 'What is the brightest ornament of a princely throne?'—The wise man answered: 'What the jewel is to his crown, a circle of the noblest men is to his throne, which it surrounds, and to the prince whom it honors.'

INDUSTRIAL RESOURCES &c. OF THE SOUTHERN AND WESTERN STATES.

By J. D. B. De Bow.

We would call particular attention to the advertisement of this work. Mr. De Bow has rendered valuable service to the interests of the South and West. May he be amply rewarded.

GUIDE TO THE SCENERIES OF ST. LOUIS COUNTY.

With an engraving of seven scenes and a MAP drawn from nature by *Egloffstein & Zwanziger*, Topographical Engineers on stone by *E. & C. Robyns*. The book is small, containing only 8 pages; the scenes and map in general are interesting, and must be valuable to the owners of real estate represented. The map embraces 30 square miles, and includes Manchester and the Sulphur Springs on the Maramac. May we not hope for a geological survey and topographical map of the whole county?

THE
WESTERN JOURNAL
and *Civilian*.

VOL. IX.

November, 1853.

No. II.

ARTICLE I.

Juvenile Reform Schools.

In no period of a nation's existence is a greater degree of vigilance required, on the part of its constituents, than in times of peace and commercial prosperity; for while occupied in the pursuit and enjoyment of wealth, individuals, in general, are prone to neglect their social duties, and become indifferent to public policy. Hence, there is no season of repose for the patriot, philanthropist or statesman, and in no period of our history have their active services been more necessary than now. The people of the United States have entered upon a career of civilization which will, as they imagine and hope, develop a higher degree of human excellence, and lead to a more exalted state of individual and social happiness than has been attained since the expulsion of the progenitors of our race from the garden of Eden. And when we contemplate the nature of the fundamental principles upon which our institutions, political and religious, are based, we feel persuaded that the only thing required to preserve a state of continual progression, and ensure the attainment of all that is imagined and hoped for by the American people, is a vigilant and zealous exertion on their part to enlighten the minds, and improve the morals of the ignorant and vicious.

But failing in that, we must, sooner or later, attain the zenith of our national glory, and like the nations who have preceded us, thence decline, and, finally, sink into a state of barbarism.

Then let us not be disappointed in our hopes by placing too much reliance upon the influence of just principles; for although calculated to protect us in the pursuit of happiness, they possess no inherent, active qualities to make men wise, virtuous or great with-

out their own exertions. As citizens of a republic we should continually bear in mind that individual happiness is involved in the common welfare; private interest, therefore, as well as duty demands, that we appropriate a reasonable share of our time and means to the amelioration and improvement of the social condition.

It is not our purpose in the present paper to investigate the sources of human passions or to examine the causes which give them predominance over reason. We have a more practical object in view, and to that we invite the attention of our readers.

The great increase of population and development of the vast resources of the United States, have given an impetus to the growth of American cities which has no parallel in history. Civic communities, as distinguished from rural, already constitute an important feature of American civilization, and it is our duty to look to the effects which they are likely to produce upon our social and political institutions. Controlled chiefly by laws emanating immediately from the local authorities, the inhabitants of cities feel little interest in the legislation of the State or national government, and their social sympathies rarely extending beyond the limits of the corporation within which they reside, it is not to be expected that they will cherish that deep interest in the general welfare of the nation, which animates the inhabitants of rural districts. Besides, from the nature of civic pursuits a considerable portion of the population of all great cities must be employed as menial servants and day laborers—conditions calculated to degrade men in their own estimation, and render them an easy prey to the temptations of vice. Ignorant, destitute of property and uninfluenced by public opinion, there is but one step from useful employment to the alms-house or to the commission of crime; whilst their offspring, growing up in the midst of vice, without precept or examples of virtue, become knaves and vagabonds by profession. Who can contemplate the fact, that in one year in a single city of the United States 21,299 individuals have been committed to prison for crimes and misdemeanors, without being startled at the thought that a large portion of the number were voters, whose suffrages could be bought for a trifle or influenced by the prospect of plunder to be obtained by war?

In monarchical governments this class of population can exercise no influence over the policy of the nation; but not so under republican institutions, where every freeman has a voice, either directly or indirectly in making the laws, and in giving direction to State

and national policy. Already the influence of the disorganizing rabble of our great cities is beginning to be felt throughout the land, admonishing the friends of order and republican institutions, that the time has come when measures should be devised and adopted to guard against the dangers to be apprehended from the vices incident to populous cities.

But it is not in a political view, merely, that the existence of this degraded class of city population is to be deprecated: they disturb the repose and affect the individual interests of all around them; and, while they subsist upon the fruits of honest men's labor, like a pestilence, they contaminate the moral atmosphere, and bring affliction to many worthy parents, by decoying their offspring into the paths of vice.

Admonished by the history of crime and pauperism, in older cities, a number of philanthropic citizens of St. Louis were instrumental, about two years ago, in obtaining from the Legislature of Missouri an act incorporating a *Juvenile Reform School*. The following extracts from the charter will explain the objects aimed at by the friends of that institution:

§ 3. When there shall be the sum of ten thousand dollars subscribed, and secured to be paid by benevolent individuals, as a donation to said school, then the board of managers shall organize by meeting and appointing from their own body a president, and shall proceed to procure a suitable building for the reception of such juvenile offenders, as is hereinafter provided.

§ 4. The city council of the city of St. Louis, shall be authorized to subscribe the sum of thirty thousand dollars towards this corporation, and shall have power to issue her bonds, in such sums, and payable at such times, not longer than twenty years, as it may deem expedient, in order to enable it to pay the amount which may be subscribed under this act.

The eighth section declares:

That the board of managers shall provide as soon as practicable, a suitable edifice for the school, with its appurtenances, upon a tract of not less than fifty acres, situated within sixty miles of the city of St. Louis; that they shall decide what shall be the offices of the institution, and shall fill them with properly qualified persons for periods, to be determined by by-laws; shall regulate their salaries; shall pass by-laws, rules and regulations for the entire management of the institution, and the reception of beneficiaries to the school, and shall make a full report to the legislature, at each regular session of the general assembly, an annual report to the city council of the city of St. Louis, which report shall be published in at least one newspaper printed in the city of St. Louis.

§ 9. Be it further enacted, That the board of managers shall receive into this institution, in accordance with by-laws to be adopted, young persons under eighteen, if males, and under sixteen, if females, committed by any justice of the peace, or other higher courts of the county of St. Louis, or by the recorder of the city of St. Louis; that said board of managers shall have the exclusive control of said young persons thus committed during the period of their minority; to detain them within the institution, engaged between work, recreation and study; to indenture them as apprentices with their consent; to learn some useful art of life, or to dismiss them if incorrigible.

§ 10. Be it further enacted, That when any young person under the age above named, shall be brought before any magistrate, recorder of any city or town, or

other, or higher court within the county of St. Louis, by complaint of parent, guardian or next friend upon a charge of vagrancy, viciousness or incorrigibility, or shall be brought before such magistrate, recorder, or other, or higher court, upon any charge whatsoever, which is criminal according to the laws of this state, such magistrate or other court may, at his own discretion, and shall, upon application of the accused, or his or her parent, guardian or next friend, order a private trial; none but the parties, advocates and witnesses being present: Provided, that a jury trial shall in all cases be granted upon application of the accused, or his parent, guardian or next friend; and provided further, that nothing herein shall be construed as curtailing the privilege of the writ of habeas corpus; that upon conviction, due proof of the fault or offence having been produced, the offender shall be sent to the Missouri juvenile reform school, at the expense, for transportation, of the city or county from which he or she is brought, and to which the court convicting, pertains; provided, that in any case in which the accused has been once expelled from the said school for incorrigibility under the by-laws thereof, the laws shall take its course as with older persons, and he or she shall not be admitted to the said school.

This is beginning at the right point—striking at the root of the evil—and if we can secure to these children of vice and misfortune a reasonable education, and train them to habits of industry, to say nothing of their moral improvement—and were all the cities of the Union to adopt similar measures—this grievous nuisance would, in course of time, be abated; and instead of hot-beds of vice, our great cities would become nurseries of virtue, taste and refinement.

The provisions of the charter may be regarded as sufficiently liberal in respect to the power granted to the corporations and the courts; but the burden of founding the institution, and of carrying it into useful operation; is left chiefly to the philanthropy and public spirit of individuals—such should not be the case. A measure so important to the commonwealth, should not be allowed to rest upon a foundation so slender and uncertain.

The rapid growth of St. Louis is the occasion of daily demands upon the liberality of its citizens; and with pleasure we record the fact that these demands are responded to in a spirit honorable to the community and the age in which we live; but, as long as the influx of population continues as great as it has been for years past, the drafts upon individual liberality, for objects demanding immediate relief, will not allow of the appropriation of any considerable amount of their means towards the attainment of more distant objects. Nor are the demands upon the city in its corporate capacity less constant and urgent.

Where, then, shall we look for means sufficient to build up and put in successful operation the institution contemplated by the projectors of this great moral enterprise? It is doubtless in the power of the city to raise the amount necessary for the consummation of the object; but it would seem reasonable that the burden of build-

ing up and sustaining the institution should be divided among all who are to enjoy its benefits; and upon this principle we hold that it is the duty of the State, and even of the general government, to assist in the work. The wealth and social condition of the State of Missouri must always be influenced, in a good degree, by the city of St. Louis; and, moreover, a large portion of the revenue of the former is derived from the commerce and real estate of the latter; it is, therefore, just that the State should bear at least a part of the burden.

But we hold that the city of St. Louis, or the State of Missouri in its behalf, has a just claim upon the general government for aid in building up and establishing upon a permanent foundation the institution herein contemplated. By the terms of admission into the Union, the inhabitants of each township in Missouri and other new States are entitled to one section of land for the use of schools; and Congress, moved by a principle of equal justice, has given a favorable consideration to a measure proposing to authorize those townships whose school sections are of little value, to select others in their stead. The same principle, in our opinion, requires that additional grants of land should be made to St. Louis and other cities which have sprung up in the new States, where much the larger portion of the land is still owned by the general government. This principle is recognized in a Bill providing for the distribution of public lands among the old States, for purposes of education, introduced at the last session of Congress, by Mr. Bennet, of New York. In that Bill no regard was had to the area of the States; but the distribution is proposed to be made according to the number of their Senators and Representatives in Congress. Under its provisions, should it become a law, the State of Delaware, containing a population less in number than St. Louis, will be entitled to 450,000 acres of land, the proceeds to be appropriated in such manner as may be determined upon by that State. By the provisions of that Bill the new States will receive nothing for the use of schools; and we insist that St. Louis, and other cities in the new States, will not receive justice at the hands of Congress, unless placed upon an equality with the parties provided for in the Bill, which will probably become a law at the approaching session. But should that measure fail, still the citizens of St. Louis have a just claim to be placed upon an equality with the inhabitants of the rural townships, in respect to the means of education.

Now, in view of the object under consideration, and looking to an equal distribution of the public lands for the benefit of schools, we respectfully invoke the attention of our Senators and Representatives in Congress to the just claims which, we are fully persuaded, exist on the part of the inhabitants of St. Louis to a grant of lands that will place them upon an equality with the inhabitants of the rural townships; or, in case Bennett's Bill should become a law, then upon an equality with the citizens of the old States and the district of Columbia.

We were much gratified in observing the lively interest manifested in Congress, at its last session, in behalf of a bill proposing a grant of lands to the States for the benefit of the indigent Insane. The measure is highly creditable to American statesmen, but is simply one of humanity, embracing a class of individuals who can exert no influence upon the institutions of the country, nor in any degree affect the morals of society.

Therefore, as highly as we approve a measure designed to ameliorate the condition of the indigent Insane, yet, we are fully persuaded that a measure looking to the improvement and reformation of the indigent and vicious children of large cities, is one of much greater importance, in every light in which it may be viewed. The uneducated offspring of indigent and vicious parents who, owing to their associations and the want of moral instruction, have been led into the commission of crimes, are, in the view of enlightened philanthropy, objects of commiseration claiming the offices of charity upon grounds even higher than one deprived of reason. For, although their mental faculties be sound, yet they are subjects of moral insanity, suffering from a sense of their degraded condition, and amenable to the laws of God and man for their conduct. Besides, it is a quality of vice to multiply and diffuse itself throughout the community, instilling its poisonous properties into minds inclined to virtue, fomenting social discord, and infusing bitterness into every cup of human enjoyment.

Moreover, the degraded population of large cities is antagonistic to our republican institutions, more dangerous and more to be feared than all the nations of the earth. It is, therefore, the duty of the Government to guard against the dangers to be apprehended from this source with as much vigilance, and with as little regard to the cost, as against the encroachments of foreign powers.

As a consequence of these views, we hold that it would be a just

and wise policy on the part of the general government to donate a reasonable quantity of the public lands to all the States to be appropriated to the special object of establishing "Juvenile Reform Schools" in or near the principal cities. We can imagine no use to which a portion of the public domain can be applied that would, in our opinion, tend so much to the conservation of the principles upon which our institutions are based, or, in a higher degree, promote individual and social happiness. It is the first and highest duty of a republican government, to foster and improve by the use of every reasonable means in its power the intellectual and moral condition of its constituents; for upon this depends the destiny of republics. It is in vain to rely upon that principle, which leaves every individual free to pursue happiness according to the dictates of their own selfish and erring natures; for without restraint or modification of this principle but few generations would pass away before the many would become bondsmen to the few. It is but mockery to say to the indigent and uneducated youth—reared in the midst of vice—that the road to happiness is open to him; one out of a thousand may find the way to wealth and respectability, but the balance, stultified by ignorance and passions unchastened, are utterly incapable of improving their condition without assistance; and this, to be permanent and equal to the demand, can be derived only from the State or general government.

We are not to be understood as asserting that the general government possesses the right of controlling the subject of education in the States, or even that it has the power of raising a revenue for the encouragement and support of institutions of learning; but we are not aware of any constitutional objection to its donating a portion or even all the public lands to the States, to be held in trust for that especial object. The constitution of our State enjoins the encouragement of schools and the means of education; and it is the duty of the legislature to promote these objects to a reasonable extent by the use of all the means in their power. The claim set up by the old States to public lands for the use of schools affords an occasion for the new States to assert their claims also; and, in concluding this paper, we respectfully commend the subject to our General Assembly, with the suggestion that a memorial be sent to Congress, asking for a donation of land in aid of the "Missouri Juvenile Reform School."

ARTICLE II.

(From Hunt's Merchants' Magazine.)

Blasting Rocks under Water without Drilling.

The blasting of rocks under water without drilling for which Mr. Maillefert has taken out a patent, dated the 2d of March, 1852, is an invention which is intimately connected with the general desire for improvements in rivers, harbors, and maritime thoroughfares. We do not, however, intend to say, that this invention has been directly called forth by that desire, for such is not the case; but we feel convinced that nothing short of a general and strong feeling in favor of such improvements could have prevailed upon private individuals to furnish the pecuniary assistance which was requisite in order to give a fair trial to an invention, which, at the outset, met with so many doubts and objections, and had to encounter an almost general incredulity.

The trial has been most successful throughout, and has been carried out to an extent which at once secures to the invention a prominent place among the operations to be used for the improvement of our maritime highways.

Notwithstanding the difficulties and delays always and unavoidably attending experiments, the most remarkable results have been obtained.

The first submarine charge was fired by Mr. Maillefert on Pot Rock, in Hell-Gate, the 19th of August, 1851, and from that day the operations have been continued in that difficult and dangerous thoroughfare, being interrupted only during the severest frost, and during Mr. Maillefert's illness consequent upon an accident which happened the 26th of March last.

Pot Rock, the most dangerous of the sunken rocks, rose in the middle of the channel, from a depth of from fifty to eighty feet, to within eight feet below the surface (at mean low water). It was formed as a ledge, stretching across the Gate so as to present its broad side to the current; the western slope rose pretty gradually, but the eastern side was steep, and even overhanging. At a depth of twenty-four feet below the surface, this formidable rock had a length of about two hundred and fifty feet, and an extreme width of seventy-five feet; its upper part was prismatical, and its top had an area of only some few square yards.

On that side of the rock which turned towards the current, the waters were forced several feet above their natural level, and on the other side of it there was a corresponding depression—the consequence of which was a very dangerous whirlpool of considerable extent, and bordered with foaming eddies.

The violent agitation of the water above and around Pot Rock, and the wild roar which accompanied it, was exactly such as if some sea monster were struggling in agony, vainly attempting to reach

the surface of the water. When the tide was running, Pot Rock could not even be approached in a small boat, and the only available time for sounding the rock, or for blasting it, was during slack water, when the tide had ceased running one way, and until it commenced running in the opposite direction. But owing to the situation and character of the channel, slack water lasted only some few, never beyond ten minutes; and the operations were therefore confined to that limited space of time.

It is evident that, under such circumstances, no other mode of operation than the one invented by Mr. Maillefert could possibly be made use of.

It was not only entirely impracticable to fix any apparatus for drilling upon Pot Rock, but even the mooring of a vessel or float on or near the spot, and during the tide, could not be seriously contemplated.

In the beginning of the operations, not more than two or three charges could be fired per day; many days were entirely lost, the weather being unfavorable, and others had to be devoted to surveying operations, which also could be effected only during slack water, and in very favorable weather.

But all these difficulties were overcome, the work was gradually progressing, and a survey made on the 7th of November by Lieut. Bartlett, U. S. N., showed a depth of not less than *eighteen feet three inches*, at low water, on any part of Port Rock. This result had been obtained in the course of two and a half months, by the firing of one hundred and forty-three charges. A great improvement had then already taken place in the appearance of Hell-Gate. The whirlpool had entirely disappeared, and the eddies were almost reduced to mere ripples.

It had also, at that time, become evident that the removal of rocks by Mr. Maillefert's method was not only possible, but also very expeditious, and attended with proportionally small expense.

Although the season was then very much advanced, the operations were continued on Pot Rock, and commenced on several of the other most dangerous rocks. Among these, the "Frying Pan" offered almost the same difficulties as "Pot Rock," being situated in the middle of the channel, where the tide sometimes turned within two or three minutes.

The operations were thus continued until the 12th of December, when the cold weather compelled Mr. Maillefert to suspend work until the 2d of February, 1852.

Pot Rock had then been broken down to *nineteen* feet below mean low water.

"Bald-headed Billy," a large and dangerous boulder, had been removed to deep water. Lieut. W. A. Bartlett, U. S. N., Ass. U. S. Coast Survey, states the following, in relation to this latter operation. "By accurate measurement of this 'boulder,' after a submarine explosion had dislodged it from its bed, it was found to

be sixteen feet long, ten feet wide, and eight feet deep; and as it was too heavy to be floated whole, it was then split by drilling, and the two parts separately floated away to deep water, being lifted by the iron cylinder floats at high water."

Two other dangerous rocks, opposite Mr. Edwin Hoit's mansion, also had been removed to deep water. On one of these rocks a vessel was wrecked shortly after the commencement of the operations in Hell-Gate.

Several charges had been fired on "Frying Pan," "Way's Reef," and "Diamond Reef," (New York harbor,) but the result had not been ascertained by a survey.

The operations were resumed the 2d of February, and continued in spite of the cold and stormy weather, until the 26th of March, when Mr. Maillfert was wounded by the disastrous explosion of a charge above water.

Pot Rock had already, since the 27th of February, been broken down to a depth of *twenty feet six inches* below mean low water, a depth which was deemed sufficient for commercial purposes, wherefore no operation has taken place upon Pot Rock since that day. This splendid and highly satisfactory result has been obtained by the firing of two hundred and eighty-four charges, of which twenty-seven were of seventy-eight pounds of gunpowder each, and two hundred and fifty-seven were of one hundred and twenty-five pounds each.

When Mr. Maillfert had recovered from his wounds, he recommenced operations the 12th of June, and has continued them since in Hell-Gate, as well as on Diamond Reef, lying between Governor's Island and the Battery.

The results obtained up to the 4th inst. are as follows:—

Pot Rock broken down from 8 to $20\frac{1}{2}$ feet below mean low water; Way's Reef from 5 to $14\frac{1}{2}$ feet; Frying Pan from 9 to $18\frac{1}{2}$ feet; Shelldrake Rock from $7\frac{1}{2}$ to $16\frac{1}{2}$ feet; Diamond Reef from 16 to 18 feet.

Bald-headed Billy, a large boulder, and two small rocks opposite Mr. Edwin Hoit's mansion, have been broken, and entirely removed into deep water.

The above depths at mean low water correspond with the following depths at mean high water:—

Pot Rock removed to a depth of $26\frac{1}{2}$ feet at mean high water; Way's Reef $20\frac{1}{2}$ feet; Frying Pan $24\frac{1}{2}$ feet; Shelldrake Rock $22\frac{1}{2}$ feet; Diamond Reef 24 feet.

The removal of these large and dangerous rocks constitutes a great and very sensible improvement. The appearance of Hell-Gate is greatly changed, the terrible whirlpool, called the "Pot," is not to be found any more, and the project of making Long Island Sound and Hell-Gate the main entrance for steam and other vessels coming from Europe or from the north to the harbor of New York, whereby, besides other great advantages, a distance of

twenty-five miles may be saved, can now be seriously contemplated.

The experiment is now completed, and the results obtained by Mr. Maillefert's operations are undisputed and undisputable. They greatly surpass even the most sanguine expectations, and have established universal faith in the *modus operandi*, the efficiency of which was, at first, so generally doubted.

We will now proceed to show the difference between this mode of blasting rocks under water, and those hitherto used, its peculiar advantages, and applications.

It has always, heretofore, been the practice in all attempts to blast rocks under water, to insert the explosive charge in or under the rock, under the impression that the rock could not be separated or removed unless the charge were confined *within* the mass of the rock, or in some suitable cavity *under* it, or between it and the solid bottom, on which it rests. And as the drilling of the rock, or the making of the required excavation under it for the confinement or reception of the charge in many instances is entirely impracticable, and almost always attended with great labor and difficulty, when made under water, the discovery of a more generally applicable, as well as easier and cheaper method, has been for a long time a great desideratum.

Considering the great resistance which the water offers to the passage of bodies through it, and which is as the squares of the velocity and the mass of water to be displaced, Mr. Maillefert concluded that by placing a charge of gunpowder on or against the surface of the rock to be blasted, at a proper depth under water, and by firing off that charge, the considerable volume of gas which is almost instantaneously produced by such an explosion, would, in forcing its way through the water, meet with a resistance which would make it act in all directions, though in a different degree, somewhat like powder confined in a mine, and that the proportion of the concussion, which would thus be directed against the rock, would be sufficient to disintegrate even the hardest and most tenacious kinds.

This conclusion proved perfectly correct in all cases where a proper proportion existed between the depth of water above the charge, the quantity and quality of the powder exploded, and the character of the rock, and was therefore made the basis of this new method of blasting rocks under water, by which the difficulty, labor, and expense connected with drilling operations are entirely obviated.

Mr. Maillefert's mode of procedure in carrying out his method of blasting, is as follows:—

He takes a canister made of tin or other suitable material, inserts an isolated conductor, fills it with gunpowder, and closes it up so as to prevent access of the water. The cylinder is then low-

ered on the rock, from a boat or float, and by means of a rope or chain. Sliding along the guide-rod, it is placed exactly on the spot to be blasted, after which the guide-rod is withdrawn, the boat or float moved away far enough not to be injured by the agitation of the water consequent upon the explosion, which is effected by connecting the conductor with a galvanic battery, also placed at a suitable distance.

The explosion throws up a considerable body of water to a height of from thirty to one hundred feet, breaks and scatters part of the rock, and sometimes makes the ground tremble at a distance of more than half a mile.

As soon as the agitation of the water has subsided, the boats resume their station above the rock, which is carefully examined and sounded, by means of one or more sounding-rods, and another charge is then lowered down and fired on any spot discovered to require additional concussion.

We cannot here go into detail about the depth of water required, the quantity of rock broken down by every explosion, the rules for choosing the spots on which to place the charge, the time required for the firing of a charge, &c., all of which depends entirely upon the character of the rock, the velocity of the current, and a great many other circumstances, which vary according to the locality.

The above mentioned results, obtained in Hell-Gate, where nearly sixteen hundred cubic yards of the hardest rock (Gneiss) have been broken down and removed under very difficult circumstances, as an experiment, in less than seven and a half months, are sufficient to indicate what is to be expected from this method of blasting, which offers the following great and peculiar advantages:—

It can be applied under all such circumstances which would render the establishment or the working of a drilling apparatus entirely impracticable, or extremely difficult and expensive, as *f. i.* in open roads, and even in the open sea, all along the seacoast, in the most frequented thoroughfares, &c., &c. It is in such cases the only available method for the breaking down of rocks, reefs, and shoals formed by hard agglomerations, because either the depth of water or the violence of the current, the swell of the water, and the frequent passage of vessels, would render it impossible, or almost so, to establish and work a drilling or any other permanent apparatus.

The charges can be prepared either on shore or on board a vessel moored in the vicinity of the field of operations. The operation itself, therefore, requires no other apparatus than a float or two boats, which can readily be brought to the spot, and again withdrawn at the shortest notice. This makes it possible not only to profit of almost every favorable opportunity, either in regard to the tide or the weather, but also to carry out the operation in the most frequented thoroughfares, without in the least interfering with or impeding the navigation.

It furnishes a very excellent and easy method for removing boulders, such as obstruct and endanger, more or less, the navigation of almost all our rivers and maritime thoroughfares. One or two charges properly applied being in most instances sufficient to remove even the heaviest boulders out of the channel, this mode of operation proves not only less expensive, but, also infinitely more expeditious than the one hitherto used, viz: drilling the boulder, blasting it to pieces, and subsequently picking up the pieces, and carrying them on shore or into deep water.

It is a cheap method, both on account of its economy in labor and of its extreme expeditiousness. The greatest improvements to be made by this mode of operating, will hardly ever require more than one season to carry them to a successful end.

It can be very advantageously connected or combined with other submarine operations, as *f. i.*—

With drilling, as an auxiliary operation towards facilitating and quickening the removal of those rocks, etc., which are so located that *breaking* them by blasting in connection with drilling, will involve less expense than the blasting without drilling.

With dragging and dredging, for the special purpose of breaking such obstructions as snags, or other solid objects, hard agglomerations, etc., which could not be overcome by the apparatus used for those operations, and by which, therefore, a considerable dragging or dredging operation might be stopped in its progress.

It can be most effectually used for the opening of navigation in thoroughfares obstructed by ice; and acting as well upon the bottom as upward, it will, in many instances, be the means of preventing the formation of bars in rivers, where such obstructions very often will accumulate under or against the ice bar.

This short account will be sufficient to indicate the many applications that may be made of Mr. Maillefert's invention, and to show that it is destined to take a prominent place among the agencies of those submarine operations upon which we must depend for the improvement of our maritime highways. It is calculated to overcome all the difficulties in the way of those grand improvements which could not hitherto be thought of, and we venture to say that, by its liberal application, the greater part of those dangerous rocks, reefs and ledges, by which the navigation of the waters along our coast, and in our rivers and lakes, is made extremely perilous, causing every year numerous and most melancholy shipwrecks, can be removed in the course of a few years, if the necessary means (small when compared to the terrible losses which would thereby be obviated) can be obtained for such improvements, which the voice of humanity and the interests of the country loudly call for.

ARTICLE III.

The Pacific Railroad.

The project of constructing a railway from the Mississippi river to the Pacific ocean, at the cost of the General Government, as proposed some years ago, having failed to meet the approbation of Congress, and, concluding after much reflection, that the nation could never be induced to build the road upon that principle, we ceased, for a time, to write upon the subject; and have waited patiently for a combination of circumstances and development of events, that would open the way for a more successful effort in behalf of this glorious enterprise. We had many reasons for desiring that this great work should be executed entirely by the means of the General Government; but the reasons in favor of a speedy consummation of the enterprise being far more important, in our view, than those in favor of a particular mode of raising the means necessary to carry it on, we have changed our ground, and are prepared to advocate the undertaking of the work upon any fair principle that will insure success.

Important changes in respect to the prospects of this work have taken place since 1849: California has become a State possessing resources almost boundless, and a population ardently desiring a railway communication with the States east of the Rocky Mountains: the territory of Utah has been organized and settled by a people of indomitable enterprise, desiring an easy communication with both oceans, and capable of achieving more, perhaps, than any other people upon the globe of equal numbers; and, moreover, we have reason to expect that the territory between the western boundary of Missouri and Utah will be organized at the approaching session of Congress. Upon the consummation of this event it will be in the power of the Legislature of Missouri to enlarge the privileges now enjoyed by the Pacific Railroad Company of this State, so as to authorize it to extend the line to the Pacific ocean, provided the assent of the Territories of Kansas and Utah, and the State of California can be obtained; or each of said territories and the State of California may charter separate companies within their respective limits. Thus, the friends of the enterprise will be relieved from the necessity of looking to Congress for the privilege of undertaking the work; and what is, perhaps, more important,

they will be free to select a route uninfluenced by the sectional interests and prejudices of any part of the Union.

The project having assumed this interesting aspect, we now look with renewed hope to its consummation. We feel assured that California can and will build the road from San Francisco to her eastern boundary, and we believe that the inhabitants of Utah can bring the work thence to the great Salt Lake, and, perhaps, to the South Pass; and, then, if no one else can be found to take it up, our own Pacific Railway Company will do it in less time than it has taken the Baltimore and Ohio Railroad Company to reach the Ohio River.

Every paper which we receive from California, manifests a growing interest in favor of this great enterprise in that State; and that our readers may form some idea of the kind of talent enlisted in its behalf, we copy the following able speech of Gen. J. A. McDougall, from the *Placer Times & Transcript*; and although some of the estimates may be too low, yet we believe the document will be found decidedly interesting to every friend of the enterprise.

THE PACIFIC RAILROAD.

GREAT SPEECH OF GEN. J. A. MCDUGALL,

Delivered at the Verandah, in San Francisco, on the 24th August, 1852.

FELLOW CITIZENS:—I have invited your attention this evening to a discussion of the practicability and plan of constructing a railroad from the Bay of San Francisco to the Atlantic States, an enterprise possessing a magnitude of interest to the people of this State, in comparison with which all other projected enterprises sink into insignificance. Indeed, ever since I first identified my interests with, and made my home on the Pacific, I have regarded this work as the great enterprise of the age, in which not only California but the whole Republic was vitally concerned, and which, while of vital importance to us for purposes of intercommunication and government, must secure to us a commanding influence over the commerce of the world.

Entertaining these opinions, and now occupying a position that devolves upon me the duty of communicating my views on questions of public policy to the people of the State, I gladly embrace the opportunity of agitating this important subject.

In the year 1849, I crossed the continent into California, spending several months in the interior, and crossing the central section between the Sierra Nevada, or Rocky Mountains, and the mountains of the Pacific on two different lines; my attention was then directed to the subject of this road; it was a matter that had been discussed with much earnestness throughout the western

States for the two years previous, and I then regarded it as a work to be undertaken at no distant period.

The information that I then gathered from observation and from the statements of old settlers of the interior, mountain men and guides, I have since compared with official reports found in our public documents, books of travel, and information derived personally from travelers. From these sources I believe that I have gathered an intelligent opinion of the character and practicability of the enterprise upon the different routes that have been suggested.

I now state it as my clear conviction, that there is not a single serious natural obstacle to either a northern or a southern railroad route to the Atlantic States.

I do not wish it understood that I present my views as matured opinions, or my plan as a matured plan. I present facts, opinions and plans to the people of the State for discussion, addition, and improvement. The agitation of the question will develop new facts, and constantly throw new light upon the subject, and if this results in the maturing of a plan for the enterprise, and the concentration of the public opinion, the moral force of California in its support, the great work will have been commenced, and when once commenced in earnest the obscure and misty difficulties which disturb the imagination of our people with ignorant and ill-formed conjectures, will vanish into thin air.

If I can succeed in bringing the intelligence and the energies of California to bear upon this subject, if I can but give motion to this enterprise, I shall feel well rewarded for the labors of the canvass before me, whether elected to stay at home, or to take a place in the council halls of the Nation.

I propose first to discuss the practicability of the road with reference to the country over which it must pass, and next the practicability of concentrating the means and the enterprise necessary to its construction.

Three different routes have had their advocates. The northern route, rising with the valley of the Sacramento to a point opposite where the rugged and abrupt ridges of the Sierra sink into a comparatively low but somewhat broken table land; crossing from this point to a point on the Humboldt river, about ninety miles from the sink and thence on a line north of the great salt sea, through the South Pass and by Fort Laramie into Independence.

The southern route passing up the San Joaquin and Tulare valleys, crossing a low ridge at the southern base of the Sierra Nevada through what is known as Kerus pass, thence to the Mohave, thence to the Colorado below the mouth of the "big Canon," thence across the table land cutting the head waters of the northern affluents of the Gila to the Rio Grande in the neighborhood of Belen or Tome, thence down the Rio Grande to San Diego from near which point a pass opens into the vast plain extending from

the Gulf of Mexico to St. Peters and the northern lakes, affording an almost perfect natural grade to Austin, Nachitoches, Fort Smith or Independence. There is still another route going south as before to the Mohave, thence north-easterly near the line of the road from Los Angelos to Salt Lake, striking the head waters of the Arkansas, and descending with the waters of the Arkansas to Bent's Fort and from that point to Independence. This pass through the Rocky Mountains is the same attempted by Fremont, in 1848, when losing his way his party suffered so terribly in the snows. The character and capabilities of this pass are not as yet well understood. The long stretch between the Mohave, and the Mohave is generally a desert, and the distance is from two to four hundred miles greater than by either of the other routes proposed. For these reasons I shall not discuss this route in detail.

The northern route from the navigable waters of the Sacramento to the point maintained on the Humboldt, is known to me only from the reports of emigrants and travelers. It is unquestionably true, however, that a great portion of the distance can be accomplished along the natural grade of the Sacramento, that the mountainous ridge of the Sierra can be turned to the north, and that with fifty miles of a broken, but not mountainous line overcome, the road can be carried into the plane of the great Basin. From the plane of the great basin rising to the summit of the South Pass, and descending to the navigable waters of the Missouri, it is a remarkable and ascertained fact, that along any equal distance of railroads in the world, art has not accomplished as perfect a grade as nature has here afforded for the purpose. From the waters of the Humboldt to the summit of the South Pass there is not a section of 30 miles where the mean rise is more than 15 feet to the mile, and all hills can be avoided. From the South Pass the country falls equally and imperceptibly not more than six feet to the mile, all the way to Independence. There may be slight inequalities of surface, but there is not a hill and scarce a stream to cross. These facts as to the route from the Humboldt to the Missouri, have been scientifically ascertained, and I state this after a careful examination of a complete profile of the route, prepared from a topographical survey, made at the instance of the Government.

From the Bay of San Francisco to the head of the Tulare Valley, there is a continuous, gradually rising but almost level plain. The low ridge running from the Coast Range to the southern base of the Sierra Nevada, it has long been understood, presents no serious obstacle to egress, with a road into the level country south and east of the Sierra. Extra grading will in all probability not be required for more than ten miles at this point. You then reach the Mohave without obstruction; the grade is already completed. From the Mohave you have to strike across the Desert of the Colorado Crossing, and perhaps passing one of its affluents from the West. This sandy desert is the most serious difficulty on the route;

but as it is now well ascertained that water can be had almost anywhere upon the Desert by sinking wells but a few feet, the difficulty is only in protecting the road from the shifting sands. This protection will have to be afforded, probably for sixty miles. It will add but little to the cost of the road, but considerable to the expense of keeping it in order. I propose to strike the Colorado below the Canon, and rise to the plane of the table land lying between the Colorado, the Rio Grande and the Gila, then leaving the breaks of the waters of the Gila to the South to strike the Rio Grande near Belen. Having traversed this body of country, I know from personal observation that a road can be run from the Colorado to the Rio Grande without a mountain obstruction. It is a vast and almost level table land, gradually rising toward the centre, with abrupt ridges of two or three thousand feet elevation at intervals, but sinking into the common table land after extending some fifteen or twenty miles. From Belen down the Rio Grande to the pass between the Santa Fe range and the Organ mountains, we have a perfect grade with no obstruction but the crossing of the Rio Grande, which is by no means a formidable obstruction. The pass of which I speak is a perfectly open and level road without obstruction. From this point whether you strike toward the South into Texas, toward the East into Arkansas, or toward the North into Missouri, we have a grade about the same with that from the South Pass to Independence.

If these observations be correct, and I am satisfied that they are substantially correct, there is not the least serious natural obstacle to the construction of the road, either by the valley of the Sacramento or the San Joaquin, while with the exception of a few trifling obstructions the great hand of nature has graded a highway to our hands. We have no Alps to tunnel, no Alleghanies to cross, neither the snows and winters of Moscow or New England to contend against.

But, Fellow-citizens, if the curtain of clouds is raised from the route of the road, and all is made to appear smooth and practicable, as it is, yet still an equal obscurity seems to rest upon the sources and resources for its construction.

I shall attempt fearlessly to grapple with this difficulty also. It is said

"Fools rush in
Where Angel's fear to tread."

This may be my case, but confident of the virtue of the attempt, and perhaps egoistically confident too, of being equal to it, I hazard the undertaking.

Ignorant speculation in the Atlantic States, assuming that the Sierra Nevada and the Rocky Mountains were great natural barriers, to be overcome by the application of immense labor, has in some instances placed the cost of this work as high as \$200,000,000. I have as yet seen no calculation upon the hypothesis that it is nearly a level route from the Atlantic to the Pacific waters.

For the purpose of making an approximate estimate of the cost, I have divided the routes into western, central and eastern sections, and distances as follows :

	Miles.
From the Waters of Sacramento to a point on the Humboldt	250
Humboldt river to Fort Laramie	925
Fort Laramie to Independence	630

Miles.....1,845

Bay of San Francisco to Mohave	470
Mohave to San Diego on Rio Grande.....	675
San Diego to Nachitoches.....	790

Miles.....1,939

San Diego to Fort Smith.....	825
San Diego to Independence.....	879

Within a few years the cost of constructing railroads has been greatly reduced, partly from improved experience, and the business being better understood and more systematically pursued, and partly from the decrease in price of the iron material on account of the surplus manufactured and seeking a market.

I recently noticed a statement that the contract to construct a railroad from Terre Haute on the Wabash, to Alton on the Mississippi, with turnouts, depots, cars and all necessary fixtures, the distance 175 miles, had been taken by a party of Massachusetts contractors, for the gross sum of \$3,000,000, payable partly in cash, part in stock and part in bonds secured by the road. The road and its accompaniments to be of the best description with the most approved rail. This road is to be constructed and set in operation at a cost of \$17,000 per mile. It passes over a country not equal in point of grade to the eastern section of either route proposed, but little better timbered, and having no advantage over either, except in the distribution of material.

I am no engineer, but in my calculations I have had the assistance of some of the best engineers in California. After making all the allowances that their experience and my own reflections have suggested, I am satisfied that an addition of 33½ per cent. upon the cost of the Illinois road will cover all extra cost of a road to Fort Laramie or the Rio Grande.

The road from Fort Laramie to the Humboldt river furnishes an almost equally favorable grade, quite equal to the grade of the Illinois road. It runs near the large Mormon city, which will furnish both supplies and labor, and as the road is pushed forward, population and production will be pushed forward with it. Labor here can be employed upon the same terms than it can be employed on the Mississippi. The transportation of provisions and of men will be trifling, as the road must be completed as it progresses,

and the perfect healthfulness of the climate will give a great advantage over labor upon the Mississippi.

The additional cost of distributing material will again be the principal difference of the cost of this portion of the road, and making all reasonable allowances, I cannot for this section add more than 75 per cent. to the mile, with which I have started.

The road from the Humboldt to the Sacramento would be commenced from this end. Iron can be delivered cheaper at San Francisco, than at St. Louis. The hills bordering the Sacramento and the Sierra Nevada are planted with the best of timber trees. The labor of distributing the material would not be greater than upon the Illinois road. Would not 100 per cent. added to our starting price be a reasonable allowance? It is much greater than the estimates made by the engineer of the San Jose railroad, and cannot, I think, be below the mark.

From San Diego, on the Rio Grande, up the Rio Grande, the grade is perfect, and there is sufficient timber. No heavy cutting is necessary to rise from the bottom to the plane of the table land. There is an abundance of pine and cedar from the Rio Grande to the Colorado. The grade is almost perfect, except a very practicable descent to the Colorado. A considerable portion of the route passes through the settlements of New Mexico, and the remarks as to the other central section apply generally to this. The crossing of the Colorado and Rio Grande, with the difficulties of the Desert, will, however, add considerably to the cost of this section, say 25 per cent., making the cost of this section an increase of 100 per cent. upon the Illinois cost. From the Mohave river no reasonable estimate can be made making the cost per mile more than \$30,000.

Assuming these estimates to be true the northern road will cost, from the Sacramento to the Humboldt, 250 miles, 100 per cent. added, say \$35,000 per mile, is \$8,750,000; from the Humboldt to Fort Laramie, 925 miles, 75 per cent. added, \$30,100 per mile, is \$27,842,500; from Fort Laramie to Independence, 630 miles, 33½ per cent. added, \$22,933 per mile, is \$14,447,790; making the entire cost of the road, turnouts, depots, cars and fixtures from the navigable waters of the Bay of San Francisco to Independence on the Missouri, \$51,030,290.

The southern route will cost from the Bay of San Francisco to the Mohave, 474 miles, \$30,000 per mile, is \$14,222,000. From the Mohave to San Diego, 675 miles, 100 per cent. added, say \$35,000 per mile, is \$23,625,000; from San Diego to Nachitoches, 790 miles, 33½ per cent. added, \$22,933 per mile, is \$18,057,170, making the aggregate cost of a complete running road from the Bay of San Francisco to Nachitoches on Red river \$55,902,170.

It appears, and to me clearly, fellow citizens, that this road upon either route, can be constructed at about one fourth the

amount estimated by some of the ignorant and dreaming speculators on the Atlantic.

This great road so essential to the confederacy, as binding it together, so essential to its defence, as enabling it to throw a current of armed life from the great heart of the Nation, the Valley of the Mississippi, upon the shores of the Pacific, if danger threatens. Better defences for the Republic, than sides of oak or walls of granite. So essential to the Nation as securing the commerce of the Pacific, and a controlling influence over the commerce of the world, can be constructed and set in motion at an expense not exceeding one half of the annual exports of California.

In a late paper I find a table showing the extent of railroad enterprises undertaken by single States. I find a poor agricultural State, that contains no large city, that exports nothing but wheat and corn and pork, that digs no treasure from the earth except such as Adam dug, that has no commerce except her own local trade, has constructed and in process of construction, 1,585 miles of railroad, besides having completed a canal uniting the waters of Lake Michigan with the waters of the Mississippi, at a cost of \$12,000,000. Another western State, without any commerce from abroad, without a single city, and with nothing but agricultural wealth, has over 1,500 miles of railroads, besides canals, and yet there is hardly money enough in either of these States to pay our annual taxes.

In the United States \$500,000,000 of capital is now employed in railroads, and all of their roads put together, are not of so much importance as this. Those roads are built to connect small cities, to carry off the crops of small valleys, to furnish communication between small manufacturing towns. We propose the construction of a road that shall bind the world together, and that shall command a business corresponding with its importance.

This is in reality not so vast an enterprise as it has seemed to be. If those poor new States I have referred to have carried and can carry out their enterprises, I affirm that California, exercising her young yet giant strength, could if she willed, carry out and complete the great work alone. If it was necessary and the strong will of California was concentrated, we could do it, and we would do it.

But we are a busy people here. In the hurry of the present business, we have but little time to work for the future, and none to work for posterity. We scarcely have time to attend to our necessary business of government, therefore it is not probable that we will immediately undertake the whole job on our own account.

The question then is, how is it to be done? If it is to be done, somebody must do it. What is everybody's business, is nobody's business. Our friends beyond the mountains, particularly the Senators and Representatives of the western States, take a warm

interest in the road; they would assist us by every means in their power, but they have their own local interests to represent, and are too much engrossed with other matters, to think or act except as assistants to the work. We need supply but a small part of the capital, but we must supply the will and the labor, the plans and the combinations, we must put our servants to the work, back them up and keep them at work by the force of a united and earnest public sentiment.

We must take the initiative, and in earnest. How, then, shall this be done? Talking won't do it; newspaper paragraphs won't do it. I propose that we begin the work next winter, at the next session of the Legislature, and I call your attention particularly to a plan that I shall now present for concentrating our forces to ensure success. Let the Legislature grant the right of way for a railroad from the waters of the Bay of San Francisco to the line of the State boundary (fixing no termini), to twelve persons. The Legislature cannot incorporate a company, but they can grant a franchise. Let seven be selected from California, and five from the Atlantic States, and as it is an important, serious enterprise, this selection should be made from among our leading and most tried men; the first and most known in point of character, intelligence and public spirit. Men fitted for this work can be found, and if they can be found anywhere it is in California.

The remaining five should be part statesmen of weight and influence in the councils of the nation, and who have interested themselves in our affairs; such men as Douglass, or Walker of Mississippi; and part capitalists connected with the great railroad enterprises of the Atlantic. The Legislature should at the same time appropriate a sufficient sum, say \$25,000, to be placed in the hands of three parties, for the purpose of sending through two or three parties to examine such points of the routes, as still remain at all problematical. These parties could at the same time procure charters from the Territories of Deseret and New Mexico, also, if necessary, from Missouri and Texas. The charter to be to the same parties receiving the grant from this State.

These steps taken, by September, 1853, the company would be organized—would have complete information as to the route, and would be ready to stipulate, contract and go to work. They should be in the Atlantic States, for until a route is agreed upon, we do not know where to begin here.

The railroad interests of the Atlantic States are in the hands of large capitalists, many of whom pursue railroad building both as a business and a science. It is easy to demonstrate to them, it is a business calculation, that the building of this road will enhance the value of the stock of every railroad in the United States; it would not only make the present immense water travel by the Isthmus and Cape Horn, railroad travel to and from the West, but it would bring a large travel between Europe and Asia and the islands of

the southern ocean, across their railroads. These things are matters of figures, and no class of men understand these figures better than the railroad capitalists of the East.

The Atlantic States in their railroad as well as in their political interests, have northern and southern relations; for this we care nothing, except as it may serve us. It is of great importance, not only to the railroad but to the whole commercial, as well as political interests of the North and East, that the route should not run south of the Missouri. It is of equal importance to the South to secure a southern terminus. It will be our business to say, wherever we can get the most assistance, whichever interest will concentrate and push a common line farthest into the West, we will undertake to meet them.

The North would, without doubt, be ready and willing to construct a road to Fort Laramie, and the South would be equally ready and willing to construct a road to El Paso or San Diego. If not one dollar was to be realized from the road, the North would be justified by the enhancement of their own stocks and compelled by their commercial interests. The South would be justified and compelled by the same interests, and I venture to predict that the time will soon come, when we will have to oblige both the North and South by allowing them both to communicate by iron roads with this golden western coast, and prosperous eastern emporium. But the inducements for Atlantic capital by way of returns from the road itself, are more certain, definite and satisfactory. It is within the range of the simplest and clearest demonstration, that the road itself will be a better permanent paying investment, than any now in existence.

These facts must be presented to, and these considerations agitated on the Atlantic, and the first result will be that we will awake the Atlantic railroad interests into effective activity, and we will secure what we most need—a counter influence to that of the Pacific Mail Steamship Companies at Washington. This influence has a foothold, a fixed foothold among the politicians at Washington, and it is antagonistic to our enterprise. Our representative want friends, and they must have them. Two senators and two representatives constitute but a small force at Washington. By vigorously executing this plan, we get the entire railroad influence of the Union at our backs; we shall not only have the whole public sentiment of the Union on our side, but we will have what is much more potent at Washington, heavy monied influences with us.

Now I have asserted that it is probable, more than probable, that it is a business calculation, that when the organized party I have suggested, appear systematized and prepared for work, and present the considerations I have suggested to Atlantic capitalists, that they will be offered a common terminus both at the base of the Rocky Mountains and on the Rio Grande.

I now further insist that California herself applying the energies and resources of the State, and the energies and enterprise of her citizens, without any extraordinary aid from Congress (remember she has already a grant of 3,000,000 acres of land for just this purpose from the present Congress), can build the Pacific section of either line. Do we doubt for an instant that California can do it? If Illinois can build 1400 miles of railroad, and sink 100 miles of canal through the solid rock, is it to be admitted, that California cannot build 250 or 500 miles of railroad? For myself I would not tolerate the doubt.

If, then, California enterprise, energy and capital can build the Pacific section, and Atlantic railroad capital with the ordinary aids of Congress will build the Atlantic section, there is but the central section to provide for, and as this part of the enterprise is somewhat difficult, it may be time to call on Hercules.

The national character of the road for political, military, postal and commercial purposes is perfectly understood, and no one doubts but that the enterprise is entitled to all the aid the Government can afford.

In seeking for what assistance can best be procured, we can calculate first on a liberal grant of public lands direct, this much Congress has always done for the local roads. There is however, another species of assistance we have a right to count upon. There is a policy now recognized and established by the Government to which we have the right of appeal.

You remember that when California had been just conquered from Mexico, before gold was discovered, when there was not more than 3 or 400 Americans here, Congress authorized contracts for the carrying of the mails from New York to California and Oregon at a cost of near one-half million dollars per annum. Congress, after paying one-third the cost of constructing the Collin's line of steamers, is now paying to them nearly one million per annum for the transportation of the mail from New York to Liverpool.

Do you understand these sums to be paid merely for the transportation of the mail? Not at all; measures of National policy were at the bottom of it, and justified it. The contracts with the California lines were made to open the commerce of the Pacific more freely to our people, to enable the American constructors to build their ships and furnish facilities equal to those furnished by British steamers on the southern coast. The contracts with the Collin's line was not to secure the transportation of the mail to Liverpool, but to place American steam commerce on the Atlantic, upon an equal footing with that of Great Britain.

The Collin's line of steamers required an investment of about \$1,500,000. The Pacific lines perhaps as much. If upon these investments, and for these inducements Congress is justified in paying these sums per annum, what per annum should she con-

tract to give for the transportation of the mail in five days, over an iron road from the banks of the Mississippi to San Francisco? A road that would not merely facilitate, but would command the commerce of the Pacific, and centralize the traffic of the world!

I have assumed a figure, and it is a small one, in comparison with the sums I have mentioned, and the ability of the government. The government paid \$15,000,000 for California after we had conquered it, and when according to Mr. Webster, it was a land "abounding only in rocks and rattlesnakes." I propose that the government shall contract with our parties to pay \$2,500,000 per annum, for twenty years for carrying the mail across the continent. Will Congress refuse the terms? Will Congress dare refuse? It is as nothing compared with the ability of the government. It is as nothing compared with the importance of the enterprise. I believe the terms will be granted promptly cheerfully, if it is believed it will secure the accomplishment of the work.

There is still another point. For years the public lands have been donated for the purpose of promoting works of internal improvement. Here is a work in which every State and every citizen of every State is deeply concerned. The Federal Government is not in need of the proceeds of the public lands, why may not those proceeds be immediately directed to the prosecution of this work, and the amount credited to the postal accounts with the Government?

We find the expense of building the central section on the southern route 675 miles, about \$23,000,000, and the expense of the corresponding section on the northern route, 925 miles, \$27,000,000. If this contract can be made, it will be a bonus which in 20 years will be equal to about twice the entire cost of the central section of either line, and if we can secure the proceeds of the public lands, we have instant aid in the prosecution of the work.

Now, fellow-citizens, are not these distinct propositions practicable? If severally practicable, are they not all practicable together? If not so, I wish some one to place his finger upon the impracticable point. First, cannot California take the initiative through her Legislature? This no one doubts. Second, cannot she build this section of the road? Who will answer in the negative? For the credit of California, I hope, no one will answer it in the negative. Next, cannot Atlantic railroad capital be brought to build the eastern section? If not, Louisiana and Texas, or Missouri will do it. And next, will Congress refuse us the \$2,500,000 per annum? If any man says no, I reply to him that there is not a politician from Maine to Texas that will venture to say no, if we present the matter before Congress in a proper shape.

Nothing more is required then but the present capital. This capital possesses a sort of fluid quality, and there is a law, which compels it to flow where it is most needed, and can be best used.

It is a peculiarly favorable fact, that there never was a time when so much capital was lying idle and waiting for employment. There is now \$150,000,000 of dead capital in the vaults of the Bank of England alone. In fact, my attention was particularly called to this subject from the fact that English capital was now seeking investments in railroad stocks in this State. Their engineers are now here, and they say that any amount of English capital can be had, if they can only secure the right to build roads.

Here the question arises, would the road pay? The postal contract would pay near five per cent. on the entire cost of the route; this is but a small item. Let us look at its business. If you will examine the estimate of travel for this year, you will find it estimated, that 50,000 persons will have arrived this year by the South pass; 10,000 persons will have gone to Oregon by the same route; 5,000 will have arrived by the southern route and through Mexico. I have not consulted statistics, but assume that 25,000 will have come from the Atlantic States by sea, and that 20,000 will return the same way; making in all, 110,000 persons. Taking \$100 as the charge for passage, we would have \$11,000,000, or 25 per cent. for passenger receipts, assuming that the travel was not increased by the construction of the road. But the experience of every road in Europe and America has shown that the construction of a road increases travel from 14 to 1400 per cent. We will be able to visit the States on business and on pleasure, we can be visited in return. Now, the trip can only be made at the hazard of health and even life. It is long within bounds to assume, that our home travel will increase 400 per cent. Do not think of Munchausen, when I claim that our home travel will pay 80 per cent. per annum on the cost of the road.

It is said that figures will not lie; this is a mistake, but I submit the calculation to your judgment and believe it sound.

This is home travel only, of which I have spoken, but a great travel between Europe, Asia and the Islands must pass over the road. With steam communication across the Pacific (and this we will have long before the road is built), it will not be more than forty days from Liverpool to Canton. With these facilities, this travel would be immense, and I believe that if both proposed routes were constructed, in less than a year after they were opened, you could constantly see two continuous lines of human beings passing on either line and both ways across the continent.

With these temptations, that are and will be facts, we shall not want for capital, it will come to us from every quarter of the world. But if we get at the work and the world should prove cowardly, by Heavens! I believe we shall have surplus capital enough alone to build the road.

With proper enterprise this road can be built in a time far short of what has been generally supposed. The ground might be broken

at both ends in 1854, and three or four years is an abundance of time to complete it. This is a fast age of the world, and time is of the essence of every thing here in California. If we undertake it in California style, we can build it in California time.

But we must go to work here, and we must go to work without delay and in earnest. We have hills and mountains of gold, and we are bound to be a wealthy people. We have fruitful valleys, and we are bound to continue a prosperous people. We have a salubrious climate, and we are bound to be a healthful and, if virtuous, a happy people, but I have faith in our being a great people, not only as a component part of the great confederacy, but in ourselves—an empire, within the great empire of the Republic, yet more glorious than all the rest. Even now we have our grasp upon the ancient East, and upon that once fabled Indian land from whence Veniæ drew her wealth, and England her means to claim dominion of the seas.

But, Fellow-Citizens, it is possible that in the very hour of brightest promise we may be shorn of these proud anticipations and this high position. There are other lines across this continent for railroads. There are localities favorable for ship canals, and rival interests on the seas may step in and appropriate them.

Costa Rica furnishes a route where the distance is but eighty miles from sea to sea. There are excellent harbors on either side, the climate is salubrious, and it would be no miracle if there should one day arise a magnificent city to hold the keys of the commerce of the Pacific. What if England establish there a commercial centre? It is said she is now projecting a steamship route from Panama, by the Sandwich Islands, direct to China. I do not believe it will be done, but it is essential to the progress of California, and the accomplishment of its reasonable destiny, that this road should be promptly built.

I again repeat that I but suggest this plan. It strikes me as the most feasible, I hope to improve it. I will adopt any one that I think better. Agitate the subject, and we can all settle down upon the most practicable plan. I am for the road, and whether elected or not elected, will do my utmost to push forward the great work, believing that in doing so, I will be rendering a service to my country and the age.



COMMERCIAL STATISTICS.**Tobacco: and the Tobacco Trade.***

It is said that the name Tobacco was given by the Spaniards to the plant, because it was first observed by them at Tabasco or Tabaco, a province of Yucatan in Mexico. In 1560, Nicot, the French ambassador to Portugal, having received some tobacco from a Flemish merchant, showed it, on his arrival in Lisbon, to the grand prior, and on his return into France, to Catherine of Medicis, whence it has been called *Nicotiana* by the botanists. Admiral Sir Francis Drake having, on his way home from the Spanish Main, in 1586, touched at Virginia, and brought away some forlorn colonists, is reported to have first imported tobacco into England. But according to Lobel, this plant was cultivated in Britain before the year 1570; and was consumed by smoking in pipes by Sir Walter Raleigh and companions so early as the year 1584. The first time Sir Walter Raleigh smoked, as reported, it was in private; he had called his servant for a jug of water; when the man brought it in, he saw the smoke coming out of his master's mouth, and naturally supposing he was on fire, as naturally threw the jug of water over him, to put it out. Whether this anecdote be true or not is immaterial.

The introduction and use of tobacco form a singular chapter in the history of mankind; and it may well excite astonishment that the discovery in America of a nauseous and poisonous weed, of an acrid taste and disagreeable odor, in short, whose only properties are deleterious, should have had so great an influence on the social condition of all nations; that it should have become an article of extensive Commerce; and that its culture should have spread more rapidly than that of the most useful plants. At the time of the discovery of America, tobacco was in frequent use among the Indians, and the practice of smoking was common to almost all the tribes; and by it they pretended to cure a great variety of diseases.

Its introduction into the Eastern Continent was everywhere marked with ridicule and persecution. A book was written against it even by the king of Great Britain, James I., and perhaps a hundred others of the same character were published in various languages. Pope Urban VIII. excommunicated all who took tobacco in churches, and the empress Elizabeth also prohibited the use of it in churches. In Transylvania, an ordinance was published, in 1689, threatening those who should plant tobacco with the confiscation of their estates. The Grand Duke of Moscow and the king of Persia forbade its use under penalty of the loss of the nose, or even of death.

At present, the aspect of affairs is so much altered, that all the sovereigns of Europe, and most of those of other parts of the

* Merchants' Magazine.

world, derive a considerable part of their revenues from tobacco. Having been introduced into England by Raleigh and other young men of fashion, its use rapidly spread in that country, as it previously had done among the Portuguese, Spaniards, and French. During the reign of George III., the practice of smoking, which had previously been exceedingly prevalent, went out of fashion, and was nearly superseded, among the higher and middle classes, by that of snuff-taking. Latterly, however, smoking has been revived in that country. The practice of smoking has become so general, especially in Holland and Germany, that it constitutes a daily luxury with nearly all the peasantry of those countries, as well as with the more indolent and wealthy classes.

Tobacco is a powerful narcotic, and also a strong stimulant, and internally, even in small doses, it proves powerfully emetic and cathartic. The oil is celebrated for its extreme virulence, and when applied to a wound, is said, by Redi, to be as fatal as the poison of a viper. The decoction, powder and smoke are used in agriculture to destroy insects. The article is not only used for smoking, but for snuff. In the manufacture of the latter, various matters are added for giving it an agreeable scent; and hence the numerous varieties of snuff.

Virginia has been famous for the successful cultivation of the tobacco plant. It became the staple of that province, but it is now giving way to a much wider cultivation of wheat. The tobacco plant, when full grown, will rise to six feet in height. The stem is pretty straight, rather hairy and clammy. The leaves are of considerable length, of a yellow green; those nearest the ground are the largest, but they make the coarsest tobacco. As the plants grow they require much attention, to keep the ground between the rows clear from weeds, and to pull off all the lowest and coarsest leaves from the plant itself, in order to feed more fully the upper ones. The laborious work is done by negroes. When the leaves turn brown the plant is ripe. The plants, as they ripen, are cut down, and laid in a heap to heat, after which they are hung up separately to dry, in houses built on purpose. The tobacco of Cuba, for smoking, is the best raised. Recently, the exportation of cigars from that island is said to have amounted to 200,000 boxes a year.

It is stated that as early as 1650, the fields, gardens, streets, and public squares of Jamestown, in Virginia, were planted with tobacco, which was used as a currency in that as well as many other of the Southern States. As a sample of this, in 1669, by enactment in Virginia, heinous social crimes were punished by a fine of from five hundred to one thousand pounds of tobacco. For the thirty years preceding 1775, the annual export of tobacco from the United States was 40,000,000 pounds. In the next seven years, which embraced the Revolutionary War, the entire export was 86,000,000 pounds, but 34,000,000 of this was captured by the British. In the three succeeding years the export was about 90,-

000,000 pounds. The whole crop of tobacco in the U. S. in 1847 was estimated at a little over 220,000,000 pounds, which, at the low price of five cents the pound, amounts to the sum of \$11,000,000.

The use of tobacco has vastly increased in France since the last Duke of Orleans set the fashion of smoking in the streets, in order to lend a hand to government sales. Tobacco, a filthy weed, the vestibule of the drunkard's home, assaults one at every step here—not in the form of chewing, but in puffing bad cigars. Its sale is a rigid monopoly, and to retail it, is a privilege which requires a friend at court. Throughout France the little tobacco shops all look alike—boxes on the counter with separate lids, marked one sou and upwards—prices fixed for the cigars by the government, to which must be added snuff, but never chewing tobacco. The profit the government derives from this borders on a hundred million francs. An attempt has been made to raise tobacco in Algiers, which may not be uninteresting, in the following details, to our growers:—In 1851, the number of planters was only 187, whereas, in 1852, it was 1,073. The number of *hectares* (a *hectare* is about $2\frac{1}{2}$ acres) under the tobacco plant was 446 in 1851, and 1,095 in 1852. The government has announced that it will purchase this year 720,000 kilograms of this tobacco, whereas the quantity last year was only 303,000. The total of the present year's crop is estimated at 1,780,000 kilograms, of which 700,000 have been grown by the natives, and the rest by Europeans.

There is a considerable increase in the product of Connecticut seed leaf, but in most of the other States, particularly Virginia and Louisiana, there was a marked decline, corresponding with the exports of the following years, thus testing in some degree the accuracy of the census reports.

The census returns of the U. S. for 1840 and 1850 show in the latter period a considerable falling off in the production, as follows: *Pounds of Tobacco raised in the United States per Census.*

	1840.	1850.		1840.	1850.
Maine, lbs.	30	.. ..	Mississippi, lbs.	83,471	48,349
New Hampshire	115	50	Louisiana,	119,824	23,922
Vermont,	585	.. ..	Texas, . . . . .	.. .. .	60,770
Massachusetts ..	64,955	119,306	Arkansas,	184,439	224,164
Rhode Island, . .	317	.. ..	Tennessee,	29,550,432	20,144,380
Connecticut, . . .	471,657	1,383,932	Kentucky,	53,436,909	55,765,259
New York,	74	70,222	Ohio,	5,912,275	10,480,967
New Jersey, . . .	1,92	.. ..	Michigan,	1,602	2,225
Pennsylvania, . .	325,018	857,619	Indiana,	1,820,306	1,035,146
Delaware,	272	.. ..	Illinois,	564,326	844,129
Maryland,	24,816,012	21,199,281	Missouri,	9,067,922	17,038,364
D. of Columbia, .	55,550	15,000	Iowa,	8,076	2,012
Virginia,	75,347,106	56,516,493	Wisconsin,	117	768
N. Carolina, . . .	16,772,359	12,058,147	California, . . . .	.. .. .	1,000
S. Carolina, . . .	51,519	73,235	Minnesota, . . . .	.. .. .	.. .. .
Georgia,	162,891	420,123	Oregon, . . . . .	.. .. .	325
Florida,	75,274	982,584	Utah, . . . . .	.. .. .	.. .. .
Alabama,	273,302	163,605	New Mexico, . . . .	.. .. .	1,118
Total, . . . . .	.. .. .	.. .. .		219,163,315	199,532,49

- Statement exhibiting the number of hogsheads of Tobacco exported from the U. S. from 1790 to 1835, inclusive, and the average price per pound, and gross value from 1802 to 1835, inclusive; also the number of pounds of manufactured Tobacco and Snuff exported from 1791 to 1835, inclusive, and gross value from 1817 to 1835, inclusive.

Years.	No. hhd. leaf tobacco.	Average price per lb.	Total value.	Manufactured tobacco, lbs.	Snuff, lbs.	Value of manufac'd and snuff.
1790.....	118,460			.....	
1791.....	101,272			81,122		
1792.....	112,428			117,874		
1793*....	59,947	Not ascertained.	Unascertained.	137,784	Snuff and manufactured tobacco included.	Unascertained.
1794.....	72,958			19,370		
1795.....	61,050			20,263		
1796.....	69,018			29,181		
1797.....	58,167			12,805		
1798.....	68,567			142,269		
1799.....	96,070			406,076		
1800.....	78,686			457,713		
1801.....	103,758			472,282		
1802.....	77,721			6 ⁵ / ₁₀			$6,220,000	233,591
1803.....	86,291	6	6,230,000	152,415		
1804.....	83,341	5 ² / ₁₀	6,000,000	298,139		
1805.....	71,251	7 ³ / ₁₀	6,341,000	428,460		
1806.....	83,186	6 ¹ / ₁₀	6,572,000	381,733		
1807†....	62,236	7 ¹ / ₁₀	5,476,000	274,952		
1808‡....	9,576	7 ¹ / ₁₀	838,000	36,332		
1809.....	53,921	5 ² / ₁₀	3,774,000	350,835		
1810§....	84,134	5	5,048,000	529,285		
1811.....	35,828	5	2,150,000	752,553		
1812||....	26,094	3	1,514,000	588,618		
1813.....	5,314	5	319,000	283,512		
1814.....	3,125	6 ¹ / ₁₀	232,000	79,377		
1815.....	85,337	8	8,235,000	1,034,045		
1816.....	69,241	15 ¹ / ₁₀	12,809,000	576,246		
1817.....	62,365	12 ³ / ₁₀	9,230,000	1,115,874	5,080	\$281,509
1818.....	84,337	10	10,241,341	1,486,240	5,513	373,875
1819.....	69,427	10 ¹ / ₁₀	8,874,167	926,833	13,710	237,192
1820.....	83,940	8	8,188,188	593,358	4,996	149,589
1821.....	66,858	7 ¹ / ₁₀	5,798,045	1,332,949	44,552	149,083
1822.....	83,169	6 ¹ / ₁₀	6,380,020	1,414,424	44,602	157,182
1823.....	99,009	5 ³ / ₁₀	6,437,627	1,987,507	36,684	154,955
1824.....	77,883	5 ¹ / ₁₀	5,059,355	2,477,990	45,174	203,789

* French Revolution. † Berlin and Milan decrees. ‡ Embargo. § Regie in France. || War with Great Britain.

Years.	No. hhd. leaf tobacco.	Average price per lb.	Total value.	Manufactured tobacco, lbs.	Snuff, lbs.	Value of manufac'd and snuff.
1825†.....	75,984	6 $\frac{1}{8}$	5,287,976	1,871,368	53,920	172,353
1826.....	64,098	6 $\frac{1}{8}$	5,347,208	2,179,774	61,801	210,134
1827.....	100,025	5 $\frac{1}{4}$	6,816,146	2,730,255	45,812	239,024
1828.....	96,278	4 $\frac{1}{2}$	5,480,707	2,637,411	35,655	210,747
1829.....	77,131	5 $\frac{1}{8}$	5,185,370	2,619,399	19,509	202,396
1830.....	83,810	5 $\frac{1}{2}$	5,833,112	3,199,151	29,425	246,747
1831.....	86,718	4 $\frac{1}{2}$	4,892,388	3,639,856	27,967	292,475
1832.....	106,806	4 $\frac{1}{2}$	5,999,769	3,456,071	31,175	295,771
1833.....	83,153	5 $\frac{1}{4}$	5,755,968	3,790,310	13,453	288,973
1834.....	87,979	6 $\frac{1}{4}$	6,595,305	3,956,579	57,826	328,409
1835.....	94,353	7 $\frac{1}{2}$	8,250,577	3,817,854	36,471	357,611
1836.....	109,442	7 $\frac{1}{8}$	10,058,640	3,246,675	46,018	435,464
1837.....	100,232	4 $\frac{1}{8}$	5,765,647	3,615,591	40,883	427,886
1838.....	100,593	6 $\frac{1}{8}$	7,392,029	5,008,147	75,083	577,420
1839.....	78,995	10 $\frac{3}{8}$	9,832,943	4,214,943	42,467	616,212
1840.....	119,484	6 $\frac{1}{4}$	9,883,657	6,787,165	37,132	818,671
1841.....	147,828	7	12,576,703	7,503,644	68,553	873,877
1842.....	158,710	4 $\frac{1}{8}$	9,540,755	4,434,214	42,668	525,490
1843.....	94,454	4 $\frac{1}{8}$	4,650,979	3,404,252	20,455	278,819
1844.....	163,042	4 $\frac{3}{8}$	8,397,255	6,046,878	28,668	536,600
1845.....	147,168	4 $\frac{1}{2}$	7,469,819	5,312,971	44,399	538,498
1846.....	147,998	4 $\frac{1}{2}$	8,478,270	6,854,856	52,458	695,914
1847.....	135,762	4 $\frac{1}{2}$	7,242,086	7,844,592	37,051	658,950
1848.....	130,665	4 $\frac{1}{4}$	7,551,122	6,698,507	36,192	568,435
1849.....	101,521	4 $\frac{1}{2}$	5,840,247	7,159,397	49,888	613,044
1850.....	145,729	5 $\frac{3}{8}$	9,951,023	5,918,583	44,690	648,832
1851.....	95,945	8	9,219,251	7,235,358	37,422	1,143,547

The tobacco trade, which for some years was under a depression, has, within the last two, somewhat improved, as far as an increased average price per hhd. goes. In order to observe the operation of this trade through a series of years, we have compiled from official sources the number of hhd. and export value sent out of the United States annually. We have divided the last twenty-four years into three periods of seven years each. This division embraces the operation of each tariff. The seven years up to 1828, were of comparative low duties; 1828 and up to 1834, was the period of the highest. The reductions under the compromise began in 1834, and continued down to 1841, inclusive. In 1842, the duties upon articles before free, were levied, and in 1843 the tariff of 1842 began its operation, and in 1847, the present tariff. The result is as follows:

† Duty in England lowered from 4s. to 3s. per lb.

Exports of Tobacco from the United States.

Years.	Hhds.	Value.	Value per hhd.	Value of snuff and manufactured.	Total value of tobacco ex- ported.
1828.....	96,271	\$5,296,960	\$54 73	\$210,747	\$5,480,707
1829.....	77,141	4,982,974	64 60	202,806	5,185,370
1830.....	83,810	5,586,365	66 65	246,748	5,833,112
1831.....	86,718	4,892,388	56 40	202,745	5,184,863
1832.....	106,806	5,999,769	56 18	295,771	6,295,540
1833.....	83,123	5,755,968	69 29	288,973	6,043,991
1834.....	87,979	6,595,303	74 96	328,408	6,423,714
Aver. 7 years	85,972	\$5,583,247	\$63 25	\$265,061	\$5,849,749
1835.....	94,353	\$3,250,577	\$87 01	\$357,611	\$3,608,188
1836.....	109,442	10,058,640	91 54	435,464	10,494,104
1837.....	100,232	5,765,647	57 82	427,886	6,223,483
1838.....	100,593	7,392,029	73 48	577,420	7,969,449
1839.....	78,995	9,832,943	124 47	616,212	10,449,155
1840.....	119,484	9,883,657	81 05	813,671	10,697,628
1841.....	147,828	12,576,703	85 09	873,877	13,450,570
Aver. 7 years	107,275	\$9,112,928	\$85 92	\$586,013	\$9,698,941
1842.....	158,710	\$9,540,755	\$60 11	\$525,490	\$10,066,245
1843.....	94,454	4,650,979	49 24	278,819	5,929,298
1844.....	163,042	8,397,255	51 53	586,600	8,983,855
1845.....	147,163	7,469,819	50 75	530,493	8,008,317
1846.....	147,998	8,478,270	57 25	695,954	9,174,184
1847.....	135,762	7,242,086	53 40	658,950	7,901,036
1848.....	130,665	7,551,122	57 75	568,435	8,119,557
1849.....	101,521	5,840,207	52 75	613,044	6,453,251
1850.....	145,729	9,951,023	68 25	648,832	10,599,855
1851.....	95,945	9,219,251	96 00	1,143,547	10,362,798
Aver. 10 years	132,010	\$7,834,076	\$59 25	\$620,006	\$8,454,082

Recapitulation.

Average 7 years ending—

Years.	Hhds.	Value.	Value per hhd.	Value of snuff and manufactured.	Total value of tobacco exported.
1827.....	81,003	\$5,864,277	\$73 53	\$183,788	\$6,084,073
1834.....	85,802	5,583,247	63 25	265,061	5,849,749
1841.....	107,275	9,112,928	85 92	586,013	9,638,941
1847, 6 years	141,189	6,629,866	54 04	529,065	8,335,689
1841-51, 10y.	132,060	7,834,076	59 25	620,006	8,454,682

The destination of the tobacco exported from the United States, in the last few years, has been as follows:—

Exports of Tobacco from the United States.

	1849.	1850.	1851.
Russia..... hds.	30	613	1,856
Sweden.....	1,738	1,542	1,408
Hanse Towns.....	21,933	46,399	22,506
Holland.....	19,653	22,683	11,871
Belgium.....	3,404	4,232	523
Great Britain.....	21,857	30,926	23,698
“ colonies.....	7,995	3,657	2,681
France.....	14,081	15,552	10,101
Spain.....	1,307	5,299	8,953
Portugal.....	584	805	550
Italy and Trieste.....	4,948	9,814	7,651
Africa.....	1,582	1,746	2,197
Elsewhere.....	2,409	3,363	1,953
Total hds.....	101,521	145,729	95,945
Total value.....	\$5,304,207	\$9,951,023	\$9,219,251

As compared with the year 1849, the tobacco trade has been very good. That is to say, for 5000 hds. less tobacco, the United States apparently get \$3,400,000 more money. This return, however, does not show the losses sustained by consignors to foreign markets, growing out of the machinery of advances, forced sales, slaughtering, buying in and reclamations; by which process it has been said that American tobacco may be sent from here and come back for the manufacture of cigars, paying duty, and underselling the home-made article. It is known that German cigar-makers in New York can sell cigars, made from American tobacco imported from Germany, cheaper than to make them from the tobacco before it has been sent abroad. A good deal is to be allowed to adulteration, which, as seen in the above table, affects, in connection with smuggling, the manufactured tobacco which pays duty in Great Britain.

The change in the duties on general articles of consumption seems in England to have promoted the consumption of tobacco, on the general principles which prompted the change of policy under Sir Rob't Peel's administration in 1842, although the duty charged upon tobacco has remained the same. The English official returns show that the consumption fell year by year until 1842, which was the year of the greatest depression, and when the financial crisis of the government brought Sir Robert Peel into power. From that year, when the duties were removed on many articles, in order to promote their consumption, as well as that of those on which the tax was untouched, the consumption of leaf tobacco has continued steadily to increase.

Tobacco entered for consumption in Great Britain.

Years.	Leaf, lbs.	Manufactured, lbs.	Years.	Leaf, lbs.	Manufactured, lbs.
1838...	23,356,246	190,148	1845...	26,076,311	245,940
1839...	22,971,406	196,304	1846...	26,737,001	264,707
1840...	22,902,398	193,912	1847...	26,220,240	208,913
1841...	22,094,772	213,613	1848...	27,061,480	205,927
1842...	22,013,146	225,202	1849...	27,350,120	201,450
1843...	22,891,517	263,840	1850...	27,538,104	196,681
1844...	24,535,116	240,602	1851...	27,853,390	209,588

The progress of this consumption was checked by the fluctuation of prices. When it was the highest, the export to Europe direct, instead of through England, was the greatest.

The years 1841—42 show the smallest consumption in England. The first year was, however, one of large sales and high prices by the United States. In the year 1842, however, the prices fell ruinously. In 1844, the English consumption was larger than ever, but the price by no means so high as formerly.

For the following years, the consumption of tobacco in the United Kingdom, and the duty thereon, were—

Years.	Consumption.	Duty p. lb.	Years.	Consumption.	Duty per lb.
1801...lbs.	16,514,998	1s. 7d.	1831...lbs.	15,350,018	3s.
1811.....	14,923,243	2s. 2d.	1841.....	16,000,000	3s.
1821.....	12,983,197	4s.			

Seven-eighths of all the tobacco brought into Great Britain is grown in the United States. The duties payable are 3s. 1½d. per lb. on unmanufactured tobacco; 9s. 5½d. per lb. on cigars and manufactured tobacco; and 6s. 3½d. per lb. on snuff.

The imports in the two years in the United Kingdom were—

	1840.	1850.
Unmanufactured.....lb.	42,098,126	33,894,506
Manufactured and snuff.....	1,913,474	1,532,829

The British home consumption is about 28,000,000 lbs. annually, the rest being re-exported. The gross duties realized in two years, was £4,425,040 and £4,430,134 respectively.

Statement of the population in each State and Terri

States, &c.	1790.	1800.	Ratio of increase.	1810.	Ratio of increase.	1820.	Ratio of increase.
New England.							
Maine.....	96,540	151,719	57.1	228,705	60.7	298,335	30.4
New Hampshire..	141,899	183,762	29.5	214,360	16.6	244,161	13.9
Vermont.....	85,416	154,465	80.8	217,713	41.0	235,764	8.2
Massachusetts ...	378,717	428,245	11.7	472,049	11.5	523,287	10.9
Rhode Island	69,110	69,122	.....	77,031	11.4	83,059	7.8
Connecticut.....	238,141	251,002	5.4	262,042	4.3	275,202	5.0
	1,009,823	1,233,315	22.1	1,471,891	19.3	1,659,808	12.8
Middle.							
New York.....	340,120	586,756	72.5	959,049	63.4	1,372,812	43.1
New Jersey.....	184,139	211,949	15.1	245,555	15.9	277,575	13.0
Pennsylvania.....	434,373	602,365	38.6	810,091	34.4	1,049,458	29.5
Delaware.....	59,096	64,273	8.7	72,674	13.0	72,749	.....
Maryland.....	319,728	341,548	6.8	380,546	11.4	407,350	7.0
Ohio.....	.....	45,365	.....	230,750	408.7	581,434	152.0
	1,337,456	1,852,256	38.49	2,698,675	45.69	3,761,378	39.37
Coast Planting.							
South Carolina...	249,073	345,591	38.7	415,115	20.1	502,741	18.1
Georgia.....	82,548	162,101	96.4	252,433	55.1	340,987	35.1
Florida.....	.....	.....	.....	.....	.....	.....	.....
Alabama.....	.....	.....	.....	.....	.....	127,901	.....
Mississippi.....	.....	8,850	.....	40,352	356.0	75,448	87.0
Louisiana.....	.....	.....	.....	76,556	.....	153,407	100.4
	331,621	516,542	55.76	784,456	51.86	1,200,484	53.08
Central States.							
Virginia.....	748,308	880,200	17.6	974,622	10.7	1,065,379	9.3
North Carolina...	393,751	478,103	21.3	555,500	16.2	638,829	15.0
Tennessee.....	35,791	105,602	200.0	261,727	147.8	422,813	61.5
Kentucky.....	73,077	220,955	200.0	406,511	83.1	564,317	38.8
Missouri.....	.....	.....	.....	20,845	.....	66,586	219.5
Arkansas.....	.....	.....	.....	.....	.....	14,273	.....
	1,250,927	1,684,860	34.68	2,219,205	31.71	2,772,197	24.91
Northwestern.							
Indiana.....	.....	4,875	.....	24,520	403.0	147,178	500.2
Illinois.....	.....	.....	.....	12,282	.....	55,211	349.5
Michigan.....	.....	.....	.....	4,762	.....	8,896	86.8
Wisconsin.....	.....	.....	.....	.....	.....	.....	.....
Iowa.....	.....	.....	.....	.....	.....	.....	.....
	.....	4,875	.....	41,564	752.59	211,285	408.38

tory decennially, commencing 1790 to 1850, inclusive.

1830.	Ratio of increase.	1840.	Ratio of increase.	1850.	Ratio of increase.	Representatives of each State.		Present number of representatives.
						No.	Fractions.	
399,455	33.9	501,793	26.2	583,188	16.22	6	20,802	7
289,328	10.3	284,574	5.6	317,964	11.73	3	36,771	4
280,652	19.0	291,948	4.0	314,120	7.59	3	32,927	4
610,408	16.6	737,699	20.8	994,499	34.81	*11	57,189	10
97,199	10.0	108,830	11.9	147,544	35.57	*2	53,813	2
297,675	8.1	309,978	4.1	370,791	19.61	*4	89,598	4
1,954,717	17.7	2,234,822	14.3	2,728,106	22.07			
1,918,608	39.7	2,428,921	26.6	3,097,394	27.52	33	4,271	34
320,823	15.5	373,306	16.3	489,551	31.14	5	20,811	5
1,348,233	28.5	1,724,033	27.9	2,311,786	34.09	*25	62,242	24
76,748	5.5	78,085	1.7	91,535	17.22	1	.....	1
447,040	9.7	470,019	5.1	583,035	24.04	*6	78,232	6
937,903	61.3	1,519,467	62.0	1,980,408	30.33	21	12,057	21
5,049,355	34.24	6,593,831	30.58	8,553,713	29.72			
581,185	15.6	594,398	2.3	668,507	12.46	5	45,858	7
516,823	51.2	691,392	33.8	905,999	31.03	8	3,478	8
34,730	.....	51,477	56.8	87,401	60.43	1	.....	1
309,527	142.0	590,756	90.8	771,671	30.62	*7	72,128	7
136,621	81.0	375,651	175.0	606,555	61.46	5	13,940	4
215,739	40.6	352,411	63.3	517,739	46.91	4	44,900	4
1,794,652	49.49	2,659,085	48.16	3,557,872	33.80			
1,211,405	13.7	1,239,797	2.3	1,421,661	14.66	13	14,146	15
737,987	15.5	753,419	2.1	868,903	15.32	8	3,690	9
631,904	61.3	829,210	21.6	1,002,625	20.91	*10	63,261	11
687,917	21.9	779,828	13.3	982,405	25.98	*10	54,433	10
140,455	110.9	383,702	173.2	682,043	77.75	*7	84,688	5
30,388	112.9	97,574	221.1	209,639	114.85	2	3,384	1
3,490,056	25.89	4,083,530	17.0	5,167,276	26.53			
343,031	133.0	685,866	99.9	988,416	44.11	*11	51,106	10
157,445	185.2	476,183	202.4	851,470	78.81	9	7,891	7
31,639	255.6	212,267	570.9	397,654	87.33	4	22,730	3
.....	.....	30,945	.....	305,191	890.48	3	23,998	3
.....	.....	43,112	.....	192,214	345.84	2	4,752	2
532,115	151.84	1,448,373	172.19	2,734,945	88.82			

* Have the addition on account of the fractions.

STATEMENT

States, &c.	1790.	1800.	Ratio of increase.	1810.	Ratio of increase.	1820.	Ratio of increase.
Texas
California*
District of Columbia	14,093	.....	24,023	36.8	33,039	37.5
Minnesota Territory
New Mexico Territ.
Oregon Territory
Utah Territory
Seamen in United States service
		14,093		24,023	36.8	33,039	37.5
Total	3,929,827	5,305,941	35.01	7,239,814	36.45	9,638,191	33.12

Statement of population by classes decen

Classes.	1790.	1800.	Ratio of increase	1810.	Ratio of increase
Whites.....	3,172,464	4,304,489	35.7	5,862,004	36.2
Free colored	59,466	108,395	82.2	186,446	72.2
Slaves	697,897	893,057	27.9	1,191,364	33.4
Seamen in U. S. service .....	.....	.....	.....	.....	.....
	3,929,827	5,305,941	.....	7,239,814	.....
Total free	3,231,930	4,412,884	36.4	6,048,450	37.0
Total col. pop., free and slaves	557,363	1,001,452	32.2	1,377,810	37.6

* The population of California is set down at 165,000 as an approximation to the real population, which may be essentially varied by complete returns. Should the returns vary from our estimate so far as to reduce the population of California 30,000, South Carolina will be entitled to a member additional, as being next above on the list of fractions. The official returns of California will *slightly* affect the calculation respecting the aggregate increase of the free population of the year 1850. Ratio of Representation, 93,731.

—Continued.

1830.	Ratio of increase.	1840.	Ratio of increase.	1850.	Ratio of increase.	Representatives of each State.		Present number of representatives.
						No.	Fractions.	
.....	.....	.....	.....	212,592	.....	2	1,865	2
.....	.....	.....	.....	165,000	.....	2	.....	2
39,834	29.2	43,712	23.3	51,687	18.24	.....	.....	.....
.....	.....	.....	.....	6,077	.....	.....	.....	.....
.....	.....	.....	.....	61,547	.....	.....	.....	.....
.....	.....	.....	.....	13,293	.....	.....	.....	.....
.....	.....	.....	.....	11,380	.....	.....	.....	.....
5,318	.....	6,100	.....	.....	.....	.....	.....	.....
45,152	29.2	49,812	23.3	521,576	18.24	.....	.....	.....
12,866,020	33.48	17,069,453	32.67	23,263,488	36.28	233	.....	233

nially from 1790 to 1850, inclusive.

1820.	Ratio of increase.	1830.	Ratio of increase.	1840.	Ratio of increase.	1850.	Ratio of increase.
7,866,569	34.19	10,532,060	33.95	14,189,705	34.71	19,630,738	38.28
233,524	25.25	319,599	36.85	386,292	20.86	428,661	10.96
1,538,098	29.1	2,009,043	30.61	2,487,356	23.8	3,204,089	28.81
.....	.....	*5,318	.....	*6,100	.....	.....	.....
9,638,191	.....	12,866,020	.....	17,069,453	.....	23,263,488	.....
8,100,093	33.92	10,856,977	34.03	14,582,097	34.31	20,059,399	37.56
1,771,622	28.58	2,328,612	31.44	2,873,618	23.4	3,632,750	26.41

* Added to white population.

Mississippi Valley Railroad.**IRON MOUNTAIN, NORTH AND SOUTH MISSOURI LINKS, CONVENTIONS, ETC.**

“There is a tide in the affairs of men,
Which, taken at the flood, leads on to fortune :
Omitted, all the voyage of their life
Is bound in shallows and in miseries.
On such a full sea are we now afloat ;
And we must take the current when it serves,
Or lose our ventures.”

SHAKESPEARE'S JULIUS CAESAR.

Theory is turned to practice. Ideas have commenced operations. The people of various States are at work ; they are up and doing the preliminary business of the Mississippi Valley Railroad.

Men and women have talked, letters, papers and periodicals been sent, conventions held, resolutions made, memorials drawn and money raised for the cause.

At the city of St. Louis the fulcrum is fixed, on it the thoughts and feelings of the West are suspended, and from the mouth to the source of the river of rivers those thoughts and feelings are pointing with the directness of the magnetic needle toward the north.

The centrifugal force of secession is lost, the centripetal force of union is won.

The Atlantic sea-board is gravitating toward St. Louis. The Pacific sea-board is gravitating toward St. Louis. The Lake-coast of the North and the Gulf-coast of the South are both also gravitating toward St. Louis.

Railroads are talismanic wands. They have a charming power. They do wonders, they work miracles. They are better than laws, they are better than schools, they are essentially political and religious. They announce to the world as the Angel announced on the plains of Judea : “On earth peace, good will toward men.”

Let then every man, village, town, city, parish, county, State and Territory in the Land co-operate with Congress in creating these new channels of internal improvement, that “swords may be turned into plough shares and spears into pruning hooks” that mountains and valleys may be leveled and crooked places made straight, that produce and persons as well as thoughts and feelings may enjoy the speediest inter-communication between the

heart and the extremities of the country, that the internal improvement of the land may keep pace with the internal improvement of the spirit in man.

The feelings of the cities of the East toward St. Louis are the strongest and most manifest. The feelings of the cities of the West toward St. Louis are strongly indicated in the Pacific Railroad article preceding this. The feelings of the cities of the North toward St. Louis though strong are yet young and undeveloped. The feelings of the cities of the South toward St. Louis are as ardent as their clime, irrepressible in their strength, and demand immediate satisfaction. St. Louis, the heart of the Union, in return feels and is now manifesting the liveliest interest in every extremity of the national body.

We will now confine our observations of these acting and reacting manifestations to three points, at St. Louis towards the North and towards the South, and at both the North and South towards St. Louis, all harmoniously united with magic charm in the Mississippi Valley Railroad.

In the last February number of the *Western Journal and Civilian* an article appeared projecting a *Railroad from St. Louis to New Orleans*.

On the 21st of June last, the landholders of New Orleans voted in favor of a tax of \$1,500,000 to be levied on the real estate in the city, to aid in the construction of the New Orleans Opelousas and Great Western Railroad.

About the same time the directors of this railroad company memorialized Congress at its last session to grant the right of way through the public lands, and as we quoted last month, "to grant all the lands of the United States within ten miles of the said road and its St. Louis branch, on each side; or its equivalent in other lands."

Before this last session of Congress adjourned, the "Arkansas and Missouri Railroad Bill," granting 8,500,000 acres to Arkansas, introduced by the Hon. Rob. W. Johnson of Arkansas, passed the House and was favorably received in the Senate; and unless and even if amended and still more liberal provision be made in behalf of the whole of the Mississippi Valley Railroad from the Falls to the Gulf in accordance with the resolutions of the Mississippi Valley Railroad Convention, hereafter soon to be introduced, splitting the difference between the ordinary grants and the extra-

ordinary terms of the memorial from Louisiana, the bill so amended as to grant the public land within ten miles and on each side of the Mississippi Valley Road in alternate sections, may pass the Senate next month.

The pages of the *Western Journal and Civilian* have for months past, been crowded with facts and arguments, in favor of this cause.

And what have the people of the Valley done? They have acted like men—high minded, noble hearted men—

“Men who know their rights,
And knowing dare maintain.”

men who have enlisted body and soul, who lavish time, money and energies, who are ready to sacrifice comfort and even life, and who will “never surrender” in the cause.

Hear what they are doing; hear what they have done this fall!

The movements made in the city of St. Louis on the 9th of October were published in the *Journal and Civilian* of last month.

The Committee of Invitation appointed at the meeting in St. Louis on the 9th ult., addressed the following circular:

TO THE CITIZENS OF THE MISSISSIPPI VALLEY,

Interested in the Projected Railroad from Minnesota to the Mexican Gulf via St. Louis and the Iron Mountain.

At a meeting of the citizens of St. Louis, Mo., held on the 9th of October, 1852, in pursuance of a call made for that purpose, the following preamble and resolutions were adopted, and the undersigned appointed a Committee of Invitation:

WHEREAS, the population west of the Mississippi is already very large and increasing rapidly, and the rich and fertile country lying between said Mississippi and Missouri rivers north, and the mineral wealth of the States of Missouri and Arkansas, and the rich plains of the Southern States of the Mississippi valley, require new channels to develop the resources of this vast extent of country, and the best way of doing so is by building a railroad from the Falls of St. Anthony to the Gulf of Mexico: Therefore,

BE IT RESOLVED, That the people of the States and the Territory interested in building the aforesaid railroad, be requested to meet in Convention at St. Louis on the third Monday of the ensuing November.

RESOLVED, That a Committee of five be appointed to issue a call for said Convention, and to invite distinguished citizens to attend.

RESOLVED, That a Committee of ten be appointed, by the Chairman of this meeting, to make the necessary arrangements for the meeting of said Convention.

RESOLVED, That the Hon. L. M. KENNETT, Mayor of St. Louis, and Chairman of the meeting, be added as a member of the Committee of Invitation and as Chairman thereof.

The vast importance of the contemplated road—the incalculable advantages that will result from its construction to that portion, especially, of the inhabitants of the great Valley residing West of the Mississippi, and the nationality of a project thus intended to unite and bind together the interests of the North and South, by increasing their facilities of communication, must recommend it to public favor, and, as we hope, insure, at no distant period, its entire success.

As the first grand movement toward the accomplishment of this great work, it is proposed to hold, in the City of St. Louis, a Convention of its friends, among whom the most prominent should be, the producers of Missouri and Iowa, along the line of the North Missouri Railroad extended to St. Peters, who have otherwise no direct outlet to a market, as well as the enterprising population that are fast filling up the rich prairies of Minnesota, and who will thus secure a

means of communication at all seasons with the Southern sea. Nor can we think its friends will be fewer along the proposed line south, through the mineral region of Missouri, to such point in Arkansas as will afford an easy connexion with New Orleans and the Ocean.

It behooves us, on the Western side of the Great River, not to bury the talent that has been entrusted to our keeping, but to profit by the example of our brethren, farther east, who are at this moment urging forward, with the utmost energy, an iron road, parallel to the Mississippi river, from Galena to the Gulf.

Let us do likewise, and put the rich savannahs of the West on as favorable a footing as possible towards reaching a southern market; the eastern bank of the river being justly entitled to no advantage over us in this, though it must of necessity have the start of us in our attempts to reach the northern Atlantic ports.

The time fixed for the Convention, third Monday in November, with a view to have as many as possible of our northern friends in attendance, and give time for their return to their homes before winter sets in, puts it out of the power of the committee to send special invitations to the many hundreds of intelligent citizens along the proposed lines, upon whom will rest the duty of stirring up their neighbors, and drawing public attention to this project, and whose presence and countenance are particularly desired at the proposed Convention.

But we say to all friends of this great Northern and Southern Railroad, no matter in what division of it their interests may lie, come to the Convention and assist us with your counsel, and we promise you a hearty welcome, and the hospitalities of our City.

L. M. KENNETT, JOHN O'FALLON, J. B. BRANT,
HENRY COBB, G. R. TAYLOR, C. P. CHOUTEAU.

Which circular was sent to various portions of the State of Louisiana, Mississippi, Arkansas, Missouri and Iowa and of the Territory of Minnesota.

While this circular was in operation, mark the movements—the almost instantaneous and the responsive movements of the people from Louisiana to Minnesota in favor of the Mississippi Valley Railroad.

Here are some items showing their earnest unanimity in the cause.

On the 20th day of October last, a letter was written to the author of this article by a man high in public life in St. Paul, Minnesota, from which letter the following quotation is presented:

“Thousands of capitalists in other States of the great West will co-operate with you with enthusiastic energy; and before three months pass away, the New Orleans and Minnesota Railroad will be heralded all over the country as the most magnificent enterprise of the age. The people of Minnesota have a deep and united interest with you in the above road, and are awake already to the importance of it, and whatever we can do, we will do with alacrity, and endeavor to have Minnesota represented at your contemplated convention and will earnestly co-operate with you and others in this truly great work. It is to be hoped that there will be such a pouring in of delegations from all portions of the North, South and West, as will prove most conclusively to the world that the Great West is awake to her interests.”

Two days after the date of the last letter, another was written to the same person by a sound and public spirited man in Little Rock, Arkansas, from whose letter the following items are quoted:

"Our Legislature meets here on the 1st day of November next, and I much fear that the notice of the convention at your place for 3d Monday of that month, is too short now that the rivers are down to afford time for us to send forward delegates."

* * * * *

"The bill granting land to this State for a railroad from Cairo to Fulton, and one west, and one east, which passed the House of Representatives just before its adjournment, will, I doubt not, pass the Senate at an early day in the session.

"It gives us 3,500,000 acres.

"This Cairo road would enter Arkansas at or near where the St. Louis road would strike our boundary and give us a benefit of that grant to Camden, within seventy miles of our southern line, to help build the St. Louis road."

On the 27th October last the following editorial article with the annexed portion of a letter from Col. Payne, of New Orleans, appeared in "The Sentinel," published in Arkadelphia, Arkansas :

(From the Arkadelphia [Arkansas]-Sentinel.)

We lay before our readers the following copy of a letter from Col. Payne, the Agent of the *New Orleans, Opelousas and Great Western Railroad*, that our people may see what others are doing towards the construction of a Railroad from St. Louis to New Orleans, through Arkansas. It is a cheering invitation for Arkansas to take hold and do her part, which we are confident she will do at a proper time. Some of the public Journals in Missouri are advocating the crossing of this road at *Helena*, our belief is, that the through route entirely on the west side of the Mississippi, is the true one to open a main avenue for our products. Let Helena become a branch if practicable, but the main trunk must go through the entire length of our State, without a crossing of the Mississippi until the road reaches New Orleans—by this means, the great commercial importance of the termini—New Orleans and St. Louis, will reflect a credit across our State that would ensure the building of the road. We call upon our people everywhere, to think of these things, and prepare themselves to take hold of this great work, which is soon to redeem Arkansas.

New Orleans, October 11, 1852.

R. BEEBE, Esq.,

Dear Sir :—Your several favors of the past month have been received, and for which I thank you. They would have been responded to as they came to hand, but for my absence from the city on business of the road since the last of August. I now reply.

The certainty of the construction of the St. Louis Branch of our Great Railroad through Arkansas, is now no longer doubtful. Our Board of Directors regard it as a fixed fact, *so far as Louisiana is concerned*. St. Louis and Missouri are not only determined to do their part, but have already sent a corps of Engineers to examine the route from St. Louis to the Iron Mountain. Now it only remains to be seen

whether Arkansas will take any positive and immediate action. The action of Arkansas if warm and decided, will put the matter under immediate headway.

I shall leave in two or three days for the western or Texas end of our line, and when I have accomplished the business of the road on that part of our line, I am instructed by the President, to take the probable route of the St. Louis Branch, and traverse it through all of our Parishes to the Arkansas line.

This Company have now the Capital at command, equal to four millions of dollars. Under our new constitution, the State will take one million of dollars. This will make the sum of five millions of dollars. The cost of the road on the main trunk to the Texas border, will be about four millions, leaving one towards the St. Louis Branch. The Parishes in Louisiana along the line of the branch road to the Arkansas line will contribute at least as much, as will, with the aid of the one million, furnish and equip the road to your State line.

We now have all our road under contract from this end of the line towards the La Fourche, and in a few weeks it will be under contract to Berwick Bay, and in a month more, to Washington, a distance of 50 miles further. So you see we are at work.

I think the road will pass into your State through Camden, or a little to the East of it, but of course nothing can be definitely determined until the Engineers have passed over the ground. * * * * *

At the same time the Engineers will be put on the St. Louis Branch to Arkansas, whether your State moves in it or not—the line will be carried to our boundary any how.

Very respectfully,

B. H. PAYNE.

On the 10th of November inst. the NORTH MISSOURI RAILROAD CONVENTION was held in the City of St. Charles, Missouri. We have not space for a full report of its proceedings. Its permanent officers were :

President—GEORGE W. HOUSTON, of Lincoln.

Vice Presidents—D. K. PITTMAN, of St. Charles.

J. B. HENDERSON, of Callaway.

J. CAVENDER, of St. Louis.

H. C. WRIGHT, of Warren.

J. H. ROBINSON, of Montgomery.

Secretaries—Col. A. B. CHAMBERS, of St. Louis.

N. C. OREAR, of St. Charles.

L. D. NORRIS, of St. Louis.

E. A. LEWIS, of St. Louis.

Its committee on business: Messrs. Henry Cobb, Edward Wyman, A. Meier, F. P. Blair, of St. Louis; T. J. Wright, W. Perkins, P. J. Davis, of Lincoln; Robt. H. Parks, Dr. Bevitt, T. W.

Cunningham, of St. Charles; Jno. B. Henderson, of Callaway; Jno. P. Farrow and Chas. Harper, of Montgomery.

Its resolutions adopted, being those reported, with a few verbal alterations, were:

Resolved, That we regard the early commencement and construction of the North Missouri Railroad from St. Louis, by St. Charles, to the Northern State line, with a view to its ultimate extension through Iowa and Minnesota, as an enterprise of the first importance, being one of the main trunks by which the wealth and prosperity of the State are to be promoted.

Resolved, That we regard it as the duty of the State to adopt a judicious as well as liberal system of railroad improvements, and in extending her aid and credit to these, a discriminating policy should be observed, in favor of such as are manifestly main leading trunks, best calculated to subserve the great interests of the State at large, in the development of its agricultural and mineral resources.

Resolved, That this Convention present by memorial to the Legislature, the claims of this enterprise, and solicit for it the aid of the State by an extension of the State credit, on the same terms on which it has already been extended to the two great works now in progress.

Resolved, That the Legislature be memorialized to so amend the Charter of the North Missouri Railroad Company, as to authorize an extension of the road to St. Louis, and also to exempt said Company from the onerous features of the general law of the State, in regard to corporations, which exemptions have already been granted to the Pacific and to the St. Joseph and Hannibal Railroad Companies.

Resolved, That in the opinion of this Convention, the construction of railroads through the various producing districts of this State is a great measure of public policy, urgently demanded by the interests of the people generally, and that the promotion of a judicious system of railroads, with a view of providing to the principal agricultural and mineral regions, reasonable facilities for carrying their products to market, is a legitimate subject for the fostering care of the Legislature, and ought to be aided by the wealth and power of the State.

Resolved, That in view of the fact, that the population of this State is but young, and individual exertions have to be made in surmounting the natural obstacles incident to our position, this Convention is of the opinion that the collective wealth of the community must be mainly looked to for furnishing the means for accomplishing this great undertaking for the people of our State.

Resolved, That in pursuance of the foregoing views, this Convention is of the opinion, that the General Assembly of this State should be memorialized to pass a general law, authorizing the constituted authorities of all counties, towns and cities to subscribe to any railroad within this State such amounts as may be sanctioned by the voters of such counties, towns or cities, and further authorizing them to make such subscription available either by a loan to the amount, or by levying a special tax on the property situated within their respective limits, at the option of the community interested, to be expressed by their votes at a special election for that purpose; such special tax not to

exceed in any one year 30 per cent. of the amount of stock subscribed, nor to be less than 20 per cent. of the same, and that all persons who shall pay said tax shall be entitled to become stockholders in said railroad companies to the amount of tax paid by them.

Resolved, That the Congress of the United States be memorialized to make a grant of land to the State of Missouri to aid in the construction of the North Missouri Railroad—similar in all respects to the grant heretofore made in aid of the Pacific Railroad and the Hannibal and St. Joseph Railroad.

Resolved, That this Convention recommend to the Directors of the North Missouri Railroad Company to open Books for the subscription of stock as soon as they may deem it advisable, in St. Louis, St. Charles, and in such counties as are interested in the construction of the road.

Its resolutions and committees for future operations were

Resolved, That a committee of five be appointed to prepare an address to the people of North Missouri, agreeably to the resolutions adopted by this Convention.

Messrs. Bevitt, Cunningham, Wright, Blair and Orrick. Com.

Resolved, That a committee of five be appointed to draft a memorial to the General Assembly of this State, in accordance with the fourth resolution adopted by the Convention.

Messrs. Whittlesey, Krekel, Mason, King and Farrow. Com.

Resolved, That a committee be appointed to draft a memorial to the Congress of the United States, in accordance with the eighth resolution adopted by the Convention.

Messrs. Norris, McKee, Palm, Kayser and Smith. Com.

After speeches were made by Col. Benton, the President and various other members of the Convention, earnestly expressive of wise suggestions and hearty co-operation in favor of the cause of the Convention, it adjourned to meet with the Mississippi Valley Railroad Convention, at St. Louis, on the (15th) third monday of November.

We have, as of the foregoing, space for only a sketch of the officers, actors and actions of the MISSISSIPPI VALLEY RAILROAD CONVENTION. Its permanent officers were :

President—E. D. BEVITT, of St. Charles.

Vice Presidents—J. H. McILVAINE, of Washington.

W. B. STEWART, of Warren.

Dr. H. MILLS, of Iowa.

Jno. D. COALTER, of St. Louis.

H. BLACKLEDGE, of Ste. Genevieve.

Secretaries—L. D. NORRIS, of St. Louis.

Dr. BENJ. EMMONS, Jr., of St. Charles.

Its Committee on Business: Hon. L. M. Kennett, M. Tarver, J. Loughborough, H. A. Prout, of St. Louis; Thomas J. Wright, G. W. Walne, of Lincoln; Frederick W. Gatzwiler, Thos. W. Cunningham, Benj. A. Alderson, of St. Charles; John McElhaney, of Montgomery; Ferdinand Kennett, T. J. McIlvaine, of Washington; Warren V. Stewart, of Warren; Hiram Blackledge, of Ste. Genevieve; H. Mills, of Iowa.

Its resolutions adopted, being those reported, with a few verbal alterations, were:

Resolved, By the Mississippi Valley Railroad Convention, assembled at St. Louis, Mo., November 15, 1852,

First, That the individual and social interests of the inhabitants west of the Mississippi river, imperatively demand the construction of a railroad from the city of New Orleans to a central, eligible point in the Territory of Minnesota, in the direction of the Red River of the North, and with a branch to the Falls of St. Anthony; said road to pass by the capital of the State of Arkansas, the Iron Mountain, and the city of St. Louis, in the State of Missouri, and the Valley of the Des Moines river, in the State of Iowa.

Second, That a railway thus uniting the fertile valleys and productive prairies of the extreme northern Territory of the United States with the Gulf of Mexico, is eminently National in its character, and therefore justly entitled to assistance from the General Government.

Third, That the act of Congress granting public lands in aid of the Illinois Central and Mobile and Ohio Railroads, gives additional strength to the claims of the States west of the Mississippi to a similar grant in aid of the Mississippi Valley Railroad, for it would be unjust on the part of Congress to refuse assistance in establishing commercial facilities on this, after doing so much to encourage similar works on the other side of the River.

Fourth, That in consideration of the National benefits to be derived from the construction of this great work and the large amount of public lands remaining unsold in the States through which it is proposed to be located, we ask of Congress a quantity of land, equal to alternate sections for ten miles in width on each side of said road throughout its entire length, with the privilege of selecting other lands to make up the quantity of such tracts as may have been sold, or are subject to pre-emption, within the distance of ten miles from the line.

Fifth, That the projected Iron Mountain and South Missouri, and the North Missouri Railroads with the contemplated amendment of the charter of the latter extending the same from St. Charles to St. Louis and making the latter city the Southern terminus, are important links in the great Iron chain by which we propose to connect the Gulf of Mexico with the Territory of Minnesota. And we, therefore, especially recommend these roads as works of the first importance to the State of Missouri, demanding at the hands of her Legislature the same degree of encouragement through the means of the States credit that has been extended to the Pacific, and to the Hannibal and St. Joseph Railroads.

Sixth, That the meeting of this Convention affords a proper occasion for those of whom it is composed to urge upon Congress the necessity of adopting immediate measures in view of the certain and speedy construction of the Great Central Pacific Railroad—a grand national project calculated to unite the interests and advance the prosperity of every part of the Republic; and secure by the shortest and most economical route, upon our own soil and through the heart of our own country, safe and uninterrupted communication between its distant borders on the shores of the two great oceans. A project worthy of the age in which we live, and of the American people, who would speedily accomplish this glorious enterprise, if sectional jealousy and conflicting interests could be reconciled, and the national mind concentrated upon its achievement.

Seventh, That the public lands in the new States, especially those west of the Mississippi river, have chiefly derived their money value from the labor of the present inhabitants, who have suffered all the privations incident to the settlement of new countries; and, therefore, upon sound principles of national justice, are entitled to the amount added to the value of the public domain by their own toil. And whilst this Convention believes that the measure of this justice can only be entirely fulfilled by ceding to the new States all the public lands within their borders, that shall have been fifteen years or more in market; nevertheless, it would acquiesce in the distribution of a reasonable share of the monies accruing from the sale of all other lands amongst the old States for purposes of education; solemnly protesting, however, against giving them away to any one class of the people, or assigning them wholesale to the old States as provided for by the "Homestead" and "Bennett's" land bills introduced at the last session of Congress.

Eighth, That it is the opinion of this Convention that the General Government should cease to regard the public domain as a source of National revenue—but that it should only be disposed of with a view to the encouragement of education, internal improvements, and other objects of a National character, upon such principles as will secure equal justice to the old and new States.

Ninth, That a Committee of Five be appointed by the President of this Convention, to draw up a memorial to Congress, asking for aid in behalf of this great enterprise, and expressing more at large the views of this Convention, in respect to the public domain, as shadowed forth in the preceding resolutions; and that a copy of said memorial be forwarded to each Senator and Representative in Congress, residing west of the Mississippi river.

Tenth, That this Convention fully approves the plan recommended by the St. Charles Convention, of paying county and corporation railroad subscriptions by the levy of an annual tax, sufficient to meet the calls on such subscriptions—provided the amount so raised shall not in any one year, be more than is required to pay thirty per centum of the amount subscribed by a county or corporation, to the stock of any one road, and that each tax payer shall receive a certificate of stock to the amount of the special tax paid by him. And we respectfully ask of the Legislature at its ensuing session, the passage of proper

laws to enforce the collections of such tax in all the cities and counties of this State, which either have already taken or may hereafter subscribe stock in any railroad company.

Its additional resolution and Committees for future operations were :

Resolved, That the President of this Convention appoint a committee of five to address the people of the Mississippi Valley on the subjects embraced in the resolutions of this Convention.

Committee to address the people : Messrs. Cobb and Prout, of St. Louis, Kennett of Washington, Orear of St. Charles, and Mills of Iowa.

Committee to memorialize Congress, under the ninth resolution : Messrs. Kennett, Norris and Chambers, of St. Louis; McElhiny, of St. Charles; and Johnson, of Washington.

After speeches were made by Hon. L. M. Kennett, Hon. T. H. Benton, of St. Louis, on the resolutions *en masse*, by various members from Washington, St. Charles, and St. Louis counties, some favoring, some opposing modifications on the resolutions in detail, by Hon. Samuel Benton, of Mississippi, and Hon. Sterling Price, of Missouri, in favor of the general cause, the Convention adjourned on the evening of the 16th November, *sine die*.

The actions of the North Missouri and of the Mississippi Valley Railroad Conventions are before the world. Their principles are both radical and national. They descend to the root, and they ascend to the head of the main enterprise. They call on the people for taxation for stock. They call on the Government for grants for improvements. They call on the State of Missouri for even-handed justice, for equal credit in behalf of the Iron Mountain and South Missouri and the North Missouri Railroads—"works of the first importance to the State"—with that which has been already extended to the two great works now in progress in the State.

The cry of

—"UNION, HARMONY, ACTION"—

arose in North Missouri, it was echoed in South Missouri, and it will be prolonged and re-echoed through Arkansas and Iowa, through Louisiana and Minnesota, and through Mississippi and Missouri, till the consummation of the devout wish of the Mississippi Valley is won.

In proof of the unanimity and of the devout feeling, along the line, in favor of the Mississippi Valley Railroad, listen to the voices from the North and from the South, pealing, appealing and striking on this plan with glorious unison.

Voices from Louisiana, from Arkansas, from Missouri, and from Minnesota have been already heard.

Hear a voice from the heart of Iowa, responsive to a call from the head of Missouri.

AGENCY CITY, IOWA, Nov. 4, 1852.

To the President of the Northern Missouri Railroad Convention :

SIR : At a meeting of citizens of this place, held on the 16th inst., in relation to the contemplated Northern Missouri Railroad, I was appointed a delegate to your Convention, with instructions to represent the people of the Des Moines Valley as eager and ready to co-operate with the people of the State of Missouri in the construction of said road—and to urge forward the same as being reciprocally beneficial to the people of both Missouri and Iowa. Not being able to attend the Convention, I take the liberty of inclosing to your address the proceedings of that meeting, with the request that the same be submitted to the Convention. The resolutions are few, expressing considerations only of the material and practical kind. The entire proceedings are only worthy of the consideration of the Convention as an index of views and feelings here. And, I may say, with confidence that public sentiment in this Valley is unanimously in favor of your projected improvements ; and that when the time shall have arrived for the co-operation of our people with material aid—that will co-operate spontaneously and abundantly in the work.

For the information of the Convention, I will state that we have a general law under which a company can be organized to carry on the work in this State, at any time and to any point of destination and that such organization will be effected here, as soon as the proceedings and work of the Missouri Company will justify it. We do not wish to begin too soon; nor until we can have a connection with the Missouri line. When we are assured of such connection, then we will spring to the work with alacrity, because of our interests. Such a road would benefit this Valley immensely, and the people know it—the farmers know it especially. They know too well that they now receive but a pittance for their produce. That they are offering to sell corn, as per location, at from ten to fifteen cents per bushel, and no buyers; oats the same; rye twenty-five to thirty cents; wheat forty to fifty cents; timothy hay \$5 per ton and other produce in proportion. That without a railroad to market, this state of things must continue under present mode of transportation, and that their agricultural energies must continue to be paralyzed and deadened. They know all this; and further, that such a road as you propose to construct, would give them instantly on its completion a market at their own doors for all their surplus, with nearly full St. Louis prices—in cash.

On the other side permit me to say to the merchants and capitalists of St. Louis that the Des Moines Valley is capable of almost unlimited production. Give our farmers a steady market for their produce at fair and remunerating prices (and your road would do this) and on their return, I promise you the *quid pro quo*—we will increase our production—we will roll over your road and into your warehouses such quantities of produce as will require a duplication of your storehouses to hold it, and of your steamboats to carry it away.

Wishing the Convention a harmonious sitting, and success in its great object—I have the honor to be, Sir, your obedient servant

M. R. LEWIS.

Omitting the preamble, the following are the resolutions referred to in the foregoing letter :

Resolved, That a delegate be sent to said Convention.

Resolved, That said delegate be instructed to represent the people of this valley, as ready and eager to co-operate with the people of Missouri in the construction of said road.

Resolved, That such a road would be mutually advantageous to the people of St. Louis and of the Des Moines Valley—to the former it would add vastly to their commerce and trade in merchandise and provisions—to the latter it would give a home market and fair prices for their salable products, and access in ten hours travel to the city of St. Louis, at all seasons of the year.

Turn the ear again toward the South, and hear the earnest and tender tones coming from the capital of Mississippi, where the *Southern Star*

“Like an Angel sings,
Still quiring to the young-eyed Cherubim:”

—MISSISSIPPI VALLEY RAILROAD—

We noticed last week the call for a general Convention at St. Louis, on the third Monday in November next, intended to obtain the Co-operation of the whole North and South, along the Mississippi river, in behalf of a line of longitudinal railroads from Louisiana to Minnesota.

We regard this movement with much interest, and believe it will soon command the attention of the friends of internal improvement throughout the valley.

In the discussion of this project for a railroad from St. Louis to New Orleans heretofore had upon the subject, two points on the Mississippi river have been prominently presented for its terminus on the western bank of the Mississippi river—one opposite Memphis, and the other at Helena, in Arkansas. By reference to the map it will be seen that Memphis is a little east of the longitudinal line of St. Louis, while Helena is directly upon it, (this fact, however, is merely alluded to in passing.) The route by Helena seems to have been preferred by the friends of the road for reasons which we are precluded from adverting to at this time for want of space. Suffice it to say that in view of the fact that Helena is thus preferred, Dr. King, the able Representative in the Legislature from Coahoma county, has obtained the passage of an act of the Legislature, at the late meeting, for the incorporation of a Company to construct a road from the eastern bank of the Mississippi river, opposite Helena, in the Northern part of Coahoma county, to intersect with the central railroad at such point as the Company may determine upon. Should the termini of the road in Mississippi be opposite Helena, as stated, and at Grenada, there will be only a slight deviation from a due Southerly course for the whole line of the road from St. Louis to New Orleans. From some experimental surveys that have been made from St. Louis to Helena, the route is said to be entirely practicable and the road easy

of construction. From the statements made to us by Dr. King and others, we believe there are no obstacles of a serious character to prevent the construction of a road in this State as contemplated by the Charter. The road in this State to intersect with our Great Central railway (which latter intersects our Great Northern road at Canton) as contemplated above will not exceed ninety miles.

Should the Memphis route be preferred we have a charter for a road to intersect at that point. Thus Mississippi extends her arms to the mighty West and seeks a fraternal embrace with her respected sisters.

We would here add that on the 21st day of June last, when the landholders of the City of New Orleans voted for a tax of \$1,500,000 to be levied on their real estate, to aid in building the New Orleans, Opelousas and Great Western Railroad, as above stated, they also voted for the additional tax of \$2,000,000, to be paid from the same source, to aid in building the New Orleans, Jackson and Great Northern Railroad; thus making the real estate of the City alone, in one day, subscribe \$3,500,000 for these two railroad projects.

Here was a proof of radical, self-sacrificing, noble principles, which should be disseminated in every City and County from New Orleans to St. Anthony; and did not this evidence of magnanimous individual devotion to the railroad cause, together with the national and inter-national views shadowed forth in the memorial, justify the extraordinary terms already frequently quoted, for a grant from Congress of "all the lands of the United States within ten miles of the said road and its St. Louis branch, on each side; or its equivalent in other lands?"

Gaze now on Arkansas; see how her heart is throbbing with interest, how her hands are working with energy in this cause.

Read a portion of the message of Gov. Roane to the Legislature of that State in session this month:

There can be no doubt, that the St. Louis and New Orleans road, although of recent conception, will very soon claim a large share of public attention; and surely its importance to Arkansas can only be second to the Central Railroad, and in its immediate and local results, not even to that. Missouri has already commenced, and has now under contract a considerable portion of a Railroad extending westward from St. Louis, and designed to compete for the position of the Great National Road to the Pacific. She proposes to extend a branch to the line dividing Missouri and Arkansas, provided we will carry it across our territory, to unite with a similar branch, emanating from the New Orleans and Opelousas road west, also intended for the Pacific coast.

If these States, upon our northern and southern boundaries, shall complete roads, from these two great and growing commercial points

to our northern and southern boundaries, surely Arkansas, with the ample resources which I have shown her to possess, will unite in this so much desired work. The construction of this road will afford facilities to the northern portion of the State which are so much needed, as well as to the wealthy cotton-growing counties of the South, through which it will pass; and bring the whole State within a day's travel of New Orleans on the South, and St. Louis on the North.

Observe the movements of that legislative body touching this plan both in the Senate and in the House:

ARKANSAS LEGISLATURE.

SENATE,
Saturday, November 6, 1852. }

Mr. Davidson introduced the following resolution:

Resolved, That the Committee on Internal Improvements be instructed to enquire into the expediency of memorializing Congress for an appropriation of lands to the State of Arkansas, to aid her in the construction of her several Railroad lines now in contemplation by the citizens of the State; that the attention of the committee be more particularly called to a liberal appropriation of land to the road surveyed by Capt. Barney, in 1849, running from St. Louis *via* Little Rock, to Fulton, on Red River. Adopted.

HOUSE,
November 6th. }

Mr. Clingman gave notice of a bill granting permission to counties to levy a tax for Internal Improvement purposes.

HOUSE,
November 8th. }

Mr. Clingman introduced a resolution in relation to sending a memorial to Congress, praying the passage of the bill granting land in this State for railroad purposes, which was read a first time.

HOUSE,
November 10th. }

The memorial of Roswell Beebe was read and referred to the Committee of Internal Improvement.

And mark the main, the strong features of the Memorial presented by Roswell Beebe, Esq., for a charter of

"THE MISSISSIPPI VALLEY RAILROAD COMPANY."

Memorial

to the General Assembly of the State of Arkansas.

Your memorialist, for himself, and on behalf of a large number of the citizens of this State, and of the States of Louisiana and Missouri, respectfully represent to your Honorable body, that they are deeply interested in the early construction of a railroad from the city of St. Louis, in the State of Missouri, to the city of New Orleans, through the State of Arkansas, passing by or near the celebrated Iron Mountain in Missouri, Jacksonport on White river, Little Rock, and Camden on the Ouachita river in this State, Monroe, Natchitoches and Alexandria in the State of Louisiana, or such other route as may be found most practicable, to construct a main trunk line between

those extreme points of the most public utility. The people of Louisiana and Missouri have proffered to make so much of this road as lies within their respective States, provided Arkansas will do what of right she ought in furtherance of this great enterprise. This road would connect a very extensive and productive agricultural region with these two great northern and southern commercial centres of the Mississippi valley, and enable the citizens of this State to have speedy, cheap and uninterrupted access to the best of markets. It would, also, cross one of the richest and most varied mineral regions in the world; pass by or near the immediate vicinity of inexhaustible beds of coal, iron ore, lead, copper and other valuable minerals; and through a country of the most fertile soil, abounding in timber, rock, and other valuable building materials, and many streams which afford good sites for machinery; crossing at right angles all the important rivers which flow eastwardly into the Mississippi. This road would form connections with other railroads, extending to the Gulf of Mexico, northern Lakes, Atlantic cities and the provinces of Upper and Lower Canada; besides forming an important link in the two northern and southern railroads projected and already commenced, from the Mississippi river to the Pacific, now deemed certain to be built.

The fact that the navigation of our rivers are not only hazardous, but prevented by low water during more than half the year, shutting us out from market, renders such a road very desirable to the people of this State.

In order to carry out this enterprise successfully, it is proposed to form a company, under one corporation, to be called "*The Mississippi Valley Railroad Company*," with full powers to construct the proposed improvement, to be composed of citizens of said States, and such other persons as may be associated with them. This, it is believed, would reflect a credit across Arkansas which would insure the speedy construction of this most important and valuable improvement.

Already is the attention of our influential citizens turned to it for the purpose of obtaining accurate information with regard to its feasibility; and, although the project is novel, and involves an expenditure of striking magnitude, they are zealously endeavouring, by every means in their power, to render this, their only certain outlet to market, adequate to their wants, by bestowing upon it their means and influence. But in this they cannot succeed without aid from the hand of the government. Their mines must remain undeveloped and neglected, agriculture must languish, and the finest portion of the West will be checked in its growth unless sufficient aid is furnished. The object is not more local than national in its character.

The construction of this road would unite us immediately with the Gulf of Mexico, on the one hand ultimately extended from St. Louis to the Falls of St. Anthony, the head of navigation on the Mississippi on the other. Your memorialists have strong and unabated confidence in the early commencement and progress of this noble enterprise, if a liberal charter is granted; and will steadily be pressed forward to final and triumphant success. * * * * *

The construction of such a work as the one proposed properly takes its rise in individual enterprise, but from its importance and general influence it will exert upon the country, recommends itself to the con-

sideration of the government. Your memorialists believe that it is the duty of the State of Arkansas, as it is clearly her interest, to lend a fostering aid and countenance to this great work. But in so doing they do not ask, neither do they desire, that the credit of the State be put in jeopardy, or any new debt created to the embarrassment of her finances. They would, however, earnestly, but respectfully ask that the proceeds of the 500,000 acres of land from the General Government be appropriated in conformity with the provisions of law by which they were dedicated. The counties through which this road will pass, and the contiguous tier of counties on both sides which would be immediately benefitted by the location and construction of this road, number thirty-one; each of which have, up to this period, received from the public internal improvement fund, \$1,835 37: making an aggregate amount of \$56,896 47, which could, so far as the same may not have been expended by the respective counties, be applied towards the construction of this road, as well as the anticipated receipt from the same source, if a law was enacted, requiring such counties to make that application of their county funds, derived from that source, by subscribing to stock in this corporation; which, it is believed, would be in strict conformity to the act making the grant. This subject, your memorialists do not entertain a doubt, is one that will not only recommend itself to your deliberate consideration, but engage your earnest and zealous attention.

The magnitude of this undertaking renders it necessary that every interest should be called upon to contribute to its support, and the vast benefit to be derived by the State from its early accomplishment in increased wealth and population, and new sources of public revenue, make it proper that her aid should be obtained as far as practicable. Nothing is asked at this time of the State but the granting of a liberal charter, with such powers and provisions as are deemed compatible with a due regard to her interests, and the proper application of the internal improvement fund. * * * * *

This stupendous work, the longest railroad in the Union under a single charter, will be more than a thousand miles in length when completed; traversing four States and a Territory, and crossing nine degrees of latitude in its course from the Gulf of Mexico to the Falls of St. Anthony, in Minnesota; being a main trunk through line, and intersecting a series of rivers of great magnitude, draining a boundless extent of Territory, almost entirely in a state of nature; and if we add the numerous intersecting lines of railroad, that will spring into life by its vivifying effects, or that are already projected and in progress of construction, the results to the well-being of mankind, will far exceed the conception of the most fruitful imagination.

For the reasons thus summarily glanced at, your memorialists respectfully pray for the enactment of a law incorporating said Company, with provisions of the most liberal character, such as shall make it acceptable not only to our own citizens, but to such others, residing out of our State, as are desirous to be associated with us in this giant enterprise.

And your memorialists, as in duty bound, will ever pray, &c.

ROSWELL BEEBE, *for himself and others.*

LITTLE ROCK, Ark., Nov. 1, 1852.

The evidence of "Light, Life, Love" for this cause can be easily accumulated. Witnesses are thronging to bear their testimony in its favor, and the intelligence from Washington City is strong in its support.

We gave credit last month to the "News" for the gallantry with which it heralded this cause before the world.

The "Intelligencer," worthy of its wise name and generous character, rushed to the rescue of this cause, in the time of its fiery trial, when *montes parturiunt* to break the South Missouri Link.

But the Mississippi Valley Railroad cause has gained glory enough for one month.

The cost of building the South Missouri Railroad from St. Louis *via* the Iron Mountain, to Chalk Bluff, determined by an accurate calculation based on the United States survey of the route, by Capt. Barney, is found to be \$3,514,773.

The cost of building the North Missouri Railroad is estimated to be \$3,450,000.

The cost of construction and equipment of the Mississippi Valley Railroad, from the Falls to the Gulf, *via* Little Rock, based on the two preceding estimates together with others elaborated by us last month, is found to be a few thousands over \$24,000,000.

What next? Next month the Legislature of Missouri convenes. Next month the Congress of the United States convenes. Next month the people of North and of South Missouri are heard at Jefferson City. Next month the people of the Mississippi Valley are heard at Washington City.

What answer is to be given to their earnest prayers, to their loud cries for Internal Improvement?

Will the State of Missouri allow the people to tax themselves to gain stock in a railroad?

Will the State of Missouri extend its credit to the North Missouri and to a South Missouri Railroad Company on terms as fair as it has made with the Hannibal and St. Joseph and with the Pacific Railroad Company? And thus aid in welding together immediately these two great links of the Mississippi Valley Railroad? Will all the members of the Legislature agree with one heart and one mind on a "judicious as well as liberal system of railroad improvements?"

Will the Southwest Missouri Railroad, with those just mentioned, be guarded as the "manifestly main leading trunks, best cal-

culated to subserve the great interests of the State at large, in the development of its agricultural and mineral resources?"

So may it be. So the honor of the State is safe, equity and good conscience satisfied, and the greatest good to the greatest number done.

Will Congress amend the "Arkansas and Missouri Railroad Bill?"

Granting greater privileges to Cairo, will Congress also grant to the States of Louisiana, Arkansas, Missouri and Iowa, and to the Territory of Minnesota, the right of way, and the public lands, within ten miles, in alternate sections, on each side, to aid in the construction of the Mississippi Valley Railroad?

Will the General Government allow the people of the Mississippi Valley to double the value of the public lands on the western banks of the Mississippi from the Falls to the Gulf?

Will the General Government guard against the seductive names of "*Homestead*" and "*Free Trade*;" satisfy the just claims and earnest prayers of the PIONEER OF THE WILDERNESS, by opening a way for him to market and to civilization; endow highways with "adequate" land grants for national, commercial and social intercourse, for the present age and for all posterity; protect the IRON MAN OF AMERICA against the despotic oppression of European absolutism; view the gigantic IRON MOUNTAIN OF MISSOURI and the MISSISSIPPI VALLEY RAILROAD, with a parental eye; set up the sons of the West in the world, that they may rise in fame and fortune, reflect honor on their country and the 19th century, and bind the UNION together by bonds of their own iron?

By so doing the General Government will thereby provide, that the North may "rest under its own vine," and the South under its "figtree with none to molest or make them afraid."

God grant us this satisfaction—An act of congressional justice! Let the North and the South of the West have justice!

Fiat justitia ruit coelum!

WISCONSIN HAY.—A lot of hay, brought from Wisconsin, was recently sold in New York, at a handsome profit over all expenses. The charges for transportation were above \$15 per ton. Hay in the far West is selling for \$3 per ton, while in New York it is worth from \$20 to \$22, and in Boston \$23 to \$25 p. ton.

LITERARY DEPARTMENT.

Uncle Tom's Cabin,

OR LIFE AMONG THE LOWLY, by Mrs. HARRIET BEECHER STOWE.

REVIEW BY X. Y. Z.

The appearance of a work of this character at this juncture will not surprise any one, who has carefully observed the objects, which writers of fiction have had mainly in view during the last few years. Their course now partakes in a large measure of the utilitarian character of the age. Moral tales, highly wrought scenes, exposing and condemning existing institutions, and recommending some one or other of the many modes of reform, by which projectors in politics and morals fondly hope to attain that perfection in this world which religion and revelation teach us to be reserved for another and a better, have taken the place both of the old romance and the historical novel. This path is not entirely new, but it has acquired a new importance—and a most dangerous one, unless the new responsibilities, necessarily incident to it, are allowed their due weight. The old romance was read merely for amusement; the fancy was excited and entertained; no conviction was intended to be produced. Hence no harm was done, except now and then making love-sick girls still more love-sick, and disposing boys capable of making very good tradesmen, to writing very bad poetry. By this the aggregate of human misery was not very materially increased.

The class of historical novels is a large one. We mean not only those which detail historical facts, set off and adorned by the charms of fiction, but also such as illustrate the customs and habits of nations and communities at various epochs. Mr. Macaulay has taught us, both by precept and example, the true province of all history, and the same great authority has pointed out the use and beauty of fiction as the handmaid of history. To recommend historical research, to illustrate manners and customs, to show how these mould the character of a people, or rather, how manners, and customs, and character act and re-act upon each other, has been, almost entirely until within the last twenty or thirty years, the highest province of fiction. It is most essential to the truth and beauty of the historical novel that there should be an air of probability over the story, that nothing absurdly false be stated; that there be a sufficient adherence to the general run of historical events, to avoid shocking the public mind. Consistently with this, but in strict subordination to it, some liberty is allowable even with geography and chronology, the "two eyes of history." The artist is allowed the largest liberty with the minutæ of his picture. What a particular person says or does to another, what the course of this moralist, or of that reprobate, how the feudal baron may treat his family or retainers, what the private character of the soldier or statesman—all these, and things like these, the writer may mould and fashion as he pleases, so that he preserves the general air of probability and writes nothing glaringly false. In short, as he is in very little danger of misleading at all, since his errors can hardly have any permanently injurious effect upon society, it is unimportant whether his details are true or false. His province is to show how people would probably act under given circumstances, not to assert that they have actually so acted. He seeks to interest and instruct, but he has not the higher aim to establish and enforce principles which are to affect the very groundwork of society; while the general tendency of the historical novel should be uniform, having an instructive and beneficial end in view, the mere de-

tails are of comparatively little consequence, and afford legitimate as well as full scope for the writer's fancy.

Fiction, as well as science, is progressive. From the old romance to the historical novel, there is a great advance in dignity and importance; so the distance is immeasurable between the historical and the new philosophical novel. The one sets before us the past in colors more or less vivid; the other is designed to affect the present and the future. Generations now unborn may rue mistaken feeling or policy thus introduced. In this walk of fiction a writer may have an incalculable influence, and with this influence his increased responsibilities must keep pace. Here mere detail, the very merest detail, becomes important. Not only should it be shown how people may act under the present laws, usage and institutions of society, but a foul slander is perpetrated unless it is shown how they do act. Here a *suggestio falsi* is worse than a *suppressio veri*. Charity or prudence may lead to the latter, reckless malignity alone can drive to the former. The object differs from that sought by any other class of writers of fiction, and the course pursued should differ likewise. Here the license of the artist is much narrowed, and even in the smallest minutiae he should paint from life; all exaggeration is wrong, not merely out of place. Unless truth is carefully observed even in the details, gross injustice is done, and a wrong impression produced upon the public mind.

In reading the late work of Mrs. Stowe, most southern readers, and it is to be hoped, very many of their northern countrymen, will be painfully impressed with her neglect—a neglect not confined to her, but general with the class of writers to which she belongs—of truthfulness in her details. Even the license allowed the historical novelist is exceeded here, and that in a work aimed at an institution existing in a large portion of the Union, and where very little license is allowable. Exaggeration pervades the whole; characters, uncommon anywhere, in any state of society, however, christian and refined, are held up as types of a race long held in a state of mental and moral degradation. Slavery in the southern States offers a tempting field to writers of this class. We are only surprised that it has not been long since crowded to excess. But the literature of the Abolition-Society is at last aspiring to something above mere handbills and tracts. Not only has its mouth-piece “hit the right nail on the head, as an abolitionist and philanthropist,” in the words of a late English Review, but the book has sold well, and the speculation in sentimentality and “higher law” doctrines is a good one for the novelist as well as the politician.

With many faults of style and matter, “Uncle Tom's Cabin” is no ordinary work. As a collection of false facts and possible untruths it is unrivalled; but the falsehoods are generally well told, and are certainly well stuck to from preface to conclusion. It has too much literary merit to deserve to be hastily read, and carelessly thrown aside, and forgotten as soon as read. The story is told with dramatic effect. The persons speak for themselves, and, with the exception of some odd expressions put in the mouths of educated people speak pretty much as such people, if they could ever exist any where—might be expected to do, if they could live where the author has located them, or be placed in the position in which she has placed them.

The sketches of Uncle Tom and aunt Chloe will be read with pleasure by slaveholders. They will carry them back to their childhood and remind them to what were really, in some degree, the relations of master and slave before Garrison & Co. became famous and influential, and it will be indignantly denied that such a servant is ever so sold by his owner.

Mrs. Stowe does not inform us clearly why Uncle Tom is sold by his Kentucky master. A slave-dealer has bought up the notes of a gentleman of fortune and position to the amount of about fifteen hundred dollars. This places Mr. Shelby so completely in Haley's power that he can force him to do things which his soul abhors. To part with a faithful servant, to tear a tried friend from his family, and hand him over body and soul to a negro-trader, to part a young mother from her infant, to send a young child, in whose plays and gambols he takes delight, to be put up in a slave-market—not only to harrow up his own feelings by such a course as this, but also to inflict needless distress upon a wife whom he respects and loves. This would seem enough, but it is not all. The proud, high-toned gentleman degrades himself to the level of the vulgar ruffian. He is actually made to introduce the negro-buyer to his table, to his wife and family. He permits familiarities which gentlemen do not often endure even from their equals and intimates—and all this because he owes him a debt which he could easily pay over and over again. So paltry a debt can never, under any code of laws, bring a debtor so completely under a creditor's control, certainly not when he has property enough to pay the debt ten times over. This is the leading absurdity in the book, and it is a fair sample of the way in which Mrs. Stowe surrounds her characters by circumstances.

Of course, one never meets with such high-toned, self-sacrificing gentlemen, such humble and devout christians, as Uncle Tom, anywhere, of any shade of complexion, white or black. Whatever christian virtues are in process of development in the negro character whether in Africa or America, human nature has not yet reached such a state of perfection. Still slaveholders will love Uncle Tom and thank Mrs. Stowe for such a creation of her fancy. His fidelity and love, his gratitude to his master for favors conferred, and confidence reposed in him will make him unpopular in certain circles in the free States alone. In those circles, for instance, where it is the fashion to exalt a fugitive slave into a hero, and where a fighting Quaker is applauded for dropping his peaceful and honest principles, for setting law at defiance, and fighting and stealing in the cause of philanthropy.

Mrs. Stowe's sketches are very forcible; she has no idea of a common every day character, an ordinary compound of good and evil. Her devils of whatever variety of complexion she may please to portray them, are very black; and her angels, white and colored, white as the driven snow; and each one, devil and angel, has its opposite arrayed against it, and the comparison duly pointed out and enforced.

In Eva St. Clare we have the loveliness of childhood and the grace of beautiful, pious infancy; but we miss the simplicity we are entitled to expect in such a character; she is far too wise for her years, as well as too good for human nature. To say that there are such children, but they never live to be adults, is no defence against the charge of exaggeration. That parents should fondly dwell upon the imaginary perfection of their lost children is both natural and right; but to insist upon the common saying, "I knew I should never raise this child, 'twas too good for this world," as anything more than a very pardonable and very weak expression of grief, is simply absurd. Human nature is much the same in those who live long, and in those who die early.

Augustine St. Clare, the father of Eva, seems to have inspired Mrs. Stowe with a large measure of the affection which her readers are intended to feel for him. Like the sculptor of old, she is enamored of her own handiwork. He appears upon her canvass a weak and effeminate dreamer, lazily adapting himself to circumstances, refusing to think, fearing to disapprove; charms of person and

manner, of refinement and feeling adorn a character to which even the possession of great native talent can impart no strength. He is a large slaveholder, but the discipline of the plantation is too shocking to his feelings. Hence he leads a life of sloth in the city surrounded by slaves whose situation is a constant reproach to his conscience—a sceptic, because too indolent to study or think upon the subject of religion, an indulgent master, because too slothful to control his household. The death of his daughter drives him to seriousness, and in spite of his own efforts to dissipate thought, the prayers of his slave become the means of his conversion. Mrs. Stow is with difficulty reconciled to making her paragon a slaveholder while a careless worldling. It is not to be thought of, when he becomes a conscientious christian. But, on the other hand, Uncle Tom must not so escape from slavery. All trouble is saved by cutting off St. Clare in a New Orleans café.

As a set-off against the many perfections exhibited in Augustine St. Clare, we have a sketch of his stern brother Alfred. He is a despot, generous enough, upright in his dealings with the few whom he esteems his equals, harsh and tyrannical to his inferiors—a born aristocrat living and moving in a republican society, and denouncing contemptuously every principle which supports republicanism.—Such men as these brothers may possibly exist in the Slave States, but they are unknown to their neighbors. Their perfection on the one side and defects on the other are discernible to the “optics keen” of their northern brethren alone. They are certainly not types of the class of southern planters.

Miss Ophelia—Topsy's Miss Feely, differs in one respect from most northern women domesticated in southern families; she waits on herself from choice, scorning the assistance of the servants. The general experience in such cases is that they fear being confounded with the negroes, if they do anything at all. Hence they require far more of the time and attention of the slaves than the southern matrons whom Mrs. Stow so hideously caricatures in the person of Marie St. Clare. We confess that we know very little of the stiff, puritanical class of maidens to which Miss Ophelia belongs. But we think it hardly in the nature of any woman to shrink from the very touch of a poor neglected child, whether white or black. So we will see only Miss Feely's good traits, and hope that her bad ones have not escaped the all-pervading exaggeration of the book.

But passing by all minor fiends, we hasten to the arch-demon Simon Legree. Here Mrs. Stow has shown uncommon skill in devil-painting of the good old style. He is a native of New England who has fallen from the high estate of freedom and abolitionism. He has broken the heart of a praying mother. He has been a pirate, and has now reached the acme of all villany in becoming a Red River planter and slaveholder. All the vices are blended harmoniously in his character; avarice, cowardice, cruelty and meanness have undisputed sway over him. Uncle Tom falls into his hands and the cup of bitterness is now full. Humility, obedience, patience, uncomplaining endurance have no effect upon that iron heart. Mrs. Stow seems to intend, by desecrating her pages with such a sketch as this, to show what crimes, a hardened villain, who is a slaveholder, may commit, without falling under the penalties of the law. And she thinks that this impunity results from the inadmissibility of the testimony of negroes against whites. Certainly very great evils may result from this; tho' here we should remark that in Louisiana, where she locates Legree, such evidence is admissible. This will serve as a specimen of Mrs. Stow's accuracy; but we will give her the full benefit of supposing that there, as in most of the States, free as well as slave, such evidence is excluded. This exclusion may lead to very great evil, and

it appears to us that, with suitable provisions and guards, this reproach may be removed. Still legislatures, perfectly conversant with the negro-character, and not at all blinded to the dangers pointed out, have determined upon it after mature deliberation. Their opinions are entitled to respect of persons comparatively ill-informed upon the subject. At all events it is evident that such enormities, as Mrs. Stowe charges upon southern planters in her character of Legree, could not be committed without leaving traces which would rouse the public and lead to the punishment of the perpetrator. Mrs. Stowe surely does not need to be told that the evidence of circumstances would have its full weight in such cases. In every instance the criminal would fall into the hands of the public prosecutor, and most generally circumstantial evidence enough could be obtained to insure his conviction. To say that the planter feels secure in the perpetration of any crime, because none but negroes are witnesses of the act, is no more than to say that the midnight assassin feels safe because no human eye sees him. The same circumstances which generally convict the latter, would affect the former, and that the more certainly, because the negroes would direct suspicion toward him. But, even should the guilty slave-owner escape the penalties of the law, the alarm would be given, and an outraged public would visit the offender with swift and terrible vengeance. The mark of Cain would be upon such a man, but it would not avail to protect his wretched life. This is the actual state of the case.

We are constrained to admit much of what Mrs. Stowe says about the separation of negro-families. The truth of this is every where felt and deplored,—quite as much in the slave as in the free States. This evil is held up by Mrs. Stowe in most glowing colors. But while we think it of much less frequent occurrence than she would have us believe, we admit that there is enough of it to cause much distress. With the fullest admissions upon this point, Uncle Tom's Cabin still remains a most unjust and exaggerated picture of southern manners and society as affected by the institution of slavery, and also of the state of the slaves themselves.

We come now to the object of the work. Mrs. Stowe's concluding chapter informs us that, until the passage of the "Fugitive Slave Law," she had refused to think or read upon the subject of slavery. This, however, aroused her energies, and we have their first fruits in the shape of this novel. Its design is to bring this law into contempt, and to excite a feeling, if possible, which shall prevent its execution. We shall merely show what plan of attack is pursued, and will leave it to Mrs. Stowe herself to count the cost of success in case she should succeed.

Her fugitive slaves are white, educated and refined. The men are cavaliers such as never graced a tournament, the women far superior in beauty and excellence to any who there bestowed the rewards of valor. In George we are shown the agonies of a noble mind galled by a constant sense of degradation. In his wife Eliza we are treated to an affecting picture of matchless beauty in distress. George is entirely too magnanimous to blame man for maltreating him. So he vents his displeasure on his God for placing him under the control of a master.

Mrs. Stowe can easily ascertain that there are communities in the border free States where her sketches of George and Eliza will be received with more surprise than anywhere in the slaveholding portion of the Union. The citizens of Pennsylvania and Ohio will laugh bitterly as they look for the originals of these characters among the pests and scourges of their neighborhoods.

We are introduced to an Illinois legislator, whose wife, being the better half in fact, makes him violate laws which he has just aided in passing. Nor do we blame our neighboring Solon; in an exactly similar case, if one could possibly happen, we should be tempted to do very much as he did.

Next comes a Kentuckian who has set free his negroes and crossed over to a free State. There with several stalwart sons, he is prepared to shelter fugitive slaves even to committing murder in the defence.

Then we have a Quaker settlement, and in it almost as singular a state of things as a moralist like Mrs. Stowe could easily select for approving mention. Persons of a sect whose first tenet is obedience and non-resistance to law are banded together to steal property as a part of their duty to God and man. In this community "Friend Phineas" is our especial favorite. He has been an old hunter and anything but a non-combatant. The soft charms of a Quaker damsel have inclined his heart to peace and goodwill toward all men. Still the old Adam is not quite rooted out. The older friends gravely hint that his prayers want unction. In fact, he veils under his calm exterior and sober dress a lawless and adventurous spirit which must vent itself in some way. Verily, friend Phineas thee must have found negro-stealing a perfect Godsend! When the fugitives are pursued, Phineas of course leads them off. He opposes fighting, but the spirit moves him to "stay and see the fun." Nothing can tempt him to use the arm of flesh, but he promptly "executes judgment" upon a wounded man by pushing him down a precipice, quietly remarking the while "Friend, thee isn't wanted here at all."

It is not surprising that Mrs. Stowe should call upon the fugitive slave himself to resist recapture to the death; but she certainly knows that when white men—whether Quakers or no—countenance them in so doing, they are accessories in a murder, when an owner or his agent is killed. In this book she assumes a most heavy responsibility; she not only advises the fugitive slave to take the life of his owner to avoid recapture, but also to destroy the officer whom the local authorities may send to arrest him. More even than this; she calls upon the people of the free States to aid him in doing so. She will find very few readers to applaud her object when nakedly stated.

Be the law right or wrong, no such resistance as this should be encouraged. We have peaceful and constitutional modes of repealing obnoxious laws. Let writers use their efforts to have these resorted to. They will then be doing their whole duty. We think the fugitive slave law necessary and right; but if we agreed with Mrs. Stowe concerning it, we should still protest against her way of defeating its provisions. In the first place she strikes at that respect due the constituted authorities upon which society everywhere rests; in the next place, the course which she advises would lead to civil war. Heaven save us from philanthropy like this!

We do not think that these heavy faults are at all redeemed by any great literary merit in the work; but there is enough of this to give rise to a wish that Mrs. Stowe had employed her time and talent in some way more creditable to herself as an author and patriot. She misrepresents and exaggerates until her sketches not only lose all likeness to their purposed originals, but also whatever form or comeliness they might otherwise possess. She recommends robbery and murder on the part of the slave, aiding and abetting him even in these on the part of the whites; resistance, moral and physical, to constituted authorities, and she seeks to lay the foundation for endless heart-burnings and contentions between the people of the two sections of the country. In one place, at least, "the Union" is sneeringly alluded to. The pernicious doctrine that "the slave is dissolved from all the obligations of mankind," is everywhere enforced. The immediate emancipation of the slaves, and their admission to equal civil and political rights are demanded as due to justice and christian duty. Many passages in the work point to amalgamation of the whites and blacks. The direct inference to be

drawn from Mrs. Stowe's support of this disgusting doctrine, is this: That she is willing to occupy the position of proposing to her countrywomen to submit themselves to the embraces of negroes, thus becoming the mothers of a degraded race of mulattoes. Can she be the advocate of prostitution like this?

While the whole question of slavery in the southern States is open to examination, and claims no immunity from attack, those who undertake to discuss the general subject should be very sure of possessing more than ordinary qualifications for inquiring into and setting forth the truth. It is easy to write a plausible story or essay on either side, but somewhat difficult to be just, temperate and intelligible either in attack or defence. To convey an idea of what may be demanded of a writer upon this subject, we subjoin an extract from a work of the late Professor Dew, of Virginia. Premising that it was written before Abolitionism became noisy, and while many southern politicians were busily seeking out feasible schemes for the emancipation of slaves.

After alluding to the two classes of population in the southern States, Professor Dew says:

"Upon the contemplation of a population framed like this, a curious and interesting question readily suggests itself to the inquiring mind: Can these two distinct races of people, now living together as master and servant, be ever separated? Can the black be sent back to his African home, or will the day ever arrive when he can be liberated from his situation and mount upwards in the scale of civilization and rights, to an equality with the white? This is a question of truly momentous character; it involves the whole framework of society, contemplates a separation of its elements, or a radical change in their relation, and requires for its adequate investigation the most complete and profound knowledge of the nature and sources of national wealth and political aggrandizement, an acquaintance with the elastic and powerful spring of population, and the causes which invigorate or paralyze its energies, together with a clear perception of the varying rights of man amid all the changing circumstances by which he may be surrounded, and a profound knowledge of the principles, passions and susceptibilities, which make up the moral nature of our species, and according as they are acted upon by adventitious circumstances, alter our condition, and produce all that wonderful variety of character which so strongly marks and characterizes the human family. Well, then, does it behoove even the wisest statesman to approach this august subject with the utmost circumspection and diffidence; its wanton agitation is pregnant with mischief."

We respectfully commend the above extract to the careful consideration of all ambitious scriblers and declaimers upon this subject.

A BOND,

to be sealed between the North and the South.

FROM MR. A. OF MISSISSIPPI TO MISS L. OF MASSACHUSETTS.

When far off in the distant South,
My heart is bounding free,
Surrounded by the friends I love,
Sweet girl, I think of thee.

And when my soul shall leave this form,
To join yon happy band,
I'll twine a wreath of charms for thee,
Charms of the Spirit Land.

But may our bond of bliss be sealed,—
We live a life of love,—
Eros and Psyche like,—arise,
Inarmed, to realms above.

Freedom of the Will.

By HON. A. BEATTY, of Ky.

This has been a fruitful subject of discussion by men of distinguished talents, who differ widely in their opinions.

By one class of them the Arminian system (more or less modified) has been advocated. By another the Calvinistic scheme has been strongly urged. Among the latter the most celebrated writer was the late Jonathan Edwards, who has discussed the subject with much ingenuity and great ability.

His apparent advantage, in much of his elaborate argument, on the Freedom of the *Will*, over his Arminian opponents, arises from his attributing to them the opinion (by no means necessary to the support of their views) that the *will* possesses an inherent and self-determining power, *uninfluenced by motives or causes* extraneous to itself. Taking for granted, that this opinion has been correctly attributed to Arminian writers, and admitting, as I do, that it is erroneous,* I will proceed to examine the views of President Edwards on the Freedom of the Will.

In the first page of his inquiry, he explains what is the proper meaning of the word *Will*. He says: "it is plainly that by which the *mind* chooses anything." "But," says he, "if any think it a more perfect definition of the Will to say, that it is that by which the *soul* either *chooses* or *refuses*, I am content with it." Here it will be seen, that *mind* and *soul* are used synonymously. Thus the *mind*—or the faculties thereof—such as *reason*, *understanding*, *judgment* &c.—which examines, weighs and decides upon all the circumstances having an influence upon its determination, decides and the *will* "never fails in its obedience to the dictates of the *understanding*." Here it will be seen that it is the *mind*, and not the *will*, which is influenced and governed by "motives" (defined by President Edwards—page 4—to mean "the whole of that which moves, excites or invites the *mind* to volition, whether that be one thing singly, or many things conjunctly"). The *will* is merely passive and invariably, and immediately by its volitions carries out the determinations of the *mind*. Many quotations from President Edwards might be given to prove that this view of the subject is correct; though by frequently speaking of the *acts of the will*, some confusion is thrown upon the subject. Thus in page 48 he says: "every *act* of the will is some way connected with the *understanding*, and is, as the greatest apparent

* That this opinion was *not* entertained by the chief Arminian writers, such as Dr. Whitby, Dr. Samuel Clark, and Dr. Turnbull, sufficiently appears by the quotations and remarks of President Edwards, pages 48, 49, 50. And in his remarks (p. 140) where he alleges the Arminians are *forced* to explain themselves (in relation to the self-determining power of the will) by conforming to his views. Again (p. 53) it is shown that Mr. Chubb held "that the will, in all its acts, is *influenced by motive* and excitement."

good is, in the manner which has already been explained, namely that the *soul* (or mind) always wills or chooses that which, in the present view of the *mind*, considered in the whole of that view, and all that belongs to it, appears most agreeable." Same page: "as it is evident in itself that the *acts* of the *will* have some connection with the dictates or views of the *understanding*, so this is allowed by some of the chief of the Armenian writers; particularly by Dr. Whitby, Dr. Samuel Clark and Dr. Turnbull."

Page 50: "The *will* does not determine itself in any one of its own acts, but *all its acts*, every act of choice and refusal depends on and is necessarily connected with some antecedent cause; which cause is *not the will itself*, nor *any act of its own*, nor anything pertaining to *that faculty*, but something belonging to *another faculty*, whose acts go before the will in *all its acts*, and *govern and determine them*." These quotations are sufficient to show that, in the opinion of President Edwards, the will possesses no self-governing power, but in *all its acts* is dependent upon and governed by something going before, and "belonging to *another faculty*" (the mind).

President Edwards contends, and I think correctly, that although in many instances the causes or motives of action in the soul are so intimately connected as to render it difficult to distinguish between the *cause* and *effect*, yet that the latter is invariably determined by the former.

Thus far, there is no material difference in my views and those of President Edwards; and I desire that it may be distinctly kept in view that when President Edwards speaks of the *will* acting, or the acts of the *will*, he means only the acts of the soul or mind. This correction will render the following remarks more clear and intelligible.

In treating on the freedom of the "*will*," and the *necessity* of human actions, President Edwards distinguishes between *natural* and *moral necessity*. Persons laboring under the former, are not accountable for their actions. But it is otherwise, as he contends, in relation to persons acting under a *moral necessity*. *Moral necessity*, according to President Edwards, arises, first, from the positive laws of God, in relation to the moral conduct of his creatures; and, secondly, *that necessity* which springs from the influence of causes or motives, operating upon the minds of men, and which (as the *mind* is always influenced by the strongest motive) *irresistibly* determines them to act implicitly in obedience to such causes or motives; and as *motives* (as herein before defined) proceed from God, the *necessity* under which his moral creatures act, is of the same character as that *necessity* which arises from the laws of God.*

* Although, in one sense, the mind is influenced by the *strongest* motives, yet it often happens that its decisions are not founded upon the *best motives*.

God has presented to his moral creatures a train of motives which, if their *rational powers* were properly exercised, and their *passions* kept under due con-

Thus in page 76, he remarks: "From what has been observed, it is evident that the absolute *decrees* of God are no more inconsistent with human liberty, on account of any *necessity* of the event which follows from such decrees, than the absolute *fore-knowledge* of God. Because the connection between the event and certain fore-knowledge is as infallible and indissoluble as between the event and the absolute decree."

In page 77: "If the foreknowledge be absolute, this *proves* the event known to be *necessary*." Again, page 79—80: "We know that God knows the future voluntary actions of men in such a sense beforehand, as that he is able particularly to declare and foretell them, and to write them, or cause them to be written down in a book, as he often has done; and that therefore the necessary connection which there is between God's *fore-knowledge* and the event known, does as much prove the event to be *necessary* beforehand, as if the Divine knowledge were in the same sense before the event, as the prediction or writing is."

Again, page 61: "That the acts of the wills of moral agents are not contingent events, in that sense, as to be *without all necessity*, appears by God's certain fore-knowledge of such events."

These and many other passages, which might be quoted, show the sense in which President Edwards uses the term *moral necessity*. As God, as he contends, and which is not denied, is the author of all the *causes* and *motives*, influencing the mind, to bring the will of his moral creatures to such a determination as he desires and *foresees*; and as his moral creatures are *irresistibly* influenced by the causes and motives, presented to them by God, it *necessarily* follows, that they can act *only* in conformity with the pre-determinations of God. Now in such a state of things, I cannot perceive—though the contrary has been frequently averred by President Edwards—how there can be such a *freedom of action* in God's moral creatures, as to make them accountable for their moral conduct.

If *motives* are presented to their minds by God, which will have the same *irresistible* influence as his *positive decrees*, governing and directing all their determinations, so that they have no moral ability to act, but in perfect obedience to such decrees, how can blame be attached to them for *such obedience*? According to this scheme, *all things must come to pass*, as God has *pre-deter-*

trol, would be sufficient to induce them to make *constant efforts* to lead a steady, moral and virtuous life; yet, if the *passions* are not held in due restraint, and are suffered to get the mastery over the rational powers of the mind—the moral reflections, the judgment and understanding—then evils and enormities of various kinds inevitably follow. As the mind is left *free* to reflect upon, weigh and decide, according to its best judgment, upon all the inducements presented to live a virtuous life, and to avoid the temptations to run into vice and folly, moral creatures are responsible for the use or abuse of these means, according to their several abilities and opportunities. Thus mankind are accountable beings, exactly in proportion to the moral ability which God has given them, and their means and opportunities, under all circumstances, of exercising those abilities.

mined, or decreed that they shall come to pass. We cannot, if this system be true, be regarded as in a state of *probation and trial*. We cannot be considered as sinful beings, because to do that which God *has decreed* we shall do, is *to comply with his will*, which cannot be regarded as sinful. But this is inconsistent with the common sense of all mankind, and the clear and indisputable teachings of the Bible.

Besides the *moral necessity* of President Edwards, upon which I have remarked sufficiently, there is another species of *necessity*, (if the *fore-knowledge* of God, as he contends, always creates a *necessity*) which will remove the objections, which present themselves to the scheme of the Calvinistic writers.

A God of infinite Power, Wisdom and Goodness, could so constitute the *minds* of his moral creatures as to leave them *full and perfect liberty* to reason and reflect upon; to examine and weigh all the motives and inducements, which he in his infinite Wisdom and Goodness, should think proper to present to the reasoning faculties of his moral creatures; leaving them to judge freely upon the weight due to such motives and inducements; and decide according to the dictates of their *understandings*, as to their proper course of moral conduct. To deny that God *could so constitute* the minds of his moral creatures, would be to deny his *infinite power*. The *acts* of moral beings thus constituted, would (in the sense in which President Edwards uses the term) *be necessary* because God could *foresee* all the results of such free agency. But he admits—page 77—“that *fore-knowledge* does not *prove* a thing to be *necessary* any more than *after-knowledge*.” Here then is a full admission that the circumstance of God’s foreseeing, what *would be the acts* of his moral agents, constituted as above supposed, could have no influence on their decisions. Indeed, it is plainly self-evident that if God, in his infinite wisdom, should determine to constitute moral beings *perfectly free agents*, the circumstance of his *foreseeing*, what would be the acts of such morally free agents, could have no possible influence upon those acts.

President Edwards contends that the acts of such free agents would be *contingent* and consequently that they *could not be foreseen* by God, and, therefore, many evil consequences would arise. (See pages 71 and 75.)

In page 79, he says: “There is no succession in God’s knowledge, and the manner of his knowledge is, to us, inconceivable, yet thus much we know concerning it, that there is *no event, past, present or to come*, that God is ever *uncertain of*; he never is, never was and never will be without *infallible knowledge* of it. He always sees the existence of it to be *certain and infallible*.”

After thus clearly and correctly expressing his views on the subject of God’s fore-knowledge, it is very singular that he should contend that the acts of *perfectly free agents* cannot be foreseen by God, because such acts are *contingent*. This is equivalent to

saying that when God creates moral agents, and prescribes a certain course of moral conduct, either by positive *decrees*, or by presenting *motives* to their minds, in such manner as to render it *impossible* for them to exercise *any freedom of will*, then he can foresee what their acts will be, because they spring from *necessity*. But if he chooses to create moral agents, with a perfect freedom of mind or will, he cannot foresee what line of moral conduct they will pursue, although "there is *no event*, past, present or to come, that God is ever uncertain of!" This is plainly contradictory.

In page 116, President Edwards remarks: "I suppose none will deny that it is *possible* for motives to be set before the mind so powerful, and exhibited in so strong a light, and under so advantageous circumstances as to be *invincible*, and such as the mind cannot but yield to." This I readily admit. But is it not *equally possible*, that a God of infinite power, wisdom and goodness could set before the mind, properly constituted for that purpose, motives and inducements to pursue a correct course of moral conduct; and with ability to do so, if the passions should be kept in due restraint, and under proper control by the rational powers of the human mind? That God could have so arranged his system, for the government of his moral agents, 'as to have excluded *sin* from the world, no one can doubt, who admits his almighty power. But in his infinite wisdom, he chose to adopt such a plan of moral agency, as would be suitable for moral agents, who were to pass through a *probationary state*, and who should be invested with such freedom of mind or will as would make them *properly* and *justly* accountable for their moral conduct. Experience proves conclusively that such a system was framed by God for the government of his moral creatures, in this world. God foresaw that the conduct of his moral creatures, under the system which He, in his infinite power, wisdom and goodness, thought proper to adopt, would not be without sin, and therefore he pre-determined to send his only begotten Son to make an atonement for the sins of the world.

The following extract from President Edwards (page 66) places this subject in a beautiful point of view. "The Messiah came to save men from their sins, and to deliver them from their spiritual enemies, "that they might serve him in righteousness and holiness before him. He gave himself for us, that he might redeem us from all iniquity and purify unto himself a peculiar people, zealous of good works." And, therefore, his success consists in gaining men's hearts to virtue, in being made God's willing people in the day of his power. His conquest of his enemies consists in his victory over men's corruptions and vices. And such a victory and such a dominion is often expressly foretold; that his kingdom should fill the earth; that all people, nations and languages should serve and obey him; and so that all nations should go up to the mountain of the Lord, that he might teach them his ways, and that they might walk in his paths; and that all men should be

drawn to Christ, and the earth be full of the knowledge of the Lord (by which, in the style of Scripture, is meant true virtue and religion), as the waters cover the seas; that God's law should be put in men's inward parts, and written in their hearts; and that God's people should be all righteous, &c., &c."

But it should be recollected, as President Edwards observes, (p. 67) that "men are blessed in Christ no otherwise than as they are brought to acknowledge Him, trust in Him, love and serve Him, as is represented and predicted in Ps. 72, 11: "All kings shall fall down before him; all nations shall serve him." "Men shall be blessed in Him; all nations shall call Him blessed."

President Edwards, under his scheme of *necessity*, admits "the advantage and benefit of the use of means and endeavors." The advantage and benefit of such means and endeavors, on the part of free agents, in the sense in which I use that term, seem to be more appropriate; and to all who make use of such means and endeavors, the assistance of God's Holy Spirit is offered to bring them to salvation through Christ. Thus God, in his system of government for his moral creatures, made ample provisions for those who, he foresaw, would fall into sin, provided they would seek salvation through Christ by the use of such means and endeavors as were within their power.

I will make one more quotation from President Edwards (page 140), and a few suggestions thereon, when I will close my remarks.

He says: "Notwithstanding his doctrine (*of necessity*) man is entirely, perfectly and unspeakably different from a mere machine, in that he has *reason* and *understanding*, and has a faculty of *will*, and so is capable of *volition* and *choice*; and in that his *will* is guided by the dictates or views of his *understanding*; and in that his external actions and behaviour, and in many respects, also his *thoughts* and the exercise of his *mind* is subject to his will [or rather his soul or mind], so that he has *liberty* to act according to his choice, and do what he pleases; and, by means of these things, is *capable of moral habits* and *moral acts*, and such inclinations and actions as, according to the common sense of mankind, are worthy of praise, esteem, love and reward; or, on the contrary, of disesteem, detestation, indignation and punishment."

All this is very perceivable and fully granted, under such a system or scheme of moral government, as I have contended for, but I cannot see, how it can consist with such a system of *moral necessity* as has been urged by President Edwards.

NOTE.—The paging referred to above, will be found in the second volume of the works of President Edwards, in four volumes, a reprint of the Worcester edition &c. Published New York, Leavitt Trow and Co., 194 Broadway. 1844.

THE PLAINS,

Being a Collection of Veracious Memoranda, taken during the Expedition of Exploration in the year 1845, from the Western Settlements of Missouri to the Mexican Border, and from Bent's Fort on the Arkansas to Fort Gibson, via South Fork of Canadian—North Mexico and North Western Texas.

By FRANCOIS DES MONTAIGNES, of St. Louis.

CHAPTER TWO.

In which the reader becomes marvelously edified concerning divers things and classes of persons.

The morning following the storm last described, the ruddy sun arose bright and warm, and seemed to repay the half-drowned wretches on Boone's Fork for the inconveniences which they had suffered, by infusing into them the following day, a most cheering and comfortable degree of warmth. The men spread out their blankets and clothing to the sun's rays, wiped the damp and rust from their guns, and long before the sun was preparing to again descend below the west, they evinced by their quick motions that their sprightliness of which the tempest had momentarily deprived them, was returned in full force. Another shelter was reared; the men to whose numbers there was an increase of some twenty or thirty others by this time, were divided off into messes of seven and eight, and to these were distributed provisions and the necessary utensils to prepare them for use—bread, crackers, bacon, sugar and coffee, together with tin-pans, cups, coffee-boilers and fry-pans.

The consequence of these distributions became soon manifest. The crackers were soon devoured, fires were made, and whilst some sat around and gazed at the preparations around them, there were some cutting and frying meat, others with their arms in dough and flour up to the elbow, and others again browning and grinding coffee. Truly it was a time of cooks and cookings.

Whilst the camp was being increased each day by the arrival of new bands and groups of engagés, the captain and his aids were not idle. Mules and horses were purchased for the use of the campaign; wagons were bought and put into a condition for immediate use; tents were being manufactured; the provisions were stored into sacks to the amount of some sixty or eighty weight, in order for packing, whilst the animals were quietly herding out on the prairie and feeding on the splendid grass, in order to prepare themselves unconsciously for the trip before them.

The loafing portion of the little army occupied themselves in shooting at a mark (by the way they were mostly proficient), hunting rabbits along the little creek (Boone's Fork), fishing for cat and sun-fish, and mounting a mule now and then, and scampering across the prairie in pursuit of some scape-grace mule or horse.

Before many days had gone by, the company were divided into guards for the purpose of drilling them for the journey ahead.

The guard of the last night-watch was always that of the following day and it was their business to drive their animals at day-break out of the enclosure or corral into the prairie, and there to watch over them, so that none might wander until dusk, when they would again drive them into the corral and be relieved by the first watch. Mounting a mule and galloping over the green slopes was at first great amusement for those verdant ones who were yet fresh and innocent, but after they had passed a whole day on horseback out on the prairie, in a heavy, searching rain, during which it is very necessary that the guard keep awake, for it is the nature of a band of mules to turn their backs to the storm and travel before it, if not prevented, and even then it frequently happens that they will not heed any attempt to obstruct their passage, but will one and all dash forward with curved neck and erect ears, snorting and kicking, in one immense band, and gallop like a tornado over the distant swells. After spending a day interspersed with such scenes, I repeat, the greenhorns soon become heartily disgusted with mule guarding and mule riding, and if they had not been forced as it

were to guard in their turn, I doubt much whether any of them would have felt willing to volunteer his services for such duty, even though the mules take a stampede¹ and travel off a hundred miles.

Some mules there were too, which entertained as great an abhorrence for being rode, as the class of which I just spoke, did for riding them, and it was a solemn fact that these same mules did try all kinds of modes and manners whereby to ease themselves of their oppression and their rider at the same time. One would put on a most ferocious air when approached with a bridle and snort most terrifically, as if he had never seen a bridle. Another would not submit to be led, but must needs turn his head in a contrary direction and make off, frequently with bridle-holder and greenhorn. Another would swell himself when girt, and afterwards slip from under the saddle, thereby pitching his sage rider heels over head on the grass. Others again would clinch the bridle bit like a vice between their teeth and then make off in spite of everything greenhorn could do or say. Some would not go at all; others would go too fast, and some would be very quiet and peaceable until mounted, and then there would ensue a series of snorts, large whirlings, kickings and whizzings, which might vie with any of the performances of the classic Bucephalus.

These same mules by the way are tremendously stout in the neck; a common little Spanish mule can make off with a strong rope tied about his neck and a greenhorn holding on to the end, at the rate of about 8 miles per hour, and I have frequently noticed mules flying across the hills and hollows with five or six stout greenhorns holding on to his cabresse.² The success of mules in these instances was not to be wondered at, for there is great slight in keeping their heads toward you, and there is great danger from their heels which cause wounds equal to strokes from a bowie knife. There were some mules too which were difficult of approach, for on which ever side a greenhorn would approach, on that side would he come in contact with the mule's heels instead of his head. There were others again which could not suffer to be tickled in the ribs by spurs, and these would likewise try all diabolical and cunning tricks to throw their riders. One instance of this latter kind I well remember and will narrate it even now, as illustrating most forcibly both to us and to the greenhorn in question, the fact that some mules are ticklish.

Sam, Ike and Zeke being guards for the day, mounted a like number of diminutive but stout mules and set forth to guard the herd.

Sam and Ike by chance were mounted on patient and good hearted quadrupeds, but it happened to Zeke's mortification that his mule was almost a little too low and short in the legs. Zeke's legs were remarkably lengthy and hung down below the mule's belly like a brace of tow-lines.

We had been out for some three or four hours, when Zeke's mule becoming tired no doubt with the weight he bore, began to move about less briskly than at first. Hereupon Zeke esteeming it his duty to spur up his ambition, quietly drew up one leg and applied his armed heel to the sides of said mule. This was done as quietly as could have been done; but before Zeke's legs returned fairly to its stirrup, Zeke himself was cast heels over head like lightning and the mule sped away to join his comrades. This fall not being from any considerable height, was, however accompanied with some little feelings of surprise in Zeke's mind, and it was some time before he recovered his mind so far as to go and catch his animal again. There existed in Zeke's mind, however, a sort of doubt as to the cause which occasioned his headlong descent, and he resolved to plant himself with much firmness in the saddle and try the manoeuvre again. Without more ado therefore, he grasped the pommel of the saddle with one hand, and applied his heel for the second time to the mule's ribs. This action, however, was attended with a more rapid effect than the first, and Zeke felt himself going through the air without great violence. His head struck the soil first, and his long body rearing itself erect for a moment, bottom upwards, at last fell to the ground.

Zeke picked himself up.

¹Stampede or stampado, a Mexican word applied by them to that picturesque, yet terrific manoeuvre exhibited by a band of wild horses when terrified by any approaching object. With expanded nostril, erect ear and flowing mane and tail, head high in the air, the terrified animals start off like the wind and soon disappear over the prairie.

²Cabresse, a sort of rope made by the Indians from the hide of a buffalo. They cut it into long slits or strings and plait them. They are about the thickness of a man's finger and very stout. They are of various lengths from ten to forty feet.

However, he was well convinced this time that the fault was his, and not unwilling to behold some farther trial, but not at his own expense, he quietly offered the spur to Baptiste who, at this time came out to relieve him. "He is rather lazy, Baptiste, and you better take this spur." Baptiste took the spur and buckled it to his heel. He mounted muly and dug his heels into his side as a preparatory step. This had better not have been done, however, for Baptiste fared the same as Zeke: his head sunk into the yielding turf. Baptiste wanted no greater inducements, and he took off the spur.

To say all in a few words—of all devil's tricks and diabolical modes of whirling, wheeling, whizzing, sneering, snorting and kicking, these same mules tried the most approved models.

They were mostly old Mexican and Californian animals, who had served in former campaigns, were well acquainted with all the mysteries of pack saddles and sacks, and had, long before this, no doubt, come to the conclusion that such things were nuisances and ought to be dispensed with. They had numerous scars on their backs and sides, and wished not to be scarified more.

There were also many American horses and young untried and intractible mules which it was necessary to break for the saddle previous to starting. There were two or three Mexican Spaniards in our camp, filthy beings without doubt, but complete masters of the noble science of horsemanship, and on these devolved the task of mounting such unruly animals as disdain the saddle. Many a fall had the poor greenhorns who attempted to vie with them, and even one of the Mexicanos themselves, poor fellow, experienced a heavy fall from a horse, which kept him from mounting another for several days.

Whilst encamped on this creek of Boone's Fork, which we were during two weeks, there ensued a series of rains and tempests which from their duration and disagreeableness, we were induced to consider as inauspicious of the expedition which was underweigh.

The little creek above mentioned would rise to the depth of six or eight feet in a short while and frequently whilst the animals would be feeding out, some distance from camp, their return would be delayed and almost prevented by the rain swelling the rivulets which intervened between them and the camp. The caral happened to be close to the banks of the creek, and it was no great matter of surprise therefore that the camp was compelled to turn out one midnight, in order to free the animals from the overflowed caral.

Finally after waiting at this inhospitable camping place, until all whom he had engaged to accompany him across the mountains had collected and everything was prepared for a start, Captain Fremont ordered the mules and horses to be lassoed and every man to be apportioned an animal for the saddle and one or more in addition to carry the packs of which he had care. On the evening of the twenty-second June, therefore, the animals were driven into a caral prepared for the purpose, at an early hour and with ropes in their hands, every man took possession of a brace of animals. There was much running and racing, kicking, &c., of course, but by this time the men were used to such things, and the mules and horses were, one and all, haltered and led out to the hills and there picketed.

DUST AND JEWEL.

The jewel 's always precious,
Though buried in the dust;
The dust is always worthless,
Though raised up in a gust.

NOTES ON FINE ARTS.—A BALL FOR THE POOR was given by the Citizens of St. Louis, on the 25th Nov., which yielded more than \$2 500 nett profit to the Relief Fund.

The POLYHYMNIA SOCIETY gave their first grand Concert of the season on the 29th, and the "Mercantile Library Association" their first eloquent Lecture on the 30th inst.

DR. CHARLES A. POPE presented a brilliant chain of thoughts from "The Advantages and Pleasures of Science."

We have not space to notice these institutions at length, now, but the LIBRARY shall receive particular attention next month.

When will the Art of Painting take a commanding position in St. Louis?

THE
WESTERN JOURNAL
and *Civilian*.

VOL. IX.

December, 1852.

No. III.

ARTICLE I.

United States: the Southeast and Northwest.

There is no section of the American Union that we regard with more interest than the southern States bordering on the Atlantic. For, born near the center of that region, and having long enjoyed the society of its inhabitants, we still cherish in its behalf that indefinable sentiment which one can only feel for the land of his nativity. Hence, though long absent, we have been attentive to the prominent events occurring in those States, and given much consideration to the causes which have retarded their progress. Our reminiscences carry us back to the period when Charleston, Norfolk and Baltimore were the commercial emporiums of the South, carrying on a direct trade with foreign countries, and supplying the inhabitants of the interior with foreign commodities—a system of economy under which the profits of the merchant and carrier were retained at home, and being diffused throughout the community, constituted an important element of the wealth and general prosperity of the country. Under the operations of that system, the inhabitants of the South accumulated wealth in abundance. But addicted to agricultural pursuits, and indulging their taste for rural enjoyments, they neglected manufactures and commerce, and allowed their more enterprising neighbors of the North to become their manufacturers, merchants and carriers. This, in effect, was an abandonment, on the part of the Southern States, of two vital elements of wealth, by which they lost many of the pecuniary advantages derivable from their geographical position, climate and soil.

The effects of this surrender in behalf of northern enterprise were soon perceptible in the decline of southern prosperity, while a corresponding advancement in the general prosperity of the northern States, and especially in the growth of their cities, afforded strong evidence that the North, by reason of its greater enterprise, was growing rich, chiefly by the profits derived from southern labor. This was perceived and keenly felt by the people of the South; but overlooking, as we conceive, the true nature of commerce, they attributed this change in their condition chiefly to measures of the General Government, and sought to regain by legislation that which had been lost, at least in part, by their own supineness. And though it may be admitted that certain acts of Congress operated against the interests of the southern States, yet it is obvious that something more than legislation was needed to restore their lost commerce, to improve their exhausted soil, develop their mineral wealth and establish manufactures.

By degrees, however, the Southeastern States have awakened to a just sense of their true interests; and we rejoice that they have entered into new pursuits and enterprises which, if prosecuted with energy and wisely directed, will secure to them a degree of prosperity equal at least to that enjoyed by the North, and render them in many respects the most desirable section of the Union. They are reclaiming the exhausted soil, opening mines and establishing manufactories, and, withal, resolved to become their own merchants and carriers. These are no visionary schemes, but substantial objects obtainable by the application of means completely within their power. And, besides, each of those States has projected a system of railroads calculated to open commercial and social intercourse with the valley of the Mississippi. Georgia and South Carolina, by uniting in one system, have already passed the mountain barriers, by which their commerce has been shut out from the fertile valleys of the West, and crossing the Tennessee, a communication by railroad has been opened from Savannah and Charleston to Nashville, on the banks of the Cumberland; and the time is not distant, when those ancient cities will be brought into connection with the navigation and great railroad system of the upper Mississippi. By another branch of her system, South Carolina is pressing her work in the direction of Knoxville, Tenn., where she will connect with the North Carolina and Virginia systems of improvement. Hitherto, North Carolina has

looked chiefly to the construction of roads calculated to form connections with the States east of the mountains; but her Executive, in his message to the Legislature now in session, recommends the survey of a western route to the Tennessee line. That modest old State has spoken, and her deeds will most surely verify her word. Virginia is steadily progressing with her works from tide-water westwardly. By one line, she will establish a connection with the valleys of the Tennessee and Cumberland; and by another with the Ohio; while Maryland is upon the eve of consummating the great enterprise, in which she has been engaged for more than twenty years.

Thus, the inhabitants of these glorious old States, descendants of men who side by side resisted the invasion of British armies, nor declined the mighty struggle while an unconquered foe remained upon their soil, are now seen marching westward, armed, not with instruments of war against their race, but with implements forged and fashioned for subduing and removing mountains, that the rugged places may be made smooth, and the crooked ways straight. There is a moral grandeur in this movement, scarcely less to be admired than the self-sacrificing spirit and indomitable prowess which signalized our common ancestors in the days of the revolution. Let them press onward; the inhabitants of the West will rejoice in the facilities thus afforded for establishing social and commercial intercourse with their kindred and friends of the Atlantic slope. Let them construct their roads across the mountains, and the people of the western valleys will meet them at every point, not to repel or resist their progress, but to conduct them into the heart of this broad region, and unite them with their own great systems. Anticipating the completion of the Baltimore and Ohio railroad, a line of steamboats is being made ready to connect its operations with the navigation of the Ohio as soon as that work shall have been finished; and we are informed that a line of steamers is about to be established between Nashville and St. Louis, to operate in connection with the railroad from that city to Savannah and Charleston. But the time is near, when more certain and speedy means of communication will be opened between St. Louis and the Southeastern States. The completion of the Ohio and Mississippi railroad will open a direct line of travel to Baltimore. By a branch from this line to Louisville, St. Louis will be brought into connection with the northwestern branch of the Virginia sys-

tem of improvements; and, diverging south at Vincennes, passing over the Indiana and Illinois and the Nashville and Henderson roads, both now in process of construction, a connection will be made between St. Louis and Savannah and Charleston. But we look to a more direct connection between St. Louis and Nashville by the extension of the Belleville and Illinoistown railroad, so as to connect with other works in the direction of Clarksville, Tennessee. And, finally, we look to a connection with the southern part of Virginia, with North Carolina and the northern and central portions of South Carolina, through a line of railway to be constructed from Knoxville, Tennessee, to some point on the lower Ohio.

Now, in view of the systems of railroads adopted by the Southeastern States—all converging at a central point on the upper Mississippi, and there uniting with and constituting a part of a great national system—it is evident that the point of their convergence must become one of immense importance to the commerce of those States. For upon the commercial importance of this point will depend, in a great degree, the success of southern cities in their efforts to establish a system of commerce independent of New York and other northern cities.

The Northeastern States are in full possession of the trade of the West, and by means of railroads and other commercial facilities, they will continue to monopolize this trade until the settlements extend to the Rocky Mountains, unless it can be drawn off in a southern direction, by establishing a powerful rival at some central point on the Mississippi. Without such a rival, the trade north of Missouri will move in a direct line eastward, while that of Missouri and other southern States will be divided between the Northeastern cities and New Orleans. But, if we suppose St. Louis established as a great commercial emporium, it would draw the trade of the Northwest below the line upon which it would otherwise move in going to New York and Philadelphia, and place it within the commercial range of Baltimore and Charleston.

If our friends in the Southeastern States will reflect upon these suggestions, they will discover, as we believe, that it is their true policy to seek a connection with the Northern States, west of the Mississippi. At present, that region is debatable ground. If left to the natural laws of commerce, its trade would flow in a southern direction; but northern enterprise and capital will counteract

these laws, and draw it eastward, unless a vigorous and well directed effort is speedily made to prevent that result; and in view of such an effort, we, of the center, naturally look to the Southeastern States for countenance and assistance. But in what respect can they aid us in this contest? We answer by referring them to the resolutions and memorial of the Convention, held at St. Louis, on the fifteenth day of November, 1852. They will there find the outlines of a system of railroads calculated to compete with the northern system and turn the trade of the Northwest in a southern direction, even though the northern railroads should be extended to the Rocky Mountains. All we ask of our friends of the Southeast is, that they give a favorable response, through their Senators and Representatives in Congress, to the Memorial of the St. Louis Convention, by voting for a grant of land in aid of the Mississippi Valley Railroad. Let them but do this, and the inhabitants west of the Mississippi will find the means necessary to carry out this great enterprise without further assistance from that quarter.

We will not attempt to enumerate the commercial advantages and benefits of a pecuniary nature, which will accrue to the Southeast by the establishment of a great commercial emporium, at or near the center of this broad valley, in a State possessing and cherishing institutions similar to their own; for the keen eye of commerce will discover these advantages and benefits more clearly than we can describe them. Nor need we call up to view the political weight which the Southeast will gain in the councils of the nation, by uniting her interests more closely with those of the Northwest. The arguments touching this point will be perceived, and doubtless appreciated by her statesmen. But we feel constrained to indulge in a few reflections in respect to the social benefits, national and individual, derivable from the means of an easy, cheap and speedy intercourse between these two great geographical divisions of our common country. Sympathy is a vital element of republican governments. Many causes, transient in their nature, moving a people to establish a republican government may be imagined; but unless sympathy spring out of the new relations thus established, even a republican government becomes a tyranny scarcely less to be deprecated than an absolute despotism. Hence, it should be regarded as among the highest duties of an American citizen, to countenance and support measures calculated to facili-

tate and encourage social intercourse between the inhabitants of every part of our widely extended country; for without the kind offices which originate in social intercourse, a people, though of the same race, religion and government, become estranged from each other, and stand prepared to sever their political relations for slight and trivial causes.

Besides its fertile soil and valuable products, the Northwest possesses many attractions for the admirers of nature. Experienced and accomplished travellers describe Minnesota as the most beautiful region of the continent. Its thousand lakes of water pure as crystal, fringed with groves unrivalled by artistic skill—its natural meadows, adorned with flowers of every form and hue, crown its broad central plateau as with a living diadem. A country abounding in natural wealth, blessed with an invigorating climate, and withal so beautiful, would, were it accessible by railroads, attract a greater number of visitors from the South, during the summer season, than any other part of the Union. Indeed, it cannot be doubted that very many southern planters would there establish their summer residences, while in winter many of its own citizens would resort to the southern States to enjoy the more genial climate of that region; and thus social intercourse would be established between the inhabitants of the Southeast and Northwest, binding them together in bonds of sympathy stronger and more enduring than legislative compromises or written constitutions.

ARTICLE II.

From De Bow's Review.

The Mouth of the Mississippi, and a Navy-Yard at New Orleans.

The people of New Orleans having set about a radical reform in all their modes of government and business enterprise, have taken up at last with great interest the vital matter of deepening the mouth of the Mississippi, and with it the question long in discussion of a navy-yard at New Orleans. An act of tardy justice having been vouchsafed to them at the last session of Congress, in an appropriation of \$75,000 towards the first-named measure, a reasonable hope exists that it will be carried through by other appropriations, whatever the expense involved, and that the navy-yard itself, from its obvious importance to the commercial interests

and maritime security of the whole southern and western seaboard, will command early and prompt attention.

Every one is aware that the mouth of the Mississippi has been undergoing incessant changes as far back as the history of the river can be traced. Old channels have been filling up and new ones forming; at the same time that a continued sedimentary deposit has forced the delta itself continually to encroach upon the sea. The depth of water afforded in these channels has never been equal to the requisitions of commerce, and it is only by dint of the most enormous application of steam power, and plowing through deep beds of sand, that the largest class of ships are enabled to navigate the channel. Considerable expense is always incurred in this manner, and delays prejudicial to trade. We have known of a ship, the *Coromandel*, in one instance, grounded in the Pass thirty-nine days. More lately, from forty to even eighty-three days' detention has been sustained by shipping, as will appear in the following plate. (*See Cut, page 165.*)

In 1720, of all the Passes, the *south* one only was in use. A Report among the French Colonial Records, now in Paris, of date about 1730, gives the depth from ten to twelve feet on the bars, varying each year according to the violence of the winds, etc. Another Report by M. Paria gives a depth of seventeen feet to one of the Passes which had hitherto been but twelve feet only, and argues that twenty-two feet might be insured by dredges. The employment of two vessels three months in the year was tried during a portion of this time by the West India Company, but it worked badly. "A *flute* was then placed inside of the bar and sunk into eighteen feet by means of wells built for that purpose inside such vessel, and filled up with water. This vessel was placed close to the bank of the bar for the purpose of receiving the cargoes of vessels that could not cross. It was soon perceived that the flute, receiving the whole power of the current, was forcing a passage of twenty-five feet through the Pass. The whole matter was immediately communicated to government."

Examined before the Committee on Commerce of the Legislature, in March, 1846, William D. Talbot, a resident of the Balize for twenty-five years, used the following language :

"The bars at the various passes change very often. The channels sometimes change two or three times in a season. Occasionally one gale of wind will change the channel. The bars make to seaward every year. The South-west Pass is now the main outlet. It has been so for only three years, as at that time there was as much water in the North-east Pass as in it. The South-east Pass was the main ship channel twenty years ago; there is only about six feet water in that Pass now, and where it was deepest then, there is only a few inches of water at this time. The visible shores of the river have made out into the Gulf two or three miles within his memory. Besides the deposit of mud and sand, which

form the bars, there frequently arise bumps or mounds near the channel, which divert its course. These bumps are supposed to be the production of salt springs, and sometimes are formed in a very few days. They sometimes rise four or five feet above the surface of the water. He knew one instance when some brick that were thrown overboard from a vessel outside the bar, in three fathoms water, were raised above the surface by one of these banks, and were taken to the Balize and used in building chimneys. In another instance, an anchor which was lost from a vessel, was lifted out of the water, so that it was taken ashore. About twenty years ago a sloop, used as a lighter, was lost outside the bar in a gale of wind; several years afterwards she was raised by one of these strange formations, and her cargo was taken out of her."

Lieut. Poole, of the United States Engineers, in his Report of February 8, 1847, remarks: "Great changes have taken place in the last fifteen years in this (the South-east) and the North-east Pass, which has been deepening while this has been filling up. It is stated where the island, shown upon sheet No. 3, now is, there was at that period six fathoms water. The process seems to be still going on; the space between this island and Antonio being nearly covered by a shoal, the centre of which is already above water. During a few days that two ships were lying aground on the middle bank of the Southwest Pass, in eight feet water, a channel formed between them, through which a ship of *sixteen feet draught* passed out without obstruction!

The project of deepening or improving these outlets has been for a long time before the General Government, and special reports upon the subject prepared by the engineer service after extended surveys.

Three methods have been principally insisted upon with different degrees of merit and expense:

1. To deepen by dredging-machines one or two of the Passes.
2. To close up all but one of them where they leave the river trunk.
3. To cut a canal from the river to the Gulf.

All of these are regarded practicable. Supposing the first and second adopted together, Captain Chase estimates the expense as follows, to give sufficient depth of water:

Dredging Northeast Pass.....	\$160,000
do. Southwest Pass.....	210,000
	\$370,000

with an annual subsequent expenditure of \$72,000 more.

Closing the Passes.....	\$214,500
Jette at Northerst Pass.....	100,000
Jette at Southwest Pass.....	182,500
Contingencies, &c.....	30,000

\$527,000

The line of the ship canal is proposed from a point two and a quarter miles below Fort Jackson, and extending seven miles to the shore of the Gulf, and thence by a jette, 1760 yards to 30 feet water. The canal to be 100 feet wide at top, and thirty feet deep. The cost of this magnificent work is estimated thus :

For the lock and guard work.....	\$ 300,000
For trunk of the canal.....	2,669,333
Jetties and Breakwater.....	2,468,996
Channel between.....	3,420,000
Contingencies	1,146,671

\$10,000,000*

We have not the figures for any later estimates, but have no doubt that those which are furnished will exceed rather than fall below the actual mark of expenditure.

How insignificant is this amount to a nation whose annual revenues are nearly 50,000,000, and whose annual foreign commerce is between 4 and 500,000,000 ?

How insignificant is it too when it is considered, that by opening the navigation of this great inland sea the commerce of half the States of the Union is freed from its fetters, and allowed to float to the great ocean; ten millions of people are accommodated, and two hundred millions of commerce (for that amount enters or departs annually through the Mississippi) is relieved from the onerous taxation which it pays at present! Upon the single items of freights alone it is estimated that the use of smaller vessels to which the shallowness of water is driving the commerce of the West, instead of those of largest size and capacity, will be attended with a loss of \$2 per bale, or \$2,800,000 annually upon the cotton crop, and equally as much perhaps upon the total of other articles of export. In all about \$5,000,000 per annum!

The diagram page 530 shows a loss from the detention of \$1,500,000 worth of property, which in a single year would pay for almost the entire improvement, if we calculate interest, loss of markets, important mails, etc.

How loudly and earnestly do the necessities of the West demand the opening of this river, and upon what pretext can Congress delay for a single hour so great and national a measure? In Congress all the power rests. Neither New Orleans nor Louisiana, nor any sister State, nor all of them together, have any power to move or to act. The overshadowing power of Congress covers and embraces all. How great then the responsibility, and to how strict an accountability should that body be held! Even Mr. Calhoun, with all his doctrines of strict construction, could not but perceive and acknowledge in his profound and masterly report, that the Mississippi river is a law unto itself—an "inland

*See De Bow's Industrial Resources, Vol. 2, art. Mississippi River, etc.

sea," and in its improvements altogether a matter of national concern.

What is this Mississippi river ?

"It has its source near the boundary between the United States and the British possessions ; it passes through the commercial as well as the geographical heart of the Union, and finally empties into the Gulf of Mexico. Bordering on the west bank of the river are the States of Louisiana, Arkansas, Missouri, Iowa and the Territory of Minnesota ; on the east bank are Wisconsin, Illinois, Kentucky, Tennessee and Mississippi, making two continuous tiers of States, spanning the entire Union from British America to the Gulf of Mexico. All the great rivers that flow from the Rocky Mountains, through Nebraska, the Indian Territory and upper Texas—the Missouri, the Platte, the Arkansas, the Canadian and the Red rivers, with their numerous navigable branches—empty into the Mississippi. On the east side are several rivers in Wisconsin and Illinois, the Ohio and its tributaries, including the Cumberland and Tennessee rivers, and minor streams from the State of Mississippi—making fifteen States and Territories in the richest and most productive portion of the habitable globe, whose commerce naturally flows into the channel of the Mississippi river. If such a river be not a national highway for the United States, then the Atlantic ocean is not. The border of the Atlantic coast, from the State of Mississippi to the British line, has Alabama, Florida, Georgia, South Carolina, North Carolina, Virginia, Maryland, Delaware, New Jersey, New York, Connecticut, Massachusetts, New Hampshire and Maine—being fourteen States. Add Pennsylvania and Vermont, which are not immediately on the coast, and there would be sixteen States. But the western part of Pennsylvania has a large commerce on the Ohio, and thence down the Mississippi river. So that the commerce of the Mississippi river arises from as many States and Territories as border the Atlantic coast from Maine to the Mississippi line, thereby making the Mississippi river as much a national highway for all the purposes of commerce and national defence as the Atlantic Ocean itself. No single State has the sole right to improve this river. The Constitution forbids all the States from making compacts or agreements with one another, and therefore the Mississippi cannot be improved by a combination of a part or all of the fifteen States and Territories immediately interested in its navigation."

We come to the question of a navy yard at New Orleans. An appropriation has already been made for purchasing a site for a *naval depot*. The exposed condition of New Orleans was strikingly manifested in 1815, when the British came up to its very doors. Mr. Jefferson, in his messages of 1806—7 and 9, urged the defences of the city with great ability and power. In 1822 Mr. Monroe said, "that the seizure of no part of the Union could

affect so deeply and so vitally the immediate interests of so many States, etc., etc., as the seizure of that city ;” and he directed General Bernard, a distinguished European engineer, to reconnoitre carefully the whole Gulf, with the view of affording the required security. Mr. Adams and General Jackson called frequent attention to the matter.

Notwithstanding these facts, up to the present moment nothing whatever has been done, whilst the navy yards, dry docks, fortifications, etc., of the North have received the most enormous sums. With a shore line of coast from Cape Henry, exclusive of bays; rivers, etc., to the northeastern boundary of *nine hundred and eighty-seven miles*, the North has *seven* navy yards, whilst upon a shore line from Cape Florida to the Rio Grande, *one thousand six hundred and ninety-five miles*, the Southwest has but *two* such yards!!

This subject will no doubt be urged upon Congress hereafter with great zeal. The Representatives of Louisiana have already done themselves honor in the spirit with which they have moved, and the success, although partial, which they have achieved. Nor have the Chamber of Commerce and its committee acted in any other than the true and catholic spirit. We have before us an interesting memorial from the General Council to the Secretary of the Navy, and also a report of Mr. Labove, Chairman of the Committee on Federal Relations of the State of Louisiana. From the last we cannot do better than to make some most interesting extracts, with which our present paper must close :

“The peculiar geographical formation of Louisiana subjects it to the liability of invasion from lawless banditti ; who, in time of war, could make sudden descents on the inhabitants, carrying with them the destruction of life and property. Even a legitimate enemy would find strong inducements, from the facility of access to carry on a harrassing predatory warfare. On the east of New Orleans there is a chain of lakes, extending from the Gulf far into the interior, which connect with the Mississippi by bayous which enter those lakes. The waters of one of those lakes approach to within a few miles of the city of New Orleans. On the west, there are numerous deeply indented bays, which are united with the Mississippi far above New Orleans by the various bayous connecting these estuaries in the Gulf with the river. This peculiar feature in the physical formation of Louisiana makes it very assailable by an enemy, and render land fortifications of very little value against his incursions.

“The Gulf, too, is dotted with numerous islands of a size so insignificant as scarcely to be worthy of the notice of the geographer, which, on this very account, induce pirates in unsettled times to seek resort there as a secure hiding place from which they issue to make attacks on the commerce of the Gulf, and even to make inroads on the inhabitants bordering on it.

“English, French and Spanish cruisers are to be found in the Gulf and the neighboring seas. In the event of a war, the Gulf would be the first, because the most vulnerable point of attack. It would be so sudden, that all the evil would be accomplished before relief could be had from our many navy yards at the North: and hence the necessity of having always a permanent fleet in our waters. Our great commercial rival, at the distance of more than three thousand miles from our shores, is better supplied with resorts for her vessels of war in the neighborhood of the Gulf than we are ourselves; England has her naval stations in the southern waters, beginning at Bermuda, dotted along through the Bahamas, the Leeward Islands, and finally at the important island of Jamaica. This great naval power, with consummate wisdom, makes it a point, at whatever cost, to have in the neighborhood of the cruising ground of her fleets, all over the world, naval stations to which they can resort for the purpose of supplies, of repairs and refitting, from which they can sally for the purpose of attack. The committee think it would be the part of wisdom in us to follow her example in this respect.

“The committee think that the facts and views which they have presented, clearly demonstrate the necessity of having a permanent naval force in the Gulf for the protection of its commerce and of its coasts. They are equally convinced, that this will never be secured to them until a navy yard is established at New Orleans. The only existing navy yard on the Gulf insufficient to accommodate the increased naval force which the wants of the Gulf so clearly demand at this moment, and which the signs of the times clearly indicate will still more be required in the future. An increased naval force, without the necessary appendage of a navy yard to which it can resort to supply all the wants of repairs, munitions of war and provisions in the immediate neighborhood of its cruising ground, would be worse than useless, for it might cause it to fall an easy prey to an enemy, having these facilities near at hand, as is the case with English naval forces in the Gulf. Any increase of the naval force in the Gulf must, in the nature of things, therefore, be preceded by the establishment of a navy yard near to its waters, and this portion of the Union need never expect that protection from the government which they have a right to claim, until this preliminary step is first adopted.

“Another reason—and which the committee think an important one—for the establishment of a navy yard on the Gulf is this: The improvements of the day have made steam the great element of the propelling power of naval armaments. With vessels of this description, our principal rival on the ocean—and indeed the other lesser powers—are well provided. We can only successfully cope with our enemies by being well provided with vessels of similar construction. Steam vessels of various sizes are peculiarly adapted to the Gulf, and are what is most required. The power to move

with great rapidity from point to point, which steam now gives to vessels of war, has so changed the mode of attack, that sailing vessels and land fortifications cannot now afford that protection which they formerly did. For defence we must—as a natural result of this state of things—rely on naval armaments. Without these, the committee, though reluctant to avow the fact, are nevertheless compelled to say, that New Orleans is now nearly as much exposed as in 1814, when on account of its defenceless condition the British were induced to invade our shores. All remember the deep anxiety which this occasioned throughout the whole Union. The committee have shown with what solicitude, after the war, the necessity of suitable defences was then pressed on the consideration of Congress by Mr. Monroe. The committee think the subject is now even more than then worthy of all the consideration which the Government at Washington can bestow on it, and that, too, without any further delay. A navy yard, then, of the proper kind for the steam naval force required on these waters should be the first thing decided on, in order that all its arrangements should be made in view of the particular kind of force which would find its shelter there. In the opinion of the committee, it is not only important that an additional naval force should be permanently stationed in the Gulf, and an additional navy yard should be established in its waters, but it is of the highest importance that it should be done without further delay. Europe rests on a slumbering volcano. The times are pregnant with great events which before long will develop themselves. When the outbreak occurs on the continent of Europe, the conflict will be one of unusual asperity, and there cannot be a doubt that the contest between liberal opinions on the one hand, and despotism on the other, will involve all the principal powers of Europe. The experience of the world and our own lead to the conviction, that however sincere may be our efforts to preserve a strict neutrality, we will be drawn into the contests of the old world, and that experience admonishes us to be prepared beforehand. It is equally clear, that, should collisions occur with other nations, the ocean will be the great arena of conflict, and the first to be attacked will be the exposed coast of the Gulf, and the commerce passing through it. The rich treasures from our possessions on the Pacific, passing through the Caribbean Sea and the Gulf—amounting to millions of gold—will offer, as of old the galleons did to the buccaneers, the strongest inducements to the cupidity of an enemy.

A timely precaution will save us millions, and thus will protect the interests of our fellow citizens, and at the same time will preserve the honor of our flag untarnished.

“The position of New Orleans points to that city as the proper place for a navy yard. Perhaps there is no locality in the whole Union so admirably adapted to the purposes of a navy yard for steamers as New Orleans. This, as your committee have already

stated, must be the force to be employed in order to give an efficient protection to the Gulf. All the wants required by this description of vessels are to be found there in the greatest abundance, and of every variety. What is remarkable, too, is that nearly all the States bordering on the Ohio and the Mississippi can supply respectively all the different materials required for naval steamers. Western Pennsylvania can furnish the iron in all its varieties of workmanship; Western Virginia, timber and coal;* Kentucky and Missouri, hemp; Illinois, lead; Ohio and Indiana, flour and pork; Tennessee from her foundries can supply cannon and ball. At New Orleans, too, all the persons required for steamers can always at the shortest notice be procured, from the coal heaver and fireman, including deck hands, to the engineers who direct the machinery. The numerous steamboats on the Mississippi afford the best school for training persons to all the various duties required on board of steamers. These men are known to be the bravest, hardiest anywhere to be found. Even for the purposes of building vessels of war, New Orleans is most advantageously situated, for she is in close proximity to the live-oak of Florida, and the western part of Louisiana can furnish the best kinds of cedar and other varieties of wood useful in the construction of vessels.

“Hitherto many difficulties existed at New Orleans which were unfavorable for the purposes of a naval station; and probably this is one cause why that city has been overlooked by the General Government. But these difficulties have passed away, and the committee cannot possibly conceive any reason why New Orleans should not be a naval station, but on the contrary they think there are strong and controlling considerations why there should be one there. Formerly the insalubrity of the climate was one reason operating against the establishment of a navy yard at New Orleans; now it is different, for not only is the city not annually visited with the usual yellow fever, but the disease, when it does appear is robbed of its former terrors by the skill of the modern practitioner. Formerly it was difficult to obtain even ordinary laborers except at very high rates of wages. The difficulty of obtaining mechanics was still greater, and some species of that kind of labor could not be procured at all. Now laborers can be procured not only in abundance, but also at very low rates of wages. Artisans, too, of every variety of mechanic skill, can be obtained at prices probably comparing with northern cities.

“Formerly the bar at the mouth of the Mississippi presented a difficulty which is now obviated; for modern skill has applied to naval architecture the happy combination of increased capacity of hull, with diminution of draft. This remark particularly applies

*The bituminous can be furnished at \$4 50 per ton or load, cheaper by \$2 50 than is paid by the Cunard steamers for an inferior article, and very nearly the price at which anthracite is supplied on the Atlantic seaboard.

to steamers, of which many have entered New Orleans—crossing the bar with ease—of sufficient size to bear all the armament required in a war steamer. Formerly the distance of New Orleans from the seat of government was a serious objection on account of the length of time required to communicate from Washington to that city. Now that difficulty is removed, for by means of railroads already in operation, and by means of others in process of construction, which will soon be finished, New Orleans can be reached in four days from the seat of government. Besides which we have that greatest of modern inventions, the telegraph—by which the orders of the Secretary of the Navy can be instantaneously communicated to the officers in the station at New Orleans. The advantages of the telegraph ought of themselves to suggest the immediate establishment of a navy yard at New Orleans, for many occasions may arise—as have already occurred—where promptitude of action in relation to our affairs with Cuba—with Mexico and with other powers having possessions in the Caribbean sea, would be every thing to accomplish the objects of the Government. With a permanent naval force in the Gulf, and with a navy yard at New Orleans for its rendez-vous, a few hours only would be required to communicate the orders of the Government, a few hours more would be all sufficient to place our vessels at the required point. The committee have reason to think that it can be satisfactorily demonstrated, that had there been a navy yard at New Orleans during the late war with Mexico, the saving alone in the cost of transporting munitions of war would have been more than sufficient to have established a navy yard there, besides the great advantage of giving more efficiency to our naval military forces against Mexico.

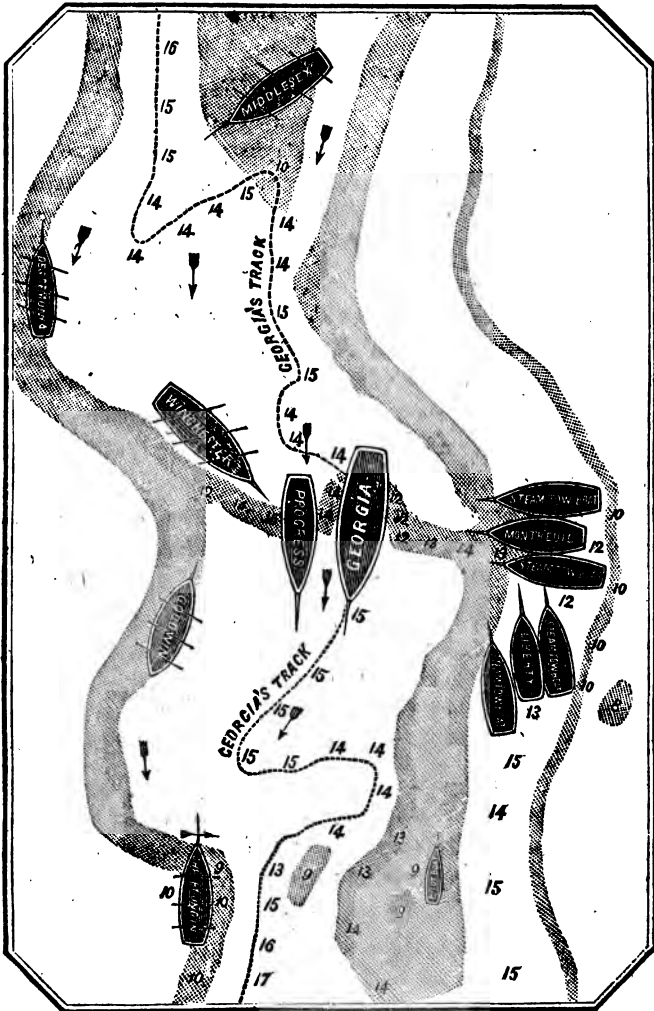
“In connection with this view of the subject, there is another which is well set forth in the memorial of the councils, but which cannot too frequently be impressed on the attention of the Government. It is the great advantage which our naval force in the Pacific would derive from the establishment of a navy yard at New Orleans. There cannot be a doubt that war-steamers will be the kind of naval force, which before long will be the one which will be mainly relied on for our purposes in the Pacific. The Government very wisely has already ordered two or three of our steamers there. From New Orleans, whence, as has already been shown by the committee, supplies for victualing, for repairs, and in the shape of munitions of war, can be had in full abundance of every variety, our steamers could be readily supplied. From the Pacific terminus of the Isthmus of Tehuantepec information can be transmitted to Washington via New Orleans in less than five days. On this point, the memorial very properly says: ‘It is difficult to over-estimate the importance to the Government of this facility connected with the operations of our naval forces in the Pacific, for in the event of additional forces being required there, which will have to

be sent from this side, or for supplies, or for articles of repair, orders can be immediately transmitted from Washington on the same day to New Orleans, and from the supplies there, the wants of our Pacific squadron will at once be met. Over this very same route of Tehuantepec, which brought the quick intelligence demanding relief, can the materials required in the Pacific be transported in a short time at reasonable cost.'

'This view of the matter alone, without any other consideration, ought, in the opinion of the committee, to be sufficient to induce the Government to establish forthwith a navy yard at New Orleans. But when it is borne in mind, that in a very short time a large amount of trade from the Asiatic world, and a great value will pass over the various Isthmus routes, and will concentrate in the Caribbean sea and the Gulf, the necessity for an additional naval station in those waters will be apparent to all.

'In other respects New Orleans is most advantageously situated for all the purposes of a navy yard. Her distance from the ocean is sufficient for protection from sudden attack, and sufficiently near for prompt and efficient action to the vessels stationed there; in fact, a naval force stationed at New Orleans would prove the best protection to this city. A war-steamer placed at the English Turn below the city would successfully defy the approach of an enemy in that quarter.

'The committee think the time has arrived when it is the imperative duty of this section of the country to demand from the General Government an increase in the Gulf of a naval force, and of the kind suited to the improvement of modern naval armaments, with a navy yard at New Orleans. It has been the aim of the committee in the previous part of the report to show, that it is not only the States of the valley of the Mississippi and those bordering on the Gulf, which are interested in a navy yard at New Orleans; but that all the Atlantic commercial States are equally interested with them.



REPRESENTING THE APPEARANCE OF THE BAR, MAY 16, 1852.

(Scale 600 feet to the Inch.)

Drawn by DAVID D. PORTER, Capt. U. S. N., and commanding Mail Steamship Georgia, and published by order of the Committee Chamber of Commerce; Caldwell, Stanton, Owen, Skipwith and Sumner.

VESSELS ON NEW ORLEANS BAR.

	Cotton		De-		Cotton			De-	
	Tons.	Bales.	Value.	tained.	Tons.	Bales.	Value.	tained.	
Middlesex*	1,430	4,500	\$160,000	40 days	Steamer Georgia	2,500			
Desdemona	623	2,200	60,000	35 "	Ship Goodwin	600	800, &c.	\$60,000	8 days.
Winchester	1,475	5,800	205,000	53 "	" Montreuil	800	2,000	70,000	7 "
Progress	1,400	4,300	103,000	45 "	" Liberty	7-0	2,000	70,000	5 "
						9,370	21,600	\$785,000	
Add value ships and steamer								705,000	
Value of property detained								\$1,50000	

* The Middlesex and cargo got damaged (by collision) on the bar \$30,000, and returned to repair. Many other vessels than those above were aground at the same time, awaiting a swell from southeasterly gales.

ARTICLE III. .

The Amazon and the Atlantic Slopes of South America.

In our issue of June, 1852, we published a Memorial to Congress from Lieut. M. F. Maury, praying for such constitutional and rightful legislation as shall tend to encourage commerce and navigation with the great Amazonian Valley. The following article is the fifth of a series published in the "Washington Union," over the signature of INCA, which we attribute to the same author. The efforts of Lieut. Maury to enlighten the American people in respect to the wonderful resources of that extensive region, and to induce Congress to adopt active measures to obtain the privilege of navigating the Amazon, entitle him to the gratitude of the nation.

That the most extensive and perhaps most productive valley upon the globe should at this day be almost uninhabited by civilized men, and, in effect, closed against the commerce of the world, is more remarkable than even the selfish policy of Japan. The vessels of no nation, we believe, are allowed by the Brazilian government to enter the Amazon, and, consequently, the principal commerce between that region and the United States and Europe is transported across the Andes on animals, and shipped around Cape Horn. This exclusive policy, on the part of Brazil, should not be tolerated by the civilized world. We are no advocates of aggression upon the rights of other nations, but we hold that the human family at large have an interest in the natural wealth, and in the development of the resources of every part of the earth, and that no nation has the right to pursue a policy calculated to exclude all others from the benefits derivable from a region of sufficient capacity, as it is believed by some writers, to sustain the entire population of the globe. Our own government, some years ago, applied for permission to send a steamer up the Amazon, to explore it, but the Brazilian government refused to allow a foreign vessel to enter the river even for the benefit of science. Our government, however, ordered two officers of the Navy, (Lieut. Herndon and Lieut. Gibbon) to cross over the Andes from Lima, and descend the Amazon. We are informed that Lieut. Herndon has returned, and we trust, we shall shortly have his report of that interesting country.

We are pleased to learn that the memorial of Lieut. Maury has awakened attention in England to the navigation of the Amazon, and hope that Congress will take such steps in the matter as will peaceably but speedily cause the navigation of the greatest of all rivers, to be opened to the commerce of all nations. Immigration, unless prohibited, would follow commerce, and it would not be long before our trade with the valley of the Amazon would become more important than with any other one country on the whole earth. The settlement of the valley of the Amazon will constitute an important era in the world's history, and, except the American revolution, is destined, as we believe, to affect the condition of the human family in a greater degree than any event that has occurred since the discovery of this continent.—*Sr. Editor.*

About one half of Bolivia, two thirds of Peru, three fourths of Ecuador, and one half of New Granada, are drained by the Amazon and its tributaries. For the want of steamboat navigation on these water courses, the trade of all these parts of those countries goes west by caravans of mules to the Pacific. There it is shipped, and after doubling Cape Horn, and sailing eight or ten thousand miles, it is then only off the mouth of the Amazon on its way to the United States or Europe; whereas, if the navigation of the Amazon were free to these countries, the steamers on that river would land their produce at the mouth of the Amazon for what it costs to convey it across the Andes on mules to the Pacific.

A question, therefore, of the greatest importance to these republics is the free navigation of that river. The introduction of the steamboat upon their tributaries of it would be followed by the immigrant up the Amazon, who would soon make a perfect garden spot of the splendid provinces that are on its banks.

The distance between the sources of the Amazon, in Peru, and her Pacific coast is, at the nearest point, not more than sixty or seventy miles.

The province of Caxamarca, which is upon the Amazonian watershed in Peru, has a population of 70,000. It is said to be the healthiest part of the world. In 1792 there were eight persons in it whose respective ages were 114, 117, 121, 131, 132, 141, and 147; and one person died there at the age of 144 years, 7 months and 5 days, leaving 800 descendants.* The city of Caxamarca is in 7 deg. south.

There are upon this water-shed, in Bolivia, the cities of Chuquisaca, Cochabamba, and Santa Cruz; in Peru, the famous city of Cuzco, Huancavelica, (celebrated for the richest quicksilver

* Montgomery Martin.

mines in the world) Tarina, Caxamarca, and Moyabamba; and in Ecuador, the celebrated city of Quito, besides numerous other towns, villages, and hamlets in them all.

The revolution which the discovery of the passage around the Cape of Good Hope made in the trade of the East was not greater than that, which the free navigation of the Amazon would make in the trade of these four republics. It would make of them new countries and a new people. Total population at present estimated between seven and eight millions.

In May, 1851, Lieut. Herndon set out from Lima, on his way to explore the Amazon; and it is through him that I derive most of my information concerning the Peruvian water-shed of that river.

I therefore introduce the reader upon that water-shed by an extract from his journal, which he has kindly permitted me to make. Standing in view of three beautiful lakes—one of them, Morococha, or "Painted lake," being that from which the head-waters of the Amazon flow—he remarks:

"Though not yet 60 miles from the sea, we had crossed the great 'divide' which separates the waters of the Pacific from the waters of the Atlantic. The last steps of our mules had made a striking change in our geographical relations—so suddenly and so quickly had we been cut off from all connexion with the Pacific, and placed upon waters that rippled and sparkled joyously, as they danced by our feet on their way to join the glad waves of the dark, blue ocean, that washes the shore of our own dear land. They whispered to me of home, and my heart went along with them. I thought of Maury, with his researches concerning the currents of the sea; and recollecting the close physical connexion pointed out by him as existing between these, the waters of the Amazon and those of our own majestic Mississippi, I musingly plucked a bit of green moss from the hill-side, upon the bosom of the placid lake of Morococha; and as it floated along I followed it, in imagination, down through the luxurious climes, the beautiful skies, and enchanting scenery of the tropics, to the mouth of the great river that this little lake was feeding; thence across the Caribbean sea, through the Yucatan pass into the Gulf of Mexico; thence along the Gulf stream, and so out upon the ocean off the shores of our own 'land of flowers.' Here I fancied it might meet with silent little messengers cast by the hands of sympathizing friends and countrymen high upon the head-waters of the Mississippi, or away in the far West, upon the distant fountains of the Missouri.

"It was indeed but a bit of moss that was floating upon the water while I mused. But fancy, awakened and stimulated by surrounding circumstances, had already converted it into a skiff manned by fairies, and bound upon a mission of high import, bearing messages of peace and good will, and telling of commerce and navigation, of settlement and civilization, of religious and political

liberty, from the 'King of Rivers' to the 'Father of Waters,' and probably meeting in the Florida pass, and speaking through a trumpet louder than the tempest, sprites sent down by the naiads of Lake Itasca with greetings to Morococha.

"I was now, for the first time, fairly in the field of my operations.

"I had been sent to explore the valley of the Amazon, to sound its streams, and to report as to their navigability. I was commanded to examine its fields, its forests, and its rivers, that I might gauge their capabilities, active and dormant, for trade and commerce with the States of Christendom, and make known to the spirit and enterprise of the age the resources which lie in concealment there, waiting for the touch of civilization and the breath of the steam engine to give them animation, life, and palpable existence.

"Before us lay this immense field, dressed in the robes of everlasting summer, and embracing an area of thousands upon thousands of square miles, in which the foot-fall of civilized man had never been heard. Behind us towered in forbidding grandeur the crest and peaked summits of the Andes, clad in the garb of eternal winter.

"The contrast was striking and the field inviting. But who were the laborers? Gibbon and I. We were all. The rest were not even gleamers. But it was well. The expedition had been planned and arranged at home with admirable judgment and consummate sagacity; for had it been on a grand scale, commensurate with its importance, or even larger than it was, it would have broken down with its own weight.

"Though the waters where I stood were bound on their way to meet the streams of our northern hemisphere, and to bring, for all the practical purposes of commerce and navigation, the mouth of the Amazon and the mouth of the Mississippi into one, and place it before our own doors; yet from the head of navigation on one stream to the head of navigation on the other the distance to be sailed could not be less than ten thousand miles.

"Vast, many and great, doubtless, are the varieties of climates, soils and productions, within such a range. The importance to the world of settlement, cultivation and commerce in the valley of the Amazon cannot be over-estimated. With the climates of India, and of all the inhabitable portions of the earth, piled one above the other in quick succession, tillage and good husbandry here would transfer the productions of the east to this magnificent river-basin, and place them within a few days' easy sail of Europe and the United States.

"Only a few miles back we had first entered the famous mining district of Peru. A large portion of the silver which constitutes the circulation of the world, was dug from the range of mountains

upon which we were standing, and most of it came from that slope of them which is drained off into the Amazon. Is it possible for commerce and navigation up and down this majestic water-course and its beautiful tributaries to turn back this stream of silver from its western course to the Pacific, and conduct it, with steamers, down the Amazon, to the United States, there to balance the stream of gold with which we are likely to be flooded from California and Australia?

“Questions which I could not answer, and reflections which I could not keep back, crowded upon me. Oppressed with their weight and the magnitude of the task before me, I turned slowly and sadly away, secretly lamenting my own want of ability for this great undertaking, and sincerely regretting that the duty before me had not been assigned to abler and better hands.”

The Amazon in Peru is called the Marañon. It takes its rise in about 11 deg. south, and flows N.N.W. for about five hundred miles; thence turning east, and constituting, according to the maps (but the maps are wrong), the boundary line between Peru and Ecuador for about eight hundred miles by its windings. Crossing in Peru the head-waters of the main stream, Lieutenant Herndon reached the banks of the Huallaga, a noble tributary, and embarked upon it at Tingo-Maria. He descended it to its junction with the main stream, and thence to the mouth of the latter by a river navigation of not less than three thousand five hundred miles.

At Tarapoto he fell in with a clever New England blacksmith, who had been in that country for many years, and from whose valuable notes touching the commercial resources of the places visited by him I derive the following :

Tarapoto, situated on the left bank of the Huallaga, six leagues above Chasuta, the head of uninterrupted navigation from the sea, is one hundred and thirty leagues from the city of Huanuco, and twenty-four from Moyabamba. Climate very healthy, and free from all annoying insects.

It is situated on a beautiful plain of from twenty to twenty-five leagues in circumference, which is intersected by many rivulets. The soil is fertile, producing in great abundance cotton, coffee, sugar, indigo, and cocoa, as well as everything else to which the climate is adapted. Here the plantain continues without any other care than that required to remove the noxious weeds, to produce in full vigor for from fifty to sixty years. Cotton gives a crop in six months from the seed; rice in five months; and indigo grows wild. Neat cattle and sheep thrive here and multiply most rapidly. Population of the town and its two ports in 1848, 5,350; annual births about 235; deaths, 40. Principal branch of industry, cotton cloth—of which they manufacture between thirty-five and forty thousand yards. It is made by hand, and one yard of our common coarse cotton is worth there two of that.

The currency is white wax and this coarse cotton stuff of the country, which in Chachapoyas is worth twelve cents the yard.

One pound of white wax is worth four yards of cotton; a good sized bull, one hundred yards, a well-grown fat hog, sixty yards; a big sheep, twelve yards; twenty-five pounds of coffee, six yards; twenty-five gallons of rum, twelve yards; a laying hen, four ounces of wax; a chicken, two ounces; twenty five pounds of rice in the husk, a half pound of wax; twenty-five pounds corn, two ounces; twenty-five pounds beans, four ounces; a basket of yucas, weighing from fifty to sixty pounds, two ounces; twenty-five pounds seed cotton, eight ounces; a bunch of plantains, weighing from forty to fifty pounds, *three* needles. Storax, cinnamon, milks of trees, gums, and other products of the forests, have no fixed value; but they may be had in quantity from the Indians at merely nominal prices.

The land transportation from Tarapoto to Moyabamba, with its population of 15,000, is done on the backs of Indians. Seventy-five pounds make a load, and the freight is six yards of cotton, valued at three yards of our common "fi'penny bit" stuff

The pay of a common laborer is four ounces of wax per day and found, "with *chicha* at discretion."

This is the most important town in the province of Mainas, on account of its proximity to navigable waters and its connexion with such a large extent of territory that is not liable to overflow.

From Tarapoto to Chasuta you pass the villages of Juan Guerra and Shapaja. Chasuta is at the head of uninterrupted navigation on the Huallaga. Lieut. Herndon, coming down at low water, met between this place and the mouth of the Amazon with nowhere less than five feet of water. The high-water mark is forty feet above the stage in which the river was when he was there. From Chasuta to the mouth of the Amazon the distance by water is upwards of 3,000 miles; and for half the year the Pennsylvania, seventy-four, would find water enough to reach that village from the sea.

Population of Chasuta 1,031; distance to Tarapoto by land six leagues; cost of transportation, one pound of wax the Indian load, one pound of wax being equivalent to four yards of cotton. Cows, sheep, horses, and hogs thrive well. Productions those of Tarapoto.

Yurimaguas, twenty-four leagues below Chasuta; population 319; country fertile. A good road can be cut from this place almost in a straight line to Mozobama, distance thirty leagues.

Santa Cruz is thirty-five leagues below Chasuta. Here white wax is worth one and a third yards cotton, and five pounds wax are sold for one white-handled knife. Population 300.

Chamicuros, thirty-nine leagues below Chasuta, with a population of 331. Valuable resins and gums abound in the woods.

Laguna, forty-four leagues below Chasuta, and four above the mouth of the Huallaga, has a population of 742, and a fertile soil.

Urarinas, on the Amazon, five leagues below the mouth of the Huallaga—population forty-three. This is an important place on account of the immense quantities in its vicinity of the tree which produces the gum-copal.

Passing by the villages of Parmari and San Regis, we come to Nauta, the capital of the district. It is situated on the right bank of the Amazon, forty-six leagues below the mouth of the Huallaga, and ninety-four below the head of uninterrupted navigation on that river.

It is to this place that Brazil, by treaty with Peru, has just contracted for a line of steamers, under the Brazilian flag, from Para, at the mouth of the Amazon. This line is to have a monopoly of steamboat navigation on the Amazon for thirty years, with a bonus of \$100,000 per annum for the first fifteen.

It therefore becomes a place of importance; and as I shall have occasion to allude to it again in connexion with this steamboat line, under the Brazilian flag, I will here take the more notice of it.

Nauta is also only half a league above the mouth of the Ucayali, another tributary of the Amazon, and larger than the Huallaga—population 810.

Here one yard of English or American cotton is worth two and two-thirds yards of the cotton cloth of the country; and thirty-four pounds of sarsaparilla are given for eight yards of the latter; a full-grown hen is worth six needles; a chicken three; and fifty or sixty pounds of yucas six. A Portuguese merchant has established a house here.

Amaguas, seven miles below Nauta, is an important point, (though at present it has but 240 inhabitants); on account of its great extent of fertile lands.

Passing Amaguas with its 240 inhabitants, Iquitos with its 127, and Aran with its 80, we arrive, twenty-seven leagues below the mouth of the Ucayali which comes from the south, at the mouth of the Rio Napo, a tributary from Ecuador. There is here a settlement consisting of one family of Mitos Indians and one fugitive-slave from Brazil—total 31.

This river is 200 yards broad at its mouth, and is navigable for 300 miles. It is rich in gold; its banks are inhabited by hostile tribes of Indians, and covered with sarsaparilla and other valuable products of the forests. These Indians make the finest and most beautiful hammocks that are found in the Pampa del Sacramento; price of a hammock two yards of cotton. The trade in poisons makes this an important place.

Pebas is thirteen leagues below the mouth of the Napo; has a population of 387, and a fine country round about. Its produc-

tions are white and black wax, sarsaparilla, vanilla, poisons, storax, "chambira," hammocks, pitch, copal, incense, India, rubber, milk of the cow tree, and many curiosities, which the Indians, who, though wild and savage, are friendly to the white man, usually bring in exchange for beads, trinkets, &c.

White wax is worth two yards of cotton; black, half; thirty-four pounds sarsaparilla, twenty-four yards; hammock, two yards; a little pot of poison, four yards; one pound vanilla, eight yards.

Thence to Loreto, the frontier town of Peru, we have five small villages. Loreto is 160 leagues below the head of uninterrupted navigation of the Huallaga; population, 122. In this village you find a preparation from the wild yuca, which is very palatable, wholesome and nutritious. It is a good substitute for bread.

Sarayacu, situated on the right bank of the Ucayali, 300 miles above its junction with the Amazon, has a population of 1,270.

This is an important point, in the midst of a fertile region. Eight or ten miles above this town the Ucayali receives the Ahuaytia, which takes its rise almost on the banks of the Huallaga. A few miles up this tributary bring you to a great sarsaparilla country. This drug costs here eight yards of the cotton cloth of the country the 100 pounds; which 100 pounds are worth \$25 in Para, and from \$40 to \$60 in Europe, according to the markets. These eight yards of cotton for the 100 pounds of sarsaparilla, according to the statement of this clever blacksmith, are worth four yards only of our coarse cotton.

Let us therefore, for the sake of illustration, trace this trade through its entire course.

The American or English pedlar to the Amazon—for trader he is not—buys in New York or Liverpool, as the case may be, four yards of cotton, for which he pays twenty-five cents. He ships thence around Cape Horn to Callao. Here it pays duty at the Peruvian custom-house, and is sent thence to Lima by mule. By this time, what with freight, transportation, and commissions, it has cost the purchaser fifty cents. It is then packed on mules, carried across the Andes, and in about twelve months from the time of its leaving New York or Liverpool, it arrives at the mouth of the Ucayali, where it is sent up by boat, which occupies 300 working hours in going up 300 miles to Sarayacu and the sarsaparilla country. Here this piece of four yards is exchanged in barter, according to Hacket, the New England mechanic, from whom I have been quoting, for 100 pounds of that drug. A shipment of the return cargo is then made in the rude river craft of the country, and this 100 pounds of sarsaparilla, bought with four yards of "fi'-penny bit" cotton, when it reaches the Amazon, is worth \$9 in Nauta, \$10.50 in Sabatinga, \$25 at Para, and \$50 at New York or Liverpool. The voyage has been a long, and a tedious, and a round-about one, but the profits are enormous.

Now, if Peru and Brazil, instead of forcing commerce with their interior provinces to go around "Robin Hood's bow" to get there, would open ports of entry to all nations, and permit them to use the navigation of the Amazon, the citizens and subjects of Peru and Brazil, instead of getting four yards of cotton for their 100 pounds of sarsaparilla, would get three or four hundred yards for it.

It would be difficult to quote any example more strikingly illustrative of the advantages to Peru of that "policy of commerce," which calls for the establishment of a port of entry at the head of navigation on the Marañon, as the main trunk of the Amazon in Peru is called; at Chasuta, the head of navigation on the Huallaga; at the head of navigation on the Ucayali, and at Nauta, which is at the junction of this last with the Amazon.

So, Ecuador might establish ports of entry on her side of the Amazon, at Barja, if the navigation be uninterrupted that far, and if Barja belong to her; and at the head of navigation of each one of her Amazonian tributaries, as the Pastaza, the Napo, the Putombyo, and the Japara; though the head of navigation of the last is perhaps in New Granada.

Now, if any one of these republics should declare such places free ports to all the world, or ports of entry to the commerce of all nations at peace with them, surely Brazil would not in this enlightened day, if an American or Englishman should wish to wear his own flag and go in his own bottom under it on a trading voyage to those ports—surely, I say, Brazil would not at this day attempt to play the part of Japan, and hinder those vessels from passing by her doors to other parts of the world.

The Pastaza, I am informed on the authority of my old friend, General Villamil, the Secretary of State of Ecuador, is navigable nearly up to Quito; and it is well known that the sands of most of those streams are auriferous.

Tabatinga is the frontier post of Brazil on the Amazon. Thence ascending, we have an uninterrupted navigation along the main trunk of the Amazon, which here courses through the northern parts of Peru, and not far from the southern boundary of Ecuador, for the distance of five or six hundred miles. Thus a steamboat may reach the foot of the Andes.

Lieut. Herndon entered the Amazon 460 miles above the Brazilian boundary, and he thus describes the river there:

"The Amazon, where it receives the Huallaga, is 500 yards broad. The march of this great river in its silent grandeur was sublime; but in the untamed might of its turbid waters, as they cut away its banks, tore down the gigantic denizens of the forests and built up islands, it was awful. It rolled through the wilderness with a stately and solemn air; its waters looked angry, sullen, and relentless, and the whole seem to awaken emotions of awe and

dread, such as are caused by the funeral solemnities, the minute gun, the howl of the wind, and the angry tossings of the waves, when all hands are called 'to bury the dead' in a troubled sea.

"Though the river was not at its full, it reminded me of our Mississippi at its topmost floods. The waters are quite as muddy and quite as turbid, but the Amazon lacked the charm and the fascination which the plantation upon the bank, the city upon the bluff, and the steamboat, upon the water lend to its fellow of the North; nevertheless, I felt pleasure at its sight. I had already travelled 700 miles by water, and fancied that this powerful stream would soon carry me to the ocean. But the water travel was comparatively just begun; many a weary month was to elapse ere I should again look upon the familiar face of the sea, and many a time, when worn and wearied with the canoe life, did I exclaim, 'this river seems interminable.'

"Its capacities for trade and commerce are inconceivably great. Its industrial future is the most dazzling, and to the touch of steam, settlement and cultivation, this rolling stream and its magnificent water-shed would start up to a display of industrial results that would make the valley of the Amazon one of the most enchanting regions on the face of the earth.

"From its mountains you may dig silver, iron, coal, copper, quicksilver, zinc and tin; from the sands of its tributaries you may wash gold, diamonds and precious stones; from its forests you may gather drugs of virtues the most rare, spices of aroma the most exquisite, gums and resins of the most useful properties, dyes of hues the most brilliant, with cabinet and building woods of the finest polish and the most enduring texture. Its climate is an everlasting summer, and its harvest perennial."

With this enchanting picture, and the hope that Lieut. Herndon will soon let us have in full the report of his wonderful voyage down the Amazon, I close this the antepenultimate of my numbers.

INCA.

ARTICLE IV.

MEMORIALOF THE
MISSISSIPPI VALLEY RAILROAD CONVENTION,
HELD AT ST. LOUIS.

The Chairman of the Committee appointed by the St. Louis Convention to memorialize Congress having announced to the public, that the following memorial was written by the Senior Editor of this Journal, it would therefore be improper, on our part, to speak of its merits. But, in publishing the document as one from our own pen, we may, as we trust, without violating the rules of propriety, invite the attention of the reader to the grounds upon which we have based the claims of the inhabitants west of the Mississippi to liberal grants of the public lands for purposes of internal improvements and education. In this document we have assumed, what is doubtless true, that the \$15,000,000 paid by the United States for the territory of Louisiana, was chiefly in consideration of the transfer by France of her political dominion over that country; and, that the citizens of the older States have been benefitted by the purchase in a much greater degree than those of the States west of the Mississippi.

We notice these grounds here that we may deduce thence a conclusion which we thought proper to omit in the Memorial: that the political dominion being the principal object of the treaty, and the States carved out of the territory of Louisiana being entitled to become members of the Union upon an equal footing with the old States, they had a clear right to all the land within their respective limits not disposed of by the General Government, at the date of their admission. Consequently, in reserving the unsold land to the use of the General Government, Congress exacted of these new States as the price of their admission into the Union, terms calculated to abridge their sovereignty and retard their progress. We do not go so far as to deny the validity of the compact between the General Government and the respective States west of the Mississippi; it was agreed to on their part, and it is their duty to observe it in good faith, though it may be questioned, whether it did not disqualify each of them as members of the Union. We have stated these conclusions simply because they constitute an equitable ground in support of the claims set forth in the Memorial.

To the Honorable Senate and House of Representatives of the United States, in Congress assembled:

The undersigned, a committee appointed by a Convention held at the city of St. Louis, on the fifteenth day of November, 1852, respectfully represent that they are instructed to memorialize your Honorable body, asking for aid in behalf of a railroad to be built west of the Mississippi river, from a point opposite the city of New Orleans, passing through the capital of the State of Arkansas and by the Iron Mountain to the city of St. Louis, and thence northwardly through the valley of the Des Moines into the central region of Minnesota Territory, with a branch to the Falls of St. Anthony. That the objects and views of said Convention may be more clearly perceived and understood, your memorialists beg leave to call the attention of your Honorable body to the foregoing resolutions of the Missouri Valley Railroad Convention.

Your memorialists will not consume the time of your Honorable body by attempt'ing to prove that a work designed to open and establish commercial and social intercourse between the inhabitants of the extreme northern and southern divisions of this great republic, is national in its character; or, that the individual and social interests of the inhabitants west of the Mississippi imperatively demand its construction. Both these points will doubtless be conceded. But there are other arguments in favor of the claim advanced by the Convention to an appropriation of public land in aid of this great enterprise, to which your memorialists respectfully invite attention.

The acquisition of Louisiana occurring subsequent to the adoption of the Constitution of the United States, was strictly national in its nature and consequences, and imposed upon the General Government the duty of adopting such measures as would ensure to the citizens of every part of the Union an equal distribution and enjoyment of the benefits accruing from its cession.—By reference to history and to the geographical position of the French possessions in the Valley of the Mississippi, it will be clearly perceived that the price paid by our Government for Louisiana was chiefly in consideration of the transfer by France of her *political dominion* over that extensive region. Political dominion was the principal object of the treaty—property in the soil was an incident—and from the day that the jurisdiction over that country was transferred to the Government of the United States, to the present time, the States east of the Mississippi have been in the full enjoyment of all the benefits flowing from its acquisition.

The free navigation of the Mississippi, one of the objects aimed at by the nation and obtained by the cession of Louisiana, has con-

tributed more, perhaps, than any other cause to the growth and prosperity of the valley States east of that river, while the commerce of these States has been amongst the principal means of building up the cities, the commercial marine, the manufactures, the canals and railroads of the States bordering on the Atlantic. And could the benefits derived from the cession of Louisiana, and enjoyed by the States east of the Mississippi, be correctly estimated, your memorialists are persuaded that the annual amount would be found to exceed the price paid for its purchase.

But turning to the inhabitants of the States carved out of the Territory of Louisiana, your memorialists respectfully ask your Honorable body to contrast their privations with the benefits which have enured to the citizens of other parts of the Union. Pioneers in every sense of the term, their labors have been employed in subduing the wilderness and preparing the way for the advancing column of civilization. But they have received neither bounty nor pay from the Government for their services, and the money which they have paid for their lands was so much withdrawn from their circulation, because disbursed at distant points by the Government; and their improvements, instead of advancing the market value of their land as in the old States, have served but to increase the value of the public domain, while the great quantity of public lands by which they have been surrounded, have depreciated the value of their own. Nor are these all the disadvantages under which they have labored. The want of connected settlements has rendered the education of their children inconvenient and frequently impracticable, while the lack of commercial and manufacturing facilities has greatly increased the cost of every article of consumption produced in other States, and at the same time reduced the market value of their own products.

In view of these facts your memorialists respectfully insist that the inhabitants west of the Mississippi, are justly entitled to a quantity of the public domain that will be sufficient to enable them to construct Railroads and open avenues of commercial and social intercourse, which will place them in these respects upon an equality with the citizens of the older States. Thoroughly convinced of the reasonableness of this claim, and confiding in the intelligence and justice of Congress, your memorialists feel assured that they might safely submit it upon the grounds already stated without further argument. But desiring to meet and remove the objections of those who regard the public domain as a source of revenue merely, they beg to state that the policy of granting alternate sections along the line of Railroads, in the manner propos-

ed by the St. Louis Convention, has recently been tested by a sale of the reserved sections along the line of the Illinois Central Railway, and your memorialists are informed that the entire quantity was sold as soon as offered at \$2,50 per acre or more, though much of it had been in market for more than thirty years at one half of that price.

And your memorialists feel confident that a similar result would be realized west of the Mississippi, wherever the land is of sufficient fertility to authorize its cultivation. But even if all the alternate sections reserved for the Government should not sell at the advanced price, yet the value of the poor sections would be doubled, and much of the public land lying beyond the distance of ten miles from the road would be taken at the present price, lands which would probably remain unsold for fifty years, unless this or some other railroad should be made near to them. And, besides all this, the duties which would accrue to the Government upon the importation of the rails necessary for the construction of the work would, at the present prices of iron in England, be equal to about two sections of land to every mile of railroad.

If these objects be viewed without prejudice, and fairly appreciated, your memorialists verily believe, that every intelligent mind must admit that the Government will even increase its revenue from the public domain by making the grant asked for by the St. Louis Convention. But yet there remain considerations of a national character, which have not been taken into the account. the facilities which such a work would afford for the transportation of the mails, of troops and of public property; its agency in developing the natural resources of the country; its power to remove the prejudices which naturally spring up between the inhabitants of the North and the South, and the sympathy and fraternal affection which it is calculated to diffuse throughout twenty degrees of latitude, are, in a national point of view, in the estimation of your memorialists, of infinitely more value than all the revenue that the Government could derive from the public domain to the end of time.

Having stated the grounds upon which the St. Louis Convention claim the aid of the General Government in carrying out the great enterprise under consideration, your memorialists respectfully beg leave to submit the following brief remarks touching the views of said Convention in respect to the future disposition of the public domain. "It is declared to be the opinion of the Convention that the General Government should cease to regard the public domain as a source of national revenue." A few remarks will show the justness of this opinion :

By appropriating the public domain to the purposes of education, internal improvements and other objects, national in their character, the physical resources and wealth of the nation would be developed, and the intellectual and moral condition of the people improved by means, which, if wisely managed, would be as lasting as the Government. But if the money derived from the sales of the public lands should continue to pass into the financial account of the nation, until the entire public domain shall have been disposed of, it is scarcely assuming too much to affirm, that neither the Government or people will then be in a better condition than if a single dollar had never been received from that source. But this is not the only consequence of such a policy, to be deprecated; it has and must continue to operate unjustly in respect to the new States. Unjustly, because the large possessions owned by the General Government within their respective limits, prevent the development of their resources, and abridge their sovereignty by a claim of exemption from taxation—unjustly, because long experience has proved that none but choice tracts of the public land will sell at the fixed price until it has received an additional value by the improvements made in its vicinity, and because the value thus imparted by the labor of individuals goes into the National Treasury—unjustly, because the inhabitants of the new States have not been recipients of the benefits derived from the acquisition of the political dominion in an equal degree with the citizens of the older States.

Nor are the measures proposed by the Homestead Bill and the bill introduced by Mr. BENNETT, of New York, at the last session of Congress, more just in respect to the new States than the policy hitherto pursued by the General Government. By the Homestead Bill it is proposed to donate one hundred and sixty acres of land to a certain class of individuals, whose merit is made to consist in being the head of a family, and without land; and with so much favor are these grounds of merit regarded, that the bill proposes to give to each a greater quantity of land than that class of individuals can reasonably be expected to improve; and, moreover, protects them in its possession against the claim of previous creditors, irrespective of the law and policy of the State in which the land is situated. Now, your memorialists respectfully insist that, if the public lands are worth anything in money, that value, whatever it may be, belongs to the nation at large, and cannot be given to one class of individuals without doing injustice to others. This bill will doubtless effect one of the objects desired by the St. Louis Convention; it will put an end to the reception of revenue from

the public domain; but in the opinion of your memorialists, it contains no principle calculated to promote the development of our national resources, or to improve the intellectual and moral condition of the people. It will be the means of depressing still more for many years the value of land in the new States, and fill them with a thriftless, inefficient and, it may be added, with an ignorant and vicious population.

Nor are the provisions of Bennett's bill, in the estimation of your memorialists, more just towards the inhabitants west of the Mississippi; for, like the Homestead Bill, it is calculated to depreciate the value of land in the new States, by throwing an enormous amount of land warrants upon the market, which will enable speculators to anticipate the location of all public works, and, entering the lands along the probable lines, make merchandize of the enterprise and labor of those who desire to improve the country. And, finally, the passage of these bills will, in the opinion of your memorialists, amount to a total abandonment of the public domain as a source of revenue, while the provisions contained in the latter, in respect to railroads in new States, will be rendered comparatively valueless by the causes referred to. It will also place it out of the power of the General Government to signalize the nation and the age by affording means, through the medium of the public lands, to aid in the construction of the great Pacific Railway; and more than all, by the passage of these bills the nation will cast away the means, which it now possesses, of enabling each State of the Union to establish a system of education upon a basis which would ensure a reasonable degree of instruction to every American citizen to the end of time.

L. M. KENNETT,
A. B. CHAMBERS,
LYMAN D. NORRIS,
THO. C. JOHNSON,
WM. J. McILHENNY, } *Committee.*

ARTICLE V.

To the People of the Mississippi Valley.

Feeling the solemn responsibility of the duty with which we are charged by the "Mississippi Valley Railroad Convention" "to address the People of the Mississippi Valley on the subject embraced in the resolutions of the Convention," we present them before you:

Resolved, By the Mississippi Valley Railroad Convention, assembled at St. Louis, Mo., November 15, 1852,

First, That the individual and social interests of the inhabitants west of the Mississippi river, imperatively demand the construction of a railroad from the city of New Orleans to a central, eligible point in the Territory of Minnesota, in the direction of the Red River of the North, and with a branch to the Falls of St. Anthony; said road to pass by the capital of the State of Arkansas, the Iron Mountain and the city of St. Louis, in the State of Missouri, and the Valley of the Des Moines river, in the State of Iowa.

Second, That a railway thus uniting the fertile valleys and productive prairies of the extreme northern Territory of the United States with the Gulf of Mexico, is eminently National in its character; and therefore justly entitled to assistance from the General Government.

Third, That the act of Congress granting public lands in aid of the Illinois Central and Mobile and Ohio Railroads, gives additional strength to the claims of the States west of the Mississippi to a similar grant in aid of the Mississippi Valley Railroad, for it would be unjust on the part of Congress to refuse assistance in establishing commercial facilities on this, after doing so much to encourage similar works on the other side of the River.

Fourth, That in consideration of the National benefits to be derived from the construction of this great work and the large amount of public lands remaining unsold in the States through which it is proposed to be located, we ask of Congress a quantity of land, equal to alternate sections for ten miles in width on each side of said road throughout its entire length, with the privilege of selecting other lands to make up the quantity of such tracts as may have been sold, or are subject to pre-emption, within the distance of ten miles from the line.

Fifth, That the projected Iron Mountain and South Missouri, and the North Missouri Railroads with the contemplated amendment of the charter of the latter extending the same from St. Charles to St. Louis and making the latter city the Southern terminus, are important links in the great Iron chain by which we propose to connect the Gulf of Mexico with the Territory of Minnesota. And we, therefore, especially recommend these roads as works of the first importance to the State of Missouri, demanding at the hands of her Legislature the same degree of encouragement through the means of the State credit that has been extended to the Pacific, and to the Hannibal and St. Joseph Railroads.

Sixth, That the meeting of this Convention affords a proper occasion for those of whom it is composed to urge upon Congress the necessity of adopting immediate measures in view of the certain and speedy construction of the Great Central Pacific Railroad—a grand national project calculated to unite the interests and advance the prosperity of every part of the Republic, to secure by the shortest and most economical route, upon our own soil and through the heart of our own country, safe and uninterrupted communication between its distant borders on the shores of the two great oceans—a project worthy of the age in which we live, and of the American people, who would speedily accomplish this glorious enterprise, if sectional jealousy and conflicting interests could be reconciled, and the national mind concentrated upon its achievement.

Seventh, That the public lands in the new States, especially those west of the Mississippi river, have chiefly derived their money value from the labor of the present inhabitants, who have suffered all the privations incident to the settlement of new countries; and, therefore, upon sound principles of national justice, are entitled to the amount added to the value of the public domain by their own toil. And whilst this Convention believes that the measure of this justice can only be entirely fulfilled by ceding to the new States all the public lands within their borders, that shall have been fifteen years or more in market; nevertheless, it would acquiesce in the distribution of a reasonable share of the monies accruing from the sale of all other lands amongst the old States for purposes of education; solemnly protesting, however, against giving them away to any one class of the people, or assigning them wholesale to the old States as provided for by the "Homestead" and "Bennett's" land bills introduced at the last session of Congress.

Eighth, That it is the opinion of this Convention that the General Government should cease to regard the public domain as a source of National revenue—but that it should only be disposed of with a view to the encouragement of education, internal improvements, and other objects of a National character, upon such principles as will secure equal justice to the old and new States.

Ninth, That a Committee of Five be appointed by the President of this Convention, to draw up a memorial to Congress, asking for aid in behalf of this great enterprise, and expressing more at large the views of this Convention, in respect to the public domain, as shadowed forth in the preceding resolutions; and that a copy of said memorial be forwarded to each Senator and Representative in Congress, residing west of the Mississippi river.

Tenth, That this Convention fully approves the plan recommended by the St. Charles Convention, of paying county and corporation railroad subscriptions by the levy of an annual tax, sufficient to meet the calls on such subscriptions—provided the amount so raised shall not in any one year, be more than is required to pay thirty per centum of the amount subscribed by a county or corporation, to the stock of any one road, and that each tax payer shall receive a certificate of stock to the amount of the special tax paid by him. And we respectfully ask of the Legislature at its ensuing session, the passage of

proper laws to enforce the collections of such tax in all the cities and counties of this State, which either have already taken or may hereafter subscribe stock in any railroad company.

In presenting to you the cause of the Mississippi Valley Railroad, we would urge as the first and most striking feature, its national character.

The natural feeling that arises at the first glance, and which is strongly sustained by a deliberate comprehension of the whole plan, is that the General Government should begin the work, and that the people of this vast valley should aid the Government. But, although the General Government has already surveyed the line of the route here proposed, from St. Louis to Little Rock, has estimated the cost of the construction of the middle links of this immense chain, whereby it is discovered that the cost of the construction of the Iron Mountain and South Missouri Railroad, linking St. Louis with Chalk Bluff, on the northern boundary line of Arkansas, is \$3,514,773, and that the cost of the construction of the North Arkansas Railroad, linking the same Chalk Bluff with Little Rock, is \$2,342,263; although the House of Representatives have passed a Bill granting public lands to Arkansas to be applied to the construction of the Railroad from Little Rock to Chalk Bluff, extending the same favor to the road on each extremity beyond these points, viz: from "Fulton to Cairo;" although the New Orleans, Opelousas and Great Western Railroad Company have memorialized Congress "to grant all the lands of the United States within ten miles of the said road, and its St. Louis branch, on each side, or its equivalent in other lands;" although the North Missouri Railroad Convention have resolved to memorialize Congress "to make a grant of land to the State of Missouri to aid in the construction of the North Missouri Railroad—similar in all respects to the grant heretofore made in aid of the Pacific Railroad, and the Hannibal and St. Joseph Railroad;" although the Mississippi Valley Railroad Convention has resolved to memorialize Congress for "a quantity of land, equal to alternate sections for ten miles in width, on each side of said road, throughout its entire length;" and although the Government of the United States has manifested a disposition by the grants already made to the Mobile and Ohio and the Illinois Central Railroad, to unite the North and South by bands more material than laws; although all these things be true, and embolden the national aspect of this cause—yet it possesses manifold traits deeply interesting to every

individual in the Mississippi Valley west of the Great River. The people of this valley, east of the river, are also interested in this work. They are embraced in the resolution on the Address, and we therefore present them some reasons why they should unite and act harmoniously with the people along the line proposed.

The people of the State of Mississippi have through the Legislature signified their acknowledgment of the advantages to be derived from this railroad. A charter has been granted for a company to build a railroad from a point on the Mississippi river, opposite Helena, in Arkansas, to connect with the New Orleans, Jackson and Great Northern Railroad, in a direction nearly south. Helena may be easily connected with the Mississippi Valley Railroad by a branch either from Chalk Bluff or Little Rock. By these channels a tide of prosperity will flow among and enrich the people of the State of Mississippi.

The people of the State of Tennessee, by the junction to be made between the Mississippi Valley Railroad and the City of Memphis, will make the northern and southern portions of the Mississippi Valley Railroad tributaries to their wealth, and by the "Memphis and Grenada" Railroad roll back a tide of prosperity toward the Northwest. The people of Kentucky, Ohio, Indiana, and Illinois will derive kindred advantages by their main lines running to Cairo and St. Louis, as a Bill is now before Congress for a grant of lands to the State of Missouri, to aid in the construction of a railroad from Chalk Bluff to a point on the Mississippi river, opposite Cairo—said road connecting, at the Bluff, with the Mississippi Valley Railroad, which passes through St. Louis.

Of all the inhabitants of the Mississippi Valley, the people of Wisconsin are least interested in the Mississippi Valley Railroad. Yet a few facts may suggest material advantages which the people of Wisconsin may derive from this work.

The City of St. Paul, near the Falls of St. Anthony, must necessarily be touched by the Mississippi Valley Railroad. St. Paul is only 18 miles from Lake St. Croix, in Wisconsin. Lake St. Croix and Fond du Lac, of Lake Superior, must be linked together by a railroad. The immense resources of North Wisconsin—the iron, copper, white pine and other lumber, and the products of the lake fisheries, which are now eagerly sought after, but obtained at great cost, will then flow with ease, and be distributed throughout

the valley of the Mississippi, at a reduced expense to meet the increasing demand with an enhanced profit.

By a union with Lake Superior, the Mississippi Valley Railroad would not only open a market for the metal, lumber, fish and other produce of Wisconsin, but, in return, would bring rich treasures, from the South.

The people of Wisconsin, therefore, though least interested, must nevertheless view this cause with favor and deep anxiety.

Now, we would address the people of the Territory and of the four States along the line of the route; and assuming that the first principles are already well understood, freely acknowledged, and highly appreciated, we would direct attention to, and urge the prompt espousal of the more progressive and radical principles embraced in the resolutions.

Taxation for stock goes to the root of the enterprise. The work cannot be done without money. Where should the money come from? Who is most deeply, most vitally interested in the work? We answer: the individuals, villages, towns, cities, parishes and counties along the route. Property is raised 100 per cent. in value by its location. Who will refuse to allow his property to be raised 100 per cent. by a railroad through or near it? Who but the owner of property should expend means to raise the value of his own? What owner of property will refuse the bargain by which he gains 100 per cent. on the value of his property by paying 1 per cent. additional tax? By which he receives the one per cent. back again in certificates of stock in the road, and stands a fair chance of selling it at a premium? The suggestions contained in these questions are substantiated by practical experience.

We refer to the universal history of railroads. The evidence from this source on this point is so extensive, so conclusive, and at the same time so freely acknowledged, that we will here adduce only an instance from the history of the Pacific Railroad, crossing this valley, premising that the histories of other railroads abound with similar instances.

Hon. Thos. Allen, the enterprising, practical and energetic President of the Pacific Railroad, in his first annual report, made 29th March, 1852, before a rail was laid on the road, states:

“The effects of the railroad upon the price of land adjacent to the line, is quite as much as was ever predicted or promised. The value has been at least tripled. Lands which recently were held at \$1.50, are now held at \$10.00. Those which were held at

\$30.00, have been sold for \$100.00. Those which were lately bought for \$300.00, have been sold for \$1,000.00.

Judging from the uniform evidence of the past—the irresistible authority of experience—and the fairly deducible superior advantages of the proposed over many others paying railroads, the Mississippi Valley Railroad would not only double the value of the property along the line, as we have above suggested, but would raise it fourfold.

Those, then, who have property on the line of the road, should tax not only every energy, but also every inch of land they possess, to raise funds immediately for its successful operation.

We would here point to one noble example—an example worthy of imitation by every city, parish, town and county, from the Falls to the Gulf.

The City of New Orleans, on the 21st day of June, 1852, voted for \$1,500,000 tax for stock in the Opelousas road by 2938 votes against 490.

The New Orleans and Opelousas Railroad, together with a branch projected from that to the capital of Arkansas, is adopted as a portion of the Mississippi Valley Railroad.

What now has been the effect of this tax on the energy and real estate of New Orleans, and on the prosperity of this project? The energy of New Orleans has grown stronger, the real estate has risen higher; and from a letter written on 11th October, 1852, by Col. B. H. Payne, of Louisiana, Sup't of the New Orleans, Opelousas and Great Western Railroad, to Roswell Beebe, Esq., of Arkansas, memorialist for the charter of the Mississippi Valley Railroad Company, in which the prospects of this great project are disclosed, we extract the following paragraph:

“This company (the N. O., O. & G. W. R. Co.) have now the capital at command. equal to \$4,000,000. Under our new constitution the State will take \$1,000,000. This will make the sum of \$5,000,000. The cost of the road, on the main trunk to the Texas border, will be about \$4,000,000, leaving \$1,000,000 towards the St. Louis branch. The parishes in Louisiana, along the line of the branch road to the Arkansas line, will contribute, at least, as much as will, with the aid of the \$1,000,000, furnish and equip the road to your State line.”

Such being the effect of taxation for railroad stock in Louisiana in four months, will the people of Arkansas, Missouri, Iowa and Minnesota wait in idleness one month longer, letting the golden

moments, worth more than golden mines, pass out of their hands, for nothing, when they might turn them into a fortune as quickly as they could travel to and return from California?

Judging from a careful calculation based on an actual survey of the route from St. Louis to Little Rock, by Capt. Joshua Barney, United States agent, whose report was made November 1st, 1851, and ordered to be printed by Government, March 16th, 1852, and based on the opinion of civil engineers, geologists and geographers acquainted with the general character of the country along the route to each end beyond the portion surveyed by Capt. Barney; the cost of the Mississippi Valley Railroad, on the route adopted by the Convention, has been estimated at about \$24,000,000.

This estimate includes equipments as well as construction and every item of furniture necessary for its complete operation.

About \$5,000,000 were allotted for the construction of the road through the State of Louisiana, about \$4,000,000 for the same through Arkansas, about \$7,000,000 for the same through Missouri, and \$4,500,000 for the same through Iowa to the Falls of St. Anthony, in Minnesota. \$3,000 per mile were allotted for the cost of equipments. The length of the whole road was assumed to be 1325 miles, allowance being made for deflexions.

In the State of Louisiana contracts have been made for the construction of portions of this road, at prices far below the above estimate. Col. Payne, of Louisiana, on the 27th November, 1852, in a letter for publication, wrote as follows: "Over the worst part of the road contracts are out, that when finished, make the cost \$8,400 per mile, at the present price of iron, with rails 65 pounds to the running yard."

Adding the expense of bridging, he calculates the cost of construction of this road, through Louisiana to Little Rock, in Arkansas, at only about \$10,000 per mile, and closes his letter touching this road by stating:

"We shall have all the capital necessary to build our end of the road to the Arkansas line on the way to St. Louis completed by January in such form as will enable our Board of Directors to use it without delay."

Louisiana has proven that she is awake to her own interest—is ardent and energetic in the good cause, and besides setting an admirable example for her sister States, has thrown a flood of light

on this subject, which must cheer the hopes of the people in the middle and northern portions of this valley.

The people of Arkansas and Missouri are now through their portions of the valley, and in their Legislatures manifesting an appreciation of the course pursued by the people of Louisiana.

May the people of Iowa and Minnesota join them heart and hand, and may they act on and persevere together in the same course with patriotic devotion, till our object is secured. May we develop our own resources, agricultural and mineral, establish and protect our own manufactures, cloth and iron; out of the Iron Mountain of this valley may the rails of this Valley Railroad and the Pacific Railroad, with all their branches and all parallel chains and converging links be formed, and wire rolled and drawn, to send electric intelligence in a moment to every city of America.

Through Missouri, the heart of the United States of America, may the currents of the life blood of our great commercial body flow with an equal, strong and health sustaining power to every limb and fibre of the national system.

Resolved to tax individual energies and possessions to the utmost, as a basis for operations; entertaining these liberal and conservative principles of a national character denoting the benefits to result from the superstructure of the plan; meeting together frequently in towns, cities and counties, raising subscription for stock; passing resolutions for taxation for stock; memorializing the Legislature for laws in that behalf, and for the credit of the State; protesting against a profligate abandonment of the public domain by the General Government for private speculations; praying for judicious as well as liberal endowments of railroads and schools, by which the public land may be converted into a perpetual fund for the support of the cause of education and internal improvements; by memorializing Congress directly on this subject:—by taking these steps with a warm heart and with an iron will; by bending every energy unflinchingly in this direction; by pursuing it with unremitting perseverance, the people along the line of the Mississippi Valley Railroad north of Louisiana may realize a prospect for themselves next spring, brighter even than is presented by Louisiana now, as then not only immense subscriptions of stock will be raised from individual and incorporate sources, not only may the credit of the States be obtained, but what is quite as probable from the present aspect of affairs at Washington City, all

the land of the United States, within ten miles in alternate sections on each side of the road, from the Falls of St. Anthony to the Gulf, may be granted by the present Congress, in aid of this grand project, not less national in its character as we have endeavored to show, than it is vitally important to the well-being of the rapidly augmenting population of the country through which the road will pass.

St. Louis, December, 1852.

HENRY COBB,	} Committee.
H. A. PROUT,	
FERDINAND KENNETT	
N. C. OREAR,	
H. MILLS,	

Anthracite Coal for Locomotives.

The annexed is from the Philadelphia Ledger. We have seen the accounts spoken of in our English exchanges about the performance of McConnell's engines manufactured by Fairbairn, but the description was too vague about their construction to warrant us in asserting them to be like those of Mr. Millholland: "Some months ago we gave a rough description of the Millholland engines, used on the Reading Railway, in this State. They have been steadily in work ever since, doing full duty, and making extra speed with passenger trains, and the company now consider the superior adaptation of this fuel to travelling engines as a settled matter. In England and France, coke is used at great cost. But we find in a London paper of last month, that two new express passenger engines, essentially on Mr. Millholland's plan, are in use on the London and Northwestern Railway, giving great satisfaction. No credit is given by that paper to our Pennsylvania friend, from whom we presume the principles of the invention were derived. But the engines have the same gas burning chamber behind the fire box, supplied with hot air, in the same way substantially. There appears, perhaps, one novelty, viz.:—The heat from the boiler is used to dry the steam before its effective force is given to the pistons. Mr. McConnell, the assumed inventor, claims that anthracite coal from the mines of South Wales can be used in these engines, at a saving of one-half the cost of bituminous coke, and a complete riddance of the many inconveniences incident to other fuels. The presumption expressed is with us a fact established."

Population of the United States.

STATES.	Whites.	Free colored.	Slaves.	Total population.
Maine	581,863	1,325	.....	583,188
New Hampshire....	317,489	475	.....	317,964
Vermont	313,411	709	.....	314,120
Massachusetts.....	985,704	8,795	.....	994,499
Rhode Island.....	144,000	3,544	.....	147,544
Connecticut.....	363,305	7,486	.....	370,791
New York.....	3,049,457	47,937	.....	3,097,394
Pennsylvania.....	2,258,463	53,323	.....	2,311,786
Ohio.....	1,956,108	24,300	.....	1,980,408
Indiana	977,628	10,788	.....	988,416
Illinois	846,104	5,366	.....	851,470
Michigan.....	395,097	2,557	.....	397,654
Wisconsin.....	304,565	626	.....	305,191
Iowa	191,879	335	.....	192,214
California (estim.)	163,200	1,800	.....	165,000
New Jersey.....	466,240	23,093	*222	489,555
Delaware.....	71,289	17,957	2,289	91,535
Maryland.....	418,590	74,077	90,368	583,035
Virginia.....	895,304	53,829	472,528	1,421,661
North Carolina	553,295	27,196	288,412	868,903
South Carolina	274,623	8,900	384,984	668,507
Georgia.....	521,438	2,880	381,681	905,999
Alabama.....	426,507	2,272	342,892	771,671
Mississippi.....	295,758	899	309,898	606,555
Louisiana.....	255,416	17,537	244,786	517,739
Tennessee.....	756,893	6,271	239,461	1,002,625
Kentucky	761,688	9,736	210,981	982,405
Missouri.....	592,077	2,544	87,422	682,043
Arkansas.....	162,068	589	46,982	289,639
Florida	47,167	925	39,309	87,401
Texas	154,100	331	58,161	212,592
Dist. of Columbia	38,027	9,973	3,687	51,687
Utah (Territory).	11,330	24	26	11,380
Minnesota Terr...	6,038	39	.....	6,077
New Mexico Terr..	61,530	17	.....	61,547
Oregon Terr.....	13,087	206	.....	13,293
Aggreg. population of the U. S.....	19,630,738	428,661	3,204,489	23,263,488

* "Apprentices" by the "act to abolish slavery," passed April 18, 1846.

Tabular Statement of the Agricultural Productions of the U. S. from the Census of 1850.

STATES.	Acres of land improved.	Value of farming implements and machinery.	Value of live stock.	Bushels of wheat.	Bushels of Indian corn.	Tobacco—pounds of	Ginned cotton—bales of 400 pounds each.	Wool—pounds of.
Maine.....	2,019,593	\$2,363,517	\$9,831,488	367,980	1,741,715	.....	.....	1,366,866
New Hampshire.....	2,251,388	2,314,125	8,871,901	185,658	1,373,670	50	.....	1,108,476
Vermont.....	2,322,923	2,774,959	11,292,748	493,666	1,925,776	.....	.....	3,492,087
Massachusetts.....	2,127,924	3,173,809	9,649,964	29,784	2,326,167	119,306	.....	576,736
Rhode Island.....	337,672	473,385	1,466,636	39	516,133	.....	.....	111,937
Connecticut.....	1,731,277	2,043,026	7,353,996	40,167	1,996,462	1,383,932	.....	512,529
New York.....	12,285,077	22,217,563	74,672,356	13,073,357	17,844,808	70,222	.....	10,021,507
New Jersey.....	1,770,337	4,267,124	10,678,264	1,548,216	8,605,396	.....	.....	375,932
Pennsylvania.....	8,619,631	14,931,993	42,146,711	15,482,191	19,707,702	857,619	.....	4,784,367
Delaware.....	580,862	510,279	1,849,281	482,511	3,145,533	.....	.....	57,768
Maryland.....	2,797,905	2,463,443	7,997,634	4,494,680	11,104,631	21,407,497	.....	483,226
District of Columbia.....	17,083	40,220	71,573	17,370	65,280	15,000	.....	.....
Virginia.....	10,360,135	7,021,762	33,656,659	11,212,616	35,254,319	56,808,227	3,947	2,860,765
North Carolina.....	5,443,137	4,056,008	17,837,108	2,147,899	28,256,999	12,058,147	98,028	915,289
South Carolina.....	4,074,855	4,143,709	15,660,015	1,666,278	16,272,308	73,235	300,901	487,243
Georgia.....	6,378,479	5,894,150	25,278,416	1,088,534	30,080,099	423,924	499,091	990,021
Florida.....	349,423	675,885	2,945,668	1,225	1,993,462	982,584	45,078	23,235

Alabama	4,435,614	5,125,663	21,690,112	291,041	28,754,048	161,990	564,420	657,118
Mississippi	3,489,640	5,759,738	19,303,593	2,518,181	21,836,154	48,349	494,771	556,097
Louisiana	1,667,998	11,326,310	10,953,508	84	10,915,051	23,922	163,034	105,393
Texas	635,913	2,093,308	10,263,086	42,448	5,790,735	61,770	55,945	122,118
Arkansas	780,333	1,594,941	6,728,264	193,902	8,857,296	224,164	64,987	181,427
Tennessee	5,087,057	5,351,178	29,134,193	1,038,470	52,137,863	20,144,380	192,635	1,340,833
Kentucky	6,068,633	5,388,092	29,898,386	2,184,763	58,922,788	55,765,259	1,669	2,246,168
Ohio	9,730,650	12,716,153	43,276,187	14,967,066	59,788,750	10,480,967	.....	10,089,607
Michigan	1,923,582	2,764,171	8,005,429	4,918,706	5,620,215	2,225	.....	2,047,364
Indiana	1,019,822	6,748,722	22,398,965	6,025,474	52,887,364	1,035,146	.....	2,502,763
Illinois	5,114,041	6,349,826	24,817,954	9,433,965	57,170,283	844,129	.....	2,129,139
Missouri	2,924,991	3,965,945	19,766,851	2,966,928	36,669,513	17,100,984	.....	1,615,860
Iowa	824,682	1,172,869	3,589,275	1,530,881	8,636,799	6,049	.....	373,898
Wisconsin	1,011,308	1,701,047	4,594,717	4,292,208	1,983,378	768	.....	243,065
California	34,312	88,593	3,456,725	93,282	90,082	1,000	.....	4,800
Minnesota	5,035	15,981	92,859	1,401	16,725	.....	.....	85
Oregon	132,857	183,423	1,876,189	211,943	2,918	325	.....	29,646
Utah	15,219	78,495	533,951	103,441	9,144	.....	.....	8,897
New Mexico	161,296	78,217	1,504,497	196,575	355,795	1,118	.....	32,641
Total	112,433,684	151,869,627	542,545,149	101,607,623	592,020,591	200,099,288	2,484,531	52,451,903

Tabular Statement of the Agricultural Productions of the U. S., from the Census of 1850.

(CONTINUED.)

STATES.	Wine—gallons of.	Butter—pounds of.	Cheese—pounds of.	Hay—tons of.	Hemp, dew-rotted— tons of.	Hemp, water-rotted— tons of.	Flaxseed—bushels of.	Maple sugar—pounds of.	Cane sugar—hundreds of 1,000 pounds.	Value of home-made manufactures.
Maine	306	8,488,234	2,201,105	794,780	.....	.....	302	87,541	.....	\$510,998
New Hampshire	35	6,977,056	3,196,563	598,854	.....	.....	94	1,292,429	.....	393,455
Vermont	140	12,128,095	6,755,006	763,579	.....	.....	307	5,159,641	.....	261,589
Massachusetts	4,122	7,825,337	7,124,461	645,849	5	.....	72	768,596	.....	210,076
Rhode Island	842	1,066,625	296,748	73,353	.....	.....	.....	.....	.....	26,098
Connecticut	3,348	6,620,579	4,512,019	499,706	.....	.....	9,775	37,781	.....	188,905
New York	6,483	82,043,823	49,785,905	3,714,734	81	20	53,824	10,310,764	.....	1,277,170
New Jersey	517	9,070,710	500,819	429,119	.....	.....	12,353	5,886	.....	110,350
Pennsylvania	23,839	40,554,741	2,395,279	1,826,265	173	686	43,627	2,218,644	.....	755,104
Delaware	145	1,055,308	3,187	30,159	.....	570	858	.....	.....	38,121
Maryland	1,431	3,806,160	3,975	157,956	63	.....	2,446	47,740	.....	111,828
District of Columbia	863	14,869	.....	1,974	.....	.....	.....	.....	.....	75
Virginia	5,413	11,089,379	436,292	369,098	3,735	1,931	52,318	1,227,065	.....	2,150,312
North Carolina	10,801	4,147,285	95,043	145,180	13	478	38,183	27,448	.....	2,008,884
South Carolina	3,680	2,979,975	4,810	25,427	.....	.....	11	200	150	909,546

Georgia	796	4,640,559	46,976	23,449	.....	73	622	50	1,644	1,838,908
Florida	10	375,853	18,324	2,620	.....	.....	.....	.....	47,411	74,362
Alabama	220	4,008,811	31,412	32,685	.....	70	67	613	8,242	1,934,120
Mississippi	301	4,388,112	20,314	12,517	.....	.....	21	110	278	1,165,195
Louisiana	.....	685,136	1,148	20,672	.....	.....	.....	260	202,486	138,773
Texas	94	2,319,574	92,018	8,327	.....	.....	16	.....	7,017	265,526
Arkansas	10	1,854,104	28,440	3,924	.....	145	695	8,825	.....	644,928
Tennessee	204	8,130,686	179,577	72,942	.....	535	19,405	159,647	.....	3,163,116
Kentucky	4,202	10,115,267	228,744	115,296	.....	2,685	80,438	388,525	.....	2,487,493
Ohio	44,834	94,180,458	21,350,478	1,360,636	.....	464	185,598	4,521,643	.....	1,696,601
Michigan	1,443	7,043,794	1,012,551	394,717	.....	14	1,186	2,423,897	.....	354,936
Indiana	13,004	12,748,186	666,986	402,791	.....	794	35,803	2,192,638	.....	1,647,200
Illinois	2,343	12,605,554	1,283,758	586,011	.....	1,828	11,873	246,078	.....	1,218,211
Missouri	10,563	7,692,499	202,122	116,748	.....	5,351	13,641	178,750	.....	1,663,016
Iowa	420	2,168,188	209,840	89,055	.....	2	1,959	77,807	.....	221,292
Wisconsin	68	888,816	440,961	295,927	.....	100	834	661,969	.....	57,506
California	.....	705	180	2,038	.....	.....	.....	.....	.....	2,500
Minnesota	.....	1,100	.....	2,019	.....	.....	.....	.....	.....	.....
Oregon	.....	211,464	36,980	378	.....	.....	.....	2,950	.....	.....
Utah	.....	74,064	32,646	4,288	.....	.....	5	.....	.....	1,304
New Mexico	2,058	101	5,887	.....	.....	.....	.....	.....	.....	6,031
Total	142,528	311,998,180	103,200,524	13,622,963	61,413	15,835	566,413	32,777,127	327,228	27,544,679

Immigration Statistics.

REPORT OF THE AGENT OF THE GERMAN SOCIETY AT ST. LOUIS.

St. Louis, December 8, 1852.

GENTLEMEN: The end of another quarter of a year gives me an opportunity to lay before you the state of affairs of our society. The emigration to the western States of the Union is commencing to assume a very great extension; and all communications from Europe distinctly indicate an increase, in comparison with last year. During this fall 56,000 emigrants left the port of Bremen for the new world, the greater part of whom were destined for our western States, and had it not been for the want of vessels at the European seaports, still more would arrive who are now compelled to remain over winter, a fortunate accident, saving those persons from the severity of our climate to which they must have succumbed, if arrived here so late; and I consider it is entirely improper on the part of the persons concerned in it, to forward emigrants at so advanced a time of the year, as has been done for instance at Bremen, from where emigrants started for New Orleans as late as the 15th of November last. For which reasons I must recommend again to request of the emigration societies in Europe to arrange the sailing of vessels for New Orleans either for early spring or early fall, so as to evade the dangers of summer and winter. Although less persons can be forwarded under such an arrangement, its result must be the saving of many human lives.

The emigration during the last three months has been thrice as large as during the same months of the last year, as the following table will show:

	1851.	1852.
Via New York.....	1,050	3,435
Via New Orleans	1,182	4,944
	2,232	8,379

During the months of June, July and August last, only 6,645 persons arrived.

The present emigration prefers the State of Iowa for settlement, and it can well be presumed, that at least one-third of this year's emigration made their way to that State, which enjoys an excellent reputation in Europe. It would be very desirable if societies could be formed in the cities of Guttenberg, Dubuque, Davenport, Iowa City, and likewise in Hannibal, Herman and St. Joseph, Jefferson City and Union, in our State, and alike in the cities of Quincy, Galena, New Boston and Freeport, in the neighboring State of Illinois, who should give us the necessary information of the state of their settlements, which would not only be of utmost importance

to us in our advices to emigrants, but at the same time a decided benefit for the residents of those places themselves. To applicants our Society has provided employment, as follows:

Railroad hands.....	330
At farms and in manufactories.....	111
Mechanics	78
Apprentices	15
Servant girls.....	59

If the comers would consent to work on railroads, at farms, at buildings and in manufactories, we have so many enquiries that we could procure work for all of them. Among the newly arrived emigrants fatal sickness to more than the usual extent has been existing; the most cases, however, were on board of the *Die Vernon*, where 17 persons died. The symptoms of the greater part of cases were of a cholera-like nature, occasioned, as has been ascertained by improper and careless diet. Our society has caused to have handbills pasted on board of the boats, warning emigrants of the use of unwholesome eatables. For 123 sick persons we provided reception at the city hospital, and 46 were buried at the expense of the city; six orphans were placed in responsible families, and four persons were provided for at the county hospital.

The report of the Treasurer will show the expenditure of \$108,-80 for fifty-five poor and destitute emigrants, who according to our Constitution, were entitled to lay claim to such. While direct support is not the aim of our society, which only intends giving advice and procuring employment, there are still cases where such direct aid cannot be withheld, and which after a strict examination of the case, is always given, if found to be imperatively required; but our Constitution does not allow us to extend such support towards our city poor, for whom the poor committees, now commencing their benevolent works again, will be the proper sources to apply to.

We have been maintaining a very lively correspondence, and our direct connection with Bremen, New York and New Orleans, did enable us to send on account of others who desired their relations to be forwarded the sums annexed, to the following places: \$75 to New York, \$222 to New Orleans, 495 Louis d'Or, G., to Bremen.

The book placed in the office of the Society for persons to inscribe their directions, has already received over 200 names, and the number of daily visitors at our office may confidently be counted at 50 per diem.

Recommending this report to your kind consideration, I have the honor to sign,

Your ob't serv't,

G. REICHARD, Agent.

Irish Immigrants at St. Louis.

We have met with no facts until very recently, which afforded any clue to the amount of money remitted from the United States to foreign countries by immigrants. In discussing the movements of the precious metals and the financial condition and prospects of the United States, writers have generally set down a large annual accumulation of money derived from immigration. For some years past the amount received from this source has been generally estimated at \$10,000,000, while little or no deduction has been made for remittances. It appears from the report of the "Colonial, Land and Emigration Commissioners" to the British Parliament that £990,000, nearly \$5,000,000, was sent from North America to Great Britain by emigrants, during the year 1851. The amount remitted from St. Louis to Ireland is so much larger than we had any reason for supposing it to be, that when we first saw it published, we doubted of its accuracy until assured of its correctness by the agent of the Irish Emigrating Society. We copy the following statement from the *St. Louis Intelligencer*, of December 16th, 1852:

"REMITTANCES TO IRELAND.—But few have any idea of the amount of moneys sent annually to Ireland by the Irish residents of this city, to enable their families and friends to emigrate to this country. We have been favored by Messrs. William Lindsey, David O'Gorman, and Daniel O'Brian, agents for remittances, and Mr. Thomas Tallis, Secretary of the Emigration Society, with the amounts of drafts forwarded by them during the present year to Ireland.

Mr. Lindsey has remitted the sum of \$62,150 in one thousand seven hundred and seventy-six sums, and has also paid ninety-six passages for emigrants to this country, making a total of \$65,030.

Of the number who have remitted, four hundred and forty-nine were females, and one thousand four hundred and twenty-three were males. Of the recipients five hundred and twelve were widows. Nine hundred and eighty-seven of the sums sent were under five pounds.

Mr. O'Gorman has sent about \$20,000.

Mr. O'Brien has also remitted about \$15,000.

Since May last Mr. Tallis has remitted \$9,518.

The aggregate of the sums sent by four offices is nearly 110,000 dollars."

About the sum of \$110,000 was remitted from the beginning of the year, to say the 15th of September (eight and a half months)

and during six months, commencing on the 19th April, the arrivals of Irish immigrants at this city, according to the following statement furnished by the agent, amounted to only 918, an average of 153 per month, while the remittances amount to about \$12,470 per month, equal to about \$81.00 for each immigrant arriving at this place. Doubtless, many of those who arrive at other places than St. Louis make their remittances through the agencies at this point, but we are persuaded by the facts here stated that as much money, at least, is remitted by the Irish immigrants as they bring with them to this country.

The following statement of the arrivals of Irish immigrants at St. Louis has been politely furnished by Mr. Tallis, the agent for the Irish Emigrating Society at this place.

From April 19 to May 17	362
“ May 17 to June 21	220
“ June 21 to July 19	60
“ July 19 to August 16	71
“ August 16 to September 20.....	27
“ September 20 to October 18.....	178
	918

(From Hunt's Merchants' Magazine.)

Emigration from the United Kingdom.

The twelfth general report of the Colonial Land and Emigration Commissioners, for the year 1851, has just been printed, and presented to both Houses of Parliament. The report is the most interesting and elaborate which has yet appeared, and the growing importance of the subject must command for it the attentive consideration of the public. The Commissioners state that the total emigration from the United Kingdom in the twenty years ending with 1851, has amounted to 2,640,848; but of this emigration more than one half has taken place in the last five years—the largest number who emigrated in any one year having been 129,851, in 1846. The numbers who emigrated within the last five years were as follows:—

1847.....	258,270	1850.....	280,849
1848.....	248,089	1851.....	335,909
1849.....	299,498		

It will, therefore, be seen that, although the progress has not been uniform, the general result shows an immense increase, the emigration in 1851 having exceeded the largest emigration of any preceding year by 36,468, or 12.17 per cent., and the average of

four years by 64,290, or 23.66 per cent. Such an emigration, if drawn equally from all parts of the United Kingdom, would seriously affect the progress of population. But the rate at which it is now proceeding, so far exceeds its rate during the majority of the years included in the last census, that, unless some very great change takes place shortly, or the loss be supplied from other quarters, the next census will show a much larger reduction of the population than the last. The emigration of 1851, while it nearly doubled the estimated average emigration of the preceding ten years, exceeded any probable increase of the population by nearly 4 to 1. But this calculation, unfavorable as it appears, is clearly below the truth, for the classes who emigrate include a large proportion of the youngest, the healthiest, and most energetic of the adult population, on which the excess of births over deaths mainly depends. Upon the prospect of the extinction of the Irish race in Ireland, the Commissioners say:

“We should be disposed to believe that those who remain at home, including an unusual proportion of the old, the most feeble and most destitute, do not, at the most, do more than replace by births their losses by deaths. If such be the case, it would follow that the annual decrease of the population in Ireland is not less than the annual amount of the emigration, and that unless the emigration be soon arrested, the country will be deserted by its original population.”

The money sent home from North America during the four years from 1848 to 1851, or contributed as prepaid passage money, amounted to no less a sum than £2,947,000. The amount so paid in—

1848.....	£460,000	|	1850.....	£957,000
1849.....	540,000	|	1851.....	990,000.

Of the whole number who left the United Kingdom in 1851—

Went to the United States.....	267,357
To British North America.....	42,605
To Australia.....	21,532
To other places.....	4,472

Of the number who made the United States their destination—

Sailed from Liverpool, (more than 19-20).....	196,881
From London, (not quite 4-7).....	17,370
From Scotland.....	10,864
From Ireland.....	38,418

To the 267,357 who proceeded direct to the United States must be added 18,000 who went through Canada, making a total of 285,358 emigrants from the United Kingdom to the United States during the year, or about seventeen-twentieths of the whole unassisted emigration. But, although the number of emigrants who

settle in the British North American Provinces has not increased, and is not likely to increase at all in proportion to the general emigration, it must be borne in mind that the emigration to those Provinces has not fallen off, but, on the contrary, has maintained a fair progress up to the present time. During the four years preceding 1847, that emigration amounted to 121,684, or 30,421 a year. During the four years ending 31st December last, it amounted to 147,998, or an average of 36,989 a year.

The year 1847 is excluded, because it was an exceptional year, which could not fairly be taken into account. The Commissioners believe that, including transient emigrants, an immigration of from 35,000 to 40,000 is sufficient in ordinary years to supply the labor market of British North America. The amount expended out of the public funds for the conveyance of emigrants was, £104,500; up to the end of 1851, about £800,000 of which about 4,500 was derived from Parliamentary votes for sending out free emigrants to those colonies which have received convicts, and £102,000 obtained from the emigrants themselves. The remaining sum of about £650,000 was furnished from the land revenues of New South Wales and South Australia, or the general revenue of the Cape of Good Horn.

The emigration, which has taking place during the first four months of the present year promises to exceed that of any former year. The discovery of gold fields in California and Australia has, of course, tended to swell the tide to a great extent; but, even if those discoveries had not taken place, there is every reason to believe that the emigration of 1852 would have been unparalleled. The total emigration from the twelve ports in the United Kingdom, at which there are emigration officers, amounted to 103,216. Of these—

Went to the United States.....	83,029
To British North America.....	8,104
To the Australian Colonies.....	11,258
To other places.....	885

Assuming that the tide of emigration, during the remaining eight months of the year, does not exceed the rate at which it flowed in the months of January, February, March and April, the total emigration in 1852 would amount to 412,864 persons, being an excess, as compared with 1851, of no less than 155,492. In all probability, however, the emigration from the United Kingdom, during the present year, will considerably exceed 500,000 persons.

JOURNAL OF INTERNAL IMPROVEMENTS.**PACIFIC RAILROAD.**

The first locomotive, with its train of passenger cars, passed over this road to near Cheltenham, about five miles from the city of St. Louis, on the 9th of December. At Cheltenham a large number of gentlemen partook of an excellent collation prepared by Thomas Allen, Esq., President of the Company. On the 23d inst. the company commenced sending out two trains daily as far as Cheltenham. But owing to the impediments to laying the superstructure during the winter season, it is not probable that the entire line of the first section (40 miles) will be ready for the cars before the opening of the spring. Including the Southwestern and Iron Mountain branches, this company has now under its management the construction of over 700 miles of railroad, provided the Iron Mountain Branch be continued to the southern line of the State. And we trust that the Legislature will enlarge its franchise so as to enable it to extend the main trunk to the Pacific, provided the right to do so can be obtained from the respective governments on the route. We earnestly recommend such an amendment of the charter to the General Assembly now in session.

NORTH MISSOURI RAILROAD.

We learn by dispatches received from Jefferson City that the Legislature has passed a law authorizing the State to loan its bonds to the North Missouri Railroad Company, to the amount of \$2,000,000. This, we are persuaded, will in time secure the construction of this important work to the northern boundary of the State. But, unless Congress should come to its assistance, by making a grant of land in its behalf, we cannot look to the entire completion of this enterprise for some years to come; though we regard it, in many respects, as the most important line of our railroad system. This line is daily gaining favor in the estimation of the people of Missouri, and we trust that the recent action of the Legislature will convince Congress, that the work is worthy of receiving at their hands all the aid asked for by its friends.

SOUTHWESTERN RAILROAD.

We learn that an act has been passed by the Legislature, providing for a loan of \$1,000,000, in aid of this work, and appropriating to it all the land granted by Congress for the benefit of the Pacific Railroad, except that lying east of the point of its commencement. This road is to be regarded as a branch of the Pacific Railroad, and, as we understand, will be constructed by that company. The wealth and intelligence of the individuals composing that company, and the enterprising, though cautious character of its talented President, are sufficient guaranties, that the work will be prosecuted with energy, and completed in as short a time as will consist with the interest of the company, and the community at large.

THE IRON MOUNTAIN RAILROAD.

The direct line from St. Louis to the Iron Mountain is exciting a more lively interest, at present, than, perhaps, any other part of our railroad system. This is probably owing, in part, to the contest between the friends of this line and those of the Iron Mountain branch of the Pacific Railroad.

Within a few days past spirited meetings have been held at Carondelet, Hillsborough and in St. Louis, and we are informed that liberal subscriptions have been promised at all these places. The Legislature has passed an act extending the credit of the State to the amount of \$750,000 in aid of the Pacific branch to be transferred to aid in making the direct road, in case the branch is not commenced in one year from the date of the act. Advocating as we ever have an extensive system of railroads, with a view to forming connections with the works of other States, of the two we should prefer the direct line. But it is not our province to take part in the details connected with the immediate location of routes. Such matters must be determined by science, capital and the wants of the people.

 IRON MOUNTAIN—SOUTH MISSOURI RAILROAD.

HERDER, the great German theosophist, treating on the *Progress of Humanity*, and adducing Benj. Franklin of America as his model,—“as an actively working spirit on the easiest system, the teacher of mankind, a great director of the human species,” utters this striking thought:

“He who is not rich, yet will not abandon himself, will find that he will never be abandoned by mankind, the great and manifold organ of God.”

Had the people of South-east Missouri been thoroughly imbued with the power of this truth, and had they not abandoned themselves, they would not have been abandoned by the State, but they would easily have obtained the credit of the State to the amount of \$1,500,000, to aid in the construction of the Iron Mountain and South Missouri Railroad on the most direct and practicable route from St. Louis, *via* Iron Mountain and Pilot Knob, to Chalk Bluff.

All honor and glory is due to the State for the magnanimous as well as judicious liberality with which she has bestowed her credit this year to the amount of \$1,500,000, with the grant of land in favor of the Hannibal and St. Joseph Railroad, of which the total cost is estimated at about \$4,600,000, and the length 200 miles—to the amount of \$3,000,000 in favor of the Pacific Railroad, of which the total cost is estimated at about \$6,500,000, and the length 280 miles—to the amount of \$1,000,000; with grant of lands in favor of the Southwest Missouri Railroad, of which the total cost is estimated at about \$6,600,000, and the length 300 miles—to the amount of \$750,000, in favor of the Iron Mountain and Pilot Knob Branch of the Pacific Railroad, of which the total cost is estimated at about \$1,750,000, and the length 70 miles—and to the amount of \$2,000,000 in favor of the North Missouri Railroad, of which the total cost is estimated at about \$4,500,000, and the length 250 miles;—making State credit \$8,250,000, for 1,100 miles of State—being also parts of national—Trunk Railroads, estimated to cost \$23,950,000.

The Era of the Progress of Humanity in Missouri may be dated 1852. May the sons of Missouri, by their economical energy, prove themselves worthy of their generous parent—their *alma mater*.

The people of South-east Missouri, the only portion of the State which has been left portionless, have now an opportunity to

show to the world the indomitable energies and inexhaustible riches which have, till this month, been lying dormant in their land and in their mind. Now is the time for them to redeem both by an immediate and firm establishment, and by a bountiful and perpetual endowment of railroads and canals, schools and universities.

Is this proposition bold? Is it not also fair? It may be allowed to be bold. It can be proved to be fair.

Twenty counties of Southeast Missouri are embraced in the proposition; Washington, Jefferson, St. Francois, Ste. Genevieve, Perry, Shannon, Reynolds, Madison, Bolinger, Cape Girardeau, Wayne, Oregon, Ripley, Butler, Stoddard, Scott, Mississippi, New Madrid, Dunklin and Pemisco.

On the 28th September, 1850, the Government of the United States granted to Missouri "the whole of those swamp and overflowed lands" which remained unsold within her limits.

On the 1st November, 1851, Capt. Joshua Barney, United States Agent, made his final report of survey for a railroad from St. Louis, *via* the valley of the St. Francois, in Missouri, to Fulton, in Arkansas.

On the 16th November, 1852, the Mississippi Valley Railroad Convention resolved to memorialize Congress to grant "a quantity of land, equal to alternate sections for ten miles in width on each side of said road throughout its entire length."

From a careful examination of the reports made by several of the counties, and from the field notes in the Surveyor General's office, indicating the "swamp and overflowed lands" in the other counties, and from the opinion of Dr. King who is most thoroughly conversant with this subject, it is found that there are about 2,000,000 acres of this class of land in Southeast Missouri, which has been lying for years "unfit for cultivation."

The distance from St. Louis to Chalk Bluff, in Arkansas, on an air line, is about 140 miles, and if Congress make a grant in accordance with the resolution above mentioned, and a quantity of land equal to alternate sections for only five miles in width be realized out of the grant, on account of the fact that the Government has already disposed of as much as one half, yet that would amount to 448,000 acres.

On a critical investigation of the report of the Government survey for a railroad from St. Louis, passing near the Iron Mountain and through Southeast Missouri, it was found, as has been fre-

quently heretofore stated, that the cost of construction of the South Missouri Railroad was estimated at \$3,514,773, and the length 175 miles. By adding a cost of \$3,000 per mile for equipments, the total cost of the road in complete operation along Capt. Barney's route is \$4,039,773, being \$23,084 per mile.

On reliable information derived from various sources, from intelligent, practical and scientific men acquainted with the topography of the country along Capt. Barney's route, and also along a route direct from St. Louis to the Iron Mountain and Pilot Knob, and from Pilot Knob direct through Greenville to Chalk Bluff, a strong and almost violent presumption is raised that the direct route to the Iron Mountain and Pilot Knob thence also direct through Greenville to Chalk Bluff, would be 15 miles shorter than Capt. Barney's route, and cheaper than as cheap in proportion.

Therefore, by a fair estimate based on these facts, the total cost of the South Missouri Railroad in complete running order, would be about \$3,693,440, and the length 160 miles.

Pilot Knob is about half way between St. Louis and Chalk Bluff, and the cost of building the road would be about the same for the first 80 as for the last 80 miles.

The first 80 miles, from St. Louis to Pilot Knob, will be built immediately. Several public meetings have been held in the city of St. Louis, one in Carondelet, and one in Hillsboro this month, at all of which earnest enthusiasm was manifested, and strong resolutions were passed showing a determination in the minds of the people to raise funds from incorporate sources at these three points together to the amount of \$600,000 in favor of the work. Individual subscriptions at these three points together already amount to between \$200,000 and \$300,000. More than double these last amounts may be reasonably expected from individual subscriptions, during the next month, in only St. Louis and Jefferson counties, making \$600,000 individual and \$600,000 incorporate subscriptions. Individual and incorporate subscriptions in Washington, Ste. Genevieve, St. Francois and Madison counties, may amount next month to \$300,000. At least preliminary steps may be taken to insure this result. This brings the amount of the subscription up to \$1,500,000.

The balance wanted may be obtained on the credit of the road, if not supplied by the expected grant from Congress in favor of the Mississippi Valley Railroad, which grant, judging from the re-

port of the Commissioner of the General Land Office, this month, the Government seems as desirous to make as we to receive.

From these data the immediate construction of the first 80 miles from St. Louis to Pilot Knob, may be considered as a *fixed fact*.

How and when are the second 80 miles from Pilot Knob to Chalk Bluff to be built?

The cost of building this portion of the road will be about \$1,-800,000. The twenty counties of Southeast Missouri before mentioned together with St. Louis are, most of them mediately and many immediately, interested in the improvement. To Madison, Wayne and Butler it is of vital importance, to the tier of counties on each side of them, of direct benefit, and to the river and to the central Southern counties, of vast ultimate value.

The swamp counties may combine with it, and its extension in Arkansas or to New Madrid, a system of canals and railroads, by which they will obtain not only commercial facilities of an inestimable character, but also the redemption of their land.

From the Iron Mountain a branch may be made through Farmington to Ste. Genevieve, from Pilot Knob another branch through Fredericktown and Jackson to Cape Girardeau, and from Chalk Bluff another branch to New Madrid; and also other branches may be made on the western side of the Main Trunk, for the benefit of the central counties of South Missouri.

From the mouth of the Mingo to the base of Chalk Bluff, through the swamp district of Butler county, Capt. Barney found the descent along his route to be on an average one foot per mile. This descent is twice as great as that of the Mississippi river, from St. Louis. Capt. Barney further found that the descent along his route continued at the same average rate, of one foot per mile, to the mouth of Black river. He also found while "crossing the Monoclet slough which heads near the St. Francois, and extends in nearly a south-west direction to Black river," that "the bed of this slough might be availed of to a great extent in cutting a canal from the St. Francois to Black river, which could be done at a very little expense"

By these data derived from Capt. Barney's survey, and from the topography of the lakes well known to only a few, and best doubtless by Dr. King, it is confidently believed, that the major portion of these swamp lands may be easily redeemed, by cutting an immense canal from Cape Girardeau to the mouth of Mingo,

thence to Monocolet slough along the route of the railway in Butler county, and by cutting another of equal size from Monocolet slough to New Madrid. Nature has already done more than half of this work, and the remainder of the work is clearly within the ability of the grantee of the lands to be redeemed.

A few of the benefits of this system may be here suggested.

1st. The lands may be redeemed for a sum, less than may be realized by their sale, when redeemed.

2d. The banks of the canals may be so made as to protect the lands against the highest floods.

3d. Flood gates may be provided for to irrigate the lands in seasons of drouth.

4th. The banks of the canals may serve as beds for railroads.

5th. The trade and travel on these canals and railroads may make Cape Girardeau and New Madrid rivals of St. Louis.

6th. The immense income to be derived from these improvements may be applied to the endowment of common schools and universities.

7th. The Mississippi Valley Railroad, of which the South Missouri railroad is the middle link, will bring the treasures of the North and South at the feet of Southeast Missouri.

These are only a few of the minor results that must flow from this system, if it be built up, and maintained with proper energy.

Mr. Stewart, of our State Senate, is moving in this business. Will the people of Southeast Missouri ever rest until the consummation of this plan of their redemption?

Will they not tax their energies and their possessions to the utmost, to raise subscriptions for stock in the South Missouri Railroad? Will they not call on the Legislature for aid, to redeem their lands? Will they not pray, that Congress will make a grant of lands, this winter, in accordance with the memorial of the Mississippi Valley Railroad Convention? Not a moment should be lost! Now is the time!

This is *how*, and next spring may be *when* the South Missouri Railroad may be put under contract.

LITERARY DEPARTMENT.

BRITISH MUSEUM—MERCANTILE LIBRARY ASSOCIATION
OF ST. LOUIS.

BY MANN BUTLER.

Among the magnificent library establishments of Europe, no one exceeds the library of the British Museum, in London, for facility of access to its treasures, or the general value of its contents. There are several of the great European libraries which contain a greater number of volumes, and of more antiquarian value; but for the purposes of modern scholarship, of scientific investigation, or that of general literature, no one can compare with the British palace of books; and still less so, for the lavish generosity with which it is thrown open to the scholars of the world.

This great and noble establishment dates from the legacy of Sir Hans Sloan, of books, manuscripts and varieties of every kind accumulated by its enthusiastic collector at an expense of 50,000 £ sterling, left for the sum of 20,000 £. The donation was accepted by an Act of Parliament, in 1755, not a century older than the library of the Mercantile Association so pre-eminently honorable to the merchants of our city. Where was St. Louis in 1755, and what is she now!

This Library was founded in 1845, incorporated in February, 1847. The volumes in the great British establishment have been increased by donations and purchases till in 1850, they amounted to 460,000, extending over twelve miles of shelves. (See *Parliamentary Reports on British Museum, in the Mercantile Library papers, and Quarterly Review* vol. 88, p. 136—172.) Two thirds of this enormous collection have been paid for, as a librarian of the British Museum told the Emperor Alexander of Russia, on his visit to the Museum: "*Mais, Sire, tout est payé ici;*" the other third is the result of generous and noble minded donations. It is not so at St. Petersburg or Paris either. At the same time, it must not be concealed, that the king's library, said to have been presented to the Museum and still boasting this mendacious honor by its title, was saved from literal sale to the court of Russia. When actually packed up for transmission, it was rescued by the manly remonstrances of Mr. Heber, to Lord Sidmouth, then in the ministry. When the former gentleman had ascertained, that this royal collection, begun by George III., and consisting of 65,000 volumes, was "actually booked for the Baltic," he told the minister, "what a shame it would be that such a collection should go out of the country;" to which Lord Sidmouth replied: "Mr. Heber, it shall not; and it did not." On the remonstrance of Lord Sidmouth, [of whose manly and straight forward character George IV. was very properly in awe] the last of the Grand Monarches of Great Britain, presented the books to the Museum—on the condition that the value of the rubles they were to have fetched, should be some how or other made good to him by Ministers in pounds sterling." [*Quarterly Review*, 88, p. 142.]

While upon the subject of the number of volumes in the great library of England, it may not be uninteresting to the reader, to have also those other grand establishments of Europe before his eye. Those in the *Bibliothèque du Roi*, at Paris, amounts to 700,000 volumes. In this vast collection, there is no catalogue, or in the words of the great librarian Panizzi, they can not tell what they lose, [though they lend books out of the library, which is not done out of the Museum] because they do not know what they have. After waiting an hour, you are often

told, "the book is not here." The celebrated Thackeray said, that he was obliged to abandon all search in that Vanity Fair. "Never," says he, "was anything less satisfactory." Add to this, that the library is open but four days in the week, and that not on Fete-days. The accommodation is not better for the public at large, for the common run of readers, who are not high in rank or in fame, as at the other libraries in Europe. At Berlin, there are 320,000 volumes in the public library; at Copenhagen 400,000; at Vienna 350,000 and 16,000 manuscripts. But the number of volumes often misleads the inexperienced to suppose, that it is the same with subjects. A subject may contain many volumes, and a volume may embrace many subjects. The contrast of attentions at the British Museum is worthy of notice. A reading room is provided for readers, distinct from the library—these amount to 160 a day. There is in this room a collection of 10,000 books of reference, Encyclopædias, Lexicons, placed on sloping shelves to read them on; even "the legs of the chair are padded with India rubber to move noiselessly, like cat's paws." A large staff of attendants take the reader's order for any book pointed out in the catalogue, according to fixed rules. Dr. Biber, one of the witnesses before the Commissioners, admitted, he had had 150 in one day—he had had really 261. Any book correctly asked for, according to the rules, may be had "in ten minutes, and is often delivered in six minutes; although it takes three minutes to walk the length of the library." They come, says one witness, "by magic." In some libraries on the continent, books come, when they come at all, in an hour, in others the next day. These are most honorable testimonies to the liberal footing of this great establishment. Could our own Mercantile Library Association have a more honorable or useful model for adjusting its own regulations preparatory to its removal to the noble hall, which is erecting for its accommodation?

These regulations are as follows: There are two manuscript catalogues in alphabetical order, with full and accurate titles and cross references to collections, [for there are several under peculiar titles, as the Greenville collection, the Chacherode, the King's library,] with cross marks for the room, the press, the shelf and the number of the book on the shelf. For illustration of this process let us suppose a reader goes to the catalogue, and this in 60 or 80 volumes, and finds a book which he wants. He is furnished with a printed ticket with suitable blank lines on it, for the title of the book, the room in which it is to be found, the book-press in the room; the shelf of that press, the number of the book on that shelf. Thus the title must be transcribed accurately and exactly, not bibliographical for biographical, as has been done.

The press marks may be Y, 100, A., 10. These numbers denote a book in the 7th room, press 100, shelf A., volume 10th on the shelf. In these marks and title any examiner has the precise locality of the book wanted without a doubt or mistake. If a title of a book is in the catalogue, it must be in the library, unless in the hands of a reader. If the latter is the case, a strip of wood is left in its place, marked with certain numbers, to denote the attendant or officer on duty that day, who took out the book, and the number of the book taken out by him on that day. By this means, together with the tickets on file, the very person, book, attendant and day of the service may be ascertained.

It may be thought that so minute and particular a method is unnecessary, and too troublesome to the reader—that it is only applicable to large collections. Some of these objections were made by the literary men and students, a portion of whom testified to an attendance of forty, thirty and twenty years. And while so honorable a length of study is thus testified to, it is most amusing to notice the various complaints of some of these [they will, I trust, pardon the liberty] *fac-*

tidious students. It is humiliating to find men, who have honored themselves and benefited the public—the reading world, by their literary labors, enriched their own minds, and profited by this magnificent nursery of intellect and learning—indulging in whims and humors like spoiled children.

These are some of the oddities displayed in this great literary examination. Sharon Turner, the Anglo-Saxon antiquary, was annoyed by the presence of a flea “larger than to be found elsewhere, except in the receiving room of a work-house.” These are his very awful words. This specimen has been termed by the entomologists of the Quarterly, *Pulex Mus. Brit. Maximus*. Carlyle, the eccentric and the odd, complains of a sane gentleman who blows his nose loudly every half hour. Again the bad ventilation gave him the headache—the *Museum headache*. He says, “the ordinary frequenters are a very thick skinned race. I am a thin skinned student, and can’t study there.”—“Without a catalogue [he means a printed catalogue in the hands of every person who wants it, for there are manuscript alphabetical catalogues in the Museum],—“I am in a sylvia sylvarum, the books might as well have been packed up in water-tight chests, and sunk at the Dagger Bank. Of all catalogues, the worst is no catalogue [he means a printed catalogue, as mentioned before], a library without one is a Polyphemus without an eye on his head.” Such are some of the amusing complaints in this conflict of wit and learning with Panizzi, the great librarian of the British Museum. It only remains to add that the commissioners [composed of some of the most distinguished noblemen, statesmen and amateur scholars of the British empire] sustained the librarian in all his most noble and liberal measures, for the advancement and usefulness of the great library of the three Kingdoms, most triumphantly.

Now how ought these regulations to be applied as a system to our own most flourishing Mercantile Library? To me the system already indicated is just as applicable to a small as to a large library, at all worthy of the name of library.

I am at a loss to conceive any feasible objections to this plan. It has worked so admirably in the great Institution of the British metropolis, according to a more critical investigation of a royal commission which pursued its inquisitions for several years. They threw open the doors of this commission to all gaineers, from the elite of the modern Babylon to the humblest bookworm, the poorest Grub street garreteer of that parti-colored population. Historians, poets, compilers, bibliographers, wits and amateurs, were all in attendance. The result forms a melange of wit, learning and caprice, which furnishes a rich fund of entertainment. It is contained in the *Blue Books* published by the British House of Commons, now in the Mercantile Library.

No surveyor could delineate a spot of land more precisely, or with more mathematical exactness, than Panizzi has pointed out the locality of every book in the 460,000 of the British Museum, in his catalogue. It is the exact key to the very spot occupied by a book, and the nature of that book. What more can a catalogue do? Printed catalogues are comparatively insignificant in a great, accumulating library. In our own infant, but most honorable collection, supplement after supplement are fast destroying the use of a catalogue—facility and certainty of information. Already we have three catalogues to refer to, and the very useful manuscript additions of our intelligent and courteous librarian. All this trouble and uncertainty of reference may be saved by Panizzi’s plan, as previously detailed. And what new trouble does it involve? Simply a full and complete catalogue in manuscript for the reader, and another for the librarian. Alphabetical in one form, classified in another, as at present in our printed catalogues, with large spaces for future additions; and blank tickets for the readers.

These expenses are insignificant, compared with the advantages they would confer on the votaries of books. What is more discouraging or vexatious to a student, a thin-skinned student, or indeed, to a reader of ordinary curiosity, to be straying from catalogue to catalogue "in wandering mazes lost;" and even, when the book is found in the catalogue, not to find its place, its very spot, in the library with certainty and promptitude? There ought to be the strictest connection between the catalogue of names and the precise locality of the books. In other words, a good catalogue ought to be a *map* of a library, an *index* not only to the subjects of its contents, but their exact and precise location. A catalogue constructed on different principles, is a geography without latitudes or longitudes—a bookseller's list—an auctioneer's account of books—a history without chronology or geography, placed and identified in a librarian's own local memory, but *in nubibus* to all others. The adaptation of a catalogue to a library, in *name* and *place* can not be too exact and precise—it should be an inanimate sympathy, a fitness almost natural. But books not in exact, identified cases, but piled away on shelves, in undisturbed oblivion, safe from the prying eyes of the student, what is this, but solemn mockery? "They might as well be packed in water tight chests, and sunk on the Dogger Bank (a shoal off the coast of Holland, it is believed), in the sarcastic words of Carlyle," for all their uses to scholars under such circumstances.

Above all things, a library ought to be independent of the local memory of any librarian, however accomplished, even the celebrated librarian of the royal library at Paris, who is said to have borne its vast collections in his memory. I can not think a library fairly founded and organized, until it has such a catalogue. It is indeed the eye of the Polyphemus, which being deprived of, he becomes entirely blind. Moreover, without such a catalogue of *name* and *place*, a library lives in the memory of its librarian, instead of its own records. As well might the deeds and boundaries of our lots and lands be lodged in the memory of our recorders and surveyors, instead of the records of the country. It ought not to be.

Great Men of France.

—
BY H. H.

—
LAMARTINE.

I.

By our last French papers we learn that Mr. de Lamartine has declined the nomination for member of the General Council, tendered to him by the Department of *Saone et Loire*. This voluntary abdication is the last echo of a powerful and pompous voice, which after having sung in exquisite poetry "the memory of joys that are past," sounded the knell of the French monarchy, and proclaimed in its stead the accession of an ephemeral Republic.

Alphonse Prat de Lamartine has disappeared forever from the political stage. We propose to give our readers a sketch of the life of that great victim of popular enthusiasm.

The subject of this cursory outline was born the 21st of October, 1790, at the castle of Milly, near Macon. His father was a nobleman who held the office of Major of Cavalry in the army of

Louis XVI. In one of those poor novels which our poet lately published, we learn that his first cries mingled with the sobs of his mother; civil war was raging throughout France, his uncle had perished on the scaffold, and he begun to see and lisp amid the ruins of monarchy. The friends of his youth who gazed with horror at the immortal revolution of '93, soon infused into his young mind the fear of a people whose first acts, when emancipated, had been to destroy the privileges of their class, and plunge in a dungeon the father, uncles and cousins of the future bard. The recollections of infancy are so much reflected and prolonged even in the most troubled existence, that we are at a loss to understand how Lamartine chanced to become, at the end of his career, so fond of democracy.

Lamartine left the paternal roof at a very early age, to be educated in a catholic seminary, at Belley. His studies did not last long, and he soon abandoned the school to travel over Italy, the land of his dreams. Having heard, whilst residing at Venice, several years afterwards, that France was invaded by foreign armies, he went back to his country, and tendered his services to the monarchy just brought over in the baggage of Blucher and Wellington, to take the place of a vanquished, but still glorious empire. His offer was accepted, and he entered the royal guard. Shortly after, Napoleon, escaping from the land of exile, trod again the soil of his beloved country; as he drew near the city which thrice had proclaimed him Caesar and King, courtiers fled away in all directions. The royalist legions being disbanded, Lamartine despaired of rising to eminence under a military despotism, which at that time threatened to become the ruling power of France.

He hung up his sword and devoted himself to Literature. The beautiful sky of Ausonia had so much inflamed his imagination, that his poetical strains soon breathed the enthusiasm of true poetry. The talent of Lamartine, improved by choice reading chiefly derived from Catulus and Horace, rose to the highest pitch—yet, for a long time, he could not find a publisher bold enough to undertake the printing of his little book. He was too poor to publish it himself, and were it not for a Mr. Nicolle, the *Méditations* would be still wanting to the glory of France. The success of his first work surpassed all expectations; in less than six months upwards of sixty thousand copies were sold. The poem which followed was still more successful; but laboring under a false impression, he tried to add a fifth canto to Child Harold. The attempt proved a failure. The genius of the English language is such that no Frenchman can ever compose two lines in the style of English poetry; it is even doubtful whether he can fully understand any of the British poets. After having written *Socrate* and *Jocelyn*. poems which taken separately, would immortalize any author, he became, with the assent of all Europe, one of the three greatest poets of the

time. He closed that period of his life by being elected a member of the French Academy.

We cannot undertake in a brief sketch like this, to review the lyrical productions of Mr. Lamartine; yet we beg leave to insert an unpublished translation of his *Hirondelle*:

THE SWALLOW.

Why shun'st me, swallow, in thy wandering flights?
Come, let thy weary wing find rest with me.
Why shun'st me?—Mine's a heart which thine invites;
For am I not a wanderer like thee?

In this bleak world my lot is cast like thine;
Come, fear not, come and nestle close by me.
And when thou griev'st, thy griefs will join with mine;
For am I not disconsolate like thee?

Perhaps—alas! by cruel fate designed,
Thou 'rt driven from thy native roof like me.
Come in my window—'hou shalt shelter find;
For am I not a stranger here like thee?

Hast need of soft wool, when the winds intrude,
And thy young birds are shivering like me.
I'll breathe warm breath upon thy tender brood;
For have I not a mother dear, like thee?

Dost see in *France*, adown yon sunny slope,
The threshold which seems open now to me?
Haste—and bear thither the green branch of hope.
For am I not its native bird like thee?

After having married a wealthy English lady, he undertook that celebrated journey to the East. No modern prince even travelled in such a style. "His train consisted of twenty horsemen,—his rich tent was stored with arms and luxuries—the cities opened their gates to him—the Sheiks came out to meet him—the Arabs of the desert bowed themselves as he passed, and the Pachas became responsible for his safety with their heads." In that travel which was to seal his fame (by the relation he wrote of it,) he had the misfortune of losing his only child, Julia. The verses which he composed on that sad event, surpass, in beauty and sentiment, even the elegies of Gray.

The poet became a diplomatist. He was successively attached to the embassy of London, and Chargé d'affaires to Tuscany, where he was wounded in a duel with Gen. Pépé, which arose from some stanzas written against the patriotism of the Italians. Lamartine was on his way to Greece as Plenipotentiary Minister, when the revolution of 1830 broke out. The new Government maintained him in that important post, but he refused, and abandoned the career of diplomacy for that of politics. His first attempt was to offer himself as candidate for the Chamber of Deputies. The city of Toulon rejected him twice; at last he was elected by Dunkirk.

II.

Mr. de Lamartine was always considered in the House as a sort of legitimico-socialist, who was too proud or too ambitious to follow any party, and not definite enough to create one of his own. As an orator he soon acquired great celebrity, although his style of speaking is (in our own opinion) wholly metaphorical. Some, however, think it graceful, flowery and eloquent, but every one admits that he lacks depth and logical solidity. Take for instance his idea of literature which we always thought in the true sense of the word designated the peculiar field of Belles-Lettres studies—the most perfect and most noble walk of the human mind. Our poet proposes for it a theory which defies all analysis: “The beautiful—says he—is the virtue of the intellect. In restricting its worship, let us beware of impairing the virtue of the heart.” Whether in restricting or extending the worship of his intellect, Mr. de Lamartine impaired something, we know not, but his first poetical essays were not appreciated. Yet his colleagues never ceased to listen to him with great deference—he was bearing in his renown as a poet—but none of them ever was able to determine the true meaning of his ideas, the definite hue of his system.

A great traveller was complaining that he was never the better for his travels. “That is very true,” said Socrates, “because you always travel with yourself.” The same may be said of Lamartine. Wherever he lived, dwelled or travelled, whenever he spoke, read or wrote, he was guided, mislead, blinded by his illusions. If he had remained a platonic beau and a lyrical poet, none would ever reproach him with want of discernment, but he carried his dreams into the Forum; he deluded a whole people with harmonious periods, whilst drums, bugles and the Marseillaise should have filled their very souls with the true accents of martial patriotism. What was the policy of Mr. de Lamartine when he found himself the leader of a young democracy full of fire and generous aspirations? Instead of aiming at a political and social reformation absolutely necessary, he exhausted the enthusiasm of the nation in temporizing with vanquished or powerless parties, which had twice brought France to the very verge of moral ruin. He had before him a vast field; no one would have opposed his decrees; he could animate with the warlike spirit of liberty the suffering population of the old continent; and by a more serious demonstration of sympathy, bring about the final destruction of despotism in Europe. We are far from desiring to see France taking on herself to be always the champion and arbiter of mankind; but we must not forget that all the European nations made a tacit appeal to the alliance of the rising Republic. This was so obvious that at the first tidings of the French revolution, Italy, Germany and Hungary rose in arms, were successful for a while, and would have sealed forever the tri-

umph of right over the usurpation of absolutism, should Lamartine have hurled abroad the sympathising people, whose invigorated passions dangerously fermented at home.

The commonwealth could well afford to sustain by arms the propagation of democratic principles. A continental war was not to be feared by the French. Sixty-five years before, France was invaded by the combined forces of Prussia, Russia, Austria and England. Condé had been taken, Valenciennes had capitulated, and two Spanish armies had crossed the Pyrenean mountains. A Piedmontese army descended the Alps; a Vendean division commanded by Cathelineau, took possession of Saumur, Angers, Bressuire, and attacked Nantes by the right bank, whilst Charette advanced on the left; Marseilles, Caen and Lyons rose in insurrection against the Revolution; Toulon called into its harbor an English squadron; the seacoast were blockaded, the finances destroyed, and the soldiers marched barefooted to victory. It was not in vain they shed their blood for the triumph of the democratic cause: not only they vanquished the European coalition, but planted in Holland, in Germany and in Italy, from the Rhine to the Tiber, the glorious flag of the French Republic. These heroes are the fathers of the present generation; and as long as the remembrance of their exploits shall live in the hearts of all Frenchmen—as it still does—we must think them worthy of so noble a cause.

The result of Lamartine's unfortunate tergiversations was the civil war of June, the destruction of all the liberties so dearly bought, and the shameful election of a perjured Prince to the first magistracy of the Republic.

III.

In the year 1846, Lamartine published his famous *History of the Girondists*; a work beautifully written, and most interesting, which had, above all, the merit of coming at the proper time. The people were tired of a monarchy erected by surprise, and which subsisted during eighteen years by corruption only. The masses were pervaded with a sort of aspiration which was not very definite. That book, in awaking with powerful eloquence the remembrance of a glorious democracy, directed that aspiration towards the Republic. The 24th of February, Lamartine beheld with surprise the fall of a monarchy which he helped unconsciously to destroy. He did not despair though, and discovering at once the prevailing tendency, he boldly hoisted the democratic flag. The people sanctioned by acclamation, the establishment of the new Republic, and relying upon his supposed ability, tacitly bestowed upon him the power of ruling France, pretty much as he pleased. His popularity was great then!

The election for the National Assembly having taken place before his policy could be fully understood, or before the evil resulting from it was felt, Paris elected him by the immense majority of

259,800 votes. Ten Departments sought the honour of being represented by Lamartine, and the number of votes which he gathered in France at a single election, amounted to one million six hundred thousand. He was again appointed a member of the Provisorial Government, an office which he held until the insurrection of June deprived him altogether of the popular favor.

Since then his political occupations have been limited to one or two speeches, and a great many noisy articles in a paper, modestly called "*The Counsellor of the People*." Having spent a large fortune that had been left to him by an old aunt of his; and being unable to live in the extravagant style to which he always was accustomed, he pawned his needy pen to a publisher, who extorts from it wretched novels unworthy of his literary talent, injurious to his fame.

Although much overwhelmed by the indifference of his countrymen, he still possesses a noble independence, which now and then breaks forth. A publisher lately offered him a large sum of money if he would write a panegyric on Napoleon the Great and his contemporaries. "It is impossible"—replied Lamartine—"I have just finished my History of the Directory, in which I have devoted a few pages to stigmatize, as he deserves to be, that ungrateful son who murdered his mother. There are enough writers without me, who will extol the warlike genius of Bonaparte; my pen belongs now to the holy cause of democracy." His last work, the *History of Restoration*, is an evident proof of his threats.

We often see emerging from political convulsions, men who for a while enjoy an unbounded popularity. As soon as experience gives its verdict, indifference succeeds to that ephemeral glory; leaving in its place, to those favorites of a day, the bitter remembrance of their deception, and the blind hope of regaining an influence which they have lost by their own fault. To some people, such a fall is perfectly intelligible; to others it is a great puzzle. But let the observer weigh with impartiality the causes of the change, and then he will discover that the *vox populi* is often the *vox justitiæ*. Mr. de Lamartine—more than Lafayette, and less than Odillon Barrot—is a living proof of our assertion.

In our age, we so seldom see a politician who remains incorruptible, especially when he rises to the very summit of political distinctions, that we shall say—so that it should palliate many faults—that Lamartine is, and always was, profoundly earnest, of an undoubted honesty, and remarkably disinterested. After having endeavored to review his life with impartiality, we feel happy to conclude in rendering full justice to his moral and religious sentiments, and without thinking with his panegyrists that "by his eloquence he has risen above the greatest orators, both of ancient and modern times; that as a man of character and energy, he realizes the ideal of Horace's *Justum et tenacem propositi virum*,"

we shall always praise the lofty character and the amiable qualities of ALPHONSE PRAT DE LAMARTINE.

This is the place to say, with Timon, that Lamartine is tall, has blue eyes, the forehead narrow and prominent, the lips thin, the gestures noble, and a sort of stateliness, a little of the *Grand seigneur*. The women, charmed with his sentimental melodies, which touch so well their souls, looked but for him, amid the multitudes of the deputies, and asked each other: Where is he?

Juvenile Reform Schools.—Memorial.

To the Honorable Senate and House of Representatives of the State of Missouri, in General Assembly convened:

The undersigned, a citizen of the State of Missouri, respectfully represents to your Honorable body that the large number of legal arrests, in the city of St. Louis, for offences committed by individuals under the age of fifteen years, is evidence that in our own highly favored land, as in other countries, vice in all its varied forms is a natural fruit of populous cities.

In the early stages of a nation's history, cities are the seats of intelligence, of science, of useful arts, and, the civilizers of rural districts; but, in time, their vices, like a slow yet fatal poison, by degrees prevail over their virtues, and spreading throughout the nation, sooner or later terminate its existence. Such is the history of the more renowned nations of antiquity, and the present aspects of the social condition of Europe would seem to indicate similar results in respect to modern civilization, especially on a portion of that continent.

Thus admonished, it is among the highest duties of the American people to guard against, and, if possible, suppress this fatal evil before it becomes irremediable.

Observant of every vice that threatens the well-being and progress of society, and ever active in the cause of humanity, a few philanthropic individuals of the city of St. Louis have made liberal donations, and organized under a charter authorizing the establishment of a Juvenile Reform School, near this city, for the instruction and reformation of children addicted to vicious practices.

But individual liberality is totally inadequate to the end proposed. To be efficient and equal to the objects in view, the institution must be based upon a more solid foundation; it must possess a large and permanent endowment, such a one as can only be expected from the State or General Government—and to the latter your memorialist now proposes to look for assistance.

The sixteenth sections reserved for common schools, were donated to the townships respectively: from which it may be inferred that Congress designed to place the inhabitants of each, as nearly as practicable, upon an equal footing in respect to the means of education.

According to the census of 1850, the population of the State of Missouri, exclusive of St. Louis, averages about nine persons to the square mile, which gives about two acres of school land to each inhabitant of the rural townships. By the same rule, St. Louis, if placed upon an equal footing with the other townships in the State, would be entitled to about 200,000 acres of public land; that much, at least, in the opinion of your memorialist, the city of St. Louis may claim at the hands of Congress upon principles of justice and national policy.

The report emanating from the General Land office for the year ending 30th June, 1851, shows that the General Government then owned 26,635,589 acres of land in the State of Missouri: the whole of which Congress will, in all probability, give away, by virtue of the Homestead Bill now pending, to a certain class of individuals, provided they will settle upon it.

If Congress be moved to vote for the Homestead Bill by sentiments of philanthropy, surely the children of poverty and vice, destitute of moral instruction, growing in crime as they advance in years, relying upon begging and thieving for subsistence, while on their way to the poor-house, the penitentiary and place of execution, are objects which claim the active exercise of that amiable quality in as high a degree as the class of individuals intended to be benefitted by that measure. If moved by a far-seeing national policy, which looks to the conservation of our excellent institutions through an indefinite period, and to the continual advancement of civilization with all its blessings through countless generations then, instead of attempting to supply the temporary wants of individuals now existing, Congress will, doubtless, give lands not only to St. Louis, but to every large city in the Union, with a condition that the money derived from the sale thereof shall constitute a perpetual fund to aid in the education and moral improvement of indigent and vicious children.

In view of these objects, the undersigned respectfully asks your Honorable body to memorialize Congress soliciting a grant of land, either to the State of Missouri or the city of St. Louis, for the use and benefit of a Juvenile Reform School, to be established at or near this city.

M. TARVER.

PERIODICAL LITERATURE.

"THE MISCELLANY AND REVIEW," devoted to *Education, General Literature Agriculture, Reminiscence, the Science of Government, Social and Political Progress, Manufactures, Home Commerce, Internal Improvement and Family Reading.* T. F. RISK, Editor; RISK and EBBERS, Publishers. The first number of this work is before us, and we are constrained to say that it is highly creditable to both Editor and Publishers. The matter, good in itself, is selected and arranged with taste and judgement; while the material and mechanical execution will compare favorably with the most popular works of the day. In the *Miscellany and Review*, western readers are presented with an opportunity of aiding in building up a literature in their midst; a literature as varied, as interesting, and far more profitable than that obtained through Eastern Periodicals. That the opinions, the taste and moral tone of the West should be directed and controlled by the eastern press, must be a source of humiliation to every independent mind; and we trust the time is near, when the inhabitants of this broad valley will come up to the support of a home literature. Few, perhaps none, fully appreciate the importance of such a movement. Then, and not until then, will the people of the West begin to think, and act for themselves; then, and not till then, will their influence be felt, and properly respected in the councils of the nation, and their opinions and moral character have their due weight with the people of other lands.

The "Miscellany and Review" is published simultaneously at St. Louis and Memphis, Tenn., at \$2.00 per annum payable in advance.

"THE VALLEY FARMER." This useful and interesting monthly has entered upon its fifth volume; and we are pleased to observe that it improves with age. This should be regarded as conclusive evidence that its Editor is made of the right kind of material; and gives assurance to the farmers of the West, that it will be their own fault if they do not profit by his labors.

"SOUTHERN LITERARY MESSENGER." This pioneer of southern *Periodicals* has entered upon the 19th volume. This fact alone is a strong argument in favor of its claims to public patronage. The prospectus for 1853 contains a list of able contributors whose names constitute a sufficient guarantee, that the interesting and useful character of the work will be sustained. The price has been reduced to \$3 a year.

"THE COLUMBIAN AND GREAT WEST." This, in our judgement, is not surpassed by any family newspaper of its class published in the United States. It has been established at Cincinnati as a *Pioneer of Western Literature*, and we cordially recommend it to western patronage. Price \$2 per annum.

THE PLAINS,

Being a Collection of Veracious Memoranda, taken during the Expedition of Exploration in the year 1845, from the Western Settlements of Missouri to the Mexican Border, and from Bent's Fort on the Arkansas to Fort Gibson, via South Fork of Canadian—North Mexico and North Western Texas.

By FRANCOIS DES MONTAIGNES, of St. Louis.

CHAPTER THREE.

Wherein the Great north-western-mule-wagon and pack-saddle Exploring-Expedition makes a grand movement, and its historian, one still more grand, though rather mixed with Geometry.

All persons and things being now ready for a start, as might or might not have been inferred from the preceding luminous chapter, Captain John C. Frémont issued orders for a general Catching and Saddling up.

It may be as well to mention that this important movement took place on the 23rd of June, 1845—as the reader of these invaluable memoranda may feel a laudable curiosity respecting a fact so intimately blended with the main end and success of this great Expedition.

Whoever has beheld a Buffalo-chase upon the broad prairies, where the ferocious and murderous hunters, rush into the terrified herd as it flies like a storm cloud over the wastes—or been present at an immense deer surround by a large band of Indians, may have a faint imagining of the lively scene which now ensued. In action it defied description, and though there are certain followers of Daguerre who pride themselves upon having obtained the fac simile of a streak of lightning, there is good reason to believe that a camera of more than ordinary power would have been requisite to have caught even a shadow of the queer and stirring panorama now on exhibition.

Quadrupeds, like certain other animals, *will*, at times, be contrary, as was fully demonstrated in the present instance;—a naturalist having any doubts in this respect, would have had them removed in a moment,—and could a bona fide philosopher of the Archimedean school have witnessed a portion of the experiments now performing on Boone's Fork, the rising generation would have discovered a mule with a long rope attached to his neck, no insignificant mechanical power in assisting the transit of half a dozen greenhorns over the surface of the globe, and that too in a manner, at once rapid and salubrious.

Here some unhappy man would spend ages, as it were, in vain endeavours to secure his treacherous animal with rope or halter, and just at the moment of success, when with caressing voice and hand he touches the wretch with the rope, the latter with a snort and a whistle like the combustion of a half-pound of gun-powder, flits away over the grassy knolls like a moon beam, and with the speed of an autumn blast.

The next we see of the fellow, perhaps, is his return over the hills at the same headlong speed; captured,—lassoed, to be sure, but with a nondescript attached to the rope, looking more like a tincup, in his birdlike flight, than a member of the Great United States Exploring Expedition.

Here again with a deep puff, like some ponderous locomotive, comes a huge American mule trailing a long cable with a number of stout explorers for cars attached, blowing and swearing as much unlike cars as possible, and impelled onward in the wake of the powerful "*Iron Horse*" by some mysterious influence, as startling in its effect as *this* is alarming to them. And there—see there! No! 'Twas but a shadow—a ray—a glance. Yes, there he goes! Head over heels, heels over head; up in the air, down in the grass; head first, heels last; thrown, capsized, no mistake! And then with a whiz like a sudden whirlwind, away darts muley like a rocket or some erratic comet into unknown regions. There was no apparent termination to these unheard-of proceedings, and though the prime movers in the revolt were the Mexican mules, who had seen the elephant before and were well up to all tricks, yet the green ones just purchased which had never cropped a blade of buffalo grass, appeared as skillful in queer manoeuvres, as their more experienced brethren who had no doubt taken extra pains to perfect them.

The veterans of the expedition had served their time at this wild sport and had, therefore, a comparatively easy time. But even they were frequently deceived

by the demure and humble exterior of sundry wild beasts, and the result would be like an Arapahoe Buffalo Hunt—an immediate surround and indiscriminate slaughter; for the refractory animals were lassoed, haltered and blindfolded, bound securely fore and aft, and the girth of the saddle drawn so tightly as almost to check respiration and giving the mule the appearance of being divided in the middle.

In this off-hand manner, most of the vicious, who seemed to preponderate by no mean majority, were finally secured, saddled and packed or harnessed. The tame ones were an easy conquest, and by one o'clock the whole was ready.

The camp was broken up and the great caravan, destined to explore the untrodden wilderness between the border and the Pacific Ocean, now began like an unwieldy serpent to unfold its coils, and slowly creep from the sunny hillside, where it had basked for a week or more, over the slopes and ravines which lay towards the setting sun. Ah! It was a goodly sight to see. That magnificent serpent spreading out so gloriously and glistening with brilliant hues in the warm rays of the sun, does well for a figure; but when the cost of the animal comes to be computed in dollars and cents, and presented to Uncle Sam for payment, the figure becomes more important than a metaphor, and may well cause that sapient old gentleman to blow upon his fingers and tell us, he had paid for a *whistle*.

However, as we are not on the topic of political economy, we may as well return to our mutton, or rather to our mules; (these being used for that luxury by experienced mountaineers,) for never was attention, and minute attention too, more necessary than now. First upon the field and foremost in rank came a little Yankee waggon (upon springs), for all the world like those we have seen with cargoes of cloths and of tinware, having a square black top with its curtains buttoned down behind and on each side like an urchin's first suit, drawn by two docile beasts with a heavy whiskered fellow to drive them and laden to the top, with an endless variety of sex'ants, circles, telescopes, microscopes, thermometers, barometers, chronometers, etc., etc. In one word, all the principal contrivances for making a complete and minute survey of the whole country: one perfectly *botanical, geological, astronomical, historical and zoological*, including every scientific item from the domestic economy of the prairie dog to an analysis of the Great Salt Lake.

The little waggon, with its sharp-eyed driver, constituted a complete moveable observatory, and on that account was the observed of *all*. It was the Focus,—the Magnet,—the sun by day, and the moon by night to our caravan, and ever the foremost on the march, it was continually the object of our most watchful and jealous care, as the repository of the wonderful mechanism by means of which the world was to be enlightened for ages to come, as to the exact height at which, Frémont's Peak towers with its snorts and soaring eagles, and the exact longitude and latitude in min's, sec's and deg's of the steamboat Spring and the Horse eating Indians.

We gazed upon the little concern with a superstitious reverence, and had an opportunity been offered us by the Fates, to have evinced our love for botany, and the sciences in general, by casting ourselves before this miniature car of Juggernaut in a Pawnee fight or a Ro-t-digger massacre, many an humble hero's name would have adorned the niche now occupied by Arcturus,—fossils,—boulders,—Fremontia vermicularis.—dodecatheon and gooseberries.

But we are running away with the vehicle, as usual, and as it is a well known fact that there exist Jack-o-lanterns and Will-o-the-wisps in literature as well as in other regions, we will take the present opportunity, to promise the accommodating reader of this sketch, that hereafter, in pursuing any random remark which the fertile subject may elicit, we will not continue the chase beyond a certain safe depth—one at least at which our head shall be above *water*.

En avant is the word, so let us onward. The next in order after the mystic carriage, came four heavier vehicles with white and red covers, and drawn by four and six mules, containing the provisions and outfit, and constituting an assortment which would have set up a dozen country stores. Then, bringing up the rear of this cavalcade, came a large and tumultuous drove of pack mules and loose mules, pack horses and saddle horses, and a number of beeves. Some of the animals were turned loose with their burdens, but owing to the frolicsome nature of the untamed majority, it was deemed proper to lead them on the march, by ropes and lariatets, at a less impetuous pace, than they might otherwise have preferred. Some had charge of two,—and others of three;—while many found a single one to be rather an odd number, and by far *one too many*.

To be continued.

THE
WESTERN JOURNAL
and *Civilian*.

VOL. IX.

January, 1853.

No. IV.

ARTICLE I.

Commercial Prospect of 1853.

Few subjects embrace a larger scope or involve the consideration of a greater variety of topics than commerce: and hence predictions in respect to trade are in general entitled to but little confidence. The commerce of the civilized world, at the present day, is to be regarded as a unit. If famine or war prevail in any considerable part of the globe, or productive mines of the precious metals be discovered, such occurrences affect all the nations of the earth through the medium of trade. The introduction of new industrial pursuits; improvements in agriculture, machinery and ship-building; the construction of canals, railroads and other means of facilitating the transportation of persons and property; increase of population and migrations from one country to another; legislation and banking; the moral and social condition, manners and customs of the inhabitants of the earth, are all subjects continually operating upon and affecting the state of commerce. It is obvious, therefore, that it requires a considerable degree of knowledge respecting the economy and social condition of all countries to enable one to arrive at correct conclusions touching a subject so comprehensive, and withal, so liable to change.

Admonished of the danger of conclusions derived from an imperfect knowledge of facts, we shall limit our observations respecting the commercial prospects of the current year to a few leading topics, which, owing to their novelty, are liable to be misapprehended by a large portion of the people of this and other countries.

The large quantity of gold flowing into Great Britain from the Australian mines induces many to conclude that the precious met-

als will rapidly depreciate in value, and probably cease in time to perform the functions of money.

Similar apprehensions having disturbed the public mind some years ago, in respect to the produce of the California mines, we then gave the subject a careful examination; and by reference to that paper, we find no reason to change the opinions then expressed.* But, in as much as only a small number of our present readers are in possession of that treatise, we trust we shall be excused, if, in discussing the subject before us, we reiterate some of the arguments contained in that article.

A general belief that a great depreciation in the value of gold is about to occur is calculated to incite a spirit of speculation, which may prove disastrous, not only to the many great schemes of public improvement now in progress in this and other countries, but to the prosperity of all other branches of industry. We shall, therefore, in the first place endeavor to show that there is no reasonable ground to apprehend such a redundancy of the precious metals as will materially affect their present relative value, provided the people resist the spirit of speculation. . From a careful examination of authorities, about four years ago, we set down the amount of money, then in the world, at \$4,000,000,000, and adding \$250,000,000, which is the probable amount produced since that time, we have \$4,250,000,000, as the present quantity. Now if we suppose the annual amount hereafter produced should reach \$150,000,000, it would be less than $3\frac{1}{2}$ per cent. per annum upon the amount now in existence, an increase about equal to the increase of population in the United States, but bearing a very small proportion to the rate at which property in this and other countries increases at the present day. We have no means of ascertaining the increased value of property in all the United States since 1840, but we see it stated, upon what we regard as authority, that the census valuation in the State of Massachusetts was \$590,000,000, in 1850, against \$299,000,000, in 1840, an increase of nearly ten per cent. per annum.

And when we take into consideration the amount of the precious metals used for other purposes than money; the increased amount required to supply the demands of a commerce continually growing and expanding throughout the earth; the quantity required to build and operate manufactories, railroads and other improvements, it

* Vide vol. II, page 241.

will be readily perceived that \$150,000,000 per annum may all be absorbed, and the relative value of the precious metals to other commodities remain without any material change.

When produced in large quantities, the first movement of the precious metals is in the direction of the great commercial centers, to be thence distributed throughout the commercial world according to the demands of the producers and consumers of other commodities. And, unless there be some cause modifying the laws of trade, the rate of interest at the great commercial centers will be the first thing affected, and would continue to decline so long as the influx exceeded the outward current. But whenever the outward demand should be equal to the supply, then the rate of interest ought to be nearly stationary, and adjust itself according to the laws of commerce, whether the supply of the precious metals be great or small. A low rate of interest at the commercial centers induces individuals, corporations and communities to enter upon extensive schemes of manufacturing, mining and public improvement, creating a demand for money which in the present progressive age will, doubtless, keep pace with the increase of production, though it should reach the expectations of the most sanguine. These, according to our conceptions, are the natural laws operating upon the production and distribution of the precious metals; and the nations who possess sufficient intelligence to comprehend, and prudence to conform to them, must be benefited by any amount of increase in quantity which we can reasonably expect from the stores of nature.

But proceeding from these premises to the consideration of the actual state of commerce in connection with the various branches of industry and the productive energies of this and other countries, we perceive causes, modifying the laws to which we have referred, which, if allowed to exist and gain strength, will, in time, be productive of many evil consequences. Of these the most prominent, in our estimation, is the excess of importations of foreign merchandise over the exportation of both domestic and foreign products. In the year ending 30th June, 1851, deducting the amount of California gold, the amount of exports of domestic and foreign commodities was \$22,472,735 less than that of the imports from foreign countries; and in the year ending 30th June, 1852, according to the statement in the President's message, the imports of foreign merchandise exceed the amount of domestic and foreign produc-

tions by the sum of \$40,174,164. During the same period the exports of specie amounted to \$42,507,285, and the imports to \$5,262,643. After deducting the amount exported, the increase of the precious metals in this country from all sources during that period, may be set down at about \$15,000,000, a sum that, in our estimation, is far below the increased demand arising from the prosecution of our public works, to say nothing of that growing out of the increase of population and private property.

From present appearances, the results of our foreign trade during the current fiscal year, will differ but little from those of the year ending 30th June, 1852; and hence it is obvious that a large portion of the means necessary to prosecute our public works must come from foreign countries. It is therefore obvious that a continued supply of the precious metals equal, at least, to that of the last two years, is necessary to sustain the present state of things. And, even if the products of the mines should not decline, it is obvious that, if our foreign commerce should continue to exhibit such large balances against us, this country must sooner or later become embarrassed by the foreign debt incurred by loans and the sale of bonds to aid in carrying on the extensive schemes of internal improvement already commenced.

A tendency to excessive banking is another feature of the times not less dangerous than excessive importation of foreign merchandise. Banks and banking facilities are the chief agents in exciting a mania for speculation in unproductive property: and when a community once embarks in such operations, like an epidemic, speculation runs its course until banks and people are alike involved in hopeless ruin. The following judicious and well-timed remarks, extracted from the *Merchants' Magazine* for December, 1852, contains some valuable suggestions for the people of the Western States, upon this branch of our subject:

"There has been since our last a fresh impulse given to the business of banking, and particularly throughout the western country; in Indiana and Illinois the number of new banks is rapidly increasing. Wisconsin is soon to follow in the same track. The great difficulty in the way of successful banking in the new States has arisen from the want of a surplus cash capital. If banking be the business of lending money, it is necessary to its success first of all to secure a capital; and this in a new State where there is no floating capital seeking investment, is not an easy matter. Under the new banking law recently enacted at the West. State stocks, and in Wisconsin, a certain class of railroad bonds, are to supply the place of a specie basis. If carried to a moderate extent this security will no doubt be ample; but should it be overdone, and a panic ensue, the result

cannot but be disastrous. Thus far, the eagerness to enter the new field has been too great for the development of a proper system. The sudden and simultaneous establishment of nearly fifty new institutions in the section of country referred to, does not promise for the new banks a very healthy growth. It is supposed by many that these banks are owned at the East, and are only designed to furnish a depreciated currency for the Atlantic States, issued so far from home as to defeat any attempt to secure a specie redemption at or near its par value. If this be the end in view, it will not probably be successful. The mysteries of banking are better understood than formerly, and the public are indisposed to tolerate a paper representative of money, where it cannot be converted into coin at its par value.

In New York city, and in Connecticut also, new banks have been multiplied, the long continued ease in the money market having made such modes of investment more desirable."

Some two years ago, we advocated a system of banking in this State similar to that of New York; but reflection and the events which have since taken place, have lead us to doubt the policy and safety of a system of free banking, as it is called, in any of the new States, at least, for some years to come. We admit that there are sound objections against the use of a paper currency issued in other States, but we regard even that as being less dangerous to the permanent prosperity of our own people than an increase of banks and banking capital at a time when there is so great a tendency to excessive importations of foreign merchandise. The establishment of new banks is calculated to increase the consumption of foreign commodities, while experience has shown that when paper money is abundant, and loans easily obtained, labor advances in price, and agriculture declines. Besides, it is the nature of banks of issue, to create local debts which, increasing with the number of institutions established, become so onerous in time that they can only be discharged by acts of bankruptcy. In no case that can be reasonably imagined could the evils incident to the use of a paper currency, issued in other States, be so great as those which have been known to occur in States where banking has been carried to excess.

In other respects, the commerce of the States bordering on the upper Mississippi, though apparently prosperous, is characterized by facts that require a careful examination. From the information derived from the imperfect method of collecting and arranging the commercial statistics of this region, it appears that the exports of agricultural products so far from increasing in a ratio equal to the increase of population, has rather declined than increased in volume since the year 1847, while the amount of imports has been

steadily, and, we may say, rapidly increasing. This would seem to indicate an unfavorable condition of the leading pursuits of the country; and, indeed, it is difficult to find a satisfactory explanation of this remarkable aspect presented by western commerce. But notwithstanding this peculiar state of facts, we are warranted in the conclusion that the country is now in the enjoyment of as high a degree of prosperity as at any former period of its history.

We regard the following as the only reasonable method of solving this singular problem in political economy. The emigration to California, since the year 1848, has deprived the Western States of perhaps 100,000 of its most efficient producers, while those dependent upon their labor for support have been left at home to be sustained from other sources. Thus, not only the amount of products have been diminished, but the number of consumers, in proportion to the producers, greatly augmented. It is true that immigration has been constantly flowing into these States, in numbers more than sufficient perhaps to supply the places of those who emigrate to California, but a large portion of these settle in cities and towns, and become consumers instead of producers of agricultural products. And several years must elapse before even those who settle in rural districts can produce more than is required for the support of themselves and families; indeed, the whole number of immigrants who come to the country may be regarded as non-producing consumers for at least one year after their arrival. These we regard as the principal causes which have prevented the exports of agricultural products from increasing in these States for some years past. But another cause is beginning to operate which, in connection with those already mentioned, will in all probability occasion a material decline in the exportation of western staples for some years to come. We allude to the extensive schemes of public improvements projected and, in part, commenced in these States, which, if prosecuted with a reasonable degree of energy, must draw off a large amount of labor from agriculture, while the home demand for its products will be greatly enlarged.

In reviewing the preceding facts, and tracing their connection with the present financial condition of commerce of this and other countries, we are led to the conclusion, that, perhaps, in no period of history has the commerce of the world been more prosperous or based upon more solid foundations. But notwithstanding this conclusion, we are deeply impressed with the conviction, that

in no period of our own history has a greater degree of caution been necessary, on the part of the people of this country, than the present. That money will continue abundant, and the prices of agricultural products comparatively high, during the present year, there is scarcely a reason to doubt; but if the imports of foreign merchandise continue to bear a proportion to our exports of agricultural products similar to that exhibited by the official returns of the last two years, the abundance of money and high prices must, in a good degree, be sustained by the creation of banks and the sale of bonds and stocks to foreign capitalists—a system of economy which, in a few years, would inevitably sap the foundations of our present prosperity.

No part of the earth is more deeply interested in sustaining the present prosperous condition of every branch of trade and industry than the States bordering on the Mississippi. Hitherto a large portion of the profits of labor in these States have been enjoyed by eastern and foreign merchants and capitalists, while their progress has been retarded by the want of railroads and other commercial facilities. Having, at length, awakened to a just sense of their dependence upon the East, and the disadvantages under which they have long labored, in respect to the development of their own great resources, they are about to enter upon schemes of improvements, commensurate with the extent and physical grandeur of this mighty region. The issue is now presented, whether the comprehensive system of improvements which has received the approbation of intelligent men in every part of the country shall be carried out to its final consummation, or, whether these States shall continue, in effect, to occupy the relation of provinces of the East. If indomitable energy and firmness of purpose were alone sufficient to ensure success, there would be no reason to doubt the consummation of these great objects. But the country has too much at stake to rely wholly upon these manly virtues. Every latent as well as apparent cause of danger should be studied and guarded against.

We should move cautiously, and by slow degrees, in the beginning. Time is one of the great elements of human power; and no cause of failure in the attainment of important objects is more common than miscalculations respecting the quantity necessary to be used in combination with other agents. Indeed, were it certainly in our power, it would not be desirable to complete our sys-

tem of railroads in one or even in two or three years. The amount of money necessary for that purpose would raise the price of labor and property so far above the ordinary standard, that the development of our resources would be delayed rather than accelerated, and a pecuniary revulsion would follow the completion of the work as a natural consequence. The first thing to be aimed at is to establish confidence that the entire scheme will be certainly carried out in a reasonable time, and then adopt a policy that will limit the sum annually expended to an amount that will be absorbed by the development of the legitimate resources of the country. Proceeding upon these principles, there is scarcely a limit to the work that a community may achieve without materially disturbing the regular pursuits and business operations of the country.

But in the mean time, the Western States require the talents of the statesman and political economist as well as the money of the capitalist. A sound and steady national policy calculated to encourage the development of our own great resources, and a state policy that shall guard against excessive banking and speculation, are among the means necessary to accomplish the extensive plans of improvement about to be undertaken by the people of the West.

There is yet another topic which deserves to be noticed in connection with the subject under consideration. The emigration from Europe to this and other parts of the globe is among the most remarkable and interesting social phenomena of this wonderful age; and the systematic form which this movement has assumed authorizes the inference, that it will continue for many years. The emigration from the United Kingdom of Great Britain, in the 5 years ending with 1851, is stated by the Colonial Land Emigration Commissioners to have been 1,422,675. In 1851 it amounted to 335,969, which is supposed to exceed any probable increase of the population by nearly 4 to 1. The emigration of 1852 is estimated at 500,000.

Should this state of things continue for a few years, it will produce results which may falsify the reasoning and predictions of the most learned and astute economists. The facts involve the consideration of some of the most profound and subtle principles of natural and social economy, and claim the serious investigation of the philosopher and statesman. The attraction of newly discovered countries and the love of adventure, are motives which at all times and in all countries lead individuals of certain temperaments to

emigrate; but it is obvious, that the exodus now under consideration originates from other causes. It is to be regarded as the effects of a great social principle, which, having been violated and restrained in its operations by human institutions for ages, is again asserting its power to disperse the human family, and make a more equal division of the earth as well as of social benefits amongst the children of men. Viewed in this light, it opens a broad field of speculation, one so novel, and withal so fruitful in consequences involving the destinies of the race, that we scarcely dare to investigate results or even to enter its precincts. That this movement will materially affect the commerce and social condition of Europe, and America, there is no doubt; but the consequences may not be so rapidly developed as to produce any sudden revulsion provided the current of events be carefully observed.

The first impressions made upon the mind, when contemplating this subject, are that emigration is calculated to ameliorate the condition of populous countries, by enlarging and equalizing the dividends derivable from their natural resources. But when we are informed, that the emigrants consist chiefly of the young and most vigorous adults, a large portion of whom are without families, and that the inefficient and helpless are left behind, it would seem that, for a time, at least, the hard condition of those who remain, would be aggravated instead of improved by a diminution of numbers.

Should the current of emigration from Great Britain continue to flow without abatement, it cannot be long before a scarcity of labor must be felt in that kingdom; and though the want may be supplied, in part, from the continent, yet it is not presumable that its mines and machinery could be operated as profitably by foreigners as by native subjects educated and trained to certain branches of employment from childhood. Hence, we conclude that emigration, if continued at its present rate, will be the means, in time, of raising the price and profits of labor in England nearly or, perhaps, quite equal to the American standard. The first effects of such an occurrence would be observed in the advancing prices of the products of mines and fabrics produced by manual labor. And though it might not, in any great degree, increase the cost of manufacturing cotton and other fabrics produced by machinery, attended by females and children, yet the cost of such commodities

would be increased by the advanced price of machinery and other appliances necessary to carry on manufacturing operations.

We have no means of ascertaining whether any of the effects here suggested have as yet been observed in Great Britain; but we are persuaded that the present high prices of iron in that country is owing, in some degree, to the emigration of laborers thence to Australia and other parts of the globe.

Should these views touching the effects of emigration be verified by facts, we are entering upon a new era in the commercial and social history of this and, indeed, of all other countries.

Labor, long fettered and controlled by despotic institutions, has broken its bonds, and is going forth in quest of political and religious freedom, of the elements of comfort and wealth—in lands where producers and consumers may exchange commodities upon terms alike beneficial to all parties. In due time capital must follow; and then our mines will be opened, and manufactories established, upon a permanent and profitable foundation. This revolution may not affect our commerce in a material degree, during the current year; but we are persuaded that it is destined to progress, and grow in strength until the results to which we have alluded, shall have been fully developed.

ARTICLE II.

Latent Heat.

BY HON. A. BEATTY.

Writers, who treat on this fruitful subject, distinguish between what is called *sensible heat*, and *latent heat*; and from the manner in which these terms are used, the idea is conveyed, that *heat* is a material substance. That there are two kinds of *heat*, one of an active nature, affecting the thermometer, when brought into contact with the mercury, in the bulb thereof; and the other *latent*, producing no effect upon the thermometer.

But in reality *heat* (as well as cold) is a mere *sensation*. The cause of this sensation is a very active fluid, named *caloric*. There is but one species of *caloric*, and for this substance, all other substances have a strong affinity, and each is supplied with a due proportion (according to their respective *capacities* for containing *caloric*), when in a state of *equilibrium*.

Heat and *cold* are mere sensations, and caloric is the cause of both of them. Thus, if the hand, at the temperature of 98° be plunged into water, heated to the temperature of 150° , a part of the caloric of the water leaves that fluid, and enters the hand, and affords the *sensation of heat*. But if the hand be plunged into water, at the temperature of 32° , a part of the caloric of the blood is drawn off by the water, in consequence of its stronger affinity for that substance, and the *sensation of cold* is produced.

All substances have a strong affinity for caloric, and hence it readily unites with them, when brought in contact, but not in equal quantities. Different substances have different *capacities* for containing caloric, and if a quantity of this fluid is brought in contact with several of them, each will attract a due proportion, according to their respective *capacities*.

Thus suppose a quantity of caloric, produced by artificial means, say 600° , be brought into contact with three substances, having *capacities* for containing caloric, represented by the figures 1, 2, 3, that is to say, 2 having double the capacity of 1, and 3 having three times the capacity of 1. In this case 100° of this caloric would combine with the first of these substances; 200° with the second; and 300° with the third, each having attracted its due proportion, according to their respective capacities.

Caloric has an invariable tendency to keep up an equilibrium among all the substances with which it is brought in contact, according to their several capacities. Under like circumstances no one can receive more than its due proportion.

The different *capacities* of different substances for containing caloric is very great. Thus water, when converted into vapor or steam, has its *capacity* for containing caloric increased by more than 800° . A similar increase of *capacity* takes place in all cases where liquid substances are changed into the aërioform state. On the other hand, where liquids are converted into solid substances, their *capacities* are diminished. Thus a pound of ice at 32° by the thermometer requires 130° of caloric to convert it into water, at the same temperature, showing that the *capacity* of ice for containing caloric, is *less* than water by 130° of Fahrenheit.

The thermometer affords no test of the *absolute* quantity of caloric contained in any substance. Ice, when in the process of melting, always stands at 32° . Now if the thermometer, standing at 52° , in the surrounding atmosphere, should have its bulb sunk in a mass of pounded melting ice, it would very soon sink to 32° , thus producing an equilibrium between the ice and mercury in the thermometer. Here the thermometer gives out 20° of caloric, which the advocates of *latent* heat would term *sensible* heat. But the ice gives out no heat, and therefore its heat would be termed *latent*. But suppose the thermometer, in the open air to stand at 12° , and that its bulb should be suddenly plunged into a mass of pounded melting ice, the thermometer would quickly rise to 32° ,

the temperature of the ice, having acquired from the ice 20° of its *sensible heat*. Thus it is shown, that this same mass of ice which by the former experiment contained nothing but *latent heat*, is now shown to contain 20° of *sensible heat*, because it has given out that number of degrees to the mercury in the thermometer to raise it from 12° to 32° .

It requires more than 800° of heat to convert one pound of water, at 212° , into steam under the ordinary pressure of the atmosphere. The *capacity* of steam for containing caloric is greater than that of water by about 800° , when subject to the ordinary pressure of the atmosphere. And if relieved from that pressure, its *capacity* for containing caloric would be greatly increased. On the other hand, if it should be subject to a high degree of pressure, by artificial means, its capacity for containing caloric would be proportionably diminished. If it were possible to subject it to such a degree of pressure, as to reduce it to the same bulk as the water, before it was converted into steam, it would lose *all its increased capacity*, and would again assume the liquid form.

Although, under particular circumstances, the heat or caloric, in a given substance may *appear to be latent*, yet the moment another substance is presented to it, having a stronger affinity for caloric, or in other words, not having a due proportion of it, according to its *capacity*, as compared with the substance to which it is presented, it will begin to give out its caloric, and will continue to do so, until an equilibrium is produced. Again if another substance is produced with a superabundance of caloric, procured by artificial means or otherwise, it will immediately absorb a due proportion of this superabundance, until an equilibrium is produced.

Thus this active substance, caloric, can only be at rest momentarily, while there is a perfect equilibrium in all the substances by which it is surrounded, according to their respective capacities.

Substances of all kinds have a strong affinity for caloric, and it has a constant tendency to diffuse itself among them, so as to keep an equilibrium; but these substances having different *capacities* for containing caloric, will be supplied in due proportions according to their several *capacities*.

The following facts will serve to illustrate this subject.

When two equal masses of the *same substance*, heated to different degrees, are mingled with each other, the heat of the mixture will be an arithmetical mean between the two extremes. As when a pound of water, at the temperature of 40° , of Fahrenheit, is mingled with a pound at the temperature of 80° , the result will be a temperature of 60° . The same result will be produced by mingling equal quantities of wine, ether or mercury, heated to different degrees. The mingled mass will invariably exhibit an exact medium between the two extremes. But the result will be quite different, if two substances, having *different capacities* for containing caloric, are mingled together: as ice and water; water and

spirit of wine; spirit of wine and ether. Thus ice, newly frozen, and in contact with water, will stand at 32° Fahrenheit. Now suppose the water which dissolves it to stand at 162° , the arithmetical mean would be 97° , but the mixture, when the masses composing it are equal, would be of the same temperature of the ice before it was dissolved, to wit 32° . Thus it appears that 130° of caloric is necessary to convert ice into water, and as the temperature of the water still remains at 32° , it follows that the *capacity* of water, at the same temperature is greater than that of ice by 130° . The *capacity* of steam or vapor for containing caloric is vastly greater than that of water. This is ascertained by a very simple experiment. If one pound of water is converted into steam, and made to pass through a cooler, containing one hundred pounds of water, at 40° , it will be found that the water in the cooler will have its temperature increased ten degrees, consequently the hundred pounds of water will have received one thousand degrees of caloric from the steam of one pound of boiling water. As the steam from the pound of water, in passing through the cooler, is reduced to the temperature of 50° , the water in the cooler therefore derives 162° of caloric from the sensible heat of the pound of boiling water. This being deducted from the 1000° leaves 838° as the difference between the *capacity* of water and of steam or vapor, at the same temperature. Every substance in nature contains more or less caloric, but it is impossible to ascertain the absolute quantity contained in any of them. But as in the case of ice and water, water and steam, and many others, the *relative capacity* of these substances for containing caloric can be accurately ascertained. The use of the term *capacity* for containing caloric, would be much more clear and satisfactory than the term *latent heat*. There is no such thing as *latent caloric*, and to apply the term *latent* to a mere *sensation* is evidently erroneous, and the term in that sense ought to be abandoned. Much speculation has been indulged in by philosophers as to the *fact*, whether caloric rays flow with the rays of light, from the sun, and thus produce sensible heat. "Newton and the philosophers of his age accounted for heat by the motion excited in the parts of the body by the *agitating power* of the absorbed light. Melville supposed that the heat was *expelled* from the terrestrial matter by the light. At present (adds the author from whom I quote) it is generally admitted, on the strength of some valuable experiments made by Dr. Herschel, that the rays of light and caloric are *separately* emitted from the sun, the luminous rays producing light, and the caloric heat."

If in reality all the *apparent* heat resulting from the sun rays came from the sun in the form of caloric rays, the quantity of caloric in our globe, and the substances surrounding it, would be annually increased in an immense degree; and in less than six thousand years enough would fall upon the earth, to burn it to a cinder. One of the proofs chiefly relied upon by Dr. Herschel, is

that *rays of light* produce certain chemical effects which could not be produced by them, unless accompanied by calorific rays, and hence he infers that these latter rays must have flowed from the sun, in conjunction with rays of light.

But Gay Lussac and Thénard have clearly demonstrated, that these chemical effects may be produced by *heat alone*, and are therefore not dependent upon the solar rays. Other experiments of Dr. Herschel are strongly at variance with some experiments of Mr. Leslie, on the same subject.

By some philosophers, light is supposed to be produced by the action of the sun's rays upon a very fine and subtil fluid, pervading infinite space, and producing an undulation of its parts, which causes the sensation of light. Sir Isaac Newton demonstrated, that this supposition was not well founded. One argument urged by him seems conclusive. If light were the consequence of an undulatory motion in the supposed etherial fluid, such undulation would flow through a bent tube, as readily as the waves of the ocean will flow up a crooked estuary. But he proved by experiment, that the rays of light, while they will readily flow through a straight tube, will be obstructed in their progress, if the tube be a little inclined or bent. As the rays of the sun flow only in perfectly straight lines (except when they are refracted by passing through the atmosphere or some other resisting medium), they must necessarily strike the sides of a crooked tube, and can pass no further, except by reflection. But a gently bending tube would oppose no obstruction to the undulating flow of a fine etherial fluid, and thus the sensation of light (if such were its cause) would readily be produced through the intervening tube. Light, then, must be regarded as a fluid *sui generis*, but capable of combining with other substances. In passing through the atmosphere, a small portion of the electric fluid combines with it, and is thus communicated with the sun's rays to the various substances upon which such rays fall. By this contact, sensible heat is invariably produced. As there is no calorific (the cause of heat) either in the sun's rays or the electric fluid, it may seem difficult to account for this production of sensible heat; and yet all becomes plain when we are apprised of the fact, that every substance into which a portion of the electric fluid is introduced, becomes heated in proportion to the quantity introduced, and their respective conducting powers. Thus it has been shown that by passing an electric shock through the wires of certain metals, such a degree of heat will be produced as will fuse each of them. And the degree of heat requisite to fuse each of them is as follows:

Tin melts at	170°	Reaumur's	thermometer,
Lead	“ 230	“	“
Silver	“ 450	“	“
Gold	“ 563	“	“
Copper	“ 630	“	“
Iron	“ 696	“	“

To produce these results a powerful battery was employed so as to introduce into the several wires a large and concentrated portion of the electric fluid, the effect of which was greatly to *diminish the capacity* of these metals for containing caloric; and the superabundance of caloric, contained in them, was consequently so great as to cause them to melt.

The rays of the sun, being in a state of combination with the electric fluid, (which passes very quickly through all substances, with which it is brought in contact, except a few non-conductors,) begins to diminish their *capacity* for containing caloric, and this process continues so long as these combined rays continued to be supplied, and consequently the sensible heat increases. But as the surrounding substances, upon which the rays of the sun do not fall, such as the moisture and earth beneath, are continually drawing off a portion of the *caloric*, thus set free, and also of the electric fluid, the process of generating heat is checked; and at night the equilibrium is restored; and the *capacity* of the surrounding substances for containing caloric is also *in part* restored, by giving out a due proportion of its electric fluid. The next day (being clear) a similar process takes place, but during the summer there will be a gradual accumulation of sensible heat, and a gradual diminution during the next fall and winter, as will be easily perceived without being more minute in my remarks.

This view of the subject will account for the production of heat by the sun's rays without supposing that a particle of heat is brought from the sun; and it concurs as nearly with the views of Sir Isaac Newton and Melville as could be expected, considering that when they wrote, caloric was unknown. As caloric combines with all other substances, and cannot exist in an uncombined state, except momentarily when radiating from a substance heated in a high degree to other substances not in immediate contact; it cannot, therefore, come from the sun in separate and distinct rays. If it come at all from that source, it must be in a state of combination with light. This is not alledged, and therefore we must look to the caloric existing in the substances upon which the sun's rays fall, as the source from which the heat is derived, which is apparently produced by his rays.

I have attributed the diminished capacity of substances, with which the rays of the sun combine, for containing caloric, to the electric fluid, introduced with those rays, but it is probable that they also contribute in part to that end.

The general effect of light, as a chemical agent, consists in disengaging oxygen and acids from substances in which they exist, by separating them from their bases, and thus caloric will be set free, and produce sensible heat.

ARTICLE III.

From the "American Railroad Journal."

Railroad Law of Tennessee.**ACT OF THE TENNESSEE LEGISLATURE, LOANING THE CREDIT OF THE STATE TO RAILROAD IMPROVEMENTS.**

We give below an abstract of the late act of the Tennessee Legislature, to establish a system of internal improvements in that State.

The first section of the act relates to the East Tennessee and Virginia railroad company. It provides that the Governor of Tennessee shall issue to that company *coupon* bonds of the State to an amount not exceeding \$8,000 per mile, whenever they shall have obtained *bona fide* subscriptions to their stock of an amount sufficient to grade, bridge and prepare for the rails, the entire line of the road, and shall have finished a section of 30 miles of said road at either terminus in a good and substantial manner, which section shall not be subject to any lien whatever, other than those created in favor of the State by the acts of 1851-52. These bonds are to be payable at any place the President of the company may designate, bearing an interest of *six per cent. per annum*, payable semi-annually, and not having more than forty, nor less than thirty years to mature.

The second section enacts that bonds shall not be used by the company for any other purpose than for procuring the iron rails, chairs, spikes and equipments for said section of the road, and for putting down the rails on the same.

In the third section it is enacted, that so soon as the bonds of the State shall have been issued for the first section of the road, they shall constitute a lien upon that section, including the road bed, right of way, grading and masonry, upon all the stock subscribed for, in the company, and upon the iron rails, chairs, etc., when purchased and delivered. The State of Tennessee shall, by virtue of these bonds, be invested with said lien or mortgage without a deed from the company, for the payment of the bonds, with the interest thereon, as the same becomes due.

Section fourth enacts that when said company shall have prepared a second section, or any additional number of sections, of twenty miles each, in the manner before mentioned, the Governor shall issue to them like bonds of the State of Tennessee for each section upon the same conditions; with the provision, that if the last section of the road shall be less than twenty miles, or if the railroad proposed to be constructed by any company hereinafter specified, shall be less than 30 miles in extent, bonds shall be issued for such section, for an amount proportioned to the distance to be constructed, but upon the same terms and conditions. After

the whole road is completed, it is enacted that the State of Tennessee shall be invested with a lien upon it, of the nature specified in the third section. It is also enacted that after the Governor shall have issued bonds for the first section of the road, it shall not be lawful for the company to convey to any persons, or body corporate, any lien or incumbrance whatever, which shall have priority over, or shall come in contact with the lien of the State. In case any such lien is issued, it shall be considered null and void, as against said lien or mortgage of the State.

Section fifth declares that it shall be the duty of the company to deposit in the Bank of Tennessee, at Nashville, at least fifteen days before the interest becomes due upon said bonds, an amount sufficient to pay such interest, including exchange and necessary commissions; and in case said company fail to deposit said interest, it shall be the duty of the Governor to appoint suitable persons at the expense of the company, to take possession and control of the road, and all the assets thereof, and manage the affairs of the same, whose duty it shall be to give bond and security to the State of Tennessee for the faithful discharge of their duty, which shall be to receive the rents, issues, profits and dividends of said road, and pay over the same under the direction of the Governor, towards the liquidation of such interest. If the company refuse to deliver up their road to the persons appointed to receive it, the Governor is authorized to issue his warrant, directing the Sheriffs of the counties through which the road runs, to take possession of said road, with all the fixtures and equipments pertaining thereto, and to deliver the same to the appointed receivers, who shall hold it until the required interest is discharged.

In section sixth the Governor is authorized to institute a similar course of proceedings against the company if they refuse to pay any of the bonds when they fall due.

In section seventh it is enacted that, at the end of five years after the completion of their road, said company shall set apart one per cent. per annum upon the amount of bonds issued to them, and shall use the same in the purchase of bonds of the State of Tennessee, which bonds the company shall pay into the treasury of the State, after assigning them to the Governor, and for which the Governor shall give said company a receipt, and as between the State and said company, the bonds so paid in shall be a credit on the bonds issued to the company. —And bonds so paid in, and the interest accruing thereon, shall be held and used by the State as a sinking fund, for the payment of the bonds issued to the company, and should said company repurchase any of the bonds issued to it under the provisions of this act, they shall be a credit as aforesaid and cancelled.

By section eighth, the President of the company is required to make semi-annual reports under oath, to the Governor, until the completion of the road, setting forth, fully, the condition of the

road; and after the completion he shall report annually upon the financial condition of the company, giving a statement of the trade and travel upon the road, the receipts and expenditures, etc., and said reports shall be consolidated every two years by the President of said company, and the consolidated reports shall be laid before the Governor by the 1st of September every two years after the completion of the road, and the Governor shall lay such report before the Legislature for its action, at the next meeting thereof after said report is made.

By section ninth all officers of the company are forbidden from engaging in any speculation, either directly or indirectly, along the line of the road, until after its completion, and every officer of the company, before entering upon the duties of his office, is obliged to take an oath that he will not violate the provisions of this act.

In section tenth it is enacted that the provisions of this act shall extend to and embrace the Chattanooga, Harrison, Georgetown and Charleston railroad company, the Nashville and North Western railroad company, the Louisville and Nashville railroad company, the South Western railroad company, the McMinnville and Manchester railroad company, the Memphis and Charleston railroad company, the Nashville and Southern railroad company, the Mobile and Ohio railroad company, the Nashville and Memphis railroad company, the Nashville and Cincinnati railroad company, the East Tennessee and Virginia railroad company, the Memphis and Clarksville and Louisville railroad company, and the Winchester and Alabama railroad company, so far as the main trunk roads to be constructed by said companies lie within the limits of the State of Tennessee; and that the said companies be entitled to all the privileges, and subjected to all the penalties contained in this act. Provided that this act shall not extend to or embrace any more of the Memphis, Clarksville and Louisville railroad than that part which lies between the Kentucky line and the Nashville and North Western railroad, or the Nashville and Memphis railroad. Provided further that this act shall not embrace the East Tennessee and Georgia railroad, unless said company extend their road so as to form a junction with the East Tennessee and Virginia railroad at Knoxville. In case this company fail or refuse to extend their road so as to make said junction, then all the rights and privileges are to be extended to any company that may be hereafter chartered, for the purpose of building a railroad to make such a connection.

It is enacted by section eleventh that the gauge of all the said railroads shall be the same as that of the Nashville and Chattanooga railroad, five feet, unless they connect with roads in other States of different gauge; also that the iron rails to be put upon these roads shall not be less than eighty tons to the mile if the U

rail be used, and not less than one hundred tons to the mile if the T rail be used.

Section twelfth gives power to the State of Tennessee to enact any law, which may be necessary to protect the interests of the State, and to secure the State against any loss, in consequence of the issuance of bonds, under the provisions of this act.

Section thirteenth enacts, that in case any company shall be convicted of having fraudulently obtained the issuance of bonds of the State, the Circuit Court of that county in which the place of business of the company is situated, shall adjudge and decree that said road lying in the State, with all its assets and property, shall be sold, and the proceeds be paid into the treasury, and it shall be the duty of the Comptroller to vest the same in stocks, creating a sinking fund, as provided for in the seventh section of this act. The company shall be divested of all its rights and privileges, and the stockholders in the road shall be individually liable to pay to the State the amount of the bonds thus fraudulently obtained.

Section fourteenth requires that the Governor shall appoint an agent for the State to attend said sale of the road, who shall protect the interest of the State, and if it be necessary, in order to protect the interest, shall buy said road in the name of the State, and shall appoint a receiver to take charge of it, and use it, as provided for in the fifth section of this act.

By section fifteenth, it is enacted that this act shall be deemed and taken to be a public act as to all purposes of notice; provided, that should any of the companies before mentioned have obtained *bona fide* subscriptions as specified in the first section, the State shall have issued bonds to them as hereinbefore prescribed, and provided that no company shall receive more than the amount per mile hereinbefore prescribed. Provided also that the provisions of this act shall only extend to one of the lines of railroad proposed to be constructed by the Nashville and North Western railroad company, and the Nashville and Memphis railroad company, between Nashville and the Tennessee river, and that the company first obtaining *bona fide* subscriptions shall be entitled to the provisions of this act, for the whole distance from Nashville to its terminus on the Mississippi river, the other company having the power to connect with the one thus entitled at any point they may select, and being entitled to the provisions of this act only from the point of connection to their terminus on the Mississippi river. It is further provided that if the Louisville and Nashville railroad company locate their road through Sumner county, by way of Gallatin, then the provisions of this act shall not extend to the Nashville and Cincinnati railroad, and the charter granted to the last named company shall in that event be null and void; also that the State shall not issue bonds to the Louisville and Nashville railroad company, or to the Nashville and Cincin-

nati railroad company unless one of the said companies shall agree to locate and extend their road across Cumberland river, at or convenient to Nashville or South Nashville, within ten years from the date of the passage of this act.

Section sixteenth gives power to all railroad companies, specified in this act, so to construct their roads as to cross or unite with each other, by the main trunks or branches; and declares that it shall be the duty of said companies to receive on their roads and branches the full loaded freight cars from each other, without charging for the transportation of the goods, etc. contained therein, any greater rate of freight than they charge for similar goods etc. in their own cars; provided no companies shall be compelled to receive such cars on their road, unless they are constructed with the same gauge and are of equal strength with their own cars.

Section seventeenth enacts that, in all cases where bonds may be issued to any of said companies, the State of Tennessee shall be entitled to two directors in each company, to be appointed by the Governor of the State, to which bonds may be issued.

It is provided by section eighteenth that when the Nashville and Chattanooga railroad company shall have completed 25 miles of their road, in addition to the 80 miles specified in the second section of the act, passed 4th February, 1848, chap. 169, then the Governor shall endorse and guarantee in the name of the State of Tennessee, the bonds of said company, to the amount of \$175,000, and, when another 25 miles shall be completed, the Governor shall endorse an additional amount of \$175,000; the bonds to be endorsed in the same manner as provided for in the said act of 4th February, 1848.

In section nineteenth it is enacted that, the contemplated aid shall only be extended to one of the roads chartered under the names of the Nashville and Southern railroad company, and the Tennessee and Alabama railroad company, with the provision that either road may intersect with the one first obtaining the necessary subscription, and may become entitled to the same provisions with that road, from the point of intersection to the destined terminus of the road; in the case of the Tennessee and Alabama railroad, from the point of intersection with the Nashville and Southern railroad, to the Alabama State line, and in the case of the Nashville and Southern railroad, from the intersection with the Tennessee and Alabama railroad, to the Tennessee river, the Mississippi State line, or any point between the two, which may be chosen as the terminus of said road. The two companies have also the power of consolidating their stock, if they deem it advisable, and upon such terms as they may mutually agree upon. It is provided that, if the Memphis and Nashville railroad company do not comply with the requirements of this act, and complete 30 miles of their road within four years, or if the Nashville and Northwest-

ern railroad company in like manner fail to complete 30 miles of their road in four years, then the Tennessee Central railroad company shall have all the privileges intended to be given by this act to those companies respectively, but the Tennessee Central railroad company shall be allowed two years longer time to complete their 30 miles of road. Any subsequent Legislature has the power to extend the term of four years in which to complete any 30 miles of said Nashville and Memphis or Nashville and North Western railroad companies. Each of said companies is required to appoint an agent to whom the bonds of the State shall be delivered, whose duty it shall be to control the bonds, and see that they are applied to the required purposes. The said agent before he receives the bonds of the State shall give bond and security that they shall be applied to the purposes aforesaid. It is further provided, that before any bonds be issued to any agent of any railroad, contemplated by this act, the President of such company shall first deposit in the office of the Secretary of State a full and accurate list of all the stockholders, with the sums subscribed by each stockholder.

Section twentieth and last enacts, that no road embraced in this act shall be entitled to State aid unless it shall within four years complete at least one section of 30 miles or the whole length of the road, if less than 30 miles long.

ARTICLE IV.

[From the Philadelphia "Commercial List."]

Philadelphia: Its Commerce and Manufactures.

The present line of railroad from Philadelphia to Pittsburgh is 358 miles, which includes the Portage over the mountains. Starting with this distance as a basis, let us see what are at this moment the relative distances from points on the southern lake shores and on the Ohio, to points on the seaboard. Other things being equal, the shortest of these routes will command the trade and travel. *Other things being equal*;—that is, with equal markets for purchase and sale, and equal cheapness, expedition, certainty and comfort in transit.

Considering first the lake business, the present point of departure from the north-west for New York and Philadelphia and places south of the latter, is Cleveland, the routes and distances being as follows:

Cleveland to Dunkirk.....	145 miles	
Dunkirk to New York.....	469	
Cleveland to New York.....	—	614 miles
Cleveland to Pittsburgh.....	140	
Pittsburgh to Philadelphia.....	357	
Cleveland to Philadelphia.....	—	497
		—
Distance in favor of Philadelphia.....		117
Add even the distance from Philadelphia to New York through New Jersey ...		96
		—

And we have the distance less by..... 21 miles
 from Cleveland to New York *through* Philadelphia by the Ohio
 and Pennsylvania route, than from Cleveland to New York by the
 lake shore and New York and Erie routes.

Keeping still in view the lake connections, when the Ohio and
 Pennsylvania shall be completed to its junction with the Cleveland
 and Cincinnati Railroad, seventy-five miles southwest of the for-
 mer city—a new point of departure will be established for the travel
 thence eastward. Galion will be that point, only four miles south
 of the junction, and the routes will be as follow:—

Galion to Cleveland.....	79 miles	
Cleveland to New York.....	614	
Galion to New York.....	—	698 miles
Galion to Pittsburgh.....	190	
Pittsburgh to Philadelphia.....	357	
Galion to Philadelphia.....	—	547
		—
Distance in favor of Philadelphia.....		146 miles.

Galion and New York are in the same latitude; and if, as thus
 appears the distance between these two points is greater by one
 hundred and forty-five miles, than between the former and Phila-
 delphia, how much more favorable must be the connections between
 Philadelphia and the whole Ohio and Mississippi Valley? Taking
 Cincinnati for instance, as a starting point, Xenia is the point on
 the Cleveland and Cincinnati road at which the projected Pitts-
 burgh connection with the Ohio Central Railroad will strike. Now
 the latter is the base of a triangle, of which the road from Xenia
 to Galion, and the road from Galion to Pittsburgh, are respec-
 tively the sides. The route therefore from Cincinnati to Philadel-
 phia will be less than from Cincinnati to New York, not only by
 the 145 miles already shown, (taking Galion as the common point
 of departure,) but also by the difference between the length of the
 base line from Xenia to Pittsburgh and the two sides of the tri-
 angle, just indicated, Galion being its apex.

Without extending these exhibitions of figures, it is apparent from the railroad connections actually made between the lake country, and New York and Philadelphia respectively, that the distances are very greatly in favor of the latter; and necessarily still more so between Philadelphia and all points farther south. It is useless therefore to multiply figures in proof of the fact. We recognise it as beyond dispute, that this city is even now nearer to the whole West than any of her rivals. Before the close of another year, this advantage will be vastly enhanced. Then the Pennsylvania Central Railroad will be perfect in its entire length, dispensing with the Portage road and all the incidental delays and troubles of its inclined planes. TWELVE HOURS, (instead of eighteen as now) will then, and *must then*, suffice for the transit of passengers from the Delaware to the Ohio. What other hold, besides this grand work has Philadelphia upon the commerce of the West? What is her own ability to give it business by the maintenance and extension of that commerce?

The present population of Philadelphia and the tributary suburbs, may be set down at 450,000; a population not fictitiously swollen by deluges of foreign paupers, but a steady and rapid growth among energetic, productive and wealthy classes. Nearly 70,000 houses—nearly twice as many distinct buildings as New York can boast—more than 3,500 added to their number every year—a vast majority superior in comfort, and in the apparatus for every domestic luxury, in winter or summer, in day or night—50,000 voters attending the polls—50,000 children attending the public free schools; 1,200 students from all parts of the Union attending the Medical Colleges; institutions of Art, Science and Benevolence, numerous and munificently sustained; a temperate climate; salubrity unsurpassed; a country teeming with every product of the field and the garden—all these are but a part of the existing merits of Philadelphia, a part only of the accumulative evidences of her prosperity. Her drafts by canals and railroads on the coal and iron mines of the State, measured by the cost to consumers, amount to more than a third of the whole revenue of the national government—as many millions of dollars now from this source as there were hundreds only thirty years ago. The works constructed to bring these minerals to market have also called into action the agricultural and other resources of the great regions into which they penetrate, casting also their share of wealth into the lap of this city. If leaving the interior, we turn our eyes eastward, the Delaware lies before us, on which the largest ship of our Navy was built and floated, its wharves washed by the sea tide, an unfailing outlet and inlet for the commerce of the Atlantic. Partly from ignorance, partly from willful misrepresentations, the facilities and extent of this commerce are not generally understood. We submit an authentic statement of the arrivals of foreign and

coasting vessels at the port of Philadelphia for the last three years and for eleven months of the current year.

Years.	Foreign.	Coastwise.	Total.
1849.....	585	25,594	25,169
1850.....	518	27,035	27,553
1851.....	576	26,484	27,060
1852 to December 1...	651	29,151	29,802
Estimate including December, 1852,			31,500

Here we have the average number of vessels coming to this port, reaching a grand total of full *Thirty-one Thousand* annually. The tonnage of the Coal Trade alone of this port is greater than the total foreign tonnage of the port of New York.

Such, up to the commencement of this year, was the seaward business of this city. Included in it is now a regular line of steamships (propellers) running to Liverpool; other lines of steamships to southern and eastern ports, and lines of packet ships to Europe, the West Indies and elsewhere. Philadelphia is thus a point of foreign import and export, demanding only the sustainance of western traffic, to rival that of any other on the Atlantic. We might enlarge upon these texts, but such being briefly the elements of wealth and progress which we enjoy, what peculiar inducements do we offer to the merchants of the West to be our customers? Why shall they come hither, and go neither north nor south? The question is readily answered.

Of the two kinds of merchandise in the market, foreign and domestic, there can be no doubt that Philadelphia has superior advantages in the latter. Valuable water power exists within a few miles of the city: but setting this aside, no where on the seaboard is coal so cheap, and manufactures are proportionately numerous and prosperous. In certain branches in fact, Philadelphia is without a rival: leather, morocco, wall-papers, lamps and similar articles, machinery, shoes, particularly the finer descriptions, sadlery, various fabrics of the loom, both woollen and cotton; chemicals, perfumery, furniture and numberless species of fancy goods, are to be had here at first hands, and in unlimited quantities. Here, without any extraneous reliance, is the basis of a vast trade. But there are reasons why Philadelphia, as compared particularly with New York, is or may be, not only a better domestic but also a better foreign market. We have seen that there already exist all needful means of direct and rapid importations from Europe. With this advantage, the Philadelphia merchant has the additional one of being at a far less expense than his New York or Boston competitor. The site of this city presents no obstacles to its unbounded extension. Rents are consequently lower. Further, the habits of the people retaining in an important degree the tone of their Quaker progenitors, their standard of expenditure is lower. They are content with fair dealing and small profits, because in

general they have not the example of extravagance before them. The character of Philadelphia merchants as a class, is proverbially unimpeachable. Whoever deals with them has a moral assurance of integrity and of reasonable views in the matter of profits. Nor does the favorable contrast end here. The necessaries and comforts of a family are more abundant and cheaper here than to the eastward. There is not the same need for the tricks and exactions of trade, as where the strife for existence as well as appearance is more desperate.

These, we confidently allege as reasons why Philadelphia is a great manufacturing and distributing mart, even under less favorable circumstances than those which the completion of the Pennsylvania Central Railroad opens to her. Only when the connections with the Western terminus of this great work shall also have been finished, will its full fruits be enjoyed. Meanwhile, however, as it stands at this moment, it offers facilities to the people of the West in their intercourse with the sea-board, which properly used need fear no rivalry. At present, the Portage Railroad being still temporarily used, the time of transit between Philadelphia and Pittsburg is eighteen hours; between Philadelphia and Cleveland twenty-six hours; between Philadelphia and Cincinnati thirty-eight hours. In the fall of next year the inclined planes over the Alleghany ridge will be dispensed with, by the use of the valley connection between the eastern and western division of the Central Railroad, and thus completed, this magnificent avenue will form not only, as it already does, the shortest line between the sea-board and Ohio, but also the least serpentine, the most even in its grades, and the most secure. Built with cash means, by the ablest engineers in the country, and with all the lights of experience, brought down to the present moment, there is no advantage which has not been available in the progress of its construction. On the Directors and their associates may full reliance be placed for such management in all departments of the Line, as must deserve public confidence and favor. In no instance has the life of a passenger been sacrificed on the road, although to this time a large number has been carried over the route. Every traveller is aware how far he is influenced in the choice of routes, particularly when they extend to many hundreds of miles, by those attentions to his safety and comfort which prevent anxiety, and mitigate the pains and tedium of the way. To make a road popular on this score, is even more important than to make it cheap to the passenger. That all these considerations are duly weighed by the Board in question, we are satisfactorily advised. It is determined that no ground of complaint shall exist in any of the particulars to which we refer, but that in all of them, the work, when thoroughly organized, shall be a model for the best in the Union.

It seems almost unnecessary to mention that the advantages of transportation on the Central Railroad are equal or even superior

to those of travel. The temperate climate of Pennsylvania exempts her works from the impediments and accidents common to those in more Northern States. The buyer in the Philadelphia market at all seasons, is now assured of the uninterrupted carriage of his goods to the farthest termini of the western railroads, forming continuations of the Central road. Whatever difficulties existed while even a very small portion of the latter was incomplete, are now at an end. By the use of the Telegraph, the merchant in Cleveland or Cincinnati, or the many places on the line of, or even far beyond these cities, may upon an emergency, have his orders filled within a time, measured no longer by days, but by hours.

As all trade must be reciprocal to be healthy and long-lived, we look on the completion of the Pennsylvania road as an era, when a new impetus must be given to the present vast business of Philadelphia, not only as a distributor of goods, foreign and domestic, but also as a depot of Western Produce, which can now reach her port more expeditiously and cheaply than any other on the Atlantic. It is in the transportation of heavy and perishable commodities, that the short and rapid route has always the preference.

To a full examination of the subject of this article, the points of which admit of much greater elucidation from statistics, comparisons and arguments, than are here offered, we invite the circle of our WESTERN readers. Let the question be fairly answered, what single advantage as a market—whether for purchase or sale—does or should any other Atlantic city possess over Philadelphia? We acknowledge none, while we claim on several grounds, her superiority. Factitious stress is laid upon what is termed foreign trade—a trade certainly important and desirable, but in comparison with home trade, really of small account. What are the aggregate imports of foreign manufactured goods in contrast with many single branches of domestic production? Railroads are changing the business of the world. The ocean and great rivers have been the only media of facile transport. Now the smooth iron puts to shame the passive water. Not on the wings of the wind, but by a power far more efficient, the vast land-fleets sweep over the continent. Every day raises up among us artificers rivalling the most cunning of the old world. Every day tends to make a Philadelphia to the West, what a Philadelphia has been to the East beyond the seas. Let our great factories, many in various departments of industry employing their hundreds of skilful hands; let our workshops and warehouses attest this assertion. Let a population now verging upon half a million,—better fed, better clothed, better housed, better taught, than the same number of people within the same area, in any part of the civilized world,—answer the question, whether this city has not all the elements of healthful and enduring prosperity, and whether trading intercourse with her, is not as much the interest of all who now have access to her, as of herself?

ARTICLE V.

The Cotton Trade.*

The course of the cotton trade during the past year has been steady and uniform. The season opened in September and October at rates a trifle higher than were realized in December, but from January forwards the market slowly advanced, until it is now a little higher than it was a year ago. The price at Liverpool of fair cotton, on the 1st of September, 1851, was 5½d., in October it was 5¼d., in January 5d., in March 5½d., in May 5¼d., in July 5½d., and 6d. in September, 1852. The increased estimates of the crop depressed the price early in the season, but the immense consumption in every part of the world—in the United States, in England, and on the continent—encouraged the sellers to demand higher rates: and these have been maintained, in spite of the promise of another large crop for the ensuing year. The rates now current are not high, but they are above the average. For the thirteen years from 1840 to 1852, the whole American exports, (see Table I., at the end of this article,) amounting to nearly ten thousand millions of pounds, have been sold at an average price of eight-and-a-half cents. The price of good middling at Charleston is now, October 29th, 9½ cents. Instead of declining below the usual rates, the market has advanced, after receiving the largest crop ever produced, and with the prospect of another fully as large. What has maintained these prices? Are the causes temporary or permanent? Will they continue for the present year? Or is their effect already past?

In attempting an answer to these questions, it may be remarked:

1st. That the advance is not due to the fact that lower rates are not remunerative. From 1840 to 1844, when the average (see Table I.) was only eight cents, the stocks were constantly increasing. The production outran the consumption. This led to lower prices, which discouraged planting, and at the same time increased the demand of the manufacturers. From 1845 to 1849 the average price (see Table I.) was only 7½ cents. The surplus stocks then became small and prices advanced. Thus it appeared that an average of eight cents from year to year stimulated production,

* The article of cotton constitutes so large an item in the commerce and general economy of the United States, that there is scarcely an individual in this country, no matter where located or what his employment, whose interest is not in some way affected by its growth and manufacture. The following article is, we believe, the eleventh annual paper from the pen of Professor C. F. McCay, of the University of Georgia, published in the "Merchants' Magazine." Our confidence in the statements of Prof. McCay induced us to adopt and publish his review of the cotton trade and statement of crops for the years 1850 and 1851, and we cheerfully acknowledge our indebtedness to him as well as to the Editor of the excellent Magazine, from which we copy, for the following valuable paper on the growth and consumption of cotton for the year 1852.—*Sr. Editor.*

so that the supply exceeded the demand; while $7\frac{1}{2}$ cents produced an opposite effect. The present rates, therefore, are more than sufficient to pay the planter a proper profit on his investment. And the general advance on land and negroes, throughout the Southern States, confirms the conclusion thus indicated by the rise and the decline of the stocks lying over from year to year. The present prices will not only pay the cost of production, but allow a handsome profit to the producer. But—

2d. The price has been kept up during the past year in part by a high rate of exchange. A rise of one per cent. in exchange is nearly equal to one-eighth of a cent in the price of cotton. The advance in exchange has been about two per cent. over the rates which were current before the discovery of California gold. We were then both exporters and importers of the precious metals. When we were sending them abroad, the price of exchange was the real par, *plus* the freight, insurance and other expenses of exportation. When we were receiving them, the price was the real par, less these expenses. The highest rates were 111 or 112; the lowest 104 or 105. The average was about 108 for sixty-day bills. For the past two or three years we have always been exporters of gold, and the range of exchange has been from 108 to 112 at New York; seldom going down to 108 or rising to 112, the average being about 110. This rise in exchange on account of our owning the gold mines in California is a permanent cause. Exchange will be hereafter the real par, *plus* the cost of exporting specie, and not the real par sometimes increased and sometimes decreased by the cost of exportation. This is equivalent to an advance of one-fourth of a cent in every pound of cotton, and for the year past it produced to the South not less than three millions of dollars. This, though a true cause for an advance in the price of cotton, is not sufficient to account for the whole rise. Another cause may probably be—

3d. The increased supply of the precious metals, which by expanding the currency tends to raise the money price of all other articles of merchandise. The large additions of gold to the currency of the world must, by inevitable necessity, produce an effect of this kind. No arithmetic can calculate its exact amount in a short period of time: but that it is producing and must produce hereafter a slow, continued rise in all kinds of property no one can possibly doubt. Its first effect is to raise the price of silver; but it is impossible, while the present laws regulating the comparative value of silver and gold at the mints of the world continue unchanged, to raise the premium on silver beyond a very small amount. The effect of a slight advance is to push aside the silver and to introduce gold in its stead. Thus in our own domestic currency, silver is passing out of general circulation, and the vaults of the banks are filling with gold in its place. In France the coin-

age of gold has of late increased very largely. And so in other countries where both metals are a legal tender. This expansion of the metallic currency gives the banks an opportunity to increase their circulation, and thus the whole monetary medium, by which all the exchanges of Commerce are made, becoming enlarged, the price of all other articles cannot fail to advance. It is impossible to say how large an influence this may have had in the recent high prices of cotton. It is not probably large, but that it is real no one can doubt.

4th. Another cause which has helped to sustain prices, and probably this is more potent than all the others together, is the successful despotism of Louis Napoleon in France, and of the crowned heads on the continent of Europe. The order that has reigned in Paris and throughout France, has given confidence to the merchant and the manufacturer, encouraged labor and industry, given security to property, and stimulated production and consumption in every department of business. Similar causes have been operating in the German and Italian States. The triumph of law and order over the revolutionists of 1848 was not complete until the present year. The iron heel of arbitrary power had crushed the external manifestations of resistance, but the murmurs of discontent were still audible, and the hopes of liberty were not yet extinguished. The present year has witnessed the end of all these things. Lombardy and Hungary kiss the rod of the oppressor. French soldiers preserve quiet at Rome. The patriots of Naples and Sicily are in prison or in exile. An Austrian army has quelled the disturbances in Baden, Hamburg and Schleswig-Holstein. Revolution, anarchy, socialism, red-republicanism exist no more. Men have turned their attention to trade, to labor, to the pursuits of peace. Instead of political agitation, the people are employing themselves in new enterprises of industry, of Commerce and manufactures. The consumption of cotton in France has in consequence outrun any former year. Though stationary for many years past, the demand has suddenly awaked to new life. And so, also, in all the disturbed parts of Europe.

5th. The low price of grain in England, the successful working of free trade, and the prosperity in every department of manufactures, have stimulated the home demand in Great Britain to an extraordinary extent. The exports of cotton fabrics have been encouraged by the peace and prosperity of every part of the world. The overthrow of Rosas has opened the La Plata and its tributaries to British Commerce. The outbreak in Caffraria is unimportant. The war in Burmah being out of India proper has no influence on trade. The rebellion in China does not disturb the exchanges at the free ports. So that universal peace may be said to prevail.

6th. In the United States the onward march of the cotton manufacture has again been resumed. The tariff of 1846, and the

high price of the raw material, had checked the demand for the past three years, but the progress of our country in population, wealth and enterprise, has surmounted these obstacles, and our course has again been forward.

Of these several causes, now enumerated to explain the fair price of cotton for the past year in the face of the abundant supply, there is not one which is not likely to operate for the coming year. We may, therefore, in considering the supply and demand for 1853, anticipate full average prices. They cannot be high, for the supply will be too large to permit any check in consumption. They cannot fall even to the average, for the stocks are low, and any further decline would stimulate the demand even beyond its present extraordinary amount.

The supply from the United States will probably exceed the large crop of 1852. The increased number of hands, the large breadth of land planted in cotton under the stimulus of good prices, the favorable character of the season, the fine weather for gathering the crop after the 1st of October, and the lateness of the frost, will tell strongly in favor of a large production. We have indeed had two severe storms, and with one of them a flood, but their injury has not been serious. The rot also has prevailed to an uncommon extent. The boll-worm has been very general, and in some places severe. The caterpillar has done some harm, but beyond eating the leaves from the stalk, its ravages have been local and unimportant. These causes have not produced as much injury as was suffered last year.

This is especially true in the Atlantic States. The excessive drought inflicted then more damage than all the opposing causes of the present season. The receipts at Charleston and Savannah will therefore exceed those of last year. They will also be increased by the extension of the Georgia Railroad farther to the West. Instead of 800,000 bales received last year, 900,000 may confidently be anticipated for 1853. In Florida, the storm of October 9th did such serious injury that we may expect a falling off in the receipts at Apalachicola and St. Mark's. More of this cotton will go to Savannah than usual; and the loss from the caterpillar and boll-worm has been considerable. But the increased planting will go far to balance these deficiencies, and only a slight decline may be looked for. From Alabama, the receipts will be larger than last year. There was then too little rain, now there has been too much. The river lands produced finely last season, now it is the sandy uplands that are white with abundance. Only a small increase, however, may be anticipated. From the various districts that send their cotton to New Orleans, the reports are contradictory. The Red River lands are doing very well; the parishes of Louisiana have been injured by the worm, the bottoms of the Mississippi have been too wet; the frost has kept off to a very late period in Tennessee; the planting has been large; the season for gathering long, and nearly the same amount will probably be received as for the past year. From Texas, the reports have been very favorable, and an increase of 25 per cent. may be looked for with confidence. The whole crop of American cotton for 1853 may be estimated (see Table II.) at 3,100,000 bales.

The imports from the East Indies have fallen off largely the last year on account of the moderate prices. This has been the uniform effect of a declining market, and we may look with confidence for the same result hereafter. There is in India an immense production of cotton for domestic use. It has been stated to be as large as the crop in the United States, but no satisfactory statistics have ever been collected to show its actual amount. It is, however, very large, and a high price in Europe attracts a larger portion for foreign export. It may then be brought further from the interior, and pay a larger charge for freight. On the contrary, when the European rates decline, the inferior character of the cotton, the heavy expense for freight and insurance for the long voyage, leave but a small balance for the first cost of production, and the carriage from the interior to the seaport. The circle around the marts of export is thus narrowed, and the amount sent off decreases. Thus the high prices of 1850 and 1851 raised the English imports to 308,000 and 329,000 bales, against 182,000 in 1849. The moderate prices of the present year have caused the imports at Liverpool to fall off near 100,000 bales. (See Table III.) The low rates current in December and January last, diverted much of the East India cotton intended for export to China, and the European receipts have been small. No increase in these can be expected for 1853, since prices promise to be moderate, as they have been for the last season.

The imports into England from Egypt have increased largely for the past year. The largest amount ever before received was 82,000 bales in 1845. The average for the last three years has been 73,000. But for 1852 the receipts at Liverpool alone on the 8th of October had reached 142,000 bales. Less than usual has been carried to France, and so large an amount for England cannot be anticipated for the coming year, especially as the stocks in Liverpool of Egyptian cotton have advanced 50,000 bales. From Brazil and other places, the Liverpool receipts have increased slightly over last year; namely, from 90,000 to 108,000 bales; they are, however, less than for the two preceding years. The average from Egypt and Brazil for the last four years has been about 250,000 bales, (Table IV.) and this amount may be looked for in 1853.

The total supply from all these places for 1853 may be estimated (Table V.) at 3,550,000, or about the same as last year. This is 685,000 bales larger than for 1851, and 500,000 larger than for 1849. But, as the increased demand has taken off the whole of the larger production of 1852 at moderate prices, leaving the stocks now smaller than they have been for many years past (Table VI.) there is nothing in this large supply calculated to depress prices.

In considering the consumption, we notice everywhere a large increase, not only over last year, but over every former year. The amount consumed in Great Britain in 1851 was 1,663,000 bales, while the largest figures for any previous year were 1,590,000 bales. The deliveries to the trade this year at Liverpool, (see Table VII) where 95 per cent. of all the English sales are made, exceed those of last year more than 8,000 bags per week. As the factories are now well supplied, this excess will scarcely continue until the 31st of December. But the great regularity in the deliveries forbids any material

decline. If the future purchases of the trade should not exceed those of the same period for last year, the consumption of Great Britain would reach 1,992,000 bales for 1852. Nor can we anticipate any less for 1853. The abundance of money, the favorable harvest, the great demand for labor, the high wages in all branches of manufactures, the advance in iron, the prosperity of the shipping interest, the large influx of Australian gold, the universal prevalence of peace in every part of the civilized world, the new machinery erected during the last year, the moderate rates which the raw material promises to bear, the low stocks of goods in the hands of the manufacturers, the large decline in the import of wool, and its consequent advance in price, and the general prosperity, both in the domestic and the export trade, authorize the expectation of a still larger consumption for 1853. There is not a single drawback to this anticipation except the chapter of accidents; but it may be safest, as the increase for the last year has been so unprecedented, to look forward to a demand only as large as for the present year.

The consumption in France has increased as rapidly as in England. Our exports thither have been 120,000 bales larger than last year, and they have caused no accumulation of stocks either at Havre or at Marseilles. The deliveries at Havre alone have increased (see Table VIII.) more than 80,000 bales, and the amount of American cotton for the whole of France will probably exceed 400,000 bales, against 310,000 for 1851. As large a demand for 1853 may be confidently anticipated.

On the continent of Europe the consumption has been steadily increasing. Its progress is occasionally checked by high prices, but these are only temporary disturbances in its onward march. In Russia, the imports for the three years from 1841 to 1843 were 337,000 cwts.; from 1844 to 1846 they were 584,000; and from 1847 to 1849 they were 1,065,000. In the German Zollverein, the protective duties they have imposed have given ample encouragement to the home manufacture of cotton goods. The English and American exports of raw cotton to these and other continental States have averaged (see Table IX.) 417,000 bales in 1847 and 1848; 522,000 in 1849 and 1850; and 582,000 in 1851 and 1852. For the incoming year they will almost certainly reach 600,000 bales, which is a trifle less than the amount for the present season.

The consumption of the United States has made a most sudden and rapid advance during the past year. For the three preceding years we had gone backwards. The high price of the raw material, and the imports of cotton goods at low duties from abroad, had given a check to our increasing demand, such as we never before had experienced. Hitherto our progress had been uniformly onward. The rapid increase in our population and wealth forbids any retrograde movement in the regular operations of business.

Just as our railroads, our shipping, our crop of cotton, or of wheat, or of corn, make steady and invariable progress from year to year, so must our cotton manufactures. There will be at times a backward step in this movement, but it is temporary and brief. It is like the oscillation of a pendulum on a moving surface; the weight swings backwards and forwards, but the onward motion of the point of support makes it certain that the forward oscillations will more than compensate for the backward movements. The present prosperity of the country authorizes us to expect an advance even on the large consumption of the past season. The amount for 1852 has reached (see Table X.) 603,000 bales, and 625,000 may be anticipated for the coming year.

The whole demand for 1853 will then be estimated at 3,625,000 bales (Table XI.) which is 75,000 more than the anticipated supply. (Table V.) Now, as the stocks on hand (Table VI.) are at present very low, lower than they have been for years past, especially if the time for which they would supply the demand be considered, it would seem that prices must keep above their usual average. This has been 8½ cents (Table I.) at the seaports for the last thirteen years, and if the influence of a high rate of exchange and the abundance of gold are to be regarded as real causes elevating the money value of cotton in our markets, it would seem probable that the present prices (9½ cents at Charleston, October 29th, for good middling) will be fully maintained, and that an advance rather than a decline may be expected.

TABLE I.

American Exports, Value, and Price.

	Total exports in pounds.	Total value.	Price.
From 1840 to 1844....	3,340,000,000	\$267,200,000	8 cents.
From 1845 to 1849....	3,788,000,000	284,400,000	7.5 "
From 1850 to 1851....	1,563,000,000	184,300,000	11.8 "
Estimated for 1852.....	1,000,000,000	90,000,000	9 "
From 1840 to 1852....	9,691,000,000	825,900,000	8.5 "

TABLE II.

Crop of the United States.

	Receipts.			Estimate.
	1849.	1851.	1852.	1853.
Texas.....bales	39,000	46,000	64,000	80,000
New Orleans.....	1,094,000	933,000	1,373,000	1,350,000
Mobile.....	519,000	452,000	549,000	560,000
Florida.....	200,000	181,000	189,000	175,000
Georgia.....	391,000	322,000	326,000	400,000
South Carolina....	458,000	387,000	477,000	500,000
Other places.....	28,000	34,000	37,000	35,000
Total.....	2,729,000	2,355,000	3,015,000	3,100,000

TABLE III.

Imports from the East Indies.

Years.	Bales.	Remarks.
1830 to 1834, average for 5 years	81,000	Low prices.
1835 to 1839, " " ...	144,000	High prices.
1840 to 1844, " " ...	232,000	Chinese War.
1844 to 1849, " " ...	177,000	Peace & low prices.
1849, October 5, Liverpool only...	69,000	Low prices.
1851, " 10 " " ...	171,000	High prices.
1852, " 8 " " ...	75,000	Moderate prices.
1849, whole year, Great Britain...	182,000	Low prices.
1851, " " " " ...	329,000	High prices.
1852, " Estimate.....	200,000	Moderate prices.
1853, " " " " ...	200,000	Moderate prices.

TABLE IV.

English Imports from Egypt, Brazil, etc.

Years.	Liverpool, about 1st Oct.	Gr. Britain, whole year.
1846.....bales	121,000	153,000
1847.....	75,000	136,000
1848.....	94,000	137,000
1849.....	178,000	245,000
1850.....	205,000	257,000
1851.....	138,000	181,000
1852.....	245,000	.....
1853, estimated.....	.....	250,000

TABLE V.

Supply of 1851 and Estimate for 1852 and 1853.

	1851.	1852.	1853.
Crop of the United States, bales	2,355,000	3,015,000	3,100,000
English imports from East Indies	329,000	200,000	200,000
English imports from other places	181,000	300,000	250,000

Total from these sources 2,865,000 3,515,000 3,550,000

TABLE VI.

Stocks at recent dates, corresponding to the close of our year.

	1849.	1850.	1851.	1852.
United States, September 1	155,000	168,000	128,000	91,000
Liverpool, October 8.....	582,000	545,000	550,000	507,000
Havre, October 6.....	45,000	32,000	33,000	34,000
Total.....	782,000	745,000	711,000	632,000

TABLE VII.

Deliveries to the trade at Liverpool.

	1849.	1851.	Weekly consumption.	1852.	Weekly consump.
May 1....bales	532,000	427,000	25,100	630,000	37,100
June 4.....	688,000	619,000	28,100	870,000	39,600
July 2.....	835,000	744,000	28,600	1,001,000	38,500
August 1.....	993,000	887,000	29,600	1,156,000	38,500
September 3..	1,141,000	1,058,000	30,200	1,340,000	38,300
October 1....	1,220,000	1,167,000	29,900	1,475,000	37,800
October 8.....	1,287,000	1,191,000	29,800	1,520,000	38,000
Whole year....	1,467,000	1,576,000	30,315	.....	.....
Do. G. Britain	1,590,000	1,663,000	32,000	est. 2mill. est.	39,000

TABLE VIII.

Deliveries to the trade at Havre.

	1850.	1851.	1852.
	All kinds. U States.	All kinds. U. States.	All kinds. U. States.
Sept. 1...bales	232000	220000	224000
October 1.....	250000	238000-246000	234000
Whole year....	306000	294000	312000
			302000

TABLE IX.

Consumption out of England, France and U. States.

Years.	American exports.	English exports.	Total.
1847.....bales	169,000	215,000	384,000
1848.....	255,000	192,000	447,000
1849.....	322,000	254,000	577,000
1850.....	194,000	272,000	466,000
1851.....	269,000	269,000	538,000
1852.....	354,000	Oct 8, 203,000	about 725,000

TABLE X.

American consumption.

Years.	North of Richmond.	Average for three years.	Increase p. ct.	South of Richmond.	Total.
1847..... bales	428,000	412,000	..?	80,000	508,000
1848.....	532,000	461,000	11+	90,000	622,000
1849.....	518,000	493,000	7+	100,000	618,000
1850.....	487,000	512,000	4+	100,000	587,000
1851.....	404,000	470,000	8-	100,000	504,500
1852.....	603,000	498,000	6+	100,000	703,000

TABLE XI.
Consumption of the world.

	Result for		Estimate for	
	1850.	1851.	1852.	1853.
Great Britain, bales	1,514,000	1,663,000	2,000,000	2,000,000
United States.....	487,000	404,000	603,000	625,000
France, of U. States	300,000	310,000	400,000	400,000
Exports from G. B and U. S.....	562,000	588,000	625,000	600,000
Total.....	2,863,000	2,915,000	3,628,000	3,625,000

The following communication from Rev. J. M. STEEL, of Arkansas, contains the fullest description that we have met with of that remarkable elevation, west of the St. Francois river, extending from the Missouri line to Helena, known as "Croley's ridge." When we first suggested the location of a railroad on the western side of this ridge, we were laughed at by many of our citizens who seemed to think that we had either been hoaxed, or had created the ridge for the express purpose of building a road at its base. Indeed, it may be questioned whether one individual in ten thousand, in Missouri—except perhaps in a few of the southern counties—had up to that time ever heard of this interesting feature in the topography of Eastern Arkansas. By reference to the February number, 1852, of the *Western Journal & Civilian*, vol. VII, page 295, it will be seen that our conceptions of the country on the western side of Croley's Ridge are fully verified by the following communication.

Croley's Ridge, Arkansas.

BY ~~THE~~ J. M. S.

Messrs. TARVER and COBB.

Dear sirs—Although I have no acquaintance with you, I feel a deep interest in the system of internal improvements which you are laboring to advance—and particularly the St. Louis and New Orleans railroad. Living on Croley's Ridge, and having some personal knowledge of the topography of the country lying between Chalk Bluff, on the St. Francois river, and Helena, Arkansas, and seeing in your *Journal* of June last an article from the pen of Dr. King, of St. Louis, and another in the July No. from your "correspondent in South Missouri," neither of them professing to have

much personal knowledge of Croley's Ridge, from the Missouri line to Helena, I was solicited by Col. Preston, of Helena, with others, to send you a few items of additional information, to be disposed of at your option. I have been intimately acquainted with Croley's Ridge some ten years, and having travelled it from end to end, and from side to side, times, and again, have some knowledge of its topography, and of the practicability of the contemplated railroad. The only difficulty in the construction of this road lies north of the Missouri line

Your correspondent from South Missouri has a very correct view of the country lying between Greenville and the Missouri line. The neck of land lying between the St. Francois and Big Black rivers and the slough, is well described. The propriety of the road crossing the Arkansas line at that point, cannot be doubted by those acquainted with the country: And at that point we would commence to add what we have long felt that the public should know.

Immediately below the slough spoken of, the St. Francois river bears east, and Big Black river west, until the distance between them amounts to some fifty or sixty miles. Croley's ridge rises and runs nearly due south, with an extension westward, until its width is some twenty miles. When about fifty miles south of the Missouri line, the western slopes fall off, till the ridge becomes quite narrow, say from five to ten miles wide. And thus irregular in width and height proceeds on to its terminus, at Helena; and is broken through at but one place, where L'Anguille passes through it, some thirty miles north of Helena.

There are three routes, entirely practicable on this ridge, for a railroad. On either or any of which, a line may be constructed at very light cost.

1st. A good route may be obtained on the top of the ridge. The height of the ridge ranges from fifty to one hundred feet above the level on either side; and the divide is of course crooked; consequently the grading on this route would cost much more than on either side of the ridge.

2nd. The east side of the ridge, between the ridge and overflow, presents a good route which is sufficiently level in many places for miles to lay down the rails almost without any grading, while there are occasional interruptions, caused by small streams, low bottoms, and occasionally beds of chasms caused by the "shakes" of by-gone years. These are small obstructions, and would scarcely be considered in the construction of a railroad of so much importance.

3d. The route on the west side of the ridge is as favorable, it seems, as nature could have left it. The streams on the west side of the ridge are small and few, not in the way at all in the construction of a railroad. The surface of the earth is smooth, level

and very solid, *much more clay on the west side, and more sand on the east side* of the ridge. The route on the west side of the ridge can certainly be constructed with less cost than any line of railroad of the same length, in my knowledge. Indeed, I doubt, whether there ever has been a line of the same length built for so light a cost, as this would require. There will be but one bridge of any note on the west side of the ridge, that will be across L'Anguille. On this route the whole road from the Missouri line to Helena will need scarcely any grading at all. The country is so level, and the surface of such a solid character, that the railing will be the principal outlay required. And on either or any of the three routes I have described, the timber is abundant for all purposes.

Again, your "correspondent from South Missouri" seems to think a route across from Croley's ridge to Memphis impracticable. This, however, is a mistake. Nature seems to have formed a ridge *expressly*, most of the way across the great swamp, on which a road may be easily constructed with very small cost. This swamp is not all a bed of lakes and mud, as has generally been supposed, but is a body, an almost unbroken body of the richest soil on the globe. And if our levying system succeeds, as we believe it will, this swamp that has hitherto only been inhabited by wild beasts, will soon become capable of supporting the heaviest population of any farming community in the United States.

So you may inform your readers from the pen of one who has been over all the ground, that there is nothing to fear in the construction of a railroad from St. Louis to Helena or Memphis, so far as the practicability of the route through Arkansas is concerned. Such a road will not pass through a *gloomy swamp*, but a country that *needs such a road as much and would yield it as good a profit as any country in the West.*

The country through which the road would pass, is very rich, and embraces a great deal of Government land, subject to entry at \$1.25 per acre, which would soon be worth from \$5 to \$50 per acre, if the road was finished, and the cars on it. Our lands on this ridge produce fine corn, wheat, oats, tobacco, potatoes, grass of all kinds common to this climate—and this is the best stock country of my knowledge. Moreover the southern counties on this ridge, St. Francois and Phillips, produce very fine cotton, generally a bale per acre.

COMMERCIAL STATISTICS.

COMMERCE OF ST. LOUIS.

Imports into St. Louis by the river for five years commencing January 1st, 1848 and ending December, 31st, 1852.

Articles.	1852	1851	1850	1849	1848
Apples, green, Bbls.....	9 11	13094	20291	2 533	12628
“ dried, bbls. and sacks...	9248	20642½	14766	.....	.....
Axes, boxes.....	1415	692	375	.....	.....
Bacon, casks.....	16727½	76183½	27106	16880	29423
“ boxes.....	979	962	6195	3245	6622
“ bulk, lbs.....	889403	310495	558703	.....	.....
Bagging, pieces.....	3367	2765	1262	1079	1084
Barley, bushels.....	144774	149559	72591	92463	111003
Beans, barrels.....	1420	1862	1378	15.6	3337
“ sacks.....	15296	8156	3017	2265	2003
Beef, barrels.....	189 3	19119	11423	12336	7866
“ ½ do.....	6.9	1854	775	.....	.....
“ tierces.....	.....	.....	.....	10687	9369
Beeswax, sacks, bbls. and boxes.	387½	650½	.....	65418	.....
Boots, boxes.....	27671	19735	27.60	.....	.....
“ trunks.....	265	630	2800	.....	.....
Brandy, bbls.....	3035	2855	5723	.....	.....
Buffalo Robes.....	59411	95841	67634	11023	.....
Butter, barrels.....	2135	2181	19.6	2324	2265
“ kegs.....	3648	4545½	5349	7811	8131
“ firkins.....	3013	3636	3234	.....	.....
Candles, sperm, boxes.....	423	139	496	.....	.....
“ tallow do.....	853	2092	2806	.....	.....
Cattle.....	1992	1819	1376	.....	.....
Cheese, boxes.....	272.6	31340	2638½	19464	8417
“ casks.....	70	422	.....	.....	.....
Cider, barrels.....	216½	540½	801	2638	1180
Cigars, foreign, boxes, 1000 each	353	1098	2005	.....	.....
“ domestic, do.....	1241	933	1633	.....	.....
Coffee, sacks.....	105888	103123	73281	67353	78842
Corn, bushels.....	647154	18346.9	1016077	205338	639693
Cotton Yarn, packages.....	.....	.....	.....	22836	11480
Dry Goods, boxes.....	126925	108583	94.62	.....	.....
“ packages.....	586348	480589	362936	.....	.....
“ bales.....	31162	41224	26298	.....	.....
Fish, kegs.....	1092	18.0	1193	.....	.....
“ boxes.....	2670	4783	5843	.....	.....
“ barrels.....	5883	6864	6758	.....	.....
“ half barrels.....	2394	2105	2192	.....	.....
Feathers, sacks.....	1213	1143	1593	1156	856
Flax seed.....	6703	4400½	2348	9802	12257
Flour, barrels.....	136599	194867	326072	306412	387314
“ half do.....	6572	6324	7321	.....	.....
Furs, packages.....	1793	3051	2180	1524	1194
Gin, barrels.....	504	939	796	.....	.....
Ginseng, sacks and barrels.....	270	42	877	374	152
Glass, boxes.....	.....	.....	.....	66696	19834
Hay, bales.....	15689	23280	25271	tons 902	tons 854

Imports into St. Louis by the river for five years commencing on the 1st of January, 1848, and ending December 31st, 1852.

(Continued.)

Articles.	1852	1851	1850	1849	1848
Hemp, bales.....	53331	64607	62798	46290	47270
Hemp seed, barrels.....	400	355	750	.....	.....
Hides.....	107858	99302	86815	681902	62697
Hogs.....	22822	17885	12226	.....	.....
Horses.....	13.5	833	2098	.....	.....
Iron, bars, tons.....	10065	9387 $\frac{1}{2}$	14322	28562	16341
“ pigs.....	9820	6683 $\frac{3}{4}$	4468	5143	4463
“ castings.....	8737 $\frac{1}{2}$	1214	2485	.....	.....
Lard, barrels.....	46020 $\frac{1}{2}$	60646 $\frac{1}{2}$	100001	58279	67339
“ kegs.....	10119	16227	17133	18845	14180
Lead, pigs.....	416985	521734	601787	590293	704718
“ bars, lbs.....	1664	38250	113150	.....	.....
“ white, kegs.....	306	797	8975	.....	.....
“ red, do.....	.....	91	.....	.....	.....
Leather,.....	10204	.....	.....	.....	.....
Malt Liquors, barrels.....	11324 $\frac{1}{2}$	8200 $\frac{1}{2}$	7725	13480	16510
Molasses, barrels.....	60268	40330 $\frac{1}{4}$	32463	29214	2,948
Mules.....	475	.....	.....	.....	.....
Nails, kegs.....	60435	63736	888.3	76.67	40596
Oakum, bales.....	467	156	2612	2594	816
Oats, bushels.....	606397	776.41	7126.7	252291	243700
Onions, sacks and barrels..	19171	21897	14629	8540	10804
Oils, Sperm, barrels.....	356	1677	2038	.....	193
“ Castor, do.....	226	459	1678	875	510
“ Linseed, do.....	1858	120 $\frac{1}{2}$	2587	1936	1609
“ Train, do.....	245	391	348	.....	.....
“ Lard, do.....	139	212	.....	.....	.....
Paper, wrapping, reams.....	68319	47914	50506	.....	.....
“ writing do.....	6341	6579	10990	.....	.....
Peaches, green, barrels.....	372 $\frac{1}{2}$	1207	743	.....	.....
“ dried, do.....	851	1187	2260	.....	.....
“ sacks.....	4126	4273	5831	.....	.....
Peltries, packages.....	1061	1666	1362	2641	1889
Pork, bbls.....	75483	114899	135662	113862	97612
“ half bbls.....	1693	3052	7321	.....	.....
Pork, in bulk.....	9015969	11873615	11474041	9651656	8454000
Potatoes, bbls and sacks.....	57378	58650	13401	41222	77638
Powder, kegs.....	13019	14887	18505	.....	.....
Queensware, casks.....	1652	2720	3197	.....	.....
“ crates.....	2039	2453	2508	.....	.....
Rice, tierces.....	2848	2579 $\frac{3}{4}$	3389	1965	948
Rope, hemp, coils.....	42567	33935	23442	19065	12633
“ Manila do.....	1500	1643	5649	.....	.....
“ Tarred do.....	299	.....	.....	.....	.....
Rum, barrels.....	88	198	706	.....	.....
Rye, bushels.....	5571	7656	3468	5844	9075
Salt, domestic, fine, barrels..	58	444	805	.....	.....
“ do. coarse, do.....	44980	37200	24219	23553	38800
“ Liverpool B., sacks.....	19841	17302	23252	.....	26687
“ G. Alum do.....	198136	119867	156699	.....	167079
“ Turks I. do.....	83176	46594	98038	291709	56642
Sheep,.....	4123	6001	2924	.....	.....
Shoes, boxes.....	12364	12057	17022	.....	.....
“ trunks.....	256	509	26.8	.....	.....
Skins,.....	4997	5152	6718	.....	.....
Soap, boxes.....	917	2521	.....	.....	.....

Imports into St. Louis by the river for five years commencing
January 1st, 1848, and ending December, 1852.

Continued.

Articles.	1852	1851	1850	1849	1848
Starch, boxes	2789				
Sugar, hogsheads.	39447	29722	24159	26501	26116
“ barrels	14937½	22270	12273		6852
“ boxes	18442	16098	13926	7348	14812
Tallow, casks	448	376	439	973	398
“ barrels	3136½	1175½	809	631	797
Tar, barrels	13395	10000	1126	2539	5027
“ kegs	3283	5800	5219	4103	2360
Tin Plate, boxes	7663	6677	9993		
Tea, chests	974	1058	2873	3281	2384
“ half chests	1241	2691	596		
Tobacco, hogsheads	13708	10286	9272	9879	9044
“ boxes, manufactured	16121½	10235	10309	5904	6446
Vinegar, barrels	325	755	1134	1423	606
Wheat, bushels	1624186	1644861	1863750	1792535	2194789
Whiskey, barrels	50887	4854½	38813	29085	29758
Wine, barrels	3877	5264½	8972		
Wool, sacks	1312	1684	1509	1274	1398

IMPORTS OF FOREIGN MERCHANDISE AT ST. LOUIS
DURING THE YEAR 1852.

[From the “Mo. Republican.”]

	1852.	1851.
The foreign value of goods, wares and merchandise imported into St. Louis from foreign countries and entered for consumption at this port in 1852.....	\$954,956	\$757,509 00
Foreign value of merchandise remaining in public store, on 31st December ult..	11,566	8,261 89
The foreign value of merchandise entered at other ports for transportation hither, but not yet received, estimated.....	72,951	107,902 00
Total.....	\$1,039,473	

	1852.	1851.
Of the above mentioned goods, wares and merchandise entered for consumption in 1852, the imports were from the following countries: From England, the foreign value of which was.....	\$431,343	\$406,113
France.....	75,258	38,404
Germany and Holland.....	22,695	23,239
Spain and Dependencies.....	262,886	220,770
Brazil.....	93,086	68,983
Manilla (E. I.).....	62,963	
Other countries.....	6,705	
Total.....	\$954,946	\$757,509

The general descriptions of merchandise imported and entered for consumption is—viz: Sugar and molasses, foreign cost.....	\$413,172	\$289,753
Hardware, cutlery, &c.....	118,276	133,401
Railroad iron.....	132,894	100,211
Earthen and glassware.....	80,729	98,786
Tin plate, tin, iron, copper, &c.....	59,826	31,482
Dry goods and fancy goods.....	110,814	24,287
Brandies, wines, gins, cordials, &c.....	32,985	24,712
Burr stones.....	420	2,257
Drugs and medicines.....	756	2,618
Cigars.....	5,773	
Total.....	\$954,946	\$757,509

Amounts of duties on imports collected	\$290,168 85	239,318 68
Hospital moneys.....	3,129 89	2,941 03

Total amount collected in 1852.....	\$293,298 74	
Amount expended in 1852 for relief of sick and distressed seamen.....	\$3,162 01	\$5,441 44
Tonnage on steam vessels remaining on 31st of December, 1852, tons.....		36,372

Respectfully, your obedient servant,

W. W. GREENE.

Annexed we present the monthly receipts of the leading articles of produce, groceries and merchandise for the year just closed.

Articles.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Tobacco, hhd.	79	21	102	707	1026	2750	2964	2438	1622	1032	537	164
" boxes	680	680	1879	742	1208	3070	1113	1006	959	1093	1040	363
" hales	300	912	5715	4737	7537	9712	8387	6311	3057	4749	1030	558
Hemp, bales	47	3005	1100	3631	56724	75017	7971	22550	10605	36417	37072	8692
Lead, pigs	6612	13510	13233	1011	6100	4370	10286	7705	15212	11578	20510	8686
Flour, bbls.	7123	10110	91014	58758	63080	63080	41700	51237	6772	71250	101061	58703
Wheat, sacks	17190	38	1836	1725	1878	23375	803	375	2316	1432	4783	1651
" bbls	3001	3001	55592	5187	4237	58093	33403	17800	9791	9791	2207	18475
Corn, sacks	873	12650	12611	40746	51112	56624	35311	20338	26803	26803	27866	12176
Oats, sacks	501	902	6500	5127	2807	370	581	2355	4653	4653	12023	5010
Barley, sacks	6	803	503	203	65	161	1	1	425	425	5619	3763
Beef, bbls		376			228	30					1424	4482
" tierces		12676	18508	16206	402	398	1879	1358	399	227	1678	8138
Pork, hals		671	5	377	152	15					80	1317
" tierces	360	9310	10719	9667	3847	358	613	1362	503	516	659	4721
Lard, bbls and tierces	135	2261	2572	676	723	401	257	1374	149	50	319	2606
" kegs	165	181	1705	2840	1630	1003	497	280	481	973	262	1415
Bacon, casks and hds		43	42	221	107	73	42	72	17	107	815	147
" bbls and boxes		823	3610	1836	1112	1180		1047	195			8547
" pieces												
Pickled and Dry Salted Meats												
" casks and hogsheds	215	601	1008	452	161	36	137	9	20	51	7	
" tierces and bbls	301	1150	1483	351	351	170	962	301	173	14	2100	
" pieces	40782	168415	168799	7386	7386							
" tuns		230	35									
Whisky, bbls	666	4702	6631	4814	4707	3472	3343	2802	1835	564	4390	3781
Hides	646	5897	19803	16766	1533	48558	5116	2156	2389	4708	5762	6604
Bagging, pieces	97	778	161	362	520	188	310	356	86	419	461	1108
Rag Rope, coils	306	3501	4215	4062	3874	3874	4531	7153	371	4871	2080	7004
Sugar, hds.	1414	3555	3566	7061	4936	1624	1104	961	1287	615	2069	814
" bbls and boxes	4516	1005	4217	2008	4011	2853	3359	4392	1236	4261	814	1545
" bags	6826		3700	1050	1000	1500	2005				7842	420
Coffee, sacks	215	1186	7261	6546	11592	1388	17753	4307	5815	7180	6403	1307
Molasses, hds and bbls	3276	3066	6008	6515	2637	3018	3180	2178	5386	1451	3880	11109
Salt, bbls		4259	504	3178	9287	14185	3889	2650	1919	1300	3069	36121
" sacks		9698	7147	16100	45126	47652	33966	16582	7140	15082	31108	2056
Nails, Kegs	4659	5491	8858	3005	1651	4765	3331	203	2705	1039	2756	4747

A TABLE

Showing the monthly arrivals of Steamboats and Barges, Keel and Flatboats, with their respective tonnage, wharfage, Harbor Master's fees, &c., for the years 1851 and 1852.

Months.	Arrivals of steamboats and barges..		Arrival of keel and flatboats.....		Tonnage of steamboats and barges.		Wharfage.....		Harbor Master's fees.....		Paid into City Treasury.....	
	1851.	1852.	1-51.	1852.	18'1.	1852.	1851.	18 2.	1851.	1852.	1851.	1852.
January.....	112	65	2	—	23942	16430	\$1,777 95	\$1,236 65	\$106 65	\$74 32	\$1,070 87	\$1,162 73
February.....	154	194	1	—	29 13	420 5	2,002 17	2, 09 04	120 13	174 64	1,852 04	2,734 60
March.....	654	249	4	—	71819	60706	6,603 49	4, 89 61	33 83	267 37	6,292 66	4,032 24
April.....	315	316	5	—	73069	76381	6,048 94	5,691 68	302 94	255 0	4,746 0	5,236 18
May.....	414	399	13	1	89871	99979	6,974 42	7,154 18	418 48	29 25	6,565 66	6,794 93
June.....	210	288	2	—	67985	7,231	2,166 85	5,945 7	184 01	356 71	2,892 81	5,688 55
July.....	162	287	—	—	40273	7,885	2,483 91	4, 899 00	189 63	203 04	4,344 28	4,606 66
August.....	289	213	1	—	6482	47414	4,809 99	3,471 3	268 00	208 28	4,311 39	3,953 10
September.....	258	305	7	—	59066	66206	4,132 72	3,926 26	249 86	206 56	3,884 78	3,698 77
October.....	244	367	1	—	67719	71958	4,132 48	6,758 10	249 85	209 18	5,644 55	4,588 62
November.....	347	291	7	—	73441	62358	6,139 09	4,863 61	309 04	291 1	2,782 80	4,571 74
December.....	164	223	—	—	3 937	53 14	2,620 45	3,636 67	170 63	230 20	45,766 69	3,506 47
Total.....	2903	3187	43	1	668140	735244	\$45,156 04	\$63,361 78	\$92,692 35	\$157 88	\$45,266 69	\$50,094 40

BANK REPORT.

[From the "St. Louis Intelligencer."]

Aggregate condition of the Bank of the State of Missouri and its Branches, on the 31st of December, 1852.

DR.

Bills discounted.....	\$1,928,598 23
Exchanges matured.....	258,031 18
Exchanges maturing.....	922,930 14
Real estate.....	122,869 65
Loan to State of Missouri.....	1,408 83
Bills receivable.....	48,028 88
James L. D. Morrison, agent.....	29,322 19
Suspended debt.....	107,833 66
do. abstraction of funds now in suit.....	120,961 62
Due from banks.....	114,557 37
Certificates State Bank Illinois.....	15,050 00
Bonds State Bank Illinois.....	7,500 00
Bank notes on hand.....	301,570 00
Warrants on State Treasury Mo.....	8,581 31
Specie on hand.....	1,253,311 96
	<hr/>
	\$5,240,555 12

CR.

Capital stock owned by the State.....	\$954,205 22	
Capital stock owned by individuals.....	256,417 47	1,210,622 69
Due depositors.....		1,071,605 09
Dividends unpaid.....		1,533 86
Interest and exchange.....	188,580 17	
Less expenses.....	\$17,327 86	
do. protest, &c.....	99 85	17,427 71
Contingent fund.....		171,152 46
Circulation.....		206,925 16
Due to banks.....		2,427,720 00
		150,995 86
		<hr/>
		\$5,240,555 12

A. B. ROBINSON, Cashier.

St. Louis, December 31, 1852.

Condition of the Bank of the State of Missouri on 31st December, 1852.

DR.

Branch at Fayette, for capital.....	\$120,058 84	
“ “ Palmyra, “.....	120,058 84	
“ “ Jackson, “.....	120,058 84	
“ “ Springfield, “.....	120,058 84	
“ “ Lexington, “.....	120,058 84	
	<hr/>	600,294 20
Bills discounted.....		1,135,752 10
Exchanges matured.....		233,351 77
Exchanges maturing.....		604,381 03
Real estate.....		57,315 00
Loan to State of Missouri.....		1,408 83
Bills Receivable.....		48,028 88
James L. D. Morrison, Agent.....		29,322 19
Bonds State Bank Illinois.....		7,500 00
Certificates State Bank Illinois.....		15,050 00
Suspended debt.....		35,179 09
do. abstraction of funds now in suit.....		120,961 62
Due from Ban'cs.....		22,572 04

Bank Report.

Bank notes on hand of branches.....	247,850 00
Warrants on State treasury Mo.....	8,581 31
Specie on hand.....	835,444 32
	\$4,002,992 38

CR.

Capital stock owned by the State.....	\$954,205 22
Capital stock owned by individuals.....	256,417 47
	1,210,622 69
Due depositors.....	900,097 66
Dividends unpaid.....	1,533 86
Interest and exchange.....	80,609 90
Profits past six months.....	67,373 64
Less expenses.....	9,214 17—58,159 47
	138 769 37
Contingent fund.....	206 925 16
Circulation.....	1,413,230 00
Due to Banks.....	131,793 64
	\$4,002,992 38

A. S. ROBINSON, Cashier.

St. Louis, Dec. 31, 1852.

Condition of the Branch of the Bank of the State of Missouri, at Fayette, on 31. December, 1852.

DR.

Bills discounted.....	\$160,679 90
Exchanges matured.....	8,355 68
Exchanges maturing.....	93,265 28
Real estate.....	21,129 58
Suspended debt.....	3,534 37
Expense account.....	1,612 08
Protest account.....	6 45
Bank notes on hand.....	8,250 00
Specie on hand.....	94,685 19
	\$391,518 53

CR.

Bank of the State of Missouri for Capital.....	\$120,058 84
Due depositors.....	8,507 96
Due to banks.....	19,167 39
Interest and exchange.....	8,204 34
Circulation.....	235,520 00
	\$391,518 53

WILLIAM C. BOON, Cashier.

Fayette, Dec. 31, 1852.

Condition of the Branch of the Bank of the State of Missouri, at Palmyra, on 31st December, 1852.

DR.

Bills discounted.....	\$124,430 37
Exchange maturing.....	133,394 84
Exchange matured.....	2,293 35
Real Estate.....	15,049 08

Suspended debts.....	19,547 91
Expense account.....	1,468 40
Protest account.....	34,83
Bank notes on hand.....	6,080 00
Specie on hand.....	85,030 47
	<hr/>
	\$387,321 07

CR.

Bank of the State of Missouri for capital.....	\$120,058 84
Due depositors.....	51,870 03
Due to banks.....	34 83
Interest and exchange.....	8,597 37
Circulation.....	206,760 00
	<hr/>
	\$387,321 07

Palmyra, Dec. 31, 1852.

S. D. SOUTH, Cashier.

Condition of the Branch of the Bank of the State of Missouri at Jackson, on 31st December, 1852.

DR.

Bills discounted.....	\$190,742 80
Exchanges maturing.....	5,625 00
Exchanges matured.....	10,440 38
Real estate.....	5,165 11
Suspended debt.....	15,748 31
Due from banks.....	21,483 12
Expense account.....	1,458 85
Protest account.....	22 80
Bank notes on hand.....	35,980 00
Specie on hand.....	85,043 08
	<hr/>
	\$371,699 49

DR.

Bank of the State of Missouri for capital.....	\$120,058 84
Due depositors.....	17,100 00
Interest and exchange.....	6,890 65
Circulation.....	197,650 00
	<hr/>
	\$371,699 40

Jackson, December 31, 1852.

THOS. B. ENGLISH, Cashier.

Condition of the Branch of the Bank of the State of Missouri at Springfield, on the 31st of December, 1852.

DR.

Bills discounted.....	\$156,494 72
Exchange maturing.....	7,152 00
Real estate.....	9,704 00
Suspended debt.....	20,534 37
Expense account.....	1,037 10
Protest account.....	1 90
Due from banks.....	32,900 15
Specie on hand.....	61,658 19
	<hr/>
	\$292,462 43

CR.

Bank of the State of Missouri, for capital.....	\$120,055 84
Due depositors.....	28,208 57
Interest and exchange.....	5,405 02
Circulation.....	138,810 00

\$292,482 43

JAMES R. DANFORTH, Cashier.

Springfield, 31st December, 1852.

Condition of the Branch of the Bank of the State of Missouri at Lexington, on the 31st of December, 1852.

DR.

Bills discounted.....	\$160,498 34
Exchange maturing.....	79,112 09
Exchange matured.....	3,600 00
Real estate.....	14,506 85
Suspended dept.....	13,289 61
Due from Banks.....	34,738 34
Bank State of Missouri account current.....	2,863 72
Expense account.....	2,537 25
Protest account.....	42 05
Bank notes on hand.....	3,410 00
Specie on hand.....	88,450 71

\$403,048 96

CR.

Bank of the State of Missouri for capital.....	\$120,058 84
Due depositors.....	35,820 87
Interest and exchange.....	11,439 25
Circulation.....	235,730 00

\$403,048 96

WM. LIMRICK, Cashier.

Lexington, 31st December, 1852.

IMPORTS INTO THE UNITED STATES—FISCAL YEAR ENDING JUNE 30, 1852.

	1849—50.	1850—51.	1851—52.
Foreign merchandise.....	\$173,509,521	\$210,771,429	\$207,240,101
Foreign specie and bullion.....	4,628,792	5,453,503	5,262,643
Total imports.....	\$178,138,313	\$216,224,932	\$212,502,744

EXPORTS FROM UNITED STATES TO FOREIGN PORTS.

Domestic produce.....	\$134,900,233	\$178,620,138	\$149,861,911
Specie and bullion.....	7,523,004	29,465,752	42,507,285
Foreign merchandise.....	9,475,483	10,302,121	17,204,026
Total exports.....	\$151,898,720	\$218,388,011	\$209,573,222

DEPARTMENT OF INDUSTRY.

American Exhibition of the Industry of All Nations.

NEW YORK CRYSTAL PALACE.—WEALTH OF MISSOURI.

BY A. S. MITCHELL.

The *Western Journal*, for this month, contains a publication of a matured plan for holding at New York an Exhibition similar in its character and objects to the remarkable Fair held in London, during the year 1851, and very fittingly denominated the World's Fair. The edifice in which the American Exhibition is to be made is rapidly drawing towards completion. Like its great London prototype, it is built exclusively of iron and glass, and it has come very naturally to be styled the "Crystal Palace," in imitation of its London forerunner. The building is one of great architectural beauty—alike creditable to the designers and architects who planned and are building it. It is immense in its proportions and capacities, affording on groundfloor and galleries, space equal to an area of four acres.

Foreign governments have been invited to give their countenance and patronage to this American enterprise, and they have, in every case, responded favorably. England, France, Austria, and even the Sublime Porte, have promised co-operation, and the latter has expressed the intention of sending to our shores a public vessel to bring the contributions of his subjects. The British Provinces of North America enter warmly into the design of the Exhibition; and the Association at New York are advised of contributions to come even from the far North where the skin-clad Esquimaux make the most of the scant endowments of nature.

In fine, we may say, that although the American Exhibition may not rival that of London, (it is not likely indeed that during the present generation, the World's Fair at London can be rivalled,) the occasion at New York will nevertheless stand out at the head of all such American efforts, and be long remembered and felt in its effects on American arts and industry. The note of preparation is not so plainly heard in all lands far and near as it was preceding the Fair at London, but this is in part owing to the absence now of the novelty of the occasion, which prevents comment on every step that is taken in the affair. Enough is known to assure the country that an array of art and its products, and a congregation of artists and economists—of producers and factors—such as never before has been seen in America, will be found in New York. Much will there be seen—much learned. It behooves Missouri to prepare to profit and be profited by that school.

Although the Exhibition at New York is denominated one of the "Industry of All Nations," it will be seen by perusing the paper to which reference has already been made, that more is embraced in the design than the title would imply. The products of industry

—modified forms of wealth—are not the most conspicuous tokens of this country's greatness. It is the raw material—the material which industry lays hold of, and turns to manifold uses of man—that America is renowned for. And while Europe may show the arts in their highest excellence, America can show the best field for the exercise of all arts. Our people are pushing boldly on in the study of arts, with the motto "Excelsior," to inspire rivalry with the foremost workers of the old world; but whilst winning triumphs in mechanical skill wherever their genius has applied itself and striven for the mastery, let our people remember that at the approaching Exhibition at New York, the field in which they can most easily defy all competition, is the very one wherein their manliest superiority will be productive of most good to our country in the results of the Exhibition. What profit would it be to drive European manufacturers away, humbled by its successful rivalry of American art in the leading branches of human industry? On the other hand, what profit would it not yield to the country to display to European manufacturers the cheap food, the abundant material, the ready market, afforded by America above their own countries, for the application of the skill they could bring with them if they should choose to come hither and pursue their arts?

Let other States do as they may, but let Missouri understand her own interests and follow them. Missouri must be represented at New York. Let us consider how it can most judiciously be done. Art may have its products there. We are proud to know that we have a *Bingham*, whose genius may shine radiantly beside the works of the best of living painters. We have architects, musicians, painters, machinists, mechanics, who can do credit to any country in the products of their genius and skill. But we have the frame work—the raw material—of a great commonwealth that no State or kingdom can excel and few can match. Let us show *that* at the American Exhibition.

Let us present a schedule of the primal elements of a life sustaining, wealth producing commonwealth. Missouri, it will be found, possesses them all. First, the people of a country must be fed. Missouri should send to New York specimens of cured beef and pork—bacon hams—lard—butter—flour—corn meal—wheat—maize—barley—oats—buckwheat—potatoes—vegetables in all their abundant varieties—apples—pears—peaches—grapes—plums—cherries—strawberries—raspberries—fruits of all kinds—large and small. All are preserved and cured among us, and not one specimen should be omitted in our representation at New York.

Second, the people of a country must be clothed and have houses to live in. Missouri can fittingly clothe and shelter all her population. Wool and flax are produced—woollen, linen and cotton goods are manufactured in Missouri. And then for houses—Missouri has clay for bricks, mortar, sand, mar-

ble, granite, iron, and of timber, oak, ash, poplar and pine—boards of *all* kinds—and nails made here to join them together. For furniture to fill the houses, Missouri has walnut, maple and cherry, of beautiful grain, and susceptible of the highest finish.

To warm these houses; and to cook her people's food, Missouri has coal, common bituminous and cannel, and forests of timber, to last with care a thousand years. To light these houses, Missouri has sand for making glass for the windows; and to furnish the table the same material to make goblets, while the *kaolin* of Missouri will supply all the china. The hides of Missouri cattle, tanned with Missouri bark, will supply all the population with shoes. The wool and the furs of the State will yield hats.—And thus is the whole man cared for fed, clothed, housed, and even supplied with luxuries, from the various and abundant provisions of the animal, mineral and vegetable kingdom.

But this is not all. Missouri has products, which other States must have, and it is on these products that her wealth and power will be built up. What other American State can compare with Missouri in *hemp*?—What can excel her in tobacco? What can compete with her in iron? Or surpass her in lead and copper? We believe none—and yet the mineral treasures of Missouri are as yet but scratched for on the surface.

It is more than we need do—tell the people how to show the wealth and capabilities of Missouri at the American Exhibition. Let every citizen of the State ask himself: Is there a remarkable production, animal, vegetable or mineral, that would do credit to the State that I can send to New York? If so, let it be sent. Does any man know of a wild grape vine, a foot or more in diameter? Let him cut it in two, and send a portion, three or four feet long, to St. Louis, to be forwarded to New York—telling in what county it was cut and if more be left like unto it. Is there a remarkable fruit or forest tree that can be spared, or that has failed, or died, or fallen? Let a cross section of it be sent in the same manner with its history. Has any man a remarkable specimen of coal, or ore, or mineral of any kind? Let him label it with his name and its history, and let it go on to form a part of the most extraordinary cabinet of minerals the country has ever seen one State furnish. The specimens may finally be withdrawn and returned again to the owners, if they desire it. Whatever a man has, be it wheat, corn, barley, castor beans, or what not—or coal, or iron, or lead, or sand, or marble, or granite—whatever will show the State's wealth, let it be sent on in suitable quantities, to speak for the State.

Thus, by showing the world what our State contains, and can produce, we give it its proper position and consideration in the eyes of the world.—Arts and artists—manufacturers—will watch their interests and speak for themselves and their wares. Let us speak for *Nature* at the American Exhibition, and thus testify our gratitude for the endowments she has, in such munificence, granted to Missouri.

New York Crystal Palace.

The Association for the Exhibition of the Industry of All Nations which is organizing the World's Fair to take place in the City of New York, next spring, has issued the following Circular:

New York, 6th December, 1852.

I address you, on behalf of the Association for the Exhibition of the Industry of All Nations, to invite your co-operation in the general objects of the enterprise.

The building intended for the purposes of the Exhibition, constructed entirely of iron and glass, will be, it is believed, the largest and most beautiful edifice in the country. It covers, on the ground floor, two and a half acres, and, with the galleries, the whole space is four acres. The mason-work is entirely completed. The main part of the iron-work is contracted for, a large part of the castings are delivered on the ground, and the construction is going steadily on. We intend as we have already stated to the public, that the Exhibition shall be opened on the 2d of May, 1853.

You are thus offered an unequalled opportunity of exhibiting to the vast population of this country, such of your productions as you send us, free of all charge of every kind whatever from the time that they are delivered into our custody until withdrawn.

The Association has already announced that their objects are limited exclusively to *Exhibition*. They have no interest whatever, direct or indirect, in the final disposition to be made of any article that may be displayed.

You are, no doubt, aware that we have received all the assistance, from the public authorities, that we have desired. The City has given us the lease of Reservoir Square—the State has granted us a Charter, and the Federal authorities have engaged that the building shall be made a Bonded Warehouse for the purpose of receiving foreign articles without paying duty so long as they remain in it.

We have the strongest assurances of support from the Representatives here, of the principal Foreign countries. The late lamented Mr. Webster, on the 12th October, issued a private circular from the Department of State to the Representatives of this Government at the Courts of the Principal European Powers, requesting their assistance in the objects of the undertaking, and we are receiving daily confirmation of the general interest that the subject is exciting among the manufacturers of Europe. A large number of articles of high value are already secured, and we have no doubt whatever that we shall have a very extensive representation of all the branches of foreign industry.

The measures which we have adopted will, thus, secure two great objects we have desired to attain, viz: the erection of a building which will be a great architectural ornament to our City, and the exhibition, in that building, of the products of the industry of the Old World; still, we shall fall far short of our mark if we do not equally succeed in obtaining the fullest and most extensive co-operation of American industry; our Exhibition would be extremely defective—it would be very inferior, both in interest and in utility, to what we mean to make it—if the great resources of the people of our own country were not fully displayed in it.

We believe it to be unnecessary to urge upon you the arguments on this subject, which we are sure will present themselves to the mind of every intelligent American producer—your position in the world of American Industry, your own interest and what is due to an enterprise devised and meant to be carried out with no narrow views, but on a large scale of public usefulness—all entitle us to entertain the fullest conviction that you will send us some of the choicest specimens of your skill, and that you will urge your friends to do the same.

In making this application we desire to have it understood, that we intend to call forth a complete representation of the entire Resources of the Country, as well of Raw Materials as of Manufactured Articles. We hope to see abundant specimens of the Cereal products of the Northern and Western States, of the Cotton and Sugar of the South, as well as of all the other great agricultural staples of the Country. Of similar importance are the Mineral treasures of our Continent. We are particularly desirous that our Building should contain a complete collection of the various Ores which the active industry of our people is daily bringing to light, of the metals produced from them, in their various stages of development, and also of all other Minerals. This would include as well Coal, Granite and other similar substances, as those chemical products more especially used in the Arts. The Ores should be accompanied by the Rocks in which they are found, and if possible, by plans and sections of the measures in which they lie. It would also be of great interest to exhibit, either by Models or descriptive Drawings, the different processes employed in the reduction of the ores and the manufacture of the Metals. You will readily see the importance and value of a collection of this kind, and if the specimens are forwarded to us, we shall take such measures for their classification and arrangement as will best subserve the objects of the Exhibition and, at the same time, add to the information and experience of our People.

We have, heretofore, announced that Paintings in Frames, will be exhibited; and we are very desirous that the Sculpture of the Country may be fully represented. If our wishes, in these respects, are answered, our Building will furnish a complete illustration of the Natural Resources, the Art and the Industry of our People, and the manifestation thus made, will, we are convinced, surprise even those most conversant with the Progress of the Republic.

We enclose our General Circular and also a form of Application for Space, to which we beg your attention. Copies of these or of this letter, if you desire them to send to your friends or correspondents, can be had at this office.

In order that we may know on what extent of cooperation we may depend, the favor of a reply on or before the 1st day of February is asked. Please address it to Wm. Whetten, Esq. Secretary of the Association, No. 53 Broadway, New York.

I have the honor to be,
with great respect,
your obed't serv't,

THEODORE SEDGWICK,

President.

In order to carry out more effectually the objects of the Association, Local Committees have been raised in the principal Manu-

facturing and Commercial Centres of the Union. The St. Louis Committee consists of

H. A. PROUT, *Chairman.*
L. M. KENNETT, *Treasurer.*
CHARLES P. CHOUTEAU,
WM. H. BELCHER,
THOS. S. O'SULLIVAN,
A. S. MITCHELL,
A. B. CHAMBERS,
THORNTON GRIMSLEY,
LOUIS V. BOGY.
M. TARVER, *Secretary.*

Any information in regard to the Association or its objects, and also the *Forms of Application for Space*, Prospectus of the Association, and copies of the above Circular, can be had by applying to any member of the foregoing committee, or to the Secretary of the same.

Industrial Association : Address of the St. Louis Committee.

TO THE CITIZENS OF MISSOURI.

Within the present century two great efforts have been made in England to control the public mind and to give direction to popular taste. The one was the attempt to revive the institutions of Chivalry, with all their romantic associations of tournament and joust, of pilgrimage, errantry, and Troubador; of prancing steeds and rich emblazonry; of sounding heralds, brilliant throngs and maidenly prizes. But this, as every one knows, was an eminent failure.

The other effort was to open an Exhibition of the Industry of all Nations at the city of London, on the first day of May, 1851, to bring together as fully as possible, the natural and artificial products of the world, and by a friendly rivalry in the display of the industrial genius and the artistic skill of each nation, to excite a proper emulation among them to still further advances in the modification of these materials to the wants, the comforts and the enjoyments of life. And this effort, as every one knows, was eminently successful, and its influences are everywhere beginning to be felt and appreciated.

Now why was this difference manifested in the success of these two prominent designs? Because, as must be obvious to everyone, there was in the first instance only an effort to revive a dead body when the spirit which had animated it had long ceased to exist; whilst in the other, there was a combined and united effort to give

vigor and firmness and maturity to an embryo which promised to develop a giant, fully capable of wielding the weaver's beam, animated by the spirit of the plain, practical and progressive tendencies of the Nineteenth century.

The advantages which flowed from this brilliant Exhibition were made manifest:

1. In an increase of knowledge not only of the natural productions of the earth and of the various arts applied by different nations in modifying them to the comfort and enjoyment of life, but of the interior economy of this life, and of the philosophy of the institutions which have emanated from it under almost every variety of influence and diversity of relation.

2. In the influences of the scientific commerce, if we may use the expression, where the opinions and views of the most able and talented men of all nations were freely bartered and interchanged, to be carried home and applied to other developments of industrial skill and inventive genius.

3. In the immediately *suggestive* influences on practical men from witnessing all the combined agencies of mechanical skill and inventive ingenuity applied in a thousand forms, and displayed in one connexion and at one glance.

4. In the improvement of public taste and the incentive to private ambition, offered no less by witnessing side by side the most renowned works in statuary and painting, of the past and present, but by observing how completely the agents and materials furnished by the hand of nature have been made to minister not only to the comfort and enjoyment, but to the luxurious elegance and refinement of life—in the old world.

5. In the fraternizing influence of Nations meeting, in a time of profound peace, in a spirit of friendly amity and rivalry to contest a claim to precedence in particular forms of improvements in the great march of social progress.

Such are some of the advantages to be derived from similar exhibitions. In the exhibition at London, it is well known that American genius achieved many noble victories and brought home many brilliant trophies. In the great and friendly contest which we contemplate will take place at New York, commencing on the second day of May next, shall it be said that it has been less successful? We trust not—for we feel assured that the patriotism and the pride of our country will never be sacrificed on her own soil without a well contested struggle.

We would most respectfully urge upon the people of Missouri the importance of this undertaking, and call upon them to give us their aid, co-operation and encouragement in carrying out its designs. We feel satisfied that the State of Missouri possesses mineral resources equal, if not superior to those of any similar extent of sur-

face on the globe. She possesses almost unbounded natural capabilities in the adaptation of her soil to the production of many of the most useful staples. She possesses manufactories applied to some of these staples and mineral products of which she may justly boast. Her manufactures of Hemp, Tobacco, Flour, Sugar, Lead, Iron, and other materials, may, we think, bear a comparison with those of any other State or of any Kingdom or Empire.

But above all, she possesses a population, sober, in lustrious, intelligent, enterprizing, full of inventive genius, nerved by a progressive spirit, capable, when well directed, of securing the most substantial rewards and of working out the best results. With all these advantages shall Missouri shrink from the contest when an opportunity is presented to her of making a fair and a full representation of her resources? We know that there is too much public spirit, state pride and patriotism, among us for such a result. We therefore call upon our fellow-citizens, in every part of the State, to aid us in sending contributions to this Exhibition: The best samples, neither too large or too small, of our coal, of our numerous ores, and the metals produced from them; specimens in one or two feet blocks of our marbles, granites, and porphyries; samples of Kaolin, Alum Slate, White Sand, and other materials used in the arts—and the natural products of our soil, Hemp, Tobacco, Wheat, Barley, Oats, Indian Corn, &c., as well as sections of our forest trees, indigenous fruit trees and vines; the products of our manufactures in copper and iron, and of handicrafts in general, and models of mechanism in use among us. All these, if deposited with us before the 10th day of April next, will be forwarded on to New York, free of charge, where the sender or contributor is unable to defray the expense or transportation on the same. An ample warehouse has been provided and the Secretary of the Committee, Mr. M. Tarver, will attend to the reception of all articles sent to us, and give you certificates for the same. Hoping that we shall have the hearty encouragement and united cooperation of our citizens in this great measure, and that without delay, we remain,

Very respectfully,

	H. A. PROUT, Chairman,
L. M. KENNETT,	CHAS. P. CHOUTEAU,
WM. H. BELCHER,	THOS. S. O'SULLIVAN,
A. S. MITCHELL,	L. V. BOGY,
A. B. CHAMBERS,	THORNTON GRIMSLEY.

JOURNAL OF INTERNAL IMPROVEMENTS.**MISSISSIPPI VALLEY RAILROAD.**

The weak enemy of the Mississippi Valley Railroad thinks we are mad about, and even one of its strong friends thinks we have over done this work; but just men, looking on this creation out of chaos, say, "it is all very good."

The complete system of railroads for Missouri was projected in our last October number, and we have always advocated that system. At the same time we have projected and advocated the system of the Mississippi Valley Railroad, and resisted the violation of its national character, when a bold effort was made in the Convention to use it for the gratification of a local passion.

Its national form and its local traits equally command the admiration of the workman and the statesman.

The people and the Legislature of Missouri have paid it handsome tributes. The State has offered \$2,000,000 credit to the northern—the North Missouri—and the people have offered several hundred thousand dollars, and are still offering more to the southern—the Iron Mountain—portion of this work near St. Louis.

The North Missouri Railroad Company are raising funds and rallying forces, and before spring is past, engineers will be on the line, it may be located through St. Louis and St. Charles counties, and bands of a thousand men may be building their portion of the road.

The St. Louis and Iron Mountain Railroad Company have not only raised the funds necessary for the beginning of the work, but the engineers have commenced surveying the most direct and practicable route to the Iron Mountain. They have already almost reached the Maramec river, and will dispatch their duty with judicious speed. The people of Jefferson, St. Francois and Madison counties have this month been holding enthusiastic meetings, at which bold resolutions were passed, showing a determination to raise hundreds of thousands of dollars for the south Missouri portion of the Mississippi Valley Railroad.

The town of Carondelet has pronounced in favor of subscribing \$50,000.

The County Court of St. Louis county has already subscribed \$100,000, as a beginning, and the people of St. Louis have, on various occasions, at public meetings, unanimously resolved that

the city and county of St. Louis together should subscribe the sum of \$1,000,000 to the two links—\$500,000 to the North Missouri and \$500,000 to the Iron Mountain Railroad. The people of St. Louis and of the country along the line of the Mississippi Valley Railroad, in the State of Missouri, are doing their duty, and, from the intimations in the Veto Message of Gov. Price, it is fair to infer that he would yet approve an act of the Legislature of Missouri, granting \$1,500,000 of the State credit to the South Missouri Railroad. And further, it is fair to infer, from the telegrams from Washington City, this month, that Congress will promptly grant 10 miles of the public land, in alternate sections on each side, from New Orleans to St. Anthony, to insure the prosperity of the Mississippi Valley Railroad.

But the heart-felt interest in this cause is not confined to Missouri and to Congress.

We have often adduced evidence of the enthusiastic energy, manifested in its favor at the extremities, as well as along the body of the route. That energy—though it sprang into existence and covered the land in a month, did not die in a month; it grew stronger and stronger; it partook of the elements of immortality, for it was incorporated with the soul of the people.

It anticipated the wants of the people, and they strove for the fruition of their wants. It indicated the way for art to subdue nature by bringing the material comforts as well as fruits and products of different zones near home. It opened new fields of pleasure for the man of ease, and new fields of enterprise for the man of business. It was in accordance with the order of the day—the law of progress. It was directed in a line, capable of a greater extension than the breadth of the continent, to be finally limited only by the length of the hemisphere; and therefore it will not be expended even when it grasps the British possessions on the North, and pierces Mexico and the valley of the Amazon on the South.

But what have been among the last practical manifestations of the working spirit in favor of this cause north and south of Missouri?

This month, the Legislature of Arkansas, yielding to the indomitable energy of ROSWELL BEEBE, granted the Charter for the *Mississippi Valley Railroad Company*.

On the 27th day of last month, the energetic Agent in the prosecution of this cause through Louisiana—BUCKNER H. PAYNE—wrote to the author of this article as follows :

“The vast enterprise has taken such a hold of the public mind, that its success is no longer problematical, but absolutely certain.” * * * *

“A policy—a southern and western policy for great leading lines must be inculcated and adopted, and to which all our energies must be devoted, or we shall be ruined by *little pet neighborhood schemes*, or fanciful national highways that never will be realized, but which serve at the moment to keep proper ones from being executed, until all the great leading northern lines are completed, leaving us cut up, without the advantages to be derived from well located roads.” * * *

“We (the N. O. and G. W. R. Co.) have a gross amount of private subscriptions of.....	\$ 822,000
Tax stock subscription of the city (New Orleans).....	1,500,000
do do do of parishes along the line that have already voted it.....	734,000
Tax stock subscription of parishes yet to vote (none having voted against it as yet).....	665,000

Total \$3,721,000

which will be increased to \$4,000,000, as not a dollar of subscription has yet been asked for out of the State. The State is allowed by our Constitution, to take one fifth of the capital stock, which makes our capital \$5,000,000. For the branch to the Arkansas line on the way of St. Louis, there are thirteen of our best parishes from whom private subscriptions and tax stock subscriptions are pledged for \$1,500,000 more—the branch line, if taken off at Alexandria will cost \$1,300,000.”

“Such are the means of this Company.”

Iowa is as “the air a chartered libertine.” Iowa has dissipated her energies, wasting them on charters to connect nearly all the river towns on her eastern border, with one another; and to connect almost every one of them with the Pacific Ocean by independent routes. The above comments of Col. Payne of Louisiana about being “ruined by *little pet neighborhood schemes*, or fanciful national highways that never will be realized” apply to Iowa, as though they had been intended solely for her consideration. But Iowa is not yet destroyed, although her schemes are like the Kilkenny cats. Iowa may be spared from the doom of Sodom. “Peradventure ten shall be found there” whose hearts are concentrated, and who are concentrating the heart of the State on the Mississippi Valley Railroad.

A bold attempt was made in the Legislature to make Fort Des Moines the capital of the State; one effort more may gain the point, and the Mississippi Valley Railroad passing near Fort Des Moines, will be a powerful instrument to accomplish that end. Railroads from the river cities may be concentrated there; and thus each of the local State limbs may flourish by virtue derived from the national trunk.

M. R. LEWIS, of Iowa, is one of the leading spirits in this great cause, and the public has lately heard of him, confirming what he wrote on the 4th Nov. 1852, to its friends in Missouri. His words were :

“And I may say with confidence that public sentiment in this valley (Des Moines) is unanimously in favor of your projected improvements; and that, when the time shall have arrived for the co-operation of our people with material aid—they will co-operate spontaneously and abundantly in the work.”

Minnesota is but a wild Territory. The Dakota Indian title is just extinguished under their treaty of 1851, and therefore one might naturally expect, but feeble manifestations of energy, from that new born child of the desert in favor of the Mississippi Valley Railroad. Yet Minnesota has seized bold hold of the cause, grapples it with the strength of a lion and throws a flood of light on its northern portion. On the 11th December, 1852, the following appeared in the St. Paul “*Minnesotian* :”

“THE LOUISIANA AND MINNESOTA RAILROAD!”

“It is a wild, impracticable project,” says Mr. Standstill—“the man is a fool that talks of its feasibility, and deserves to be sent to a lunatic asylum.” “It will ruin St. Paul,” says Mr. Selfish Short-sight; “and I will have nothing to do with it.” But these are petty annoyances that all great improvements have ever been destined to encounter, and will encounter to the end of time. Therefore, they are hardly worth alluding to; and shall certainly not deter us from advocating and agitating, continually, this great work, until its final consummation.

This week we can only give a few general outlines. The region which this road will traverse, after passing the northern boundary of Iowa, is the Land of Great Promise we have just been speaking of (the Sioux purchase). Its fame has already gone abroad; and our friends farther south may rely, that the half has not yet been told. Iowa has been thoroughly explored; and its physical features and great resources are fully known to the world. The *general character* of the Sioux Purchase is the same as that of Iowa; but for agricultural pursuits; for grazing; in fertility of soil and abundance of good water and excellent timber, and healthful cli-

mate,—out of the influence of malarious, and with a temperature too steady and dry in winter to produce pulmonary diseases—it far surpasses that young and growing State in practicability as the future home of the producer. Farming, manufacturing, and mechanical pursuits can be carried on no more profitably in any part of the wide world, than within the limits of this very Purchase. There are the broad and fertile prairies, ready for the plow, to produce the grain; and every mile over its vast extent runs the mill-stream. And those thousands of limpid lakes, margined by luxuriant natural meadows—the very home for myriads of herds of cattle, where they can be reared for the Southern market fifty per cent. cheaper than in Kentucky and Ohio. This is no fancy sketch; if the people south of us do not believe it, let them come and see for themselves.

Face of the Country.—Over no portion of the West can a good, substantial railroad be constructed with greater facility and more cheaply, than from the Iowa line to the valleys of the Cannon and Minnesota rivers, and thence to St. Paul. Until you strike the Minnesota, there are no streams that cannot be crossed with great ease; and material can be procured in abundance all along the line. What few heavy breaks might intervene can be easily avoided. We venture the prediction, that when the route is once examined, it will be found as feasible as any railroad route in Illinois or Iowa, and perhaps more so.

Distance from St. Louis.—We have made a rough estimate of the distance by this line of road from St. Louis to St. Paul, by way of Dubuque, and also the difference in favor of a more direct line to the Minnesota river, leaving Dubuque some 75 or 100 miles to the east of the road. We likewise give the distance to St. Paul, by diverging in this direction from the valley of the Cannon river:

From St. Louis to Dubuque	365 miles,
“ Dubuque to St. Paul.....	285 “
Total.....	650 “
From St. Louis to Ottumwa, Iowa.....	225 “
“ Ottumwa to Iowa river.....	100 “
“ Iowa river to Great Bend of Minnesota.....	200 “
Total.....	525 “
Line diverging to St. Paul from the valley of Cannon river will add, say.....	30 “
Total.....	555 “

These distances may be out of the margin of what a practical engineer would conclude upon; but we feel certain the surveyed lines will, at least, prove no longer than these. The distance from St. Louis to New Orleans will, no doubt, be practically arrived at in a few months. So we will let that pass for the present.

A word to Old Mother Louisiana.—Standing here at the summit of a high bluff, on the east side of the mighty river that hundreds of miles below washes, on either side, your sunny shores—upon a border fraction of the vast area once a portion of the Old Dominion—St. Paul, a four year old city, of three thousand inhabitants, overlooks the broad acres which once, with your present limited bounds, together with the great States of Arkansas, Missouri and Iowa, bore your own name. They are your children; and the portion of Minnesota embraced in the Sioux Purchase is the youngest of them. St. Paul, though not *of you* herself, is to be the mart of this younger member of Old Louisiana's family; and is now anxious to advance the natural ends of trade and intercourse by uniting mother and daughter with bands of iron—to bind together, by inseparable links, those whose early relationship, natural interests, and undoubted policy would seem to dictate eternal union, social and political, as well as commercial. The intervening members of the family stand ready to lend every aid in the furtherance of this great work. Will you meet us with the affection of the true maternal parent, or drive us to seek an unnatural alliance elsewhere?"

Before the "Minnesotian," prompted by filial affection, asked this question, it was generously answered by the Louisianian, and it meets another generous response herein. Minnesota and Louisiana are mutually attached to each other; their feelings are responsive:

"E'en thought meets thought e'er from the lips it part,
And each warm wish springs mutual from the heart."

As a further evidence of the genial emotions and social comforts as well as the material, commercial and political advantages offered by the South through the instrumentality of the Mississippi Valley Railroad, a distinguished civil engineer of Louisiana, the one who first responded to the proposition for a direct railroad union between St. Louis and New Orleans, and who first proposed the continuous route on the west side of the Mississippi river—C. G. FORSHEY—in a letter addressed to the author of this article, pours forth the following refreshing sentiments:

"Let us link our populated members of the valley together and cumulate our forces, in forging a chain that must and will *preserve the Union*. These are the bonds—mutual interests. Let us unite them! Lines of Railroad *along* the latitudes will not increase our adhesive tendencies. They but link like interests. *Cross* latitudes, and you link diverse interests, and bring people together that wish to exchange commodities. This you understand as well as I, and I need not urge it; for I find you already devot-

ing all your fervid energies to this favorite, this stupendous enterprise. But what a triumph! should we bring St. Louis within 30, and St. Paul within 48 hours of New Orleans. I want to offer you a dish of fresh figs in exchange for a dish of cherries in July. I want to send you a basket of oranges, in exchange for pippins fresh from the orchard in October. I want to swap a dish of strawberries in March for a bottle of your maple molasses fresh from the sugar camp; and when ours are all gone—receive your strawberries in June, already done up in Western cream, a commodity not found here.—Just now I would like to send you a gorgeous bouquet, that I gathered from the shades of Oleanda this morning, and which is now gracing that bust of unmatched beauty, in the corner of the parlor. And the air!—It is a luxury to live in such a day, in such a clime, and to breath this pure, exhilarating, soft, yet spirit giving air.”

The Minnesotian frozen up as he is now in mid-winter, while he shivers in the snow storm, may imagine the material comfort to be gained in two days at New Orleans by the Mississippi Valley Railroad; the Louisianian sun-burnt as he is in mid-summer, will pant for the cooling shades and waters environing the Falls of St. Anthony; the Iowan and Arkansan will mutually fly to each others' embrace; and the Missourian will receive them all, and refresh them with his hospitality in the City of St. Louis—the heart of the Mississippi Valley Railroad.

Baltimore and Ohio Rail Road Freight Tariff.

The completion of the Baltimore and Ohio Railroad may justly be regarded as the beginning of a new era in the commercial history of the United States. From about the close of the last century commerce, on the Atlantic coast, has been steadily moving from south to north.—This great work is calculated to arrest that movement, and from this time we may expect to see the current reversed and the ancient prosperity of southern cities gradually restored.

The first Locomotive with its train passed over this road to the Ohio river, at Wheeling, on the 31st day of December, 1852, and the entire line is now or will soon be open for the transportation of produce and merchandise.

We copy the following rates of freight from the Circular of the General Superintendent.

With a few exceptions, all articles of produce and merchandise are divided into three classes, as follows:

ARTICLES OF FIRST CLASS.

The tariff on the following articles from Baltimore to Wheeling is fixed at 90 cents per 100 pounds in winter, and 75 cents in summer.

Acids, in glass	Indigo; Ink, Ivory
Ale, in bottles, owner's risk	Lemons and Oranges
Beer " " "	Liquors, foreign
Beeswax; Bells	Looking-Glasses, packed, at owner's risk, rated as furniture
Berries; Blinds	Machinery, owner's risk, except as otherwise provided for
Bonnets, Hats and Caps	Mats; Mattresses
Books and Stationery	Medicines, in glass or boxes, at owner's risk
Boots and Shoes	Mineral Waters
Brandy, Foreign	Musical Instruments
Broad Cloths	Muskets and Fire Arms
Bread, Biscuit, &c.	Oil, in bottles
Bristles; Brushes	Oranges, Lemons, and like fruit
Brooms and Broom Corn	Oakum, in bales, owner's risk
Butter, fresh	Oysters, in kegs or cans
Cabinet Ware, boxed	Paper Boxes
Candy	Paper and Paper Hangings, in bundles
Cards, for Cotton or Wool	Palm Leaf, in bales
Carpets and Carpeting	Piano Fortes, owner's risk
Carpenters' Work	Pine Apples
Carriages, well packed, at owner's risk	Porter, in bottles, owner's risk
—see Special Rates	Poultry, owner's risk
Carts and Wagons, also	Provisions, fresh, Way
Cassimeres	Queenware, to Way Stations
Chairs, packed; China	Raisins, &c.
Cider, in bottles, owner's risk	Rice, to Way Stations
Cigars and Cigar Boxes; rated at 15 lbs. per cubic foot.	Saddlery, to Way Stations
Copper and Copper Manufactures for Way Stations	Sashes, glazed or not, at owner's risk
Cordage, for Way Stations	Scales and Scale Beams, loose
Clocks and Clock-Weights	Shoes and Boots
Cotton Batting and Waste, owner's risk	Shot, to Way Stations
Cotton Duck	Shrubbery, owner's risk
Cotton Yarn, owner's risk	Snake-Root
Cranberries	Soap, Fancy and Shaving
Demijohns and their contents, at owner's risk	Stationery
Drugs, in boxes	Stoves, Mounted, &c.
Dry Goods, in boxes	Stove Furniture, at owner's risk
Eggs, owner's risk	Straw Goods
Feathers, owner's risk	Tea; Tin-Ware
Fish, fresh "	Tobacco, foreign
Furs, Peltries "	Trees, at owner's risk
Flour, less than Car loads	Trunks and Contents, combustibles and inflammables excluded
Furniture, new, rated at 15 lbs. p. cubic foot of space occupied—at owner's risk	Umbrellas, Whips, &c.
Game; Garden Seeds	Varnish, Veneering
Gin; Ginseng	Wadding and Wicking, at owner's risk
Glass Ware, owner's risk	Wagons, Childrens', packed
Glue and Gums; Grapes	Wagons, Common
Groceries, to Way Stations	Wines
Hair and Moss, Upholsterers	Willow-Ware, rated as New Furniture
Hardware, to Way Stations	Wooden-Ware, at owner's risk of Chafing
Harness; Hats and Caps	Woolen Goods
Honey; Hops	Wool, domestic
Ice, in small quantity	

 All Articles not weighing 500 pounds or more.

ARTICLES OF SECOND CLASS.

Tariff from Baltimore to Wheeling per 100 pounds, 75 cents in winter, and 60 cents in summer. When in quantities of 500 lbs. or more.

Ale, in casks	Iron, Sheet, for roofing
Alcohol, in casks	Lead; Leather
Axes; Axle-trees	Life Stock, not provided for in Special Rates
Bacon, Westward	Marble, Dressed, owner's risk
Bags and Bagging, in bales	Mahogany and other foreign Woods of value
Beans and Peas	Melous
Beer, in casks	Machinery, boxed, at owner's risk
Blankets, in bales	Nails & Spikes, in less than a Car load
Boilers for Engines	Nuts, in bags or casks, Domestic
Brandy, Domestic	Oil, in casks, owner's risk of leakage
Candles; Canvas	Oil Cloths
Chair and other Turned Stuff	Paints
Cast-steel, in bars	Paper Hangings, boxed
Cheese, Westward	Paper, Printers'
Cod-Fish, in bundles	Paper, Binders' Board
Coffee, to Way Stations	Queensware, through
Copper and Copper Manufactures, through	Rags and Straw Paper, to Way Stations at owner's risk
Cordage, through	Rice, through
Dry Goods, in bales	Scales and Scale-Beams, boxed
Drugs and Medicines, in casks	Stoves and Stove Castings, on Manufacturer's account, by the Car load, at owner's risk
Dye-Stuffs	Sumac
Deer Skins, in bales	Skins, Buffalo &c., in bales
Earthenware, to Way Stations	Seeds, Clover, Grass and Hemp
Flaxseed—Way	Saddlery, through
Fruit, dried	Salt, Salts and Saltpetre, to Way Stations
Glass, Window, in boxes, at owner's risk	Spices; Starch
Groceries, through	Stone-Ware, to Way Stations
Gunny-Bags	Shot, through
Grindstones	Tobacco, Domestic Manufactured, except Cigars
Hair, Saddlers and Plasterers	Windsor Chairs, Worn Furniture, and Kitchen Furniture, rated at 15 pounds per cubic foot of space occupied
Hardware, through	
Herrings, boxes and kegs	
Hides, Dry	
Hollow-Ware Castings, less than Car loads	
Iron, Manufactured, to Way Stations	
Iron Safes	

ARTICLES OF THIRD CLASS.

Tariff from Baltimore to Wheeling per 100 pounds, 50 cents in winter, and 40 cents in summer. When in quantities of 500 lbs. or more.

Anchors; Anvils	Candles, Eastward, in car loads
Ashes, Pot, Pearl or Wood	Cement, Hydraulic, in Car loads, rated at 250 lbs. per bbl.
Apples, in bbls., by Car load	Coal, Anthracite
Agricultural Implements, rated not less than 15 lbs. per cubic foot of space taken	Coal, Soft, in less than Car loads
Bacon, Eastward	Coffee, through
Barytes	Cider, in Casks
Bark, in all forms	Cheese, Eastward, at owner's risk
Beans and Peas in casks	Charcoal, by Car load
Beef, Salted, in bbls., &c.	Codfish, in casks
Bones and Bone Dust	Clay, Pipe, German and Moulding
Butter, in Kegs and Casks	Cotton, in bales
Cabbages, not over half Winter Rates per 100 lbs. in Car loads	Dye-Wood, in sticks.
	Earthenware through
	Fish, Salted, in casks

Flour, by Car load, Westward, or by Way	Ores, Chrome, Copper, Iron, &c.
Flaxseed, through	Oysters, in shell
Fire-Wood	Potatoes, and the like
Gin, domestic	Pork, Salted, in casks
Hay, pressed, in bales, by capacity of Car	Pork and other Provisions, fresh, taken through in Car loads, at the owner's risk of spoiling
Heading and Staves, in Car loads	Pitch; Plaster, <i>Ground</i>
Hides, Green or Salted, at Summer Rates, through the year	Posts and Rails
Hogs' Hair, in bales	Railroad Car, wrought materials
Hoops and Hoop-Poles, by Car load	Rosin; Rum, domestic
Hollow-Ware Castings, by Car load, owner's risk	Salts and Saltpetre, <i>through</i>
Horns	Salt, in Car loads, charged as Flour
Iron, in Bloom, Pig, Scrap and Manufactured, not in Special rates	Shingles; Ship-Stuff
Ice, by Car load	Shorts and Mill Offal
Lard and Lard Oil, in casks	Slate; Soap, town and country
Lead, <i>through</i>	Soda Ash
Lime and Limestone	Sugar in hhd. and boxes
Lumber, generally, see Special Rates	Stone, Unwrought, including Soapstone
Marble, in undressed Slabs and Rough, owner's risk of breakage	Stone Ware
Machinery and Machine Castings and Forgings, heavy and rough, at owner's risk	Spirits of Turpentine, in casks, through
Millstones	Steel and Steel Springs
Molasses, owner's risk	Straw Paper, by Car load, <i>through</i> , owner's risk
Nails and Spikes, by Car load, rated as flour	Tar; Tallow, in casks
	Timber; Tin Plate, in boxes
	Tobacco, Eastward
	Vinegar, in casks
	Whiskey, Eastward
	Wire; Wood
	Zinc

SPECIAL RATES.

COAL, from Cumberland to Baltimore per ton, of 2240 pounds, \$2.06 per ton.

IRON, from Cumberland to Baltimore \$2.50 per ton.

HEMP and FLAX, in bales, per 100 pounds, 60 cents through in winter, and 50 cents in summer.

GRAINS charged at 3d class rates, and if in car loads at the same gross charge as flour.

WHEAT estimated at 55 lbs., RYE and CORN at 52 lbs., BARLEY at 46 lbs., BUCKWHEAT at 45 lbs., and OATS at 30 lbs. p. bushel.

FLOUR, per barrel, through, 85 cents in winter, and 70 cents in summer.

SWINE charged 50 per cent. above 3d class summer rates.

HORSES, MULES and CATTLE charged 25 per cent. above 3d class summer rates. Cattle weighing less than 750 lbs., will be rated at 750 lbs. per head. Cattle weighing more than 1000 lbs., and calves more than three months old, will be taken at actual weight.

LUMBER and TIMBER, when taken in car loads, will be charged at twenty per cent. less than 3d class rates, excepting logs, sawn timber and very long stuff.

LITERARY DEPARTMENT.

USES OF THE SEA.

BY EDWARD STAGG.

Ay, it is good employment for the mind
 Of man to turn upon the works of God,
 And trace, as far as finite vision can,
 The uses of those works. 'Tis wholesome thought,
 And sweet, to commune with Creation thus.
 And if we ever, on this spot of earth,
 Do walk with angels from a happier sphere,
 'Tis surely then.

Comes some bright being now,
 And points with spirit-finger to the Sea,
 And whispers of its uses in my ear.
 O! may her other hand my pen but guide,
 And I'll repeat, that other ears may hear,
 The beauteous tale.

Or ever man was made,
 And ere yet rain had fallen on the earth,
 There came a "mist" to irrigate the soil.
 It was thy breath, blown gently o'er the land,
 O sea, that mist. And quick a bright green hue
 Was painted on the leaf and on the blade,
 And flowers gave fragrance sweeter than before.
 And blade and leaf held trembling, for awhile,
 Big iris drops, when it had rolled away,
 That grateful mist, and the bright sun shone down.
 Sin filled the earth. Man's cup of guilt was full,
 Nor was he worthy, in his maker's eye,
 Longer to live upon his mother earth.
 Though she had nourished him, had given him food,
 And raiment suited to his state, and fruits
 So freely had distributed, that he
 Had but to eat, yet man was blind to see
 The hand of the great Husbandman, who made
 The generous soil, and who did cause to grow
 Its every yield. And now man's hardened heart,
 Dead, as it were, to kindly sympathies,
 To better feelings and to gratitude,
 And "full of evil," had no thoughts of Him,
 Who made it to be happy.

So God called
 Upon the Sea! And up it slowly rose,
 First o'er its shores, then creeping steady on
 Till cities, towns and mountain-tops were hid
 Beneath its waters! While upon its breast
 A vessel floated, piloted by God.
 That vessel which, mid many taunts and jeers,
 The Patriarch had built, to save himself
 And household from the Flood. "The rain did beat
 Upon that house," and, all around, the deep,
 Whose fountains now were broken up, was spread
 In dreary prospect. But those souls within,
 But "eight" in number, were not given to fear.
 The work was done, and all mankind was drowned,
 Save the Ark's freight! And now the sea withdrew.
 And when that vessel upon Ararat
 Did safe repose, and all within were glad,
 Then Noah and his household turned their eyes
 To Heaven, whither their best thoughts had gone
 And there beheld the Bow! That gorgeous arch,

O sea, must make acknowledgement to thee.
 For 'twas thy breath again, late held in air,
 That then condensed, and formed those dewy drops,
 Which threw to man the glory of the sun,
 As there it shone.

That beauteous Bow a sign
 Of covenant was made that floods no more
 Should cover up the earth; that ne'er should fail,
 While earth endured, the precious time of seed
 And harvest.

Who but frequently has looked
 Upon a sunset sky of summer time,
 And found come stealing o'er his tranquil soul,
 As then he gazed upon the gorgeous tints,
 A feeling like devotion, and has sighed
 To see the beauties fading fast away
 As the big sun went down. Thou art, O sea!
 The mother of the clouds, and they it is
 Which make the glorious sunset that we love;
 Not only pleasing us, but drawing the thoughts
 To better contemplations. Thus the clouds,
 The drapery of the sky, chameleon-hued,
 Speak to us sweetly, as the day dies out.

The morrow comes, with August's sun, whose heat
 Wearies the farmer. He hies him to some tree,
 At noon of day, to have its grateful shade,
 And rest his limbs beneath its canopy
 Of whispering leaves; while, stretched upon the ground,
 He peaceful lies. And, led by instinct there,
 His faithful dog is couchant at his side.
 A cloud is seen approaching with a frown,
 And flashing ever and anon its eye
 Of dazzling fire. But it frightens not.
 It comes all welcome, rather, like some cloud
 Of Providence, which bears a blessing in it.
 And now, above the farmer's head it breaks,
 And falls, refreshing to the soil and him.
 Whence is that rain, if not from thee, O sea!
 The sun looks down upon thy heaving breast,
 And then, enamoured of thy beauty, steals
 Sweet dews from thee, and they do float in air
 Gregarious, adding to their numbers till
 They drop as we have seen.

And He who said
 That time of seed and harvest shall not fail
 As long as earth endures, has also said
 That Summer and Winter shall successive come.
 Lo! now the Winter at appointed time
 Is here. The brook, late murmuring, is still,—
 The green is not, and all the flowers are dead.
 The snow-bird and the rabbit in the wood
 Do hop or run upon the frozen ground,
 Or leave their foot-prints in the snow. 'Tis now
 The time when households gather round the fire
 In sweet domestic intercourse, and tales
 For pastime tell. Now pleasant is the sound,
 When all without is cheerless, cold and dark,
 Of crackling fire, and cheerful is its blaze.
 The snow now lies a covering on the ground.
 'Twas made of clouds, by Frost's cold finger formed
 Mysterious in the sky. Those star-like flakes,
 Soft falling to the ground, in silence come
 For a good purpose. They together make
 A covering to protect the life that lies
 Slumbering through dreary winter, in the ground.
 And when it melts the snow affords a drink

To thirsty soil, and gives to wasted streams
A generous increase.

Sweetest pleasure now,
'Tis deemed by some, to sit within a sleigh,
All warmly clad, and drawn by fleet-foot horse,
Go skimming o'er the glazed and sparkling snow
With wondrous speed. The maiden at the side
Of him she loves is happy now. Their hearts
Beat quick and joyously, as there they sit
Close, vowing love. And when the moon shines out,
And throws her rays of silver on their path,
There might be seen in kissing met their lips.

'Tis it that equalizes temperature,
The Sea. Its cold from polar regions, and
Its warmth from tropic latitudes, evolves,
Or else absorbs, to mitigate extremes
Of atmosphere. And what a blessing here
Is given to man! In some hot region he
Were burned, without, or frozen in some cold.

And science must sing praises to the sea,
For benefits to her. The earth is round,
I prove you, says the Sea;
For when your vessel is upon my breast,
And distance intervenes, ye look in vain
To see that vessel. But she nearer draws,
And now ye see her top-mast, gradually her sails,
Anon her deck, till she is visible
To you entire! And so some object comes
Upon the sight when rising o'er a hill
From opposite side.

And of the Needle much—
Its variations—were not known, if thou,
O sea, had been not; for the Genoese
Had never ploughed thy waters in the search
For that New World, America the blest!

The great highway of Nations is the Sea.
'Tis God's peculiar territory, where
The peoples of all countries on the globe
Have equal right to travel. It is well
There is the intervention of the sea;
For countries thus may free exchange their wares
And products with but little cost, which they
Could never do, if a vast wilderness
Of untrod land instead did lie between;
Where savage beasts had sway unbounded, or
Where mountains high with rugged sides and steep
Forbidden passage; where contested claims
To ownership were had.

And where had gone
Those noble souls who glorious freedom sought
To worship God in his most pleasing way?
No "May Flower" then had borne them from the place
Of persecution, and no Plymouth Rock
Received them. They had pined with hopeless woe
In slavery of the mind.

Columbia then
Had been a name unknown, as one of fame,
And the "New World," with all its savage race,
How different from now! A glorious land,
The exemplar of the world, we had not seen,
A lovely object standing in her strength
And beauty; and the cause of Christ had not
So far advanced.

What more shall now be said,
O sea! of thy great uses! Shall we speak

Of those pure winds, so cool and rich with dews,
 Which thee come o'er, with "healing on their wings,"
 The "sea-breeze" that is called; of fish thou giv'st
 For food or oil; of pearl and coral which
 Thou givest man for ornament and use.
 We speak of these, and have not spoken all.
 He who, O sea, has poured thee out and set
 Thy bounds, and said, "Come thou thus far, and stayed
 Shall here thy proud waves be," has given to thee
 Yet other uses, and a secret one
 Man knows not of.

And now, good-bye, my friend
 And angel-company; one happy hour
 Or so, I've passed in thy society.
 And if I've faithful been in noting down
 What thou hast whispered, I am doubly blest.

St. Louis, 1852.

THE PLAINS,

Being a Collection of Veracious Memoranda, taken during the Expedition of Exploration in the year 1845, from the Western Settlements of Missouri to the Mexican Border, and from Bent's Fort on the Arkansas to Fort Gibson, via South Fork of Canadian—North Mexico and North Western Texas.

By FRANCOIS DES MONTAIGNES, of St. Louis.

CHAPTER THREE.—[Continued.]

Wherein the Great north-western-mule-waggons and pack-saddle Exploring-Expedition makes a grand movement, and its historian, one still more grand, though rather mixed with Geometry.

The sun was bright, and his rays, warm and cheering like blazing logs in the wintry night, caused mirth and hope to lighten up the countenances of the explorers; and even the weather-beaten physiognomies of the veteran *voyageurs*, hardened and embrowned by many a mountain rain and snow, relaxed from their usual frigidity, by degrees, and seemed to share in the general satisfaction around.

Under such happy auspices as these, Francois could not but feel the sincerest emotions of pleasure, and with renewed hope, dug his heels into his animal's ribs, and went, like others have frequently done before, on his way *rejoicing*.

In tolerable order, if the expression is satisfactory, we proceeded over the first rise or swell in the prairie; and then happened the first incident, which, though trivial and unimportant, as far as regards the main end of the expedition, was, nevertheless, the cause of no little difficulty and delay, at the time, and an omen of evil to the sanguine Francois, all the previous bright auspices, and the future glory of the adventure, to the contrary notwithstanding.

One of the teams, more heavily laden than the balance, having to cross a ravine, ploughed by descending rains across the road, sank deeper in the soft clay than its predecessors, and the mules faltering, became badly stalled. 'Twas an unfortunate stall, and the more so to certain outsiders, as will be easily inferred from the sequel.

The unlucky waggon remained in this situation for some time, and the *cavalcade* moved on. The rear body however—the cavalry of the expedition, whilst passing the obstacle, shewed evident signs of uneasiness, and sundry mules of peevish and irascible temper, chose to make it a fit subject to descant upon. The consequence was, that in less time than it takes the historian to record it, six or eight of the explorers were pursuing their explorations on foot, and their pack and riding animals scouring over the prairie in hot pursuit of the fast receding advance guard.

Not a whit wiser than the rest,—the mule led by Francois, which by a queer fatality, happened to be a very devil, and had to be knocked down with a rock preparatory to being packed at all, must needs consider the wagon in the road a

phantom to be frightened at, although he had seen it daily for a week, and with the luckless Frenchman for a centre and the rope for a radius, began an indefinite series of rapid circles, increasing the range with the velocity, and performing the manoeuvres with a correctness and skill, which would have done credit to Euclid and a pair of compasses.

The unsophisticated explorer supposing this singular conduct to be a mere momentary fancy of the jocose animal, humored his caprice for some time, by turning his own mule and keeping a front face to the rude geometrician, until perceiving that the centrifugal force of the movement freed Euclid of his pack, and would most likely pull him from his seat, he wisely let the miscreant go, who shot off at a tangent, and then, his own saddle turning at the moment, rolled easily and unhurt to the ground. Such was his *debut* on the prairie.

This was but one of the episodes of the day's march; and though the distance from Boone's Fork to our second camp was but six or seven miles, it presented but one uninterrupted scene of accident and disorder: Loose animals scattered here and there without pack or saddle,—packs and saddles along the road, far away,—whilst many a poor fellow who had set out well mounted and equipped, now vainly pursued his truant charges on foot, or walked humbly along the route with his rifle on his shoulder and inwardly wishing all long-eared and long-legged beasts to the devil.

Though no bones were broken or serious damage done, the *prestige* was any thing but pleasant, and many shook their heads in a sinister way and hoped "that things would turn out better than they looked."

Even the infidel greenhorns who neither believed in signs, dreams or any particular creed at all, seemed partially *affected* by the *signs* of to-day, and an observer would have concluded from some of their lengthened countenances that a return road would have been willingly and unanimously adopted.

The second camp was rather inferior to the first in respect to the proximity of wood; but the water was good and the pasturage in the neighborhood abundant. The place upon which we pitched our tents, was a little plateau near the creek, as level as a table, and with the fresh meat supplied by one of our beeves and the luxuries of flour, coffee, sugar, etc., we enjoyed altogether, what most of our people called "*The jolliest kind of a time.*"

Several additional hands joined the party the morning after our arrival here, as also a couple of heavy ox wagons to transport a portion of our provisions and outfit beyond the deep rich soil, which had become well saturated by the recent heavy rains, and sank like quicksands beneath both hoof and tire.

The little valleys and creek bottoms, which interperse this section of the country, were well timbered, and at no great distance from our camp were several farms and habitations belonging to the Shawnees, who had received this territory for their ancient hunting grounds east of the Mississippi. The appearance of these improvements evinced no remarkable industry or progress, although six months afterwards, a similar scene in the shape of a Kickapoo village near the frontier of Arkansas, presented charms to our eyes, which those only can appreciate, who have made a *tour* among the houseless tribes of Buffalo-eaters who roam over the American desert. Practising with rifle and pistol was a favorite amusement whilst encamped here, and as game was said to exist in the neighborhood, several, and amongst them Francois, shouldered their guns and dispersed themselves through the dense little groves which fringed the creek.

The underwood was thick and tangled, and our amateur hunters had no great success to boast of. The Indians had searched the covers well; the deer were scarce, if there were any at all, and not even a rabbit or a squirrel enlivened the solitude.

Just on the point of returning empty-handed and dispirited, Francois cast a glance into a thicket ahead, and beheld a sight which sent the blood beating back to his heart with rapture and surprise, and made his fingers tingle as if frosted-bitten. Crouching leisurely at the foot of a tree, was one of the largest black bears in the Shawnee country.

With a hasty glance at the condition of his rifle, he drew his wool hat more firmly over his brow, and then with breathless and careful haste, began a series of retrograde movements, until he had attained a sufficient distance from the bear to make a safe surround.

Then, concentrating all his energies for the task, our modern Mike Fink, with ready rifle and breathless with caution, advanced towards the thicket. During all these manoeuvres of marching and countermarching, which would

have reflected honor upon the most renowned tactician, the boisterous little river continued to babble and bubble along amongst the rocks, and made as much noise in the glen, as though not a bear was there, nor any Mike Fink creeping stealthily and noiselessly through the woods to shoot him.

Mike was compelled to wade the creek to reach his prey, but had he known, poor fellow, *how often* he would afterwards be compelled to cross the *Arkansas*, the unfortunate bear he discovered in the Shawnee country would have been left where he was found: *in statu quo*.

So the creek was forded, the woods were threaded, and the *urus major* again in full view. Yes! there he was! the same as before: unmoved and unterrified; his two short ears projecting, on either side as valiant as a bear's ears could be, and his oily rotund body resting easily and lazily upon his haunches. *Sardana-palus what a feast!* Selecting a neat little sapling for a rest, Fink took a long and steady sight; the gun rang clearly and distinctly, and Mike beheld an ordinary black stump with a bullet hole through it. His nerves must have been steady, for, intending to blow the bear's brains out, he had aimed between the two erect ears, and sure enough he had literally made daylight shine through the very spot he presumed to be occupied by brains.

Without reloading his piece for additional sport, Francois took a bee-line for camp, where he arrived sound enough, I am happy to state, *not* to enter upon any minute description of his hair-breadth escapes or the extraordinary quantity of game to be found in the neighborhood.

Several Shawnees visited us on the 24th to dispose of a few vegetables which they brought along; the *latter* were quite acceptable and with the little fish caught in the creek, afforded "material aid" to the other viands which graced our humble board.

The company now numbering near eighty men, had been, as I have stated, divided into messes of eight and ten, and again into guards or watch-*es*. Though there was no immediate necessity for all the pains taken in this latter respect, it was deemed a favorable opportunity to accustom the men to the irksome duty, so that when well upon the prairie, they would be fully disciplined for the arduous march before them. The day guard which consisted merely in keeping the grazing animals within bounds and driving them to the stream for water, was an easy and indolent employment; but to many, and especially to such as had been accustomed from childhood to long naps, the night watch with its silence and loneliness presented a contrast which no novelty or association could invest with sufficient interest to make desirable. One of these amateur watchmen being upon duty, whilst at this dangerous camping ground, and possessed of an eccentric turn of mind, as well as a temperament anything but sanguine, took it into his head that he might risk an attack of rheumatism by parading over the damp ground at night, entered a tent, and wisely devoted to rest the few hours which intervened to daylight. The astounding news that there was a sleepy explorer amongst us, broke upon us the following morning like a thunder clap, as doubtless daylight did upon the unfortunate Dogberry himself, and the circumstance afforded the entire camp a topic for discussion, which would probably have continued until the following day, had not a proclamation been made throughout the camp for the explorers to assemble at the Captain's tent; "*For the long-haired Greeks to come to Council.*"

"The object of the meeting was briefly explained by our talented Commander-in-Chief, who, after a few appropriate remarks, informed us that *He himself* was the leader of the expedition, having been employed by sundry powerful and wealthy Americans, Uncle Sam amongst the balance, to make an exploration of certain regions to the westward, the locality, distance, names, etc. etc. of which it would not benefit us to be informed of. As to the route we were to pursue in visiting these strange countries, it would be of no material use for us to inquire any particulars, as only *He-himself* and aids, such as assistant botanist, assistant geologist, assistant mineralogist, assistant conchologist, pilot, cook, as also assistant journalist and astronomer knew anything about it, and a further diffusion of such knowledge, would be utterly superfluous.

"Several pertinent remarks were here made by our talented chief respecting the nonsensical custom of some ignorami, who cannot travel over these regions without taking notes and keeping a journal. After reproaching such literati for some time, he gave all to understand that no notes or memoranda should be kept, as *He himself*, who was by rights (like a pope on a small scale), both temporal and intellectual captain of the expedition, had as much as he could do to attend to this branch of the concern *himself*.

"Martial law or the law of Mars, the God of war, was declared by our valiant commander-in-chief, to be the law which should direct *Him* in governing his command. As to the drowsy headed fellow, who preferred a nap to the chance of obtaining a shot with his empty gun at some imaginary horse thief, he was formally pronounced to be no longer a member of the mule and packsaddle exploring expedition, but ordered to return as speedily as possible to the point, whence none but an ill wind could have blown him.

"Any one falling asleep hereafter, shall be shot after breakfast."

This Demosthenic effort, which would undoubtedly have been reported "*verbatim et literatim ut loquitur tempore*," had the house not been in secret session, the reporters kicked out, and the press muzzled, I have looked in vain for, amid the numerous and voluminous reports with which Congress and other great functionaries have been so liberally provided, and had not Francois preserved his usual habit of acting somewhat perversely, and humored an odd Xenophonian fancy for pencils and memoranda, at least *one half* of the stirring incidents of this Grecian march would never have been narrated by historian's pen, and *all* the brilliant passages, like the one above, would have been lost to the scientific world forever.

"Full many a flower is born to blush unseen,
And waste its sweetness on the desert air."

NOTE.—It has been the world's axiom for ages that murder, treason, robbery, sacrilege, etc., will eventually reap their respective deserts; and the reader of these hasty memoranda will perceive during the course of coming chapters that the taking and preserving of private notes respecting strange scenes and strange people, through which one passes in this world of ours, forms no exception to the general rule.

In the instance above, it would constitute a grave offence in the eyes of martial law, for the commander-in-chief had publicly and expressly stated to his command that no small Xenophons would be tolerated in the expedition, as he himself was the only one in camp, legally and naturally qualified to record our deeds, and see that they were properly printed by order of Congress.

LITERARY NOTICES, PERIODICALS, ETC.

"THE MERCHANTS' MAGAZINE," for January, 1853, has been received. This sterling periodical has now entered upon its 26th volume, and we do but simple justice to its industrious and able Editor, *Freeman Hunt*, to say that the character of the work improves with every volume.—The "Merchants' Magazine" should be in the hands of every intelligent man in the United States, whatever may be his avocation.

"DE BOW'S REVIEW," for January, 1853, made its appearance in due season. This pioneer of southwestern periodicals has completed its 13th volume. To say that this valuable work has been ably sustained from its beginning to the present time, conveys but an imperfect idea of the talent and industry necessary to establish a great work in a region where the people habitually look abroad for all kinds of literature. See Prospectus.

"THE TEACHER AND WESTERN EDUCATIONAL MAGAZINE." Edited by *John H. Rice*, Secretary of the Board of Public Schools, St. Louis, Mo. This is a monthly publication "intended to embrace all subjects connected with educational interests." A more noble object could not have been conceived by the able and philanthropic Editor, and we are highly gratified that he has devoted his talents to the cause of education in the West. The subjects contained in the first number are selected with judgement and well treated. The pamphlet contains 32 pages, and the mechanical department is executed with much taste. Price \$1.00 per annum.

"NORTON'S LITERARY REGISTER." We are indebted to the publishers of Norton's Literary Gazette, New York, for the Literary Register and Book buying Almanac for 1853. The volume contains a calendar calculated for every part of the United States, a list of Libraries in the U. S., and also a list of American publications for the year 1852. Also a historical sketch of Yale College and other Libraries, with handsome engravings of Harvard College, Yale College and other literary edifices. The work will be found useful to every family, as well as to business men. Price 25 cents.

New York Crystal Palace.



EXHIBITION OF MISSOURI.

In the presentation of the cause of the "Association for the Exhibition of the Industry of All Nations," we are happy in making our acknowledgments to the Editors and Proprietors of two of the daily presses of St. Louis, distinguished for the industry and enterprise with which they devote themselves, in preparing the foundation and gathering together the materials and forces for the superstructure of the wealth, the honor, the glory of the State of Missouri, which have for ages been slumbering in the dust.

Mr. MITCHELL, of the "*News*," has presented us with an article on the Exhibition of Missouri, which must arouse the spirit of the people from the apathy in which they have been supinely indulging for more than a generation.

Mr. BUDD, of the "*Intelligencer*," has presented us with the above engraving of the NEW YORK CRYSTAL PALACE, in which Missouri is called upon to display her immense treasures on the 2d of May, 1853.

The time for action is short. The demand great. The Internal Improvement System is based upon the resources of the State. The resources are more than sufficient to sustain the undertaking. The Exhibition will be a trial. The people have it in their power to pass it triumphantly. Let them show themselves men. Let them show their vast means. Let them astonish England. Let them astonish the world. In the arts of peace, as in the arts of war, Missouri like

"England expects every man to do his duty."

IRON MOUNTAIN RAILROAD.—On motion of Hon. JOHN F. DABNEY, the Bill introduced by him on the 25th January, granting right of way for the I. M. R. R. through certain lands of the United States, passed the House of Congress the same day.

The corps of Engineers surveying the route, were one mile below the Maramee river on the last day of January.

THE
WESTERN JOURNAL
and *Civilian*.

VOL. IX.

February, 1853.

No. V.

ARTICLE I.

CUBA.

THE acquisition of California by the United States, and the rich fields of commerce now opening on the shores of the Pacific, have greatly enhanced the importance of Cuba in the estimation of every commercial people. Its commanding position at the entrance of the Gulf of Mexico, its tropical climate and fertile soil—fruitful in the production of almost every luxury common to the torrid zone—naturally suggest the idea of annexing it to the United States as a measure necessary to protect our commerce, in case of foreign war, and make us independent of other nations in respect to the productions of tropical regions.

It must be admitted that these are plausible arguments in favor of annexation; and appealing, as they do, to the desire of territorial acquisition—an innate quality of the Anglo-Saxon race—it is but natural that, overlooking consequences, many individuals should be willing to involve the nation in war, and even to endanger the integrity of the Union, for the acquisition of a territory which seems to have been designed by nature to constitute a part of this great Republic. But it must be borne in mind by nations that their desires should be controlled by principles of reason and justice, and that, like individuals, they may involve themselves in peril, and even in utter ruin, by a reckless indulgence of their natural propensities.

Having suggested the strong arguments in favor of annexing Cuba to the United States, we propose to inquire, whether there may not be objections to such a measure which would outweigh all the apparent advantages, even if, with the consent of Spain, the people of that island should apply for admission into the Union.

The Island of Cuba was discovered by Columbus, on his first voyage in search of a new world, in the year 1492, and was conquered by Diego Velasquez, in or about the year 1511. Ever since that time it has been inhabited by the Spanish race, who, shortly after their settlement introduced negro slavery, an institution which has been continued to the present day.

The Island contains about 32,000 square miles, and according to the census of 1841, the white population was 418,291, slaves 486,595, free colored 88,054, and free negroes 64,784; total 1,007,624*—about 32 individuals to the square mile. This shows a population more dense than any of our Southern States, and according to area, the population of Cuba is more than double that of the State of Georgia. †

The value of lands in Cuba, as shown by the Agricultural returns of 1830, was rated as follows: grazing grounds for larger and smaller cattle attached to Halos and Cerrales at over \$3,00, grazing grounds attached to estates with enclosures at about \$31,00, sugar estates at about \$47,00, coffee estates at over \$46,00, lands in cultivation for provisions, fruits, vegetables &c.—constituting a large portion of the cultivated lands on the Island—at about \$62,00, and lands cultivated in tobacco at about \$22,00 per acre. ‡ Hence, it is obvious that, owing to the density of population and the high prices of land, there would be little inducement for the planters of our Southern States to emigrate to Cuba, were it annexed to this country. Nor would the farmers of the non slave-holding States go thither to labor by the side of the African slave, under the scorching rays of a tropical sun. These considerations, however, are simply negative, and would scarcely affect the question of annexation in an economical point of view, were it not for the consequences of opening our ports to the introduction of Cuban products, free of duty, which must necessarily occur if Cuba should become a State of the Union. By abolishing the duty on sugar produced on that island, the planters of Louisiana and Texas would be compelled to abandon, perhaps entirely, the culture of cane in those States, and apply their forces to

* McGregor's Progress of America.

† The population of Cuba is now estimated at more than 1,200,000, which would be equal to about 37 individuals to the square mile.

‡ McGregor's Progress of America.

cotton growing, a pursuit in which too much labor and capital are already employed.

And thus, while one important branch of agriculture would be broken down, the profits of another still more extensive would be diminished by over-production. The grain and provision States might be benefitted, in some degree, by the lower prices of Cuban products, and also by an increased demand in that island for their own commodities; but these benefits would be counterbalanced by a corresponding decline in the demand for their products in the cotton growing States, where a greater amount of labor than formerly would be bestowed on the culture of corn and other plants necessary to subsistence.

Viewed, therefore, simply as a measure affecting the agricultural and commercial interests of the country at large, we conclude that the acquisition of Cuba would be prejudicial in an eminent degree to the prosperity of the South, while the grain and provision States would, in all probability, lose more by the increased production of provisions in the cotton growing States than they would gain by free trade with Cuba. Were Cuba uninhabited, the consequences of extending our dominion over it would be quite different: in that case the labor required to develop its resources would be drawn from the cotton fields and sugar plantations of the Southern States—a process that would improve the profits of cotton growing, while the culture of sugar, as it became unprofitable in Louisiana and Texas, would be gradually transferred to Cuba.

Nor would the acquisition of Cuba be free from objections, in a national point of view. Of a race differing from our own in language, in temperament, and, in customs, civil, religious and social, it could not be expected that the Cubans could sympathize with the people of the States on the continent in that degree which is necessary to bind a people together under a republican form of government.

It is not in the nature of things that different races can enjoy equal privileges and equal social benefits under the same political institutions without amalgamation—a result which cannot be expected to occur in Cuba within the course of many generations, if indeed such a modification be possible. Were Cuba to become a State of the Union, its domestic or State policy would be controlled by the present inhabitants and their descendants; and, consequently, emigrants from the States on the continent would, in

many respects, be in the condition of aliens, deprived, in effect, of all political privileges, a condition so abhorrent to our own citizens that few, except men bankrupt in fortune or of desperate character, would emigrate thither for permanent settlement. But there is another and stronger reason against the settlement of the Anglo-Saxon race in Cuba: they are not adapted by nature to that climate. The Creator, in his wisdom, has established different degrees of temperature on different parts of the globe, and the earth has been peopled by races adapted to the physical condition of the respective zones. The adaptation of race to climate is to be regarded in the light of an organic law governing the relations of man to the elements of the physical world; and all human institutions which conflict with this law must yield in time to its controlling influence.

Our possessions on this continent extend as far south as the climate is congenial to our race, and we should desire no further additions to our territory in that direction, which will not open a new field for our slave labor. The desire on the part of the American people for the possession of Cuba originates in the instincts of the Anglo-Saxon race, continually urging them to extend their dominion, while they pay little regard to either the mode of acquisition or the ultimate consequences.

These instincts were doubtless imparted by the Creator for high and noble purposes: they are calculated to elevate our views of the destiny that awaits us as a people, and energize our individual and national character.

But this national propensity, like the ruling passion of an individual, demands unceasing vigilance and self-denial to restrain it within proper bounds, and prevent aggressions on the rights of others. For if we yield to its promptings, we shall neglect the means of improving our social condition, while the energies of the nation will be exhausted in efforts to enlarge the area of its political dominion. Besides, the indulgence of this propensity is calculated to depress the moral character of the nation, and, finally, subject its destiny to the arbitrament and rule of physical power.

Acquisitiveness, though possessed in different degrees, is a quality common to all mankind, but if the moral faculties be fully developed and properly trained, it is held in subjection to their control and made to subserve the highest purposes of man's being. When thus regulated, man is a law unto himself, and requires no

legal or social restraints. But unfortunately for the happiness of society, a large portion of every community require both law and public opinion to hold in subjection and prevent them from violating the rights of others. Some descend so low in the moral scale as to lose all regard for public opinion, and are thus qualified to acquire the means of gratifying their desires by any method that their ingenuity can devise; they seek no means of acquisition more honorable than theft and robbery.

We will not affirm that all who engage in a war upon Cuba with the design of wresting it from the government of Spain, have reached this lowest point of moral degradation. Some have doubtless been deceived by false representations, and others misled by ingenious arguments of designing men. But it should be remembered that the laws of nations recognize no distinction between the unfortunate individual, who has been beguiled into crime, and the abandoned pirate who, transformed to a demon, declares war against all mankind, and butchers in cold blood for a mess of pottage.

The thought, that there are beings in our midst capable of such deeds, is startling beyond measure; but still more to be deprecated is the countenance given to unlawful enterprises against Cuba by individuals possessing a high degree of intelligence, and claiming the respect of mankind. Some of these, doubtless, do more mischief than they intend. The agitation of the subject in public speeches and by the press gives confidence to the abandoned and desperate spirits of the land, and induces the belief that the nation will protect them in their piratical enterprises. That there are men, possessing large influence with the people, who desire to find or make occasion for a war with Spain, there is little doubt, and it will require an exalted sense of justice, and the utmost degree of firmness on the part of the Executive, to prevent them from accomplishing their designs.

The popular idea, that Cuba is in danger of passing into the possession of either Great Britain or France, is not sustained by facts or reason. Those nations know well that notwithstanding the Government of the United States is disposed to respect the rights of Spain, the people of this country will under no possible state of facts allow Cuba to be transferred to the dominion of any other government: and possessing this knowledge, it is scarcely probable that Great Britain or France would accept of that island even if tendered as a gift.

The commerce of the United States is essential to the well-being of Great Britain. A war of a few years continuance would ruin her manufacturing interests, while it would establish ours upon a foundation that would defy all competition from that country in future; and, besides, it is scarcely probable that she could come out of a war with this country without the loss of all her possessions on our continent. We may rest assured that Great Britain will never peril her manufacturing interests and the possession of her North American Colonies for the Island of Cuba.

The industry of France is not so much dependent upon her commerce with this country, as is that of Great Britain, but the Emperor appreciates his present position too highly to hazard it in a contest with the United States.

Notwithstanding all this, it is possible that events may transpire which will compel us to take possession of Cuba; but we should regard its acquisition as a national misfortune were it to occur during the existence of the present generation. The annexation of Texas was attended by a train of consequences which threatened the dissolution of the Union, and the unhappy dissensions which it occasioned, though apparently allayed, are not yet healed; and every friend of republican institutions should deprecate any act calculated to rekindle the fearful strife through which we have recently passed with so much peril. The condition of the country, as well as the state of the public mind, requires peace and freedom from the discussion of exciting topics. Instead of extending our territory, it is the true policy of the nation to develop the resources of the wide domain which we now possess. Let us open commercial and social intercourse, by works of public improvement between the inhabitants of every part of the Union, and more especially between those residing on the shores of the two great oceans. Without a speedy overland intercourse between the Atlantic and Pacific, the bonds of Union, now weak, will gradually become more feeble, as the inhabitants of the region west of the Rocky Mountains increase in numbers. Let us cherish and strengthen a fraternal national sympathy, and make sure of the permanency of the Union as it is, before we attempt to enlarge its area. A war with the great powers of Europe would impede the progress of our works of internal improvements, and cost more money, even if it lasted but six months, than a railroad from the Mississippi to the Pacific ocean. The great social objects which

remain to be achieved at home by the American people, are sufficient to employ all their talents and labor for generations to come without any enlargement of territory ; and if they approve themselves worthy of the high mission claimed for the nation, they need not traverse the globe to bestow civil and religious liberty upon the oppressed and down-trodden people of foreign lands. For immigration hither will save us from an enterprise involving such enormous sacrifices of treasure and national repose. Already the numbers annually arriving from Europe exceed more than one third of a million ; and it may not be long before as many may come from Asia.

Differing, as most of these emigrants do, from our native citizens, in language, customs and habits, and possessing but little knowledge of the true spirit and practical workings of our institutions, political, civil and religious, there is reason to apprehend that in the process of amalgamation our own race may lose something of its distinctive national character. As founders of the principal republic among the nations of the earth, we should view this as a subject worthy of serious consideration, and guard against such modifications of our national character as may be calculated to endanger the permanency of our institutions. And, if with the annual addition of half a million of foreign population we can preserve the purity of our institutions, and by a judicious and efficient system of public instruction prepare succeeding generations for the discharge of their duties as citizens of a republican government, we shall do more to establish the glory and happiness of our common country, and more for the benefit of the human family, than would be accomplished by annexing any, or indeed, all the nations of the earth.

The ancient Republics were ambitious. They extended their dominions by conquest and treaties of annexation. But as they enlarged the area of their possessions, the vital principles which imparted energy to their institutions in the earlier stages of their career, decayed ; the people became licentious ; the governments corrupt. They fell victims to their own passions. Let the people of the United States be admonished by their example. The mission of Republics is one of peace, of intellectual, moral and social progress, of instruction and example to nations in bondage. Then, let us discharge with fidelity the duties which it imposes, and wait for events—such as result from a wise and just career—to enlarge

our dominion. They will occur in due season; and, in time, we shall conquer the world, and annex all nations, should we desire to do so: not by physical, but by moral means.

But, at the present time, neither Cuba nor the United States are ripe for annexation; nor are we authorized to conclude from any manifestations yet made by the people of that Island, that a majority desire a change of government. If the inhabitants of Cuba, acting in concert, desire to be released from the crown of Spain, let them raise the standard of independence, and strike for freedom like men resolved to conquer or perish in the contest. The sympathies of mankind—the rulers excepted—will be with them, and they will receive help from other lands sufficient to carry them triumphantly through the struggle. Then, let Cuba be independent and take her place among the nations of the earth. The geographical relations of the Island indicate this as the most natural political condition of its inhabitants, a state of things far more to be desired by the people of this country than annexation. Cuba, independent and relieved from the restrictive system of commerce now imposed by Spain, would become one of our most important markets; and while the grain-growing and manufacturing districts would be enriched by her trade, the Southern States would be protected in the production of their great staples. And, more than all, our country would escape the perilous consequences which may be apprehended from annexation.

Recently, there seems to have been a reaction in the public mind in respect to the acquisition of Cuba; but this is not to be regarded as resulting from a conviction on the part of the people, that it would conflict with their agricultural and commercial interests, or endanger the integrity of the Union.

This apparent calm is a consequence of events transient in their nature, and therefore not to be trusted. It affords, however, a favorable season for investigating the subject in all its bearings. And we invoke those who prize social and moral improvement as the great objects of human government, who desire that our excellent institutions should be preserved and improved to the end of time, to examine the subject as one deeply involving the highest interests of the nation.

ARTICLE II.

CALORIC.

*A Fragment.**

AN ESSAY ON CONGELATION, CONDENSATION, EVAPORATION, THE FORMATION OF CLOUDS, AND THE PRODUCTION OF RAIN AND SNOW.

By Hon. A. Beatty.

These different subjects are so intimately connected, that I propose to treat of them altogether. In this and the second part, my attention will be chiefly confined to an illustration of the causes and phenomena attending the process of congelation, condensation and evaporation. In a subsequent number I will examine the other branches of my essay, and will perhaps give farther illustrations of the subjects touched upon in this.

To understand perfectly the theory of congelation, condensation and evaporation, and all the regular and beautiful phenomena attending these processes, it is necessary that the doctrine of *latent heat* should be well understood. A full investigation of this subject does not come within the limits I have assigned myself in this article. I shall, therefore, only mention the general principles upon which the doctrine of *latent heat* is founded, taking generally as my guide the opinions of Dr. Black, who is entitled to the merit of being the author of this most useful discovery.

Dr. Black considers the *element of fire*, or, according to the new nomenclature, *caloric*, as a fluid distinct from all other material substances. That it existed in all bodies throughout nature. And that all terrestrial substances are hot in proportion to the quantity of the fluid contained, and not in proportion to the force with which it moves in them. This elementary fire exists in two different states, the one *sensible*, which affects our senses and the thermometer, and the other *latent*, which affects neither, and is only discoverable by a chemical process. This fluid has a constant tendency to preserve an equilibrium. Hence all bodies preserve the same temperature, unless it is destroyed by some accidental circumstance; and as often as this accidental circumstance is removed, the equilibrium will be restored. But although the temperature of all bodies, under like circumstances, is the same, yet the absolute heat, or quantity of *caloric*, contained in them is very different. This proceeds from the different *capacities*, which different bodies possess for containing *caloric*. This capacity, in different bodies, is in proportion to their density. Fluids more

* This and the second part were prepared while a student of Law in Lexington, with the intention of presenting it to the Lexington Philosophical Society. But having removed from Lexington to Washington, Ky., in July, 1802, to engage in the practice of the law, the third part of the essay was never prepared, and consequently the essay was not presented to the Lexington Philosophical Society.

rare possessing a greater, and those less rare, or more dense, a less capacity for containing *caloric*. Hence water is capable of containing a greater quantity of this fluid than mercury; spirit of wine more than water; ether more than spirit of wine; and air more than either of them. Thus if water be transformed from its liquid to a solid state, by congelation, its capacity for containing *caloric* is diminished, and if transformed by evaporation into vapor, its capacity is greatly increased. That these are facts will appear from the following experiments. When two equal quantities, of the same substance, heated to different degrees, are mixed together, the heat of the mixture will be an arithmetical mean between the two extremes. This is found to be invariably the case, where the mixture is of the same substance. As when a pound of water, at the temperature of 40° Fahrenheit, is mingled with a pound at a temperature of 80° , the mingled mass will show a temperature of 60° , the medium between the two extremes. The result will be the same, when two equal quantities of wine, or of ether, or mercury, heated to different degrees, are mingled together; but will be very different, when substances are mingled, whose capacity for containing *caloric* is different, as water and spirit of wine, spirit of wine and ether, or ice and water. Thus ice, newly frozen, will stand at 32° . Now suppose the water, which dissolves it, to be 162° , the arithmetical mean is 97° , but the mixture, when the masses composing it are equal, indicates a temperature of only 32° . Hence it follows, that the ice contained 130° less of *caloric* than was indicated by the thermometer, for that number of degrees have left the water, and combined with the ice, without increasing its temperature. This experiment shows that water at 32° contains 130° degrees of *caloric* more than ice at the same temperature.

There have yet been no means discovered, by which the absolute quantity of *caloric*, contained in any substance, can be ascertained; but methods have been devised by which the relative quantities of various substances have been ascertained, as in the case of ice and water, and other instances that will be mentioned.

The phenomena attending the process of evaporation show that very large quantities of *caloric* are contained in all gaseous substances, much more so than are found in solid substances of equal weight. The quantity contained in the steam of boiling water, or aqueous gas, is almost incredible. 212° Fahrenheit is the utmost degree of heat which water is capable of containing, unless some degree of pressure is used, or an admixture of saline substances. The temperature of gas, emitted from boiling water, cannot exceed 212° . All the heat or *caloric* contained in aqueous gas, over 212° must, therefore, exist in a latent state, in which it does not affect the thermometer, or the senses. From an experiment, made by Dr. Black, the quantity thus contained is very great, for he was able to change several

hundred degrees from a *latent* to a *sensible* state, by the condensation of the gas in a refrigeratory. Suppose the refrigeratory, or, as it is usually called, the cooler of a common still, to contain 100 pounds of water, at the temperature of 40° , and that one pound has been evaporated, and caused to pass through the worm of the cooler; now if 10° of heat have been communicated to all the water in the cooler, raising it to the temperature of 50° , then it is manifest that 1000° of *caloric* must have been contained in the steam or gas; generated from one pound of water. But as the pound of water, (having been heated to 212° before it was converted into steam) has lost only 162° of its *sensible* heat, it follows that the steam or gas, generated from a pound of water, must have contained 838° in a latent state.

This experiment was repeated by Mr. Watt, by a distillation of water in vacuo. The gas being thus freed from the pressure of the atmosphere, could not receive so high a degree of sensible heat as in the experiment of Dr. Black. The steam came over with a very gentle heat, scarcely more than the hand could bear. Yet it was found that the general result was the same as in the experiment made by Dr. Black. Thus, although we are not able to determine the absolute quantity of *caloric*, contained in water, yet we know, from this experiment, that it contains upwards of 800° more in its gaseous than in its liquid state. We may justly infer from these and other similar experiments that large quantities of *caloric* are contained in all substances, whether of a solid, liquid or aeriform character. The limits of this essay will not admit of my going farther into the subject of latent heat, a substance which, according to its different motions, produces, alternately, the *sensations* of heat and cold.

I now proceed to the principal subject of the first part of this essay, in the progress of which I will make, as circumstances may require, such further observations on *caloric* as may seem to be necessary. Evaporation may be defined to be a transformation of water, and other fluid substances from a liquid to an aeriform state.

Gravitation is that power, which gives to all bodies a tendency to approach each other with a force in proportion to their absolute quantity of matter. Cohesive attraction is somewhat like gravitation, but operates only upon bodies, which are very nearly in contact, and is the cause, which unites the atoms or invisible particles of bodies into sensible masses. This power does not, like gravitation, operate on bodies, in proportion to their solid contents, but is more or less strong in almost every different substance. It differs also from gravitation in another respect, its capability of being wholly destroyed by the introduction of a sufficient quantity of *caloric*.

The means by which cohesive attraction is destroyed, are not well understood. M. Lavoisier supposes that the particles of *cal-*

oric have a stronger mutual attraction than those of any other substance, and that the particles of the substance into which *caloric* penetrates are torn assunder in consequence of this superior attraction, which forces them between the particles of other bodies, that they may be able to reunite with each other. This separation is like that which takes place when a sponge is immersed in water. By this process, the water separates the particles of the sponge, and is thus enabled to fill up all its interstices. The same thing happens when seasoned wood is immersed in water. The pores are not only filled with this liquid, but the wood is increased in bulk, and is thus enabled to receive an additional quantity of water.*

If this property of *caloric* is admitted, we may readily account for the three different states, viz: *solidity*, *liquidity* and *aeriform elasticity*, which M. Lavoisier supposes almost all substances may assume. Thus, upon the supposition that no *caloric* were present, all substances would naturally exist in the solid state. If a quantity of *caloric*, sufficient to destroy the cohesive attraction of solid substances were introduced, they would assume the liquid form. The power of gravity would prevent them from flying off into the atmosphere. But if an additional quantity of *caloric* were added, sufficient to overcome the power of gravity, and the pressure of the atmosphere, then they would assume the aeriform state. Thus mercury in our climate always exists in the liquid form, but if exposed to a temperature of 45° below zero, it would become permanently solid. On the other hand, if exposed to a high degree of heat, it will assume the aeriform elastic state. In a temperature below 32° the cohesive attraction between the particles of water, forms a solid substance, called ice. If this substance be exposed to a temperature a little over 32° , the cohesive attraction is overcome, and a liquid is formed. And at 212° , under the pressure of our atmosphere, this liquid becomes an aeriform elastic substance, called steam, which upon being exposed to a lower degree of temperature will again be converted into a liquid substance.

As the transformation of all substances into the gaseous state, by evaporation, depends upon the same principles, I will confine my observations principally to water, because it comes more immediately within the sphere of our observations, and because it is this

* The idea that the particles of *caloric* will, in consequence of their stronger mutual attraction than those of any other substance, tear asunder the substances into which they penetrate, that they may be enabled to reunite with each other, cannot be correct. For if this were the case, then all the particles of the *caloric* would reunite in the center of the substance, into which they have entered. But they are in fact distributed equally among all the particles of the substance into which they enter, in consequence of the strong affinity of *caloric* for all other substances. In this way all the particles of the substance, into which *caloric* enters are severally forced asunder in proportion to the quantity introduced of this fluid. Every particle of the substance into which *caloric* is introduced, receives its due proportion, is expanded throughout the whole mass, so as to form a perfect equilibrium.

substance chiefly which forms the foundation of rain and snow, which will be treated of in a subsequent part of this essay.

It has been seen, that at a temperature a little over 32° , water will be changed from a solid to a liquid state, but as its capacity for containing *caloric* is considerably greater in its liquid than in its solid state, it follows that so soon as the ice begins to thaw, a quantity of *caloric* will be required to supply the water to the extent of this increased capacity. If the capacity of water for containing *caloric* were the same as that of ice, very soon after the thermometer rose above 32° , the whole mass of ice would be converted into water. But as the *caloric* from the surrounding substances, which unites with the melting ice, is employed in supplying the increased capacity of the liquid substance, the process of dissolving the ice progresses very slowly. Nor is the effect very different when the temperature is 20° or 30° above the thawing point, for whilst this temperature is calculated to hasten the thawing process, it, at the same time, affords the means of absorbing an increased quantity of *caloric* to supply the water to the extent of its increased capacity. Hence a mass of ice, exposed to a high degree of temperature, will require a considerable time to become liquid.

Precisely the contrary effect will be produced by the congelation of water. During this process every particle of water that congeals must give out as much *caloric* as would be equal to the difference of the capacity of the two substances for containing this fluid. The *caloric*, thus given out, unites with the water, not yet congealed, and thus obstructs the progress of congelation, and renders it very slow, and gradual. During the progress of congelation the ice and water will remain at about 32° of the thermometer, but when the whole mass of water is congealed, the ice will soon sink to the temperature of the atmosphere in which the experiment is made.

These alternate changes of ice into water, and water into ice; and also the alternate changes of water into vapor, and vapor into water, as will be shown, are worthy of being admired both on account of their usefulness and their beauty and regularity. The effect of these changes, if water were not in the one case to absorb, and in the other to give out *caloric* would be dreadful. This may be conceived by reflecting upon the consequences which would result from a sudden congelation of the water of all our rivers, so soon as the thermometer should fall below 32° , and of the equally sudden melting of the accumulated ice of our rivers, and water flowing from all our springs, in the winter season. Even in our moderate climate, these changes might occur several times in the course of one winter, alternately changing suddenly all our running streams into ice, and followed by immense floods, when the ice should, with equal rapidity, be transformed into water. All these evils are guarded against by the simple process of giving to water

a greater capacity for containing *caloric*, than ice; which affords the strongest evidence of the Wisdom of Providence, as displayed in this and all His works.

As water does not congeal till the thermometer sinks to 32° , and as the water, flowing from our springs, being protected from the cold by the earth, would continue to flow after the thermometer had sunk below that point, all the water from our springs would, during a cold spell, be converted into ice; and, like the ice of our rivers, would be suddenly melted, and thus increase the floods arising from the sudden melting of the ice of our rivers, if this were not prevented by the simple contrivance herein before explained.

More northern climates would experience consequences still more destructive. The sudden and instantaneous melting of the ice and snow, which had accumulated during five or six months, would occasion a general deluge.

It has been shown that, when a quantity of *caloric* equal to 32° , or a little above that point, has been communicated to a mass of ice, it will begin to assume the liquid state; and that the increased capacity of water for containing *caloric* will be supplied, as fast as it is formed. It follows, therefore, that so soon as the ice is completely dissolved, the *caloric*, furnished by the superior temperature of the surrounding substances, can no longer be disposed of as before, the water having received its full supply as fast as it was formed. The *caloric* now introduced in the water will begin to raise its temperature gradually above 32° of the thermometer, and evaporation will commence, and increase in rapidity in proportion as it is raised in temperature above that point. Evaporation cannot take place until, by the agency of *caloric*, the particles of water are separated into such minute parts as to render them, in a state of combination with *caloric*, specifically lighter than the atmosphere. It may be supposed, by some, that if one substance is specifically heavier than another, the heavier substance, though divided into the most minute parts, would still be heavier than the particles of the same size of the lighter substance, and, consequently, that if water were separated into the most minute parts, it could not rise in the form of vapor.

The following remarks will show that this reasoning, though plausible, is not well founded. A cubic inch of solid marble presents a surface of six square inches. If it be divided into equal parts, it will present a surface of eight square inches. If it be divided and subdivided a million of times, its parts, by each subdivision, will have their aggregate surface increased. The solid cubic inch of marble will sink very quickly in water, whilst these small particles of marble would remain suspended for a considerable time. I found by diluting a quantity of very finely powdered marble in water, that the water would not become completely transparent in twenty-four hours. We may readily imagine that each of these small particles might be susceptible of division into a million of

parts, and thus subdivided they would remain permanently suspended in water, as is shown to be the case of lime by distillation.

Now the particles of water may, by the agency of *caloric*, be divided and subdivided into parts much more minute than I have supposed to be possible in relation to marble, and consequently would be capable of rising in the atmosphere, until they combined with that fluid, which combination is known to take place at no great height above the earth. When this combination is effected, the substances carried up by evaporation compose a part of the atmosphere, and will continue to do so until, by some process of nature, a decomposition of the atmosphere takes place, when the water will be restored to the earth, in the form of rain, hail and snow. Some portion of it will also fall in the form of dew, at night, before it has had time to combine with the atmosphere.

I will conclude this part of my essay, by noticing some of the useful effects attending evaporation.

It has been shown that the capacity of water for containing *caloric*, upon its being transformed into the aeriform state, is increased 838°. The great absorption of *caloric* is of immense utility, so much so that, without it, our earth would probably be incapable of supporting vegetation. If the 838° of *caloric*, which are absorbed by every pound of water changed into steam or vapor were employed in increasing evaporation, the process would be so rapid, that the earth would be parched up with drouth, in a few days after the heaviest rains.

If none of the *caloric* were absorbed in this way, the heat would be so great, that hardly any vegetable would be able to withstand it. We find, notwithstanding such immense quantities of *caloric* are absorbed in the transformation of water into steam or gas, that the heat of a summer's day is sufficient to make many vegetables droop very much. Nor would this great heat be less oppressive to the animal than to the vegetable kingdom. Here again we have strong evidence of the wisdom displayed by a merciful God, in all his works.

When the heat of the sun is excessive, evaporation goes on rapidly, and thus serves to moderate its violence. When cold is extremely severe, congelation progresses proportionably, and the *caloric* given out in this process, serves to moderate its intensity. Long rains and cloudy weather would render our climate extremely unpleasant, even in summer, were it not for the *caloric* given out by the condensation of vapor. The rays of the sun, which shall have been intercepted by clouds and rain, during the heat of summer, would be intolerable, when they should suddenly return, were it not for the quantity of *caloric* absorbed in the process of evaporation. Hence too we may account for the hot weather of barren sandy countries, and of the coolness of those, which are well furnished with lakes and permanent running streams. In the one case but little heat can be absorbed and carried off by evaporation; in the other an immense quantity.

ARTICLE III.

*From the Records of the Surveyor General's Office, at St. Louis.***Swamp and Overflowed Land.**

Immediately after the receipt of the instructions, dated Nov. 21st, 1850, relating to the swamp and overflowed lands in Illinois and Missouri, this subject was taken up, and has progressed with all possible diligence and expedition.

It was evident from the first general investigation of the subject that it would require much time and labor to bring it to completion, and the progress of the work has fully verified this opinion.

Two modes of ascertaining the lands that were assignable to the States under the act were presented, the first by the field notes on file in the offices, the second from the returns made by the authorities of the States. Whichever plan might be adopted would require a knowledge of the sales that had been made by the district land offices where such swamp or overflowed land might be found to lie. The former habit of making the returns of sales by the Registers to this office having been suspended or abandoned some years ago, and this information therefore not being in this office, it was necessary to obtain it from the several Registers. As the surest, plainest and most expeditious method of doing this, plain diagrams, copied from the Township plats on file in this office which the field notes indicated to contain land of this character were prepared and forwarded to the Registers with a request that they should mark thereon the sales that had been made, discriminating in a certain manner between the lands sold before and since the passage of the said swamp act, and to return the same to this office. This necessarily involved much labor, first in the investigation of the field notes, and secondly in preparing the diagrams. During the progress of this part of the work the Governor of Illinois and Missouri both informed me that they should avail themselves of the authority conferred upon them by the instructions from your office to make the selection of these lands, instead of accepting the assignment that might be made by this office from the field notes. This so far modified the original plan as to cause the returns thereafter made by the agents of the States to be adopted instead of the field notes.

As these returns came in diagrams of such townships and parts of as contained selections of swamp lands, and which had not already been transmitted to the Registers, were prepared and sent to them for the purpose specified. The progress of the work has given rise to much correspondence. In Illinois the returns having been made by the agents through the auditor, it has been chiefly confined to that officer, and the Governor of that State. Generally this official endorsement has caused these returns to be re-

ceived as authentic, but in some cases this office has had special reasons to doubt the correctness of these returns, and in these cases their acceptance has been delayed until further information could be obtained.

In Missouri less regularity has occurred; some of the agents for the selection of these lands, in this State, were appointed by the Governor, and some with his approbation by the county courts of the several counties.

In both cases the returns are made directly to this office.

Until recently, no list of the agents appointed by the Governor had been furnished, and consequently it has not always been possible for me to determine whether parties making returns under the authority of the county court might not conflict with others appointed by the Governor.

In one instance, at least, the county court has denied the right of the Governor to appoint an agent for this purpose, and appealed to this office to receive and acknowledge the returns made by its agent. In a few instances the returns were too informal or irregular to be received, and have been necessarily sent back for correction.

When the returns have been such as to raise any suspicion of their correctness, the necessary steps have been taken to investigate them on the ground. Expecting that the funds asked for in my estimates of last year for that object would be allowed by Congress, and to avail myself of the favorable season of the year, I at once detached an agent on this service to some parts of Illinois. He has returned, and from his own examination of tracts returned as swamp lands in certain counties, it will, I fear, become necessary to extend similar investigations to many localities in both States.

An appropriation of \$6,000.00 having been actually made by Congress, by the act of the 31st August last, for compensation of surveyors and other agents required in Illinois, Missouri and Florida, to carry into effect the act of 28th September, 1850, granting swamp lands, &c., of which \$3,000, the amount requested in the estimates of last year, were allotted to this district, as I am informed by your letter of the 13th ultimo.

I have according to the instructions contained in the same letter appointed on the 28th inst. Dr. Henry King to make certain surveys, and explore the swamp region of South-east Missouri, with a view of examining the tracts returned by some counties as swamp lands, and also to examine the unsurveyed Townships of that region, and report the result to this office in order to enable the Surveyor General to discriminate, as required by you, between those portions of unsurveyed townships, including swamp lands, which should be subdivided for sale, and those portions of the same which will inure to the State under the swamp act.

And lastly, Dr. King is instructed to collect such statistics of the country as may be thought useful to the Department.

The low stage of our western rivers, at the present time, and the general dry weather, are highly favorable to the success of the exploration. Other agents will likewise be sent to such parts of the two States as are likely to need their services.

Returns have been received from all the counties in Illinois except six; of the whole number returned 6 counties are reported as containing no swamp or overflowed lands. When the returns from the remaining six counties shall have been received, there will be little other preliminary work to be completed, or action can be had upon the reports expected from the agents.

In Missouri the work has not progressed so rapidly; only 26 counties have made returns in the State up to the present time.

The Governor, in his correspondence with this office, evinces a very laudable desire to expedite the work, but from some cause the counties do not seem generally to respond to this feeling.

It is quite probable that there are many more counties in this State than in Illinois, in which there are no swamp or overflowed lands, but a return to that effect is none the less necessary, as there is no way of determining this in this office, except from the field notes on file, and these can only be used by a withdrawal of the right to make the selections, which has been conceded to the State authorities.

If this delay, then, should continue an undue length of time, it may be necessary to request the Governor to notify all delinquent counties, that if returns are not made by a certain day, it will be assumed by this office that there are no swamp or overflowed lands therein, and that in making the assignment required by law, I shall proceed to act upon that presumption. A diagram of Missouri, marked E., and another of Illinois, marked C., accompany this report from which the progress and present condition of this branch of the work of this office can be readily seen.

The letters in each township are explained by the margined notes.

All of which is respectfully submitted.

Signed: M. LEWIS CLARK,
Surveyor General.

To JOHN WILSON, Esq.,
Commissioner of the General Land Office,
City of Washington.

South East Missouri.

By an act of Congress approved 28th September, 1850, "the whole of those swamp and overflowed lands made thereby unfit for cultivation," which remained unsold at the passage of the act, were granted to each of the States of the Union in which they might be situated, to enable the individual States "to construct the necessary levees and drains to reclaim the swamp and overflowed lands therein."

On the 21st November, 1850, the Com'r of the General Land Office, at Washington, addressed a letter to the Surveyor General, at St. Louis, with instructions to designate those lands which had been transferred in this District. The instructions were promptly pursued; but the difficulties encountered were numerous, and the work is not yet done.

By an act of the Legislature of Missouri, approved 13th February, 1851, an incipient provision was made "for the reclamation and sale of overflowed and swamp lands in the south-eastern portion of this State."

And by another act approved March 3d, 1851, it is declared that "all said lands in this State are hereby donated to the counties in which said lands respectively may be situated, except so much of said lands as are situated in the counties of Scott, New Madrid, Pemiscot, Mississippi, Cape Girardeau, Stoddard, Dunklin, Ripley, Butler and Wayne," and by the 6th section of this act it is further declared that "the nett proceeds of the sales of all such lands, after defraying the expenses of draining, reclaiming, surveying and selling the same as herein provided, shall be paid into the county treasury, and become a part of the common school fund of the county."

Thus the title to the undisposed of swamp and overflowed lands situated in the ten above mentioned counties of South East Missouri remains in the State. The State appropriated \$50,000 for the purpose of reclaiming these lands. A system of levees and drains has been commenced. The plan is to build a levee along the Mississippi river, and to clean out Black river in the region of the lands to be reclaimed.

Here we would introduce a few suggestions connected with some additional important facts, for the consideration of the people of South East Missouri in particular and of the whole State, the owner of the lands in question, as also of every one interested in the Mississippi Valley Railroad.

The report of the United States survey for a railroad beginning at St. Louis, and passing near the Iron Mountain, and through South Missouri, made 1st November, 1851, discloses this important fact, that from near the mouth of Mingo to the base of Chalk Bluff, from

the northern to the southern limit of Butler county, through what is termed the Swamp District, along the line of the route, which was 30 miles, the fall was 30 feet. This is an average fall of one foot per mile, which is twice as great as the descent of the Mississippi river from St. Louis. The report of the survey also discloses the additional fact, that along the railroad route, this average descent of one foot per mile continues in Arkansas 80 miles to the mouth of Black river.

Croley's Ridge rises at Chalk Bluff, on the west bank of the St. Francois river, runs south, and is fifty feet and more above high water mark.

These facts being fixed, it is clear that if the surplus waters of the swamp lands north of Pemiscot and Dunklin counties can be turned into Black river, these lands will be reclaimed from all ordinary inundations, and the lands of Pemiscot and Dunklin counties be relieved from their inundation, if not also entirely reclaimed. Can these waters be turned into Black river? If a large canal were dug from Cape Girardeau to the mouth of Mingo, 50 miles, where nature has already done half of the work, the waters of Hubble's creek, White Water and Castor rivers, which, during freshets, mutually flow into one another, and into the St. Francois along this natural half-canal, might be intercepted and turned into a canal dug along the side of the bed of the Mississippi Valley Railroad, through Butler county. Thus the northern portion of the swamp lands would be relieved from their inundations.

But how can the main body of the lands be relieved from the waters that fall from the clouds, and which are now drawn off chiefly by exhalations returning to the air?

Let another canal, equally large, be dug from New Madrid to the point where the Mississippi Valley Railroad crosses Monocolet slough. The length of this canal would be about 40 miles. This canal would run mainly along the line between townships 22 and 23, the only line that ever has been surveyed from the Mississippi river, west, across the body of the Swamp District. The bank of this canal would protect the lands of Pemiscot and Dunklin counties from any inundations from the North, and the reclaiming system of Arkansas may effectually drain them from the South.

Missouri and Arkansas should co-operate, with their swamp land system as well as with their railroad system.

By turning the waters above mentioned into Black river, it will necessarily be made more navigable, and consequently more valuable to Arkansas. The advantages to be thus derived by Arkansas and Missouri may be mutual.

An important question here arises : Will the swamp lands of South East Missouri pay the expense of this system of their reclamation ?

Engineers are the proper persons to answer this question, most satisfactorily. Let them make a survey and report. In the mean time some additional and most reliable facts, throwing light on this point, may be here stated :

DR. HENRY KING was appointed by the Surveyor General, at St. Louis, on the 28th day of October, 1852, to make an exploration of the Swamp District of South East Missouri, and among other things to discover the probable amount of lands in that portion of the State transferred to it by the above mentioned grant of Congress. Dr. KING's official report of his observations has not yet been published ; but at various interviews held with him since his return from his mission, we have learned and been permitted to disclose the fact that, in his opinion, there are about 2,000,000 acres of land—swamp or subject to inundation, and thereby rendered unfit for cultivation—within the limits of the ten above mentioned counties of South East Missouri, also the further fact that, from the data of descent along the route of Capt. Barney's survey, from the peculiar topography of Croley's Ridge—its continuous elevation from the Missouri line south, more than 100 miles in length, from the peculiar topography of the natural half-canal from Cape Girardeau to mouth of Mingo, and from the U. S. survey of the township line from New Madrid to Monocolet slough, he acknowledges a strong presumption is raised, that, by the system we have projected, the whole Swamp District may be most successfully leveed and drained.

It is true, the conclusion is not acknowledged, neither has it been stated, as an absolutely demonstrated certainty. This final conclusion can be determined only by an accurate survey of the whole Swamp District.

The State of Missouri having already commenced a system of levees and drains to reclaim the Swamp District of South East Missouri, and we, having discovered many important facts which might affect the result, and having published them in the December Number of the *Western Journal & Civilian*, and trusting that the facts and suggestions arising from them have been considered, and whether the State retain the title to the lands in question, or transfer them to the counties in which they lie respectively, or to a Railroad Company held responsible to the State, for the reclamation of the lands, with a provision for the cause of Education, that those facts and suggestions may be more fully investigated, we would proceed in the elaboration of the subject, and illustrate the transformed and renewed character of

South East Missouri. She may rival Holland with her stores of wealth, and Germany with her universities of learning.

An interesting article might be written to elucidate this idea. The riches of Holland and the intelligence of Germany cannot be condensed in a nut shell.

An expansive system of Education based on a purely profitable system of internal improvements in Southeast Missouri may be briefly indicated.

There are strong reasons at command to maintain the position we assume, that the lands granted by Congress will more than defray the expenses of their reclamation by the system we have suggested. The banks of the canals may serve for beds of Railroads. The surplus value of the land may pay for the equipments of the Railroads. We then assume that the 2,000,000 acres of land will build the canals of about 100 miles as above stated, and equip Railroads on their banks.

The income from these canals and railroads will therefore be a pure profit to their owner. By the junction of these improvements with the Mississippi Valley Railroad, this income from the North and from the South, as also from various other portions of the country, cannot be computed.

As the best basis of a computation, we would refer to the history of the county situated most analogously with the one under consideration.

We quote from Bell's *System of Geography*, vol. 2, page 12.

"The greater part of Holland," says a recent and most intelligent traveller, "is a delta formed of mud, deposited by the Rhine and other rivers, in the same manner as the delta of Egypt has been formed by the river Nile."

"The land, having been perseveringly rescued from the water, to whose dominion it may be said to have belonged, would again be covered by the waves, if human agency was removed for a short space of time, or would be reduced to the state of those vast wastes composed of sand and mud-banks, quite unfit for human habitations, which now lie at the mouths of the Nile and Mississippi."

On the subject of *Inland Navigation*—page 18—Bell says :

"The whole Netherlands, especially Holland, abound in canals, the cutting of which is greatly facilitated by the extreme flatness of the surface, and the multitude of small streams intersecting the country in all directions. By means of these an extensive inland commerce is carried on; and, as they communicate with the Rhine and other large rivers, the productions of the whole earth are conveyed at comparatively small expense into the interior of Germany and the Netherlands."

We quote the following paragraph describing an object worthy of admiration and indicative of the energy of its builders :

"*Great Dutch Canal*.—This is one of the most stupendous works of the kind in existence. Its object is to afford a passage for large vessels from Amsterdam to the sea. This city has 40 feet of water in the road in front of its port, but the *pampas*, or bar, in the Zuydersee, seven miles below, has only a depth of 10 feet, and hence all ships of any considerable burden have to unload part of their cargoes with lighters before they can enter the port. As the sea in question is full of shallows, all ordinary means of improving the access to the port were neces-

sarily ineffectual, and the resolution was at length adopted of cutting a canal from Bucksloot, exactly opposite Amsterdam, to the Helder, the northernmost point of the province of Holland. The distance between the extreme points is 41 English miles, but the length of the canal is about 50½. The breadth at the surface of the water is 124½ English or 120 Rhineland feet; the breadth at bottom 36; the depth 20 feet 9 inches. Like the Dutch canals generally; its level is that of the high tides of the sea, from which it receives its supply of water. The only locks it requires, of course, are two tide-locks at the extremities; but there are, besides, two sluices with flood-gates in the intermediate space. It has only 18 draw-bridges in its whole length. There is a broad towing-path on each side, and the canal is wide enough to admit of one frigate passing another.*

We also quote the following :

“Statement of the Area and Population of Holland according to the admeasurement made in the year 1833 :—

AREA IN DUTCH BUNDERS.*

Total amount of Cultivated Land,	2,126,365
Other Land, including Roads, open Places, Walks, Ramparts, &c.	40,724
Water, including Rivers, Brooks, Lakes, Canals, ponds, Morasses, &c.	104,165
Heaths, Sea-shore, Banks of Rivers, Downs, Reed & Rush lands, Peat bogs, &c.	773,716
Total	3,044,970

Population to 100 Dutch Bunders average 84.8.

By the above statement it will appear that 2,126,365 bunders have been thoroughly reclaimed of the lands, waters, and sea-shores down to land water-mark of the whole surface 3,044,970 bunders, leaving 877,881 bunders of sea-shore, banks of rivers, reed and rush lands, peat-bogs, heaths, and morasses, unreclaimed in 1833.

Statement of the Yearly Average Quantity of different sorts of Grain, and other Agricultural produce raised in the Provinces of Holland, between 1837 and 1841 inclusive, taken from the Reports of the Governors of Provinces.

Sum Total in Dutch Muddes.				
WHEAT.	RYE.	BARLEY.	OATS.	POTATOES.
7,209,520½	12,035,690½	8,545,140½	11,441,537½	53,222,746
imp. qrs. 2,757,641	4,603,651	3,257,041	4,376,388	162,861,602†

To which might be added large amounts of Buckwheat, Pease, Beans, Spelt, Rape, Flax, Mustard, Tobacco, Hemp, Madder, Clover and other Seeds.

The Dutch trade in the year 1840 was distributed in very nearly equal portions between the two principal ports of the kingdom, as follows:—

	Imports.	Exports.	TOTAL.
	Florins	Florins.	Florins.
Amsterdam.....	95,339,500	74,711,000	170,050,500
Rotterdam.....	97,777,500	74,767,500	172,542,500
Total.....	193,117,000	149,478,500	342,593,000

By comparing South East Missouri, as she is with Holland as she was unreclaimed, and Holland as she is with South East Missouri as she may be reclaimed, some computation may be made of the vast income to be derived from the system of Internal Improvements, upon which this anticipated prosperity is based, and the unparalleled endowment for schools and universities, which this system will secure to Missouri. We may indicate its promotion of the intelligence of Missouri more fully in an other article.

* A Bander equals 2.4736 (about 2½) English acres. † Bushels.

The system for the reclamation, internal improvement and education of South East Missouri which we have projected challenges investigation. Narrow-minded men—men of selfish policy,—may be found who will dare to cavil at the cause. But every man who combines liberal conservative and progressive principles, will give it a fair trial.

We advocate this system, because from the best information and the best reasoning it is the most practicable to gain the desired result—to carry out the express purpose of the grant of Congress—the reclamation of the lands granted. We advocate this system for a further consideration, because if successfully established, it will be a basis, admirably adapted, for a superstructure of a thorough internal improvement system, to develop the resources of this rich and interesting, though unfortunate and neglected portion of Missouri. We advocate this system, because it will raise up the depressed fortunes of the venerable sister cities, Cape Girardeau and New Madrid, will maintain them in an honorable independence, and enable them to reflect greater credit on the State. We advocate this system, because it will be an element of great importance to the prosperity of the West in aiding the speedy construction of the Mississippi Valley Railroad through South Missouri. We are free from selfish policy, are devoted to public policy; to the promotion of “the greatest good to the greatest number”, to the promotion of the prosperity of Louisiana and Minnesota, of all the intervening States, of the whole Union, and of the whole world. Let no portion of the country apprehend that the restoration of South East Missouri will jeopardize its prosperity. As well might one arm of the body apprehend that it would be injured by the restoration of the other broken arm. Each arm should feel a sympathy with the other. The sound one should endeavor to relieve the unsound. When both arms are sound, they can work the better into one another’s hands. The head of Missouri should be anxious to strengthen every limb, and beautify every portion of the State. The most finished work of art reflects its glory on the artist. St. Louis is the artist of Missouri. She is moulding the destiny of the State. Let the work be symmetrical. Let every portion be developed to the fullest perfection. Let the State policy be liberal. And let avenues be opened to the North and South, the East and West, that the whole world may come and admire the inimitable result—Missouri—the master-piece of statemanship.

Geological Survey of Missouri.

Resolved 1st. That a general Geological Survey of the State is now necessary, to develop our resources, and to lay before the public, the evidences that the great system of internal improvement upon which we have entered, is not only justifiable, but necessary.

2d. That in the opinion of this meeting, the Legislature now in session should make the necessary provisions for such a Geological Survey.

The above resolutions were unanimously adopted, last Dec'r., by a public Railroad meeting of the citizens of St. Louis. Simultaneously the cause was progressing in the Legislature, and we trust it may come out triumphantly before the end of the session.

Missouri may gain great credit at the Exhibition in the New York Crystal Palace, next May. But to maintain her credit, she should bring out "All her appliances and means to boot." The foundation for a *School of Mines* should now be laid. The geological system of the State should be promptly and thoroughly analyzed and digested. The luxuriant soil of her vallies and prairies, the pure beds and mountains of her countless minerals, should rest on better evidence than mere loose *hearsay*.

Geologists, mineralogists and chemists of scientific ability should be retained, with liberal provisions, to collect and record the evidence of the vast neglected wealth of the State. A *record* of the same should be brought home to the people, and distributed among capitalists abroad. This record would insure prompt movement in every line, and the speedy completion of the inimitable railroad system of Missouri. This record would be a security of the State bonds, and make them in demand. This record would attract population, labor and capital. This record would induce monied men as well as actual settlers to enter the public lands, and thus relieve present property holders from a portion of their tax. This record would raise the value of every acre of land in the State, and thus make each and every owner richer. This record would tell the farmer how he could make the most out of his soil, and the miner how he could make the most out of his ore. This record would unfold the wealth of the State, until the merchants and manufacturers would be overstocked with the supply. Let ample provisions be made for the Geological Survey. Who will say nay? "Breathes there a man with soul so dead!"—so devoid of public spirit,—so blind to his own interests!

The people of Missouri are opening their eyes to their own interests and to the interests of the State. Their souls are alive to

the subject of Internal Improvements. They have shown the right spirit in their judicious enthusiasm for railroads; for they knew the benefits railroads bestow. They will also show a similar regard for a Geological Survey, so soon as they know that it will bestow similar benefits. How did they know the first? From their own sense and the experience of sister States. How may they know the second? From the same source.

Turn to the histories of Massachusetts and Tennessee, of Georgia, New York, and Ohio, in fact of a majority of the States of the Union, and it will be seen that Geological Surveys developed and gave energy to their Railroad systems. Various articles, many written by Dr. H. A. PROUT, and Dr. H. KING, throwing light on this subject, and arguing at length the advantages to be derived by the State from a Geological Survey, have been published in the previous volumes of the *Western Journal*. In the No. for May, 1849, vol. 2d, page 334, the Memorial of the Legislature of Missouri to Congress on the subject of a Geological Survey was published. In vol. 3, page 275 was published the Bill introduced in the Senate, by Hon. S. A. Douglass, which Bill, on account of its conciseness, comprehensiveness and exact fitness for our present wants, (west of the Mississippi river) we now re-publish:

IN THE SENATE OF THE UNITED STATES,

December 27, 1849.—Ordered to be printed.

A BILL, granting to each of the States in which the public lands are situated, a quantity of land equal to one township in each land district, to aid in making a geological survey of such States respectively.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby granted to each of the States of the Union, in which public lands are situated, a quantity of land equal to one township in each land district in each of said States, to aid in defraying the expenses of a geological survey of said States, under the direction of their respective Legislatures; said lands to be selected by the Governors of said States respectively in legal subdivisions, according to the United States surveys within their respective limits: *Provided*, That said lands and their proceeds shall be faithfully applied by the legislatures of said States respectively to a scientific exploration and geological survey of the territories within their respective limits, and to the preparation and publication of suitable reports, maps, and drawings, and to no other purpose whatsoever: *And Provided further*, That each of said States shall present to each of the other States and Territories of this Union at least three copies of all such reports, maps and drawings, and also to Congress at least fifty copies of the same, for the use of the Government of the United States and the Smithsonian Institution.

We would entreat the Legislature of Missouri, to act promptly, liberally and independently in this business. Congress then seeing that the State is doing all in her power, may with more justice be called upon to *aid*, and will be more strongly induced to make the grant of lands for which the State has been praying.

Commerce of the Southern States with the Valley of the Amazon.

The valley of the Amazon is destined, as we believe to contribute more to the wealth of the United States than any other part of the globe, of equal area; and hence every fact calculated to place the resources of that region in their true light, must be interesting to the people of this country. England has monopolized, in a great degree, the commerce of the western coast of South America. She has taken from us a considerable portion of the trade that we formerly enjoyed with Mexico, and it will require great vigilance, on the part of our government as well as enterprise on the part of our merchants to secure a fair proportion of the commerce of the vast region drained by the Amazon.

There are many reasons for the belief that the Amazon will, in a short time, be opened to the trade of all nations, and we desire to awaken the people of this country to the importance of being prepared to make at least an even start with other nations for its commerce.

We publish the following resolution offered by Lieut. Maury, in the "Southern and Western Commercial Convention, held in Baltimore, December 18th, 1852," and also his remarks in support of the same, with a hope that the people of the Mississippi valley will respond to the sentiments expressed by the vote of that body:

Resolved, that the policy requires the United States to foster steamboat communication between the South and the Amazon, and to build up commerce with the Atlantic slope of South America.

Lieutenant Maury, in support of his resolution, said:

Mr. PRESIDENT, it has occurred to me that the present is a peculiarly propitious time for a move in this direction. Francia is dead, Rosas is expelled; and the navigation of the La Plata with its principal tributaries, is free to all the world. Another Mississippi, with a valley nearly as large as that of our own, is thus brought within the domains of commerce; its soil is more productive, its climates more genial, and its powers of vegetable display far more active than we find them in our own great valley.—Climate and soil combine there to give an expression to vegetation which is luxuriant beyond conception, for they are intertropical.

The greatest gift of the age to commerce, after those improvements, discoveries and inventions which have annihilated time and brought space down to the compass of span, for the man of business, is the free navigation of the Rio de la Plata and its principal tributaries.

That water-shed has now a population of several millions of industrious people.

With a capacity, because of its mild climate and kind soil, to sustain on the square mile, a population twice the Belgian rate,

we have a country opened to the enterprise and energy of our people, and to the settlement of the immigrant, capable, in the fulness of time, of sustaining a population of 600 millions of souls.

The steamer plying up and down these majestic water-courses, will produce a complete and total revolution in the business and channels of traffic as they have been and are now carried on there. It is a country of land transportation; and the vehicles used are neither the river steamer nor water craft, but the back of the mule.

In the times of the Vice-Royalty, there was a caravan of 90,000 mules employed in the transportation of merchandise to and fro between Assumption and Peru.

And now at this very time, in this day of steam and lightning and speed, we behold in this great valley a commercial spectacle truly unique. We see the flourishing city of Cayaba situated in the valley of this great river, standing upon the very brink of navigable water-courses, and still employing thousands of mules in carrying on its commerce with the seashore, that one year is required to make the trip thence to Rio, its sea port, and back.

Conceive the city of St. Louis to have been in the habit of carrying on her commerce with the sea by the mule load and on the slow footed beast, and that suddenly there should be heard down at her landing the steamboat blowing off. Here would be a revolution in her commerce forthwith. At the instant the muleteers would forsake their calling, and commerce would take this new channel and follow wherever the enterprise of the first merchant in the market would lead it. If the steamer came from the Lakes, to the Lakes would the trade of this city go. If from the Gulf, to the Gulf; if from the terminus of the Baltimore and Ohio railway on the Ohio river, up that river would its course be. As plastic as this business would be in the hands of the merchant, so like clay in the hands of the potter will this business which the navigation of the Rio de la Plata and its tributaries by steamers under the American and English flags, be to those who shall be first there to conduct it into these new channels.

Montgomery Martin, an English statistical and geographical writer, (but for the truth of his statements I do not vouch) states, and I have not seen the statement contradicted that "*recently,*" when the French and English blockading forces off the La Plata forced that river open and kept it so for six or eight months, these squadrons gave convoy up the river two fleets of merchantmen, one of 110 sails, the other of 76. This movement was effected suddenly and without time for previous concert between the merchant below, and the people in the country. Yet these fleets of 186 sails exchanged their merchandise for the produce found on the banks of the Pasana, and brought down cargoes valued on the aggregate at sixteen million of dollars!

The government appreciating the importance which this field is to be to American commerce is now about to despatch an expedi-

tion under Lieut. Page of the Navy, to explore that valley and its rivers. We are thus about to have a report telling us of the navigability of these majestic streams, of the present commercial resources and of the future capabilities and capacities of that immense region for trade, settlement, cultivation and commerce.

Surely in seeking channels of direct trade for the South and the West, it is well to look in this direction; for there is a prize there now that is worth striving for; for it is yearly to grow more and more in value.

At some day, (we may not, yet our children may see it) but at some day in the future the commerce of the North Atlantic nations with the river basins and Atlantic slopes of South America, is to be the most dazzling for its wealth that the world ever saw. Let us lay the foundations for it now. Let us build them broad and deep, that our children may not reproach us for the want of forecast or the lack of enterprise.

Upon the parallel of South latitude, on which the La Plata enters the ocean, about that parallel North does our Chesapeake spread itself out upon the sea. Travelling South, the Mississippi, with the largest river-basin in the Northern hemisphere, comes rolling down its produce and its treasures in a flood, that for capaciousness can only be likened to its own volume and extent of navigable waters.

Midway between us, and exactly on the equator, the mighty Amazon discharges its waters, which drain the largest river-basin in the world.

Entering the deltas of this river, you have not yet come to where the water is fresh before you; pass the mouth of the Tocantins, a magnificent tributary coming from the far South, and crossing in its course more degrees of latitude than our own Mississippi. Its banks high up are well settled. But you never can, it seems, get the people there to take to the water. A few pole up the Mississippi of the Amazon; but the passage up occupies five months. The commerce with the seaboard is carried on by mules. The steamboat never was seen there.

Lieut. Hernden, in his recent descent of the Amazon, embarked upon it with the Andes in sight, and descended thence through an uninterrupted low water navigation of 3500 miles to the sea.

The South talks about manufacturing—about spinning and weaving the cotton which it grows. But the complaint and the difficulty is the want of a market.

Cotton cloth, let the South know, is in the *pied-Andean* provinces of the Amazon, the currency of the country. And this is the route by which it goes there. From the cotton fields of Carolina and Mississippi to the Lowell Mills—thence to the wharves of New York—thence around Cape Horn, through regions so boisterous and so gloomy that, for half the year, the sun sinks down and

day dwindles away until its light becomes only the longest meteor of the long night.

Emerging from these regions, it is landed in the harbor of Callao, where, paying duties to Peru, it is packed to Lima, and thence ascending on mules and lamas, it penetrates the regions of perpetual snow in the tropics, and finally, having reached its point of culmination on the Andes, it winds down along their eastern slopes into the valley below.

Here four yards of it are given in exchange for a quantity of drugs or gums or spices or dyes, which descend the Amazon to Para, to be shipped thence to New York. The quantity of Amazonian stuff which these four yards of cotton have bought in the upper Amazon is now worth more dollars than the cotton cost in cents. You buy then for four yards of cotton cloth, a quantity of drugs which, in New York, are sold for \$40 or \$50.

The climate of the Amazon is an everlasting summer. There, at any time of the year, planting pulse, you get a crop in three months. Indian corn gives three crops a year. Rice one in every five months: cotton in six, and sugar in eight.

If the fertile lands, the soft climates, and rich productions of the Amazon be not sufficient to invite the emigrant there, then I hold up to his cupidity the prodigious mineral wealth of the country. From the sea, across to the Andes, the great "Divide" which separates the waters of the Amazon from the waters of the La Plata is one immense diamond and gold-bearing region.

In the time of the Vice-Royalty, Salcedo, the Viceroy of Peru, discovered, through the Indians, gold mines in the Peruvian provinces of the Amazon whose wealth was such as to excite the cupidity of the crown. Charges were trumped up against him, and he lost his head that his possessions might be confiscated, and so revert to the crown. But he was popular with the Indians: they alone knew where his treasures were; and, true to him as they had been to their Inca before, they kept his secret.

Just before Lieut. Herndon left Lima to descend the Amazon, a party of Peruvians returned from a search of these placers; and, though few in number and badly provided, they returned from Carataza with 700 weight of gold, which they had washed out in gourds and calabashes.

Potosi slopes down towards the La Plata. Its mines have yielded sixteen hundred millions of silver; and they are now only not worked for the want of machinery.

No steamer has as yet plied upon the Amazon, and still Para, the city at its mouth, has a commerce of three millions a year.

By a treaty just concluded with Brazil, Peru has made Nauta on the Amazon a free port, and Brazil has just contracted with one of her own subjects to put two lines of steamers on the Amazon; one from Para to the mouth of the Rio Negro, the other from Barra to Nauta. By a recent treaty with Peru, American citi-

zens have guaranteed to them, in all ports and places in Peru, the rights of the most favored.

There are four other Republics that own navigable tributaries of the Amazon. Bolivia is about to declare two of her river towns free ports to all the world, and proposes a prize of \$10,000 to the first steamer that shall reach there from the Atlantic.

Ecuador is ready to do the same; and so, doubtless, are also New Granada and Venezuela.

But Brazil holds the mouth, and says "keep out."

I preach no crusade. But Brazil and her rulers have shut out the world from the Amazon for the last three hundred years, neither using it herself nor permitting others to use it. That is God's land: it was put there for man, to be used by man. These five Republics have the right to follow their navigable waters to the sea, the great highway of the world. They are weak and cannot enforce their rights. But they are ready to give them to us.

Brazil is one of the up countries of the La Plata,—the mouth of that river was owned and shut up by another.—She has gone to war and opened it for the benefit of the world; and the commercial world will speedily commend to her lips, at the Amazon, the chalice with the same ingredients that she so rightfully administered, upon the La Plata, to fallen Rosas.

It is by the policy of commerce, and not by the policy of conquest, that I am now for opening the Amazon, and making its navigation free to all the world. Diplomacy can do it; and I feel persuaded that agents are already at work which, at no distant day, will accomplish this achievement.

Let us commence now with our steamers, that when these events occur, we may be prepared to take advantage of them.

The English have a line of steamers to Rio. The French are getting up another in anticipation of this opening of the La Plata trade. There is a Brazilian line from the La Plata via Rio to the mouth of the Amazon, all of them doing a roaring business. The mouth of the Amazon is half way between this port and Rio.

Let us then have a line of mail steamers from the waters of the Chesapeake or some Southern port to connect at the mouth of the Amazon with this Brazilian line. It will bring our merchants some two or three weeks nearer to that teeming country than they now are. Without this link what chance will our men of business have to compete with those of England and the continent for the commerce of the La Plata?

South America is on our side of the Atlantic, and our commerce with Brazil is greater than it is with China, or the East, or with any European country except France and England. Yet under present arrangements, our merchants are in the habit of sending across the Atlantic to mail their letters for South America.

The letter goes from here by steamer to England, thence to Rio, and so down to the La Plata. The reply takes the back track,

and thus the English or French merchant has some two or three weeks the advantage over his American competitor in the markets there.

We ask no favors; all we seek is a fair start and an equal chance.

It is but 2800 miles from here to the mouth of the Amazon. Porto Rico is half way, and to touch there would require a deviation of but 30 miles from the air line. We have more commerce with Brazil than with Bremen; then why should we not have a line of mail steamers to meet Brazil who has stretched out her hands half way from Rio to meet us? To touch at Para would be but a day's sail out of the shortest way to Rio.

And though the South has little or no trade with Para at present, this line of steamers would soon beget it; for the trade there is new, it is growing; and it has no beaten track to follow, and out of which it is so hard to turn commerce.

Running at intermediate times with the English line, this line would be in opposition to that, dividing mails and passengers, and inducing the Brazilian merchant and the La Plata merchant to come here and buy instead of going to Lisbon, to London and to Paris.

What part of this broad spread land then has not a direct and powerful interest in this line of steamers? For it is to draw after it the settlement of the Amazon. It is to lay the foundations of commerce with the finest country in the world. It is to be followed by many consequences which shall tend to unite in the bonds of peace and good will, of commerce and navigation, this country with that, and it is to build up a great trade between them.

Give the world now the free navigation of the Amazon, and let the expedition to Japan be as successful as it may, before our commerce shall amount to ten millions with that distant and exclusive people, Amazonia will be pouring out its hundred of millions here at our doors.

The winds and the currents of the sea, the great physical agents of the Universe, the voice that bade the dry land appear, and commanded the waters to be gathered together in one place, ordained that the valley of the Amazon with all its wealth, should be tributary to, and commercially dependent upon, the Atlantic slopes of North America.

The winds of Heaven like sentinels pacing their rounds, forbid the trader between the Amazon and all other parts of the world except this, from crossing the lines which the agents of the sea itself have marked out. If a sailing vessel, in coming out of the Amazon, attempt a direct course to Rio, or to India, to Europe or to the Pacific, the N. E. trade winds turn him aside and compel him first to pass the offings of certain seaport towns of ours at the South. Nay, if a vessel wish to go under canvass from the mouth of the Orinoco, or from any part of the Caribbean sea, to the mouth

of the Amazon, she is compelled, in order to get there, to go through the Florida Pass, and so out with the Gulf Stream, that she may reach a position from which she can fetch.

Look at that great South American continent on the map there: from the back-bone ridge along the Pacific, it is all one great slope down to the Atlantic, and as tributary to this ocean with its commerce as with its waters. It is like the horn of plenty opening out before us, and ready to pour its abundance out into that grand marine basin down south there, which being the great commercial lap of the country, receives the drainage, and is destined to receive the commerce also, of the two largest rivers and the grandest river basins on the face of the earth.

The Brazilian steamboat company is to establish sixty colonies on the banks of the Amazon. Is it not well to get ready to open trade with them? The first plough has yet to be seen in that valley, and these colonists will want everything. Every emigrant that goes there will become an excellent customer to this country. Out of the abundance of his soil he will buy all sorts of "Yankee Notions." His workshops and his looms, and the artizans who minister to his fancies, his tastes, or his wants will all be here.

Where, if not in South America, do Maryland and Virginia now find a market for their great staple? More of their flour goes there than to all other nations.

To Ohio, Indiana, Illinois and the merchants here from that section of the country,—if they ask me what direct and practical interest have they in the line of steamers hence to the Amazon, and in the results of the consequences which will follow close upon its heels,—I reply, the very moment that river and its tributaries are opened to steam and settlement, that moment those upper Mississippi States will become the boat yards of the Amazon.

Seed time and harvest in the valley of the Amazon go hand and hand and a perpetual round; and the farmer there can make two crops to his one in Ohio. By the operation of the same principles which place the boat yards of Texas, of the lower Mississippi and Alabama, up in the cold countries above, upon that principle will the boat yards of the Amazon be placed there too. It is a principle founded upon the geographical distribution of labor. It is the principle, or rather that condition of nature, by which the inhabitants of a stinging soil in a severe climate are induced to forsake the land and follow the sea. In Italy the earth is five times more productive than it is in Norway; and it therefore requires five times the reward to induce the laborer to forsake the cultivation of the soil in Italy that it does in Norway.

The same holds with regard to Cape Cod and the Valley of the West. Upon this principle the northern hemisphere is obliged to afford the seamen and the vessels for carrying to market the rich productions of the southern hemisphere. And it is precisely because of this condition of nature that the steamboat yards of the

Amazon are to be up at New Albany, Cincinnati, Pittsburgh and other up-country places in the Mississippi Valley.

When it is winter in Ohio, the Amazonian planter will be cultivating and reaping his second crop. And with this second crop he can get the Mississippi boat-builder to build and send him more and better boats than it is possible for him to build with his own force.

There are the West India Islands standing in the river steam-boat path from the mouth of the Mississippi to the mouth of the Amazon, like stepping-stones across a pool in the way. The longest stretch from land to land on the passage would be from the Balize to Cuba; and any boat that is stout enough to go from New Orleans to Cuba in smooth water is stout enough to go thence to the Amazon, at all seasons except in the hurricane months.

There, too, in that South American water-shed will be a great market for the beef and pork and salt provisions of the West; for a tropical climate is too warm for the packer.

This question of the Amazon, of its settlement, of commerce with it, of navigating its waters, and of establishing friendly commercial relations between it and this country is, gentlemen, the question of the age. In it our statesmen have their part to perform, our merchant princes their part, and every good citizen his part.

Commerce is the great civilizer and christianizer of the world. Commerce is the agent by which that wilderness country has to be subdued. And we are here to consider what the merchant may do.

Bearing the banners of peace and good will, he must go in the van with the mail steamer; then trade, emigration, settlement, cultivation and the spread of knowledge will follow. And he is but a sleepy observer of the times who does not see that the commercial spirit and enterprise of the age will accomplish the rest, and in the end make of the Amazon and the Atlantic slopes of South America the field for the richest commerce that the world has ever known.

The valley of the Amazon, moreover, is a slave country. And the eye of the far-seeing statesman cannot fail to perceive in that wilderness and in that fact the safety-valve of this Union.

Immense consequences, therefore, are to follow from establishing commercial connections and friendly intercourse between the South and South America. And it is because of the bearings of these consequences, that I advocate the establishment so earnestly now, of a line of steamers, under Government patronage, between the Amazon and some Southern port.

There is a tide in the affairs of nations as of men, and here is one about to make, at young flood, which being taken, will lead this nation to the highest degree of commercial wealth, social prosperity and true greatness, that was ever known.

JOURNAL OF INTERNAL IMPROVEMENTS.

First Annual Report of the Pacific Railroad.

In accordance with the provisions of section 11, of the amended charter of the Pacific Railroad, requiring that "The said corporation shall make an annual report to the Secretary of State, of the operations of the year ending on the first day of December," the following statement of the affairs of the road from its commencement up to the 1st December, 1852, is herewith submitted.

1st. The amount of "capital stock" authorized by the charter is \$10,000,000 00
Of this amount there is subscribed as appears from evidences in the possession of the Secretary, the sum of..... 2,714,700 00

Included in this sum are the subscriptions of certain counties and corporations not at present available, viz: Jackson county, \$100,000; Johnson county, \$100,000; Morgan county, \$25,000; Osage county, \$5,000; Franklin county, \$50,000; Saline county \$200,000; Cooper county, \$250,000; Lafayette county, \$300,000; Moniteau county, \$50,000; Pettis county, \$100,000; Jackson county, [additional] \$100,000; and the cities of Boonville, Lexington and Independence, \$50,000 each—total—\$1,430,000

There are also in the hands of individuals, subscription lists, not yet returned, the extent and amount of which is not definitely known at this time. On the above subscriptions there has been "actually paid in" as follows: Subscriptions paid up in full and for which certificates of stock have been issued, [186 shares] \$18,600; subscriptions paid up in part \$494,000

Total subscriptions paid..... 512,600 00

2nd. The total "amount expended in the purchase of land" for right of way, including damages and ground for depots, machine shops and other necessary purposes of the road, is..... 155,357 90

The amount expended for the "construction of the road" and which is embraced under the following heads or items, is as follows:

For engineering, viz: preliminary surveys.....\$28,591 43
Location surveys..... 8,241 33
Superintending construction..... 26,921 70

Total for engineering.....\$63,754 46

Fencing account..... \$9,386 98
Graduation.....307,405 20
Masonry and bridges.....123,643 63
Superstructures, [including ballasting].....200,481 96
Water Supply..... 376 92
Office expenses and contingencies..... 16,766 13
Interest and exchange account..... 8,597 44
Discount on bonds, [city and county]..... 10,372 50

Total for construction.....\$740,785 22

The amount expended for building is as follows:

Machine shops and Engine Houses.....\$34,682 06
Machinery for same..... 5,544 18
Depots..... 4,800 00
Station buildings..... 156 10

Total for buildings.....\$45,182 34

The amount expended for Engines and Cars respectively is as follows:

Locomotive Engines.....	\$22,109 06
Freight Cars.....	15,160 19
Passenger and Baggage Cars.....	7,222 62
Gravel and Hand Cars.....	185 98

Total for Engines and Cars \$44,677 85

In addition to the foregoing, there has been expended and not properly coming under either of the above heads the following:

Preliminary survey of Southwest Branch.....	\$9,825 10
Preliminary survey of Iron Mountain Branch.....	3,882 33
Land grant of Congress.....	379 75

Total amount..... \$14,087 18

Making a grand total for expenditures of every description up to the date of this report of..... \$1,000,090 49

3d. "The nature and amount of its indebtedness" is as follows:

State of Missouri for her bonds received on account of loan of her credit for \$2,000,000.....	\$500,000 00
Bills payable in settlement of land claims.....	12,196 67
Bills payable to St. Louis Ins. Co. for prems. Insurance on iron, &c.....	1,516 80
	\$513,713 47

The above is the whole of the indebtedness of the credit, as appears from the books of the Secretary, except what may be owing to contractors and others for labor, materials, &c., in the construction of the road.

"The amount due the corporation," as appears from the same source is..... \$2,202,100 00

And is for balances due on stock subscriptions, a portion of which subscription as heretofore stated [viz: \$1,430,000] is conditional.

4th. The amount received for the transportation of passengers, of property, of the mails, and from all other sources—None.

5th. The amount of freight specifying the quantity in tons, &c., &c.—None.

6th. The amount paid out for repairs of engines, cars and buildings.—None.

7th. The number and amount of dividends and when made.—None.

8th. The number of engine houses and shops, of engines and cars, and their character—no engine houses or shops yet finished for use. Have ready for use three locomotive engines, two passenger cars and eleven freight and gravel car.; also, four hand cars.

9th. The number of miles run by passenger, freight and other trains respectively.—None.

10th. The number of men employed and their occupations—is here supposed to apply to the operation and not to the construction of the road. There are men now employed on the surveys of undetermined routes of the road—on the superintendence of the construction of the road, and under the contractors on the graduation, &c., of the road. Not having the means of estimating the number of men employed by the contractors, no statement can be made of the number engaged on the work. The road is not as yet ready for use.

11th. "The number of persons injured in life or limb, and the cause of such injuries." A few men have been killed and injured from accidents, and many have died from cholera and other diseases during the construction of the work; but none due to the operation of the road, to which this is supposed to refer.

12th. Whether any accidents have arisen from carelessness or negligence of any person in the employment of the corporation, &c.—None.

Samuel Copp, Jr., Treasurer of the Pacific Railroad, and Thos. S. O'Sullivan, Chief Engineer and Superintendent of the Pacific Railroad, being duly sworn on their respective oaths, state that they believe the foregoing report to be true and correct.

SAMUEL COPP, JR.,
Treasurer Pacific Railroad Co.
THOS. S. O'SULLIVAN,
Eng. and Supt. P. R. R. Co.

First Annual Report of the President and Directors of the New Orleans Opelousas and Great Western Railroad Company.

To the Stockholders of the New Orleans Opelousas and Great Western Railroad Company.

GENTLEMEN :—Under the provisions of the fourteenth section of the Charter of this Company, the Board of Directors are required to lay before you at the annual meeting in January of each year, a detailed report of the past year's operations, and the financial condition of the Company.

In April last, this corporation was constituted with a capital of three millions of dollars, for the purpose, as expressed in its charter "of constructing a Railroad from Algiers on the opposite bank of the Mississippi River from New Orleans, westward near Thibodeaux, across Berwicks Bay to Washington in the Parish of St. Landry; thence to a point on the Sabine River, most favorable for the purpose of constructing said Road through the State of Texas to El Paso on the Rio Grande, and thence to the Pacific Ocean. The road to be made on such a scale as to serve for the main trunk of railway between New Orleans and the Pacific States.

The amount of capital was fixed with reference to the probable cost of the road through this State to its western boundary to be increased subsequently as the extension of the road beyond that limit, or other contingencies might demand.

This enterprise, the first in magnitude and important results to this city, and State, for more than twelve months under the auspices of organized committees of its early friends, had been posted and promoted. Through their efforts, money was obtained from the respective municipalities of New Orleans, from several of the parishes along the proposed route and from public spirited citizens, adequate to defray the expenses of preliminary surveys, required to determine the practicability of the proposed route from this terminus to Berwicks Bay, and for other contingencies.

The explorations and surveys thus obtained, proved the entire feasibility of the project, and inspired such a degree of public confidence in it, that upon the formation of the company, and the opening the Stock Books early in April last, an amount of stock was taken more than double that required by the charter as a preliminary to the election of Directors.

In May, this Board were elected, and their unanimous choice for President fell upon the late lamented Mr. Adams, Jr. The death of Mr. Adams shortly after created a vacancy which was temporarily filled by Mr. Norton, to whom the Board take this occasion to acknowledge their grateful obligations, not only for his disinterested acceptance of the trust at a period of much responsibility, but for the able and satisfactory manner in which he discharged its duties.

At this period there were unmistakable evidences that a controlling popular feeling had become aroused and enlisted in favor of the Railway communications already projected.

A new epoch had evidently come in the history of this State. It could no longer be disguised that this city and State were laggards in the march of improvement compared with their neighbors.

While the city, relying in fancied security upon the advantages of her commanding natural position, was daily losing her commerce and trade through the energy of her more enterprising rivals, the great agricultural districts of the State, measurably isolated, remained ingloriously content with the precarious, difficult and hazardous means of travel and transportation afforded by a long and intricate interior navigation. Both interests at length were awake to the imperious necessity for prompt and energetic actions.

The two great trunk Roads, the Western and the Northern, had attached to their respective standard men of devoted zeal and untiring energy, who by their characters and efforts inspired confidence at home and abroad in the successful accomplishment of the enterprises to which they had zealously devoted themselves for the public good.

The Convention of the friends of the Northern road in May, and of the Western road in June, 1851, and the Great Southwestern Convention in January, 1852, composed of delegates from all the Southwestern States—men, distinguished for ability and usefulness at home—gave irresistible impulse to the popular feeling in favor of these and similar works.

The Legislature at their session, immediately succeeding, reflecting the opinions and in compliance with the well understood wishes of the people, made all the legislation in favor, and for the promotion of such enterprises allowable under the then existing constitution.—By enacting laws for the organization of corporations for works of public improvement and utility—for the expropriation of lands for Railroads and like works,—for the subscriptions by the parishes and municipal corporations of the State to the stock of companies undertaking works of improvement—for the payment and disposal of stock so subscribed; and, lastly, for taking the sense of the people on the expediency of calling a Convention to change the organic law, so as to permit the State, to adopt for the future a less restrictive policy in regard to works of general utility and advantage.

This latter proposition was submitted to the vote of the qualified electors of the State, and decided affirmatively. Delegates were elected, the Convention met, and formed the present Constitution of 1852, which has since been ratified by a large vote.

The Constitution of 1845, denied to the Legislature the power to pledge the faith of the State for the payment of any contracts or obligations for the benefit of any person, corporation or body politic, limited the amount of debt to be contracted by the State to \$100,000—except in cases of war, invasion or insurrection, unless in the enactment creating the debt, the ways and means by taxation for its payment are also provided, and not then, until the next Legislature returned by a general election should have re-enacted it—and enbibited the State from subscribing to the stock of any corporation or joint stock company, and from the creation of corporation by special laws, except for political or municipal purposes, and limited the tenure of all corporations constituted under general laws (except those enumerated in the preceding exception) to twenty-five years.

Those restrictions, bearing upon enterprises of this description—for we have only reference to them—were subjected to radical changes by the present Constitution. Among the recognized powers of the Legislature by that instrument is that of granting the aid of the State, exclusively to works of internal improvement to the extent of one-fifth of the capital of Associations organized for such purposes; by subscriptions of stock; loan of money, or public bonds; under the limitations that the grant of such aid by the State shall only be available in the proportion of the capital actually paid in by the stockholders; and in case of loan, adequate security to be given—and that the amount of such liability shall never at any one time exceed the sum of eight millions of dollars.

This series of popular movements and legislative action is referred to as indicating, in the judgment of the Board, a settled policy in reference to this great modern system of Railway communication; and it is hoped and believed, not only by this Board, but by other and higher interests to be benefited and developed by it, composed of almost the entire portion of Western Louisiana, that the approaching Legislature, to whom the important duty of carrying out the provisions of the constitution are allotted, will foster and sustain the efforts of the people towards the accomplishment of these valuable lines of road, projected and in course of construction.

The popular estimate of the importance and value of this road to New Orleans, and to the rich and productive portion of the State, to be traversed by it, is clearly shown by the character and amount of subscriptions to its capital stock. The private subscriptions thus far amounted to seven hundred and fifty-nine thousand, eight hundred and thirty-five dollars; and, under the act of the Legislature already referred to for subscriptions by corporations and parishes, (a copy of which is appended to this report,) the city of New Orleans, through its municipal authorities, subscribed sixty thousand shares, amounting to one million five hundred thousand dollars, to meet which, payable in six equal annual instalments, commencing on the third Monday of June next, a tax of two per cent. was levied on all its landed estates, one third of one per cent. annually.

Subsequently, the following parishes along the line of road, through their respective Police Juries, also subscribed to the stock of the Company, as follows—and levied a tax upon their landed property to meet those subscriptions, Parish of Orleans, right bank of Mississippi River, three thousand shares, equal to seventy-five thousand dollars. Tax, five per cent., one per cent. payable annually, commencing January (1853).

Parish of St. Mary, six thousand two hundred and sixty-four shares. Equal to one hundred and fifty-six thousand six hundred dollars. Tax, three per cent; $\frac{1}{2}$ of one per cent. payable annually for six years, commencing on the 1st June, 1853.

Parish of St. Martin, four thousand one hundred and fifty one shares; equal to one hundred and three thousand seven hundred and seventy-five dollars. Tax, five per cent., one per cent. payable annually for five years, commencing 1st June, 1853.

Parish of Lafayette, thirteen hundred and thirty-six shares, equal to thirty-three thousand four hundred dollars. Tax, five per cent.,

one per cent. payable annually, and commencing on the 1st of June, 1853.

Parish of St. Landry, four thousand two hundred and twenty-five shares. Tax, five per cent., one per cent. payable annually, commencing 1st June, 1853; and the Parish of Natchitoches, ten thousand shares, equal to two hundred and fifty thousand dollars. Tax, seventeen and one-half per cent., three and a half per cent. payable annually, commencing 1st June, 1853.

These several tax stock subscriptions, amounting in the aggregate to the sum of two millions two hundred and thirty-four thousand four hundred dollars, were submitted according to law, to the vote of the qualified electors, in those different localities, and by them were approved and ratified, generally by large and commanding majorities.

It may be observed in this connection that this tax stock is levied upon and secured by landed property of the value of nearly one hundred millions of dollars, as estimated for the ordinary purposes of State and Parish Taxation. In all enterprises of this sort, the object of which is to develop large agricultural districts of country, the necessity and importance of which, to those interests are manifest, no better system of raising Stock can be resorted to, than voluntary assessments upon the landed property, which is immediately and directly enhanced in value. It carries with it equality and uniformity, levying the contributions for its accomplishment in the ratio of its estimation. It is subscribed by the representatives of the people, and is sanctioned and ratified by the tax-payers themselves, who are to be the beneficiaries of such improvements, and entitled as stockholders to their proportion of the eventual dividend, that may be declared.

An entire line of road thus traversing an extent of country, whose inhabitants are in right of their stock joint proprietors, must rest for its success and fortune upon influences, superior and more reliable than any other safeguard or guarantee that can be thrown around it.

The amount of tax stock added to the private subscriptions already referred to, which is subject, however, to reductions under the 13th Article of the Charter, (believed to be inconsiderable,) make the sum of two millions nine hundred and ninety-four thousand two hundred and thirty-five dollars, subscribed to the stock of the Company, less its capital—\$5,765.

In addition, the Company have prospectively the Tax stock subscription of the Parish of De Soto, recently voted of \$100,000, with its private subscription of \$53,325, and the offer by its citizens of an increase of subscription to the sum of \$200,000, conditioned, that the road be located and constructed through that parish.

We have also tendered to us \$74,000, by the western portion of the Parish of Avoyelles upon the like condition, that the road run up their territory, a distance of about seven miles along the valley of the Bayou Boeuf.

The Board have, exclusive of the five per cent., payable by private stock subscribers at the time of subscription, made three calls of ten per cent. each upon those subscribers, matured on the 23d of October, 4th December, and 4th January last, (inst.) From those sources the sum of one hundred and forty thousand three hundred and sixty-one dollars and eighty-eight cents, have been paid in to this date.

From the promptness exhibited thus far in meeting those calls, the Board confidently rely upon the entire amount of the calls being paid in at a very early period.

The demands hereafter upon that class of stockholders are in virtue of the 3d Section of the Charter, to be fixed by themselves at the annual meeting.

The Board have purchased and located at eligible points opposite the city, so as to suite as far as practicable, its entire commercial wants and convenience, two lots of lands for depots.

Those grounds it may be supposed, have a larger area than the present wants of the Company require. But when the vast amount of business to be done on this road prolonged west and north, beyond the limits of the State, with the experience of other companies before us, are considered, the purchase cannot but be regarded as proper and judicious.

The upper tract adjoining Gretna has a front on the river of four arpents by the ordinary depth of forty arpents equal to one hundred and sixty superficial arpents.

The lower one or terminus of the road—fronts on the river three hundred and seventy-five feet, by a depth of twenty-four arpents, between parallel lines, superficies forty-eight arpents, with streets of fifty feet each on its upper and lower lines to the extent of its depth.

This property has a large and increasing batture with two wharves and a bulk head, ample for all the purposes of the Company. Those grounds were purchased at a cost of sixty thousand dollars, and have a form and superficies adapted, and ample for all the future purposes of the Company.

Since the enterprise was first undertaken under its present organization, every effort has been exerted by the Board to advance it. In June last, Mr. James G. Gibbs, of South Carolina, a gentleman well accredited for his high professional attainments and practical knowledge, was elected Chief Engineer. Upon his arrival here in the latter part of July, a corps was organized, and the surveys preparatory to location, immediately begun. Up to this

moment, four hundred miles of a line of levels have been run, and in a few days, the entire line of route to two points on the Sabine boundary, between this State and the State of Texas, a distance of 350 miles, will have been accomplished.

The right of way, the entire distance from New Orleans to Washington has, with few exceptions, and those through the property of successions where the authority of Executors or Administrators to expropriate was doubtful, been cheerfully and gratuitously conceded.

The accompanying report of the chief Engineer, shows that the first division of road, eighty-two miles to Berwick's Bay, has been located, and that the location of the second on Prairie division to Washington, ninety-six miles, will be completed, and ready for contract about the first of March next. Of the first division, the clearing and grading of the first fifty-five miles is under contract, twenty miles of which is completed, and the remainder in course of completion.

Contracts have been made for Locomotives and Cars, and for four thousand tons of iron, sufficient for forty miles of road, at fifty-five dollars per ton, deliverable at the Company's wharves, with the required quantity of spikes, chairs and wood for superstructures. And hopes are entertained by the Board, that the entire line of road embraced in the first division to Berwick's Bay, will be completed and in operation within the next twelve months, and in time to bring out the crops of Lafourche and the Teche.

The advance in price of materials required in the construction of Railways, and of labor, has been unprecedented in this country. Iron alone, since those purchases were made in October, has advanced twenty dollars per ton, with still an upward tendency. This extraordinary appreciation in its price, which no foresight could have reasonably anticipated in so short a time, having already within the six months preceding gone up thirty per cent., will, upon that article alone, make a difference in the cost of the road from this to Washington, 173 miles, of nearly eight hundred thousand dollars. Our former estimates will thus be greatly increased; and hence it will be incumbent on the Company, in reference to the extension of the road to the limits of the State of Texas, to augment its capital, so as to meet the additional cost of construction.

The line of road located and indicated for location to Washington, has only a deflection of nine per cent. from an air line, and most of this curvature occurs in that portion between this terminus and Berwick's Bay, unavoidable from the large extent of sea marsh which lay in a more direct route, and which the Board, in determining the location, deemed most prudent to avoid.

This line of trunk road to the parallel of latitude on the Western boundary of this State, where it is contemplated to make its westing across the State of Texas to a point on the Rio del Norte,

most favorable for its extension along the limits of the United States, across the Continent, traverses and develops a territory within this State, of about twelve millions of acres, the larger portion of which is unpeopled and untilled. It passes through nearly three degrees of latitude, and over four distinct geological formations. The first is the delta proper of the Mississippi river, a distance of eighty-one miles to Berwick's Bay. It is exclusively a sugar growing region, producing in 1851, a crop of fifty-eight thousand five hundred and eighty-four hogsheads of sugar, and four million two hundred thousand gallons of Molasses.

The district beginning on the Western shore of Berwick's Bay, which may be regarded as an estuary of the Gulf, is the commencement of that belt of Prairie which skirts the gulf coast westwardly to the Rio Grande, and ranging from ten to thirty miles in width.

The Parishes within which it is embraced, and through which the road runs to Washington in the Parish of St. Landry, produce both Cotton and Sugar, and annually export to this city about forty thousand head of cattle. Their crop of Sugar in 1851 was forty thousand hogsheads; two million eight hundred thousand gallons of Molasses.

The third division from Washington, the point of intersection with the valley of Red River embraces the entire alluvian to the village of Natchitoches; a section of country unsurpassed for its adaptation to the production of both Sugar and Cotton.

The crops of Sugar of Avoyelles and Rapides in 1851, which had but recently and partially entered into its culture, was thirteen thousand five hundred hogsheads of Sugar, and nine hundred and fifty thousand gallons of Molasses. The Cotton crop of the same Parishes and of Natchitoches may be estimated at fifty thousand bales. The fourth division embraces the table lands between the Red River and Sabine, and is composed of the Parishes of Sabine, De Soto and Caddo, the crops of which may be set down at forty thousand bales of Cotton. By a comparison of the crop of Sugar and Molasses of 1851, produced in the Parishes traversed by this road, amounting to one hundred and twelve thousand and eighty four hogsheads, and seven million one hundred and twelve thousand nine hundred and fifty gallons of molasses, with that made in the balance of the State, it will be perceived that the difference in favor of the latter is but small—although that culture has been but partially gone into in the parishes of St. Martin, Vermillion, Lafayette, St. Landry, Avoyelles and Rapides, whose capacity for increased production is immense.

Such are the resources of a region of country which, notwithstanding its remarkable fertility, has received comparatively little accession to its population from the vast tide of emigration that, fifty years, has been setting westward, and such must be its destiny,

if we continued to rely upon our precarious and intricate interior navigation.

The line of road after reaching the parallel of 32 deg., either on this or the opposite side of the Sabine River, as may be hereafter determined upon, running westwardly upon that parallel, is represented as passing through the most fertile and magnificent portion of the State of Texas, adapted for the production of both cotton and grain, and offering no obstacles in its general surface to the construction of a Road. It is but partially populated, and requires only the facilities of Railway access and communication to render it both wealthy and populous. A liberal policy on the part of that State, which we confidently anticipate, to this or like enterprises, will make her, as she is justly entitled to be, the Empire State of the South. The distance across her territory to the Rio Grande, allowing for probable deflections, is estimated at seven hundred miles, and to San Diego 693 miles, making the entire distance from New Orleans to the Pacific Ocean, 1747 miles.

The latter portion of the route from reliable sources of information, may be regarded as presenting no great physical difficulties whatever, even less, it is said, than are to be met with upon most of the Railroads already constructed in the United States.

Col. Graham, of the Topographical Engineers, in his report to that Bureau, says:

“In crossing the Sierra Madre, no difficulties are presented. It is done by a rise so gradual, that were we not admonished by the fall of the Mercury in the Barometer, we would be unconscious of its elevation, from five to six thousand feet above the level of the sea. The climate along the whole belt of country traversed, is particularly favorable to such enterprise. It is open all the year round. There are no frosts to upheave the foundations of such a road, and disadjust its superstructure. No deep snows remaining for months, to obstruct a passage.”

There can be no question, we think, that no other route can compare with this in any of the main facilities, for such a work either in general grade, distance from ocean to ocean, climate, or cost of construction. We regret our inability on this occasion, to lay before the Stockholders a more comprehensive description of the country to be traversed by the proposed line of road, beyond the limits of our own State. It is comparatively new, and imperfectly known except in its general features and character. We may, should a more satisfactory knowledge of it be obtained, make it the subject of a supplemental report.

By the 15th section of the Charter, the project of a branch from the trunk of this Road through the Northwestern Parishes of the State to the Northern boundary of the State of Arkansas is contemplated.

The capital and enterprise of the North and East, have by means of Railroads and Canals borne off much of the commerce of the Mississippi Valley, which by natural position was ours, and

an extraordinary effort is required on our part to arrest the ebbing tide, or to obtain compensation for its loss by the fruits of new enterprises in the West.

St. Louis in a spirit worthy of the intelligence and public spirit of its citizens, have originated a project of Railroad scarcely less important to the commercial and industrial advancement of this seaport emporium than the great trunk road we have already commenced.

The Mississippi Valley Railroad, connecting New Orleans with St. Louis and Minnesota, has become a necessity as manifest as any of the great thoroughfares now finished. From New Orleans to Alexandria, the line would be in the track of the great Western trunk, and for some years would use the single track we have commenced. The construction of the Road to that point is very easy, without grades, and with the exception of the Lafourche and Berwick's Bay, comparatively without bridges.

From Alexandria northward, the line must diverge. The topography of the country as well as its population and productions, point out the route up the valley of the Ouachita as the most direct and preferable within the State of Louisiana. The census returns of 1850 will show the superior claims of this route.

It would traverse the Parishes of Rapides, Winn, Caldwell, Ouachita and Morehouse, securing the entire contributions of Jackson and Union, and a large portion of that of Catahoula, Franklin and Claiborne.

Parishes.	Population.	Cotton.	Corn.
Rapides.....	16,561	22,172	536,182
$\frac{1}{2}$ Catahoula.....	7,131	2,784	31,450
Caldwell.....	2,815	2,537	56,590
$\frac{1}{2}$ Franklin.....	1,625	1,553	35,965
Jackson.....	5,566	2,465	136,066
Ouachita.....	5,008	7,776	185,005
Union.....	13,700	5,760	174,650
Morehouse.....	3,913	4,764	128,830
$\frac{1}{2}$ Claiborne.....	4,175	2,250	100,000
	59,494	52,042	1,335,133

By the construction of this branch from Alexandria to the Southern boundary of Arkansas, a distance of one hundred and twenty miles, where it will be met by the line of Road from the St. Louis and the North, you will have extended to almost the entire interior of Louisiana west of the Mississippi, the advantages of Railway communication with their market. Already has the State of Missouri projected and commenced South, to the Iron Mountain, a distance of about seventy-six miles, and North from St.

Charles to her Northern boundary, a distance of two hundred and thirty miles, a line of Road which, when connected and extended, will form an important part of that magnificent national project of opening and establishing commercial and social intercourse between the inhabitants of the extreme Northern and Southern States and Territories of this great Confederacy.

Missouri, though like Louisiana, late in commencing her Railroads, is yet in advance of us in the great Mississippi Valley Road. Their travel and their trade belonging naturally to our seaport, we can by an early and energetic movement, seconded as we are by that State and Arkansas, permanently command and secure that vast Territory with its varied and incalculable productions.

When we reach from the Gulf of Mexico to Minnesota, uniting those now distant extremes of the great West with the Iron bands that will then link us together, we shall bring the productions and luxuries of 18 degree of latitude within forty hours of each other, rendering climate homogeneous, and giving increased impulse to the success of longitudinal Railways.

This branch of our Road from the Northern boundary of Louisiana, through the States of Arkansas, Missouri, Iowa and Minnesota, which unquestionably possess the energy and means to accomplish their portion of the works irrespective of other considerations, is socially and politically national in its character, and eminently calculated to harmonise all sectional prejudices, and it may be to unite in favor of the great Southern Route to the Pacific, all antagonistic and conflicting interests.

By Order of the Board.

J. H. OVERTON, President.

January 24th, 1853.

MEMORIAL.

To the General Assembly of the State of Missouri.

The Memorial of the President and Directors of the Pacific Railroad respectfully represents:

That looking to that part of the grant of land made to the State by the act of Congress of 10th of June last, which applies to a railroad from St. Louis to the western boundary of the State, they see that a very material difference would result in reference to the quantity of land to be obtained by the location of the road on one or the other of two general routes. And observing that this difference is appreciated by the State as an important one, and worthy of being taken into view in the final disposition of the lands, your memorialists feel that it is their duty to meet the public wishes so far as they have the corporate power and pecuniary resources.

They are therefore willing to admit that it would seem good policy to so locate this grant as to derive from it the greatest possible amount of available capital, and at the same time to apply it consistently with the terms of the act. Such, however, is the conformation of the country and such the condition of the people south of the Missouri river, and such have been the acts and history of this company, that it seems difficult to apply the grant in the way indicated without constructing two roads. The Pacific Railroad Company feel bound to construct a line of railroad to the western boundary north of the Osage river, in the general direction of the Kansas river. In their judgment, their surveys have demonstrated that, as far west as Jefferson city; but one practicable line is indicated for this route; and that from that point westward to the boundary of the State, there are three routes which may be taken into consideration, but perhaps only two that are likely to embarrass the judgment of the company in the final location. On one of these two routes, about 563,000 acres of land may be obtained under the grant, and on the other about 400,000 acres. These amounts of lands would doubtless be a valuable assistance in constructing that line of road, and worthy of acceptance, but for the uncertainty attending the meaning of that part of the law which requires the railroad, as a consideration, for the land, to remain a public highway free to the use of the government without toll or other charge upon the transportation of troops, munitions and other property of the United States. If the construction be that the railroad company are to transport for the government without the usual charges made against individuals, then, it appears to your memorialists that the lands applied to the Kansas route would be a burden instead of a benefit. Therefore, were it possible to provide other means to construct the road in the direction of the Kansas, the land grant might, very properly, and perhaps more advantageously to the State, be applied to aid in the construction of a road to terminate on the western boundary south of the Osage river. Upon that route about 1,300,000 acres of land may be obtained under the act of Congress, and a large section of the State, rich in minerals, and a considerable part of it fertile in agricultural resources, and which has now no facilities of getting to market, would be greatly developed and benefitted by a road in that direction. It is believed also that when a line of road is located to the southwest, it would attract a new population, whose productive industry, would, by the time the road should be completed, furnish business sufficient to sustain its operation. This company, however, are not ambitious to overburden themselves with laborious and costly undertakings which they would be unable to accomplish. Nor could they construct such a southwestern road by any means they now possess. The burden of two lines thrown upon them, would require the fostering aid of the State, including additional legal powers, and a further loan of the public credit;

and without such aid this company could not undertake to build two roads.

In order that your honorable body may be informed as to the practicability of the different lines proposed, your attention is invited to a portion of the engineers report hereto annexed, in which the route to the southwest, is briefly described, and the length and grades of the different lines, as well in that direction as toward the Kansas, and the estimated cost of the same are furnished as derived from experimental surveys. It will be observed that the estimates are considerably higher than have been heretofore made, resulting from the increased prices of iron and labor.

The estimated cost of a Railroad to the Kansas, from the end of the first division, at present prices, is \$6,300,000 to \$6,600,000.

The estimated cost of the line to the southwest, from the end of the first division, is from \$7,000,000 to \$8,000,000. Appended to the description of these lines hereto, are some tables showing the population and products of the country.

If your honorable body should see fit to authorize the application of the lands to a road to the southwest, your memorialists believe that, notwithstanding, they would be able to construct the line in the direction of the Kansas, with the aid of another million of State credit; and that were a loan of one million authorized, in addition to the lands on the southwest route, the more speedy execution of the work would be ensured, and your memorialists would be gratified if such loan were made. The amount of stock subscribed, and voted by counties, to the southwest line, is reported to be over \$500,000, but this includes \$200,000 understood to be subscribed by the Cherokee Indians.

The cost of these contemplated roads might, at first sight, seem beyond our ability to provide for, but it is worthy of consideration, that experience in railroad construction, has generally shown that where two-thirds of the cost of the work can be raised, the other third, and sometimes the whole superstructure and machinery, can be provided for by the credit of the road itself. It seems evident that we are able to provide more than this ratio of means to cost, for our projected lines, and still our capacity has not been fully tested. And moreover, it is fair to presume, that before our roads are ready for the rails, competition will reduce the price of iron, within more reasonable limits. While we would counsel a prudent and safe use of State credit, it is a matter of congratulation, that so far, it has proven of more value than gold or silver.

The people of Washington county, dwelling in the great mineral region of the State, sometime since, made application to this Company, to construct a branch railroad to the Iron Mountain and Pilot Knob. With every disposition to aid in so important an enterprise, this Company engaged to commence the construction of such branch, when one-half the stock necessary to build it,

should be subscribed. The Company, by an expenditure of some \$3,882 in surveys, found at least one route, without surveying all, which could be built as a branch, for about \$1,700,000. If this work should be deemed worthy of the attention of the State, this Company, with additional power granted in reference to the length of branch roads, and a loan of the public credit to the amount of \$750,000 would undertake the construction of a road to the Iron Mountain and Pilot Knob; and furnish the same security of one dollar of private stock actually expended, for every dollar of loan received, as now required from the main road. The amount already subscribed for this object in the county of Washington, is over \$110,000, and may be increased from other sources. If this Company should not commence the construction of the branch, within six months after the loan should be authorized, they would be willing to transfer all their rights, under the act authorizing the loan, to any other company, which the legislature may direct.

The total amount of capital stock now subscribed, applicable to the line in the direction of Kansas, of all kinds, is \$2,714,700. Of this, only \$1,284,700 is available until the road is finally located; upon which event depends the availability of a large amount of country subscriptions. The company have collected and expended of their capital stock, \$512,600, and they have received and expended \$500,000 of State bonds. On the first of December the first locomotive west of the Mississippi was launched upon the track, and on the 9th instant the first passenger train ran over the road, a few miles west of St. Louis, as far as completed. The remainder of the first division, it is expected, will be ready for use in the spring. The preliminary surveys, and the procurement of the right of way, are nearly completed on the Kansas routes, and the company await the action of the Legislature to make a final location, and to place another division, if not the whole road, under contract.

Your memorialists respectfully suggest to your Honorable body the propriety of, authorizing by law the county courts and municipal corporations of the State, subscribing to the capital stock of any railroad, to levy a special tax to pay the calls, (not to exceed 30 per cent. in any one year of the amount of the subscription,) and to give a receipt to each tax-payer for the amount of tax so paid, which should be transferable and convertible into stock of the railroad when presented in sums equal to one share, but giving credit to those who shall have voluntarily subscribed to such railroad, until the tax to which they would be liable shall exceed the amount subscribed by them, when the tax should be levied as on other persons.

Your memorialists beg leave to add the expression of the hope that the public authority will bear in mind the great purpose of connecting Missouri and California by railroad, and that all honorable means should be employed to induce the general govern-

ment to make the necessary surveys; but that it may be considered whether, if there be no other and better means devised to carry forward that purpose, it be too bold to suggest that the franchise of this company be extended as originally contemplated by their charter, and that the Congress of the United States may, in that event, be moved to grant to this company the right of way, and an adequate strip of land, (say sixty miles wide,) to which the Indian title may be extinguished, and protection afforded through the great western territories lying between the limits of the two States.

And your memorialists, as in duty bound, &c.,

THO. ALLEN,

President Pacific Railroad.

And in behalf of the Board of Directors.

December 13, 1852.*

* We would here state that the Legislature of Missouri have, this winter, enacted liberal laws in compliance with each and every suggestion in the foregoing Memorial. They have given full power to the Pacific Railroad Co., to unite Missouri and California. Part of the road is in operation. The work is progressing. State credit is extended. The route is surveyed, and will soon be located to the Indian country.—Editor.

Minnesota—Governor's Message.

The Message of ALEX. RAMSEY, Gov. of Minnesota, to the Legislature of that Territory, dated St. Paul, January 26th, 1853, displays the progressive spirit of American energy.

On the 1st of June, 1849, he proclaimed the organization of the Territorial Government.

Alluding to that date he says :

"Not far from where we now are, a dozen framed houses, not all completed, and some eight or ten small log buildings, with bark roofs, constituted the capital of the new territory, over whose destiny I had been commissioned to preside. One county, a remnant from Wisconsin territorial organization, alone afforded the ordinary facilities for the execution of the laws; and in and around its seat of justice resided the bulk of our scattered population. Within this single county were embraced all the lands white men were privileged to till."

Contrasting this date with that he continues :

"The few bark-roofed huts have been transformed into a city of thousands, in which commerce rears its spacious warehouses, religion its spired temples, a broad capitol its swelling dome, and luxury and comfort numerous ornamented and substantial abodes; and where nearly every avocation of life presents its appropriate follower and representative."

After enumerating various bold progressive movements he adds:

"Nor is that the least among the important achievements of this brief period, which has enabled us, by extinguishing the Indian title to 40,000,000 acres of land, to overleap the Father of Waters, and plant civilization on his Western shore. Broad and beautiful, by universal concession, are these newly acquired lands—the very garden spot of the Northwest, as explorers have pronounced them—and it is scarcely surprising, though less than six months have elapsed since the ratification of the treaties by the Senate, that the keen-eyed enterprise of our race has within them already planned towns, built mills, opened roads, commenced farms, the nucleus of many a happy home."

We quote one of the statistical paragraphs :

"The third public sale of lands lying in the Territory of Minnesota, was held at Stillwater in November last. The whole number of acres disposed of in the year 1852, is 33,391. Of this aggregate 29,555 acres have been located by military land warrants. The number of acres pre-empted in the same period is 27,871."

The cause of railroads is eloquently advocated, and the main trunk lines are indicated as follows :

"A railroad of one hundred miles, of easy and cheap construction, would connect the navigable waters of the Mississippi with the navigable waters of the Red River of the North. Another road of one hundred miles would wed the Mississippi to Lake Superior. Already roads are in contemplation which will unite Minnesota to the tide waters of the Atlantic and the Gulf, bringing the best market to the door of the producer, and giving to our agriculturists, at all seasons of the year, the choice of an Eastern or Southern market."

"A road is also projected from St. Paul to Green Bay. This will bring us within ten hours of Lake Michigan, and as soon as the road from Toronto to Georgian Bay is completed, within fifty-six hours of Toronto."

"The construction of the various improvements to which allusion has been made, must to some extent require assistance from the general government, and it might be well for the Legislative Assembly, at its present session, to memorialize Congress for grants of public land in aid of each of these enterprises. Especially would I commend to your consideration the expediency of suitably memorializing Congress for such gift of the public domain as will insure the construction of so much of the projected Louisiana and Minnesota Railroad, as lies within our Territorial limits."

We have intended neither to epitomize nor to criticise the message, only to cull from it some of its most significant portions bearing on internal improvements. But in order to convey an idea of the tone and spirit of the document we quote the conclusion :

"Man, in the present age, disdains the ancient limits to his career; and in this country, especially, all precedents of human progress, growth of States, and march of Empires, are set aside by an impetuous originality of action, which is at once both fact and precedent. Doubtless an overruling Providence, for inscrutable purposes, has decreed to the American nation this quicker transition from the wilderness of nature to the maturity of social enjoyments—this shorter probation between the bud and green tree of empire; and it well becomes us, therefore, in our congratulations upon present prosperity, and in our speculations upon greater power and happiness in the early future, to render humble, yet fervent thanks "unto Him who holdeth nations in the hollow of his hand," and shapes out the destinies of every people."

MINNESOTA LEGISLATURE.—We render thanks to GEORGE W. FARRINGTON, member of the Council, for various public documents. In the *Journal of the Second Session of the Second Council*, we are pleased to find that on the first day of the organization of the Legislature: "MR. FARRINGTON gave notice, that on tomorrow, or some future day, he would introduce a Memorial to Congress praying for a grant of lands on the west bank of the Mississippi river for the purpose of constructing the Louisiana, Arkansas, Missouri, Iowa and Minnesota Railroad."

• And we are further pleased to find in *The [St. Paul] Minnesotian* of February 5th, that:

"Memorials have been introduced and passed in the Council for the establishment of a military post at Pembina, and for a grant of lands to build the Mississippi and Lake Superior Railroad.—MR. FARRINGTON has introduced a bill to incorporate the Louisiana and Minnesota Railroad, and MR. LARNED a bill to incorporate the St. Paul and St. Anthony Railroad."

Arkansas and Missouri Railroad Grant.

Just one year ago this month the project of the ST. LOUIS AND NEW ORLEANS RAILROAD was formed and advocated in the *Western Journal & Citizen*.

The material, social, moral, commercial and political advantages to be derived by this work as well as the ways, means and spirit by which it could be speedily built, also the fact of an incidental U. S. Survey, and both practical and hypothetical speculations of the cost of the work having been heretofore so frequently not only suggested but elaborated by us, and being now more minutely investigated, and highly appreciated by others; we will therefore at present only offer our congratulations to our more highly favored Arkansan neighbors, our thanks to the Congress of the United States, and to our readers the Grant of Lands which gives security for the construction of the body of the road, where it was most needed.

We quote the Law as published in the *St. Louis Intelligencer* :

BY AUTHORITY.

LAWS OF THE UNITED STATES.

Passed during the Second Session of the Thirty-Second Congress.
[Public Act—No. 18.]

AN ACT granting the right of way and making a grant of land to the States of Arkansas and Missouri, to aid in the construction of a railroad from a point on the Mississippi, opposite the mouth of the Ohio river, via Little Rock, to the Texas boundary near Fulton, in Arkansas, with branches to Fort Smith and the Mississippi river.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress Assembled, That the right of way through the public lands be, and the same is hereby, granted to the States of Arkansas and Missouri, for the construction of a railroad from a point on the Mississippi river, opposite the mouth of the Ohio, in the State of Missouri, via Little Rock, to the Texas boundary line near Fulton, in Arkansas, with branches from Little Rock, in Arkansas, to the Mississippi river and to Fort Smith, in said State, with the right to take necessary materials of earth, stone, timber, &c., for the construction thereof; *Provided,* That the right of way shall not exceed one hundred feet on each side the length thereof, and a copy of the survey of said road, made under the direction of the Legislatures of the said States, shall be forwarded to the proper local land offices respectively, and to the General Land Office at Washington City, within ninety days after the completion of the same.

SEC. 2. *And be it further enacted,* That there be, and is hereby granted to the States of Arkansas and Missouri, respectively, for the purpose of aiding in making the railroad and branches as aforesaid, within their respective limits, every alternate section of land designated by even numbers, for six sections in width on each side of said road and branches; but in case it shall appear that the United States have, when the line or route of said road is definitely fixed by the authority aforesaid, sold any part of any section hereby granted, or that the right of pre-emption has attached to the same, then it shall be lawful for any agent or agents, to be appointed by the Governor of said State, to select, subject to the approval aforesaid, from the lands of the United States most contiguous to the tier of sections above specified, so much land in alternate sections or parts of sections as shall be equal to such lands as the United States have sold, or to which the right of pre-emption has attached as aforesaid, which lands being equal in quantity to one-half of six sections in width on each side of said road, the States of Arkansas and Missouri shall have and hold to and for the use and purposes aforesaid: *Provided,* That the lands to be located shall in no case be further than fifteen miles from the line of the road: *And provided further,* That the lands hereby granted shall be applied in the construction of said road, and shall be disposed of only as the work progresses, and shall be applied to no other purpose whatsoever: *And provided further,* That any and all lands reserved to the United States by any act of Congress, for the purpose of aiding in any object of internal improvement, or in any manner for any purpose whatsoever, be and the same are

hereby reserved to the United States from the operation of this act, except so far as it may be found necessary to locate the routes of the said railroad and branches through such reserved lands.

SEC. 3. *And be it further enacted*, That the sections and parts of sections of land which by such grant shall remain to the United States within six miles on each side of said road, shall not be sold for less than double the minimum price of the public lands when sold.

SEC. 4. *And be it further enacted*, That the said lands hereby granted to the said States shall be subject to the disposal of the Legislatures thereof, for the purposes aforesaid, and no other; and the said railroad and branches shall be and remain a public highway for the use of the Government of the United States, free from toll or other charge upon the transportation of any property or troops of the United States.

SEC. 5. *And be it further enacted*, That the lands hereby granted to said States shall be disposed of by said States only in the manner following: that is to say, that a quantity of land not exceeding one hundred and twenty sections, and included within a continuous length of twenty miles of said road, may be sold; and when the Governor of said State or States shall certify to the Secretary of the Interior that twenty continuous miles of said road is completed, then another like quantity of land hereby granted may be sold: and so from time to time, until the said road is completed; and if said road is not completed within ten years, no further sales shall be made, and the land unsold shall revert to the United States.

SEC. 6. *And be it further enacted*, That the United States mail shall at all times be transported on the said road and branches, under the direction of the Post Office Department, at such price as Congress may by law direct.

Approved, February 9, 1853.

On receiving information of the passage of the above law by Congress, we wrote to Mr. ALLEN, of the State Senate, to make provision for the acceptance of the grant, also for the reclamation of the Swamp and overflowed lands of S. E. Missouri, and further provisions for the Railroad between the Iron Mountain and Chalk Bluff to unite with the Arkansas road.

On Saturday Eve, February 19, he answered as follows :

"The ideas I suggested in my letter of yesterday I put into a bill, and introduced and passed it this evening, through the Senate. This bill gives the St. L. & I. M. R. R. Co. the lands, and also grants to them alternate sections of the State Swamp lands and the right of way, &c."

One idea was to connect the mouth of the Ohio with Arkansas by a Railroad around the Swamp, as there were no Government lands to be accepted in the Swamp."

MISSISSIPPI VALLEY RAILROAD.

We have received a treatise on the *super-financial* advantages of the M. V. R. R.; and although we seldom allude to articles received, but let them speak for themselves, we cannot refrain from the expression of our admiration at the exalted view, the minute analysis and the graceful delineation of the subject by the author. While we express our regret at the want of space for this article, this month, we are pleased to assure our readers, they may enjoy this treatise in our next number, when they will derive satisfaction from the pen of a business man and a scholar.

NORTH MISSOURI RAILROAD.—The Legislature of Missouri have, this winter, complied with the Resolutions of the North Missouri Railroad Convention, held at St. Charles on the 10th Nov., 1852, both in regard to the State credit and the amendment of the Charter of the Co., and also a General Railroad Law, authorizing Taxation for Stock. We may firmly hope that an irresistible impetus will be given to this project, which will soon compel Iowa to link Missouri and Minnesota together.

IRON MOUNTAIN RAILROAD.—The Corps of Engineers on the direct route have reached the Iron Mountain, and are daily expected to make their report of survey. The location and contracts will follow in rapid succession.

COMMERCIAL STATISTICS.

Commerce and Growth of Peoria, Ill.

We are indebted to our esteemed friend, WM. TOBY, Esq., for a copy of *Drown's* "View of Peoria, Illinois, in 1852." In noticing the commerce of Peoria in vol. 1, page 113, of the *Western Journal*, we used the occasion to make a few remarks respecting the beauty and advantages combined in the location of that promising young city, and we are much gratified that its progress in commerce, manufactures and population since that time fully verifies the views which we then expressed in respect to its future destiny.

The following historical sketch is accompanied by two engraved views of Peoria, one representing the site in 1832, and the other the city in 1852.

"*Fort Clark*, as Peoria was first called, was built by a company of "Illinois Rangers," in September, 1813, and occupied by them and United States Troops till the close of the war, after which it was burned by the Indians—and re-built by the settlers in the vicinity, in 1832. (Black Hawk war), a few stubs of the Old Fort pickets are still visible at the foot of Liberty street. On the 19th of April, 1819, a small emigrating party, of seven men, landed here, viz: Abner Eads, J. Hersey, Seth and Josiah Fulton, S. Daugherty, J. Davis and T. Russell, and commenced the present settlement; they *camped in the Old Fort*, represented in the view of 1832, just above the third building on the left hand, which is the Old Court House, built in 1826, of hewn logs, and only 16 by 14 feet square; the basement story was used as a jail. This building was occupied on Sabbaths as a place for worship by a few of all denominations, mostly Methodist, a number of whom are yet members of that and the Congregational Church in this City. The Grand Jury did their business under the shade of the tree in the rear of the house, and the Petit Jury deliberated on their verdict in a potatoe hole.

AMOUNT OF EXPORTS FOR THE YEAR 1852.

Articles.	Amount.	Value.
Corn, - - - - -	bushels. 795,048	\$238,514
Wheat, - - - - -	do. 322,845	209,849
Oats, - - - - -	do. 123,617	37,085
Barley, - - - - -	do. 6,786	6,365
Flaxseed, - - - - -	do. 4,544	5,369
Coal, - - - - -	sq. 405,214	24,312
Whisky, - - - - -	barrels, 15,273	152,737
Flour, - - - - -	do. 22,994	89,176
Salt, - - - - -	do. 2,986	6,718
Wool, - - - - -	pounds, 175,000	55,000
Butter, - - - - -	do. 20,557	3,500
Hogs, - - - - -	number, 38,000	379,240
Beef Cattle, - - - - -	do. 900	18,525
Dry Hides, - - - - -	do. 5,597	21,575
Pressed Hay, - - - - -	tons, 375	3,275
Broom Corn, - - - - -	do. 125	7,500
Brooms, - - - - -	dozen, 1,500	5,950
Broom Handles, - - - - -	number, 40,000	600
Doors and Blinds, - - - - -	do. 3,500	5,500
Sash, - - - - -	lights, 100,500	7,535
Lumber, about the same as 1851, [10 yards],		180,000
Cooperage, valued at about		70,000
Agricultural Machinery—Reapers, Plows, &c.		100,000
Wagons, Buggies, Carts, Drays, &c.		47,440
In sundries—Potatoes, Onions, Grass Seed, &c.		27,500

\$1,688,265

SALES OF MERCHANDISE, ETC.

35 Grocery and Provision	Stores	\$273,755
28 Dry Goods and Grocery	do.	351,377
8 Hardware [including stoves, &c.]	do.	153,905
2 Saddlery and Harness Establishments		75,102
6 Cabinet and Furniture	do.	62,107
2 Marble Gravestones	do.	30,000
6 Wholesale Liquor and Segar	do.	44,625
8 Drug and Medicine	do.	91,166
12 Clothing	do.	94,393
6 Boot and Shoe	do.	51,335
3 Boot, Shoe and Clothing	do.	37,437
3 "Yankee Notions" and Toy	do.	50,000
5 Millinery and Fancy Goods	do.	16,390
2 Hat, Cap and Fur	do.	3,600
4 Silversmith, Clock and Jewelry	do.	16,300
2 Book and Stationery	do.	17,000
1 Soap and Candle Factory, Lard Oil, &c.		19,550
1 Woolen Factory in Yarn and Cloth, averaging about \$1,000 p. month		6,500
		<hr/>
		\$1,394,452
2 Large Distilleries, 4 Steam Flouring Mills, 2 Steam Planing and Sash Factories, and 8 Steam Engines in operation in the cabinet plow and other factories—all embraced in the above enumerated sums,		<hr/>
		1,688,265
		<hr/>
Total		\$3,082,717

An Oil-Mill, for the manufacture of linseed oil, has recently been erected.

The Peoria and Oquawka Railroad Company have an establishment for the building of Railroad Cars. A number of cars are now ready for the track, a part of which is laid.

The Town was surveyed, platted and named PEORIA, in 1826, and duly incorporated by the Legislature on the first day of March, 1831: but the *vote to Incorporate* was not adopted until July 18, 1835. In 1832 the town contained only 19 log and 2 frame buildings, with a population then of 15 or 20 families, about 70 or 80 souls. On the 28th of April, 1845, Peoria was organized as the CITY OF PEORIA, and at that date it contained about 1,900. The population at this time, (December, 1852.) is about 8,500; its Commerce and population is rapidly increasing: about 1,200 have been added the past season to our population, and upwards of 1,800 arrivals of Boats; our Exports and Imports the past season amounts to over 3,000,000 of dollars. Peoria is becoming the great mart of the surrounding country."

COMMERCE OF ST. LOUIS.

We copy the following tables of monthly prices of some of the principal staples in this market from the Annual Review of the Commerce of St. Louis, published by the Editors of the St. Louis Republican.

Comparative prices of WHEAT for the years

	1851.	1852.		1851.	1852.
January.....	\$85 to \$110	\$75 to \$92	July.....	75 to 95	72 to 82
February.....	80 to 105	75 to 90	August.....	80 to 95	68 to 87
March.....	85 to 95	60 to 85	September... 80 to 90	85 to 91	
April.....	70 to 90	60 to 75	October.....	75 to 85	88 to 100
May.....	70 to 85	62 to 78	November... 75 to 85	92 to 100	
June.....	75 to 82	72 to 82	December... 78 to 92	88 to 107	

Monthly prices of Tobacco for the year 1852.

	Jugs, factory....	Planters' do....	Leaf, inf. to com.	Fair to fine.....	Choice and select	Manufacturing..
January	none	2-2½	2½-3	3-4	4-5	none
February	none	2-2½	2½-3	3-4	4-5	none
March	none	2½-2¾	2¾-3¼	3¼-4	4-5	5-6
April	2½-2¾	2½-3	3-3½	3½-4	4-5	5-9
May	2½-2¾	3¼-3	3-3½	3½-4	4-5	5-15
June	2½-3	3-3½	3½-3¾	2¾-4	4-5	6-15
July	2¾-3	3-3½	3½-3¾	3½-4	4-5	6-15
August	3-3½	3½-4	4-4½	5-5½	5½-6½	6-15
September	3½-4½	4-4½	4½-5	5-5½	5½-5¾	6-15
October	3½-4	4-4½	4½-5	5-5½	5½-5¾	6-12
November	3½-3¾	3¾-4½	4½-4¾	4¾-5	5-5½	6-12
December	none	3½-3¾	3¾-4	4-4½	4½-4¾	6-12

Monthly prices of FLOWN for the years

	1851.	1852.	1851.	1852.
January.....	\$3.87-4.50	\$3.75-4.00	July.....	3.75-4.50
February	3.75-4.60	3.75-3.87½	August.....	3.75-4.50
March.....	3.60-4.50	3.65-3.75	September...	3.60-4.37
April.....	3.50-4.50	3.50-3.75	October.....	3.50-4.50
May	3.50-4.50	3.50-3.75	November...	3.40-4.50
June	3.60-4.50	3.75-4.00	December...	3.75-4.75
				3.25-3.35
				3.60-3.65
				3.35-3.50
				3.40-3.60
				3.65-3.90
				4.00-4.50

Monthly prices of WHEAT for the years

	1851.	1852.	1851.	1852.
January	75-80½	70-85	July.....	65-80
February	70-80	62-85	August.....	70-80
March.....	70-80	65-80	September	55-70
April.....	60-80	55-80	October.....	70-76
May.....	70-85	70-81	November.....	70-75
June.....	65-78	75-82	December.....	75-82
				85-\$1.00

Monthly prices of CORN for the years

	1851.	1852.	1851.	1852.
January	44-48	38-41	July.....	38-43
February	41-46	30-42	August.....	35-40
March.....	35-40	32-37	September.....	35-38
April.....	35-40	33-36	October.....	35-40
May.....	34-38	40-43	November.....	31-36
June.....	33-36	35-44	December.....	36-40
				41-43

Monthly prices of WHISKY for the years

	1851.	1852.	1851.	1852.
January.....	22-23	16-18	July.....	18½-19
February.....	22½-23½	15½-16	August.....	19½-19½
March.....	20-21	15½-16½	September.....	21½-22
April.....	18½-19	15½-15¾	October.....	20-20½
May.....	19-19½	15½-17	November.....	20½-21
June.....	20½-21	16-17½	December.....	21½-22
				19½

COMPARATIVE STATEMENT,

Showing the monthly arrivals of Steamboats at the Port of St. Louis, from New Orleans, the Ohio, Illinois, Upper Mississippi, Missouri, and Cumberland Rivers, Cairo, and other Points, during the years 1850, 1851 and 1852.

Months.	New Orleans.			Ohio River.			Illinois River.			Upper Miss.			Miss. Riv.			Cumberland.		Cairo.		Other Points.			Aggregate Arrivals during the past year.	
	'50	'51	'52	'50	'51	'52	'50	'51	'52	'50	'51	'52	'50	'51	'52	1851	1852	'50	'51	'52	'50	'51		'52
January.....	18	20	20	12	8	12	12	23	1	—	10	1	1	—	2	5	1	13	7	10	—	6	18	8
February.....	35	54	24	26	20	25	55	36	88	13	12	17	7	—	7	2	3	9	5	21	9	12	7	
March.....	45	29	27	64	35	47	70	78	80	80	65	45	35	32	34	7	3	12	2	17	10	33	6	
April.....	27	31	32	61	46	64	91	63	78	60	62	72	58	28	37	6	4	12	6	18	18	19	12	
May.....	20	40	37	47	47	74	69	78	94	76	87	82	57	46	57	12	7	6	17	25	21	26	23	
June.....	24	25	25	52	34	44	83	37	73	78	55	57	42	48	38	3	4	8	5	27	17	8	21	
July.....	12	13	35	32	28	35	56	30	72	49	48	77	32	22	33	5	1	3	9	20	20	6	14	
August.....	23	23	21	32	40	34	75	61	37	48	51	56	45	35	27	—	2	3	11	18	33	21	18	
September.....	15	22	22	36	32	42	63	54	78	63	63	80	45	34	26	2	1	—	20	22	33	13	33	
October.....	20	27	34	40	37	55	63	52	94	59	56	101	26	35	34	—	3	4	15	20	26	7	27	
November.....	36	29	26	65	47	40	98	83	97	81	77	68	32	25	19	1	2	1	13	18	18	5	10	
December.....	28	19	27	30	30	48	53	39	66	28	29	49	10	5	13	—	1	4	9	7	7	7	22	
Total.....	301	300	330	493	457	520	788	634	858	635	639	765	390	301	317	43	30	76	119	223	215	175	201	3184

LITERARY DEPARTMENT.

Weight of Character.

BY MISSOURIAN.

We frequently hear this phrase: "He is a man of great *weight of character*:" what does it mean? Probably, it can not be defined so as to be made intelligible to all readers without circumlocution; yet there is such a quality. Perhaps we can approximate towards the meaning by illustration, by reference to the traits of persons who have won their way to fame, and acquired great weight of character. We can name some traits which have given men distinction, and shown how free they were from the infirmities which have degraded others and sunk them into the deep ocean of oblivion.

It will not be invidious to mention, among the illustrations dead, those who were eminently distinguished while living, as having merited the title of this article. *John Marshall*, among Jurists, though he did not possess the literary attainments of either his cotemporaries Jay or Kent; yet manifested something that stamped his judicial decisions with an authority that the others did not attain. In his commentaries on Blackstone, the New York Chancellor exhibits a profundity of legal ability, great acuteness in judgement, such perfect acquaintance with the business in hand, that his work has become a Text-Book wherever the principles of English Law are respected and the English language spoken; yet the cases adjudicated by the Chief Justice of the Federal Court, will be cited and admired for their clearness and freedom from the biases that too frequently affect our frail nature, so long as justice is an object of human pursuit, and independence of thought regarded as among the highest attainments of mental and moral effort.

How did he acquire this eminence? Not so much by profound learning and ripe scholarship, as by an honesty of purpose in the pursuit of truth, and a purity of motive that controlled every step. In perusing the reasons that brought him to his conclusions, you perceive a *straight-forwardness*, a disinterestedness, that never yields to circumstances, or self-interest, or precedents, any more than as if they had no existence, and as if minor consequences had no influence upon his thoughts. You see the upright man, step by step, inquiring for the law and the truth so honestly and so free from party considerations, or the popular will, that you are convinced he has reached the right of the case. Human nature, with its frailties, seems not to have attained or touched the upright jurist: from these he seems as exempt as if he had lived and reasoned in an atmosphere where such weakness could not obtrude.

So it was with *George Campbell* among expounders of the Sacred Writings. While he admits his own ignorance, as every modest man will, in his deep researches after the real meaning of the inspired volume; he impresses the reader so strongly with his candour and perfect fairness in investigation, his freedom from prejudice and infirmity, that our convictions yield to the perspicuity intended to communicate. In the writings of his cotemporaries and predecessors, we discover frequent attempts to go "according to the analogy of faith," though the Bible were outraged in the effort; or, in his own language, they "attempt to correct the diction of the spirit by that of the party;" but such was not the character of *George Campbell* of Marishall College, Aberdeen. With justice the expression of the poet was most applicable to him.

"Nullius addictus jurare in verba magistri."

Among the critics of ancient or modern times, no one convinces scholars of his fitness to be a guide for the theological student, in a more eminent degree, than he whose name stands at the beginning of this sketch: few theologians have greater weight of character.

Lexicographers, in number are legion, and our own indefatigable *Webster* is highly prized, highly praised and with the million very popular; yet I can not regard him so decidedly authoritative as *Richardson* of England, or *Worcester* of this country. He is generally correct, and most of his definitions are exact in philological research, and according to the idiom of the language; but he could not divest himself of prejudice and other human frailty: he was affected and controlled by contiguous influences as is the compass, by the presence of mineral substances. It is not affirmed that in the definition of words having a political bearing, or those that concern the law of nations, he would, like some professed statesmen, lean towards his country "right or wrong;" but his prejudices were too powerful, he was too much under the dominion of that old tyrant to give truthfulness to all his definitions. He had knowledge enough, if that were the quality to confer *weight of character* upon a man to render him eminent, as a lexicographer, surpassing most of his profession; but a frailty common to our species would show itself at times and convince us that entire independence of thought, would have led to results different from such as was reached by the author of the great American Dictionary.

Who should bear the palm among *ecclesiastical historians*, as possessing the most authority for integrity and truthfulness, it is difficult to determine. In matters of fact as well as in pure philology, the Germans are most to be relied on; for such kinds of labor eminently suit their genius; but their opinions of the teachings of Jesus and his apostles, are crude and fanciful: their unbelief in evangelical religion, the religion of the New Testament, unfits them to become expounders: secret causes, that produced mighty changes and effects in the christian world, they did not understand.

Shall I name *Politicians* in this short paper? or will it excite the envy of that large class of citizens, to select one from their ranks of great weight of character, and hold him up as an object of veneration? Since the days of Washington, I could not select a more suitable name than that of *Nathaniel Macon*, of the old North State—the long tried public servant in the councils of the nation, who knew no North, South, East or West, but who legislated for his country, his whole country, without the dread of fear or hope of favor from any party or class of men. John Quincy Adams and Henry Clay were vastly his superiors in learning, knowledge and eloquence; but neither possessed a feather of the influence that always accompanied the measures of Mr. Macon. In watching his movements in the chair of the House or of the Senate, or listening to his laconic speeches, you would not class him with either the Whigs or Democrats. So much was he absorbed in the welfare of the country, that he seemed not to know what clique or party meant. From the speeches of most politicians, you gather in the first sentence, which side they have taken, and in whose wake they intend to follow. It is to be feared that more time is consumed in *defining positions* than in pleading for measures to benefit the country. The aged Senator did not seem to have learned the tactics of looking first upon the Democratic and then on the Whig side of a question: he did not so understand his duties in the Legislature of the nation. It does the heart good, it makes an American proud of his country, to remember, even at this late day, the respect that was paid by every member, to the opinions and feelings of Nathaniel Macon, the man pre-eminent for his weight of character.

Many eclipsed him in attainments and in argument, in skill in diplomacy—they could get the better of him in argumentation and “make the worse appear the better reason;” but none knew better the wants and resources of the people for whom he was legislating, and no man’s speeches, short as they were, had so much *weight* as those that dropped from the lips of the North Carolina Statesman. Other men had ends to accomplish, intimately connected with their own ambitious aims, and hence the sincerity of their motives was questioned, and opposition rose up as a mighty host. But suspicion as to the purity of his motives and the integrity of his purposes was never excited. Though opposition was at first formidable to some measures proposed by him; he was able to carry them by the weight of his own character. If the sacred records name one “in whom there was no guile;” American biography will be honored by the name of an honest politician, a statesman that knew not duplicity nor tergiversation.

If these short illustrations shall throw any light on the subject for the benefit of your readers, the writer will be gratified; for his research after the meaning of the caption of his paper, has brought to himself no small item of instruction.

Valley of the Ohio.

ITS CONQUEST AND SETTLEMENT BY AMERICANS.

BY MANN BUTLER, ESQ.,

Author of the "History of the Commonwealth of Kentucky."

The object of this work is to record the conquest and settlement of the Valley of the Ohio, by the united efforts of our English ancestors and our own countrymen. I mean to keep this story quite distinct from the French and Spanish enterprises, in or about this region. They have been already most ably narrated by Bancroft, in a manner, at once, to gratify the pride, and to instruct the minds of his countrymen.¹⁾

My object embraces the western portion of the United States, if so transitory a name can still be applied to its great central region, watered by the Ohio river and its tributaries.

The Valley of the Ohio, without doubt, comprehends a larger quantity of fertile land, a more extensive and diffused interior navigation, together with a more salubrious climate, than any other portion of the temperate zones of the globe. It comprehends an area of 200,111²⁾ square miles, which is almost double that of France, more than twice that of Great Britain and Ireland, and nearly as much as the superficies of Germany. Its internal navigation is calculated by an indefatigable and skillful geographer³⁾ at 5,000 square miles, with access to a navigation on the great northern lakes of 82,750 square miles. The resources of the finest iron and lead, of coal and salt, are spread over this section of the United States in a profusion unequalled in the world.

The Valley extends from Latitude 42° 29' N. to Latitude 34° 12' N. In an eastern and western direction, this region of country stretches from the head of the Ohio river to its mouth, that is from 1° to 12° West from Washington City, or from 78° 2' West from Greenwich to 89° 2'.

The great debatable land, lying in this valley, which has constituted an object of the fiercest contention between the white and the red races, may well be confined to the country lying between the mouth and the head of the Ohio and its tributaries. Sometimes its history will lead the reader to the great northern lakes; and again to the Cumberland mountains: but the actions which form the general tenor of the story, were performed in the country bordering on its great central stream of the valley, so expressively named by the French discoverers—*La Belle Rivière*.

The settlement by the English and their descendants in this most beautiful and favored section of the United States, presents

1. Bancroft's History of the United States.
2. Darby's Gazetteer.
3. Idem.

among other aspects, one great and striking one, which has fastened itself upon the mind of the writer with great tenacity. It is that this great social work has been mainly a spontaneous, individual effort, without the aid, and scarcely with the countenance of government—often indeed, against its threatening orders. The subjugation of the western country as it has been limited, has been effected by a great cotemporaneous movement of society, at various detached points, in distant and separate parties, not knowing, much more not uniting, each others' efforts. It has been an Exodus without a Moses; and yet the pillar of fire by night, and the pillar of cloud by day, did not cease to direct the footsteps of our pioneer pilgrims.

The story is full of noble heroic enterprise, not always military, nor chiefly so; it is checkered with many mournful and tragic event; yet the self-denial, the fortitude and bravery, the wisdom and enterprise, displayed in their history, may well be studied by the descendants of the pioneers, and these, who are now rioting, in the rich fruits of these noble and manly virtues. Their history will ever form a record of daring and gallant exertions, over which admirers of such actions will rejoice, and whose study ought to give delight.

True, there has been no favorite chief, at the head of a great expedition.—No Caesar, no Rollo, nor Hengist or Horsa headed these wide and scattered movements. It was too grand and gigantic a project for such means to effect. The wilderness of North America has been conquered, and reduced under the dominion of the axe, and the plow, by hand fulls of men, sometimes individuals, each moving on his own footing, and by his own suggestions, or in the popular idiom, on his own hook.

The progress of the American Republic, in no one of its great sections can well be said to have been a mere conquest, a military achievement only; altho' its history is very far from destitute of heroic renown. Still, it has not been entirely fanned into being by "conquest's crimson wing." It has mainly originated in more moral efforts. It is the first born of freedom and commerce in America.

The early annals of the United States neither boast, nor are stained with the cruel and bloody footsteps of a Cortez, or a Pizarro. They present heroes of another and higher order—soldiers of advancing civilization—pioneers of liberty and a great social reform. The moral grandeur of this movement throws the blood-stained triumphs of mere military conquest, for conquest's sake, far into the shade. It behooves Americans to elevate their conceptions to the intrinsic dignity of their country's efforts, to extend the civilization of the world, and to spread over it the blessings of liberty, religion and law.

Let our countrymen cease to worship the Moloch of mere military devastation and death; and may they realize the great debt which civilized life owes to the American pioneer!

It is the purpose of this work to pursue this train of thought, and rapidly to portray the efforts of the pioneers of Western America, (and they were not always military ones,) to reduce the fair and fertile region watered by the Ohio and its tributaries, to the dominion of civilized life—to convert the region in question from the rule of savage barbarity, to that of enlightenment and humanity, of religion and freedom.

The scene shall be laid (as I have already intimated,) on the waters of the Ohio river; and the time shall extend from the treaty of Aix La Chapelle, in 1748, to the Peace of Ghent, as ratified by the U. S. in 1815.

The treaty first above mentioned, had left the region in question a great debatable land between the British and French crowns. Yet this smiling and most fertile section of country was, about the middle of the last century, the undisturbed forest home of the red man. True, there were scattered French villages of much earlier date, as Vincennes, Kaskaskia and Cahokia; but still the vast region stretching from the northwestern lakes to the Cumberland mountains, and from the heads of the Ohio to the Mississippi was essentially and undisputably the dominion of the North American savage.

Still this vast tract of country was but dotted over with the towns of the warlike tribes, who wandered over rather than inhabited it.—Of this Indian race, the confederacy sometimes denominated the Five, and subsequently the Six Nations, were decidedly the most formidable. They occupied, at the time in question, the country from the lakes Ontario and Erie to the undefined territory of the Wyandots or Hurons, tho' their territorial claims extended to the Tennessee river. These latter were the most eastern tribe of the Miami, or as they pronounced it, the Mi-a-mi-ah confederacy; as the Senecas were the most western of the Six Nations. "The Iroquois," or Six Nations, "were formerly confined, with the exception of the Tuscaroras, to the region south of the lakes Erie and Ontario and the peninsula east of lake Huron."⁴

Loskiel tells us (Note Part I., p. 130. III Bancroft p. 239, Boston, 1841,) that the Delawares, as they were called by our countrymen, Loups by the French, and Lenni Lenape, or original men, by themselves, were the parent stem of the Algonquin race of Indians. This tribe of Indians was seated round the Delaware Bay, in the present States of Pennsylvania, Delaware and Jersey, at the time of Wm. Penn's visit to America. They seem to have

4. Parkman's History of the Conspiracy of Pontiac. page 25. Boston, 1851. A work of unrivalled excellence, thoroughness, beauty and fidelity, on the colonial wars of North America.

been gradually driven from their ancient seats, during the earlier colonial times, to the country immediately west of the Alleghany mountains. Beyond this tribe came the Shawanoes of the French writers, who also call them Chawanous; they were known to our countrymen as the fierce and warlike Shawnees. They were a tribe of most daring, ferocious and wayward character among all the vagrants of the forest. Fugitives from the victorious arms of the Five Nations, they fled about 1672 to the borders of the Carolinas and Florida. Returning thence, they were said by Gov. Harrison to have been adopted by the Miami confederacy (Gallatin, and Drake's Life of Tecumseh. Pioneer History, 239.) It was of this tribe, so celebrated for their marauding invasions on the borders of Virginia and Pennsylvania, that Gov. Dunmore said, in a proclamation of 1775, that "the most dreadful effects were felt." (See Virginia Gazette, 23d January, 1775.) They afterwards became as distinguished for their attacks upon the settlements in Kentucky and Ohio. They seem to have occupied the country watered by the Scioto. Descending the Ohio, the tribes of the Miami confederacy next presented themselves; they are sometimes called Twightwees. After them came the tribes of the Illinois confederacy, embracing the Kaskaskias and Peorias.

Such were the most important tribes located on the northern shores of the valley. Between them and the southern tribes, lay the country, since denominated Kentucky. This region abounding most eminently in game and salt licks, the favorite resort of the wild animals, seems to have been reserved, by some tacit consent of the adjacent tribes, as a hunting or battle ground, as their wants or passions inclined them. Certain it is, that although at various points in the interior, there were inclinations of different, perhaps superior races of natives, having occupied the country, there were no permanent Indian towns located in Kentucky. They were unknown to our oldest hunters and travellers.

The tribes bordering the valley on the south, consisted of the Cherokees, on the upper valley of the Tennessee river, as far as the Muscle Shoals; and the highlands of Carolina, Georgia and Alabama; and the Chickasas.⁵) The latter tribe ever distinguished by friendship to the white man, were situated on the lower waters of the Tennessee, and upon the Mississippi.

These were the aboriginal inhabitants of the valley of the Ohio, about the time of the irruption of the whites into this most desirable region. The numbers of this savage people have been variously estimated by the colonial writers varying, (as such estimates must in the absence of actual enumeration) from 5,000 to 6,000 warriors.⁶

5. III Bancroft p. 246. Boston, 1841.

6. Col. Croghan's Journal. Butler's History of Kentucky. Appendix and Pioneer History, p. 68. Cincinnati, 1848.

This estimate would, at the common allowance of one fifth for warriors, make the Indian population of this portion of the western country here indicated, amount to 25,000 or 30,000 souls.

Nor does this calculation differ proportionately from that of Bancroft⁷ adopted for the whole country of North America, east of the Mississippi, at the time of the discovery of British America. Their diminution, he thinks, exaggerated: "they have been exiled, not exterminated." Indeed the testimony of all the missionaries and hunters shows the existence of frightful solitudes in the Indian country. They seem indispensable to furnish the game which supports a savage and hunter state of society. Doctor Franklin calculated that a mile square was necessary to support every individual in a savage state of society; while 50,000 acres are estimated by another necessary to support an individual in the hunter state.⁸

But the tribes which were scattered over the western country of the United States, at the first visit of our countrymen, were much more formidable by their arts of war, than their mere numbers might indicate. Their ferocious customs of warfare are mournfully impressed on the traditions of the early immigrants to the Indian wilderness—the great battle ground between the white and the red man. Acknowledging no object in their hostilities, superior to the destruction of their enemies and everything connected with them, in the most savage manner, there was no exemption from the horrors of war, for the helpless female or children still more helpless. Tenderness and smiling innocence, whose appeals are paramount to all others in the breast of a civilized warrior, were utterly disregarded in the merciless barbarities of Indian war. Every stratagem which the most perfect discipline of concealment could suggest, to effect the surprise of an enemy—every privation which the most enduring fortitude could bear, to effect the gratification of their bloody vengeance—every mode in which prisoners of war could be most cruelly tormented, were the constant attendants of our frontier warfare. Yet it must not be concealed that these cruelties were not always confined to the Indians: they were too often and far too exactly retaliated by our own countrymen, who boasted of more civilized manners, and of a religion merciful and true. But to creep up by night to a fort-gate, or a cabin-door, and shoot down the first comer that should venture forth, at the break of day—to fire the log cabin over its sleeping inmates—to strike the tomahawk into the brains of the infant sleeping at its mother's breast—to burn the wretched victims of war, by slow consuming fires, after exhausting all the refinements of mutilation and torture, have been familiar atrocities in the hostilities which have raged between the aborigines and the white men.

To these horrors of their own native suggestion, must be added the formidable assistance derived by the northwestern Indians from

7. IH. p. 253. 8. Schoolcraft, Part I. 433.

European arms furnished them, by foreign rivals for American dominion, in their more recent contests with one another and with our own countrymen. This made them a much more formidable foe to the western pioneers, than the natives proved to our forefathers, who had battled with them on the Atlantic border. These tribes were an insignificant enemy, in comparison with the well-armed and often provisioned forces, which defended the western country from the intrusion of the white man. They formed, in the opinion of our own most experienced military men, a corps of light troops, unexcelled in the world. They neither wanted roads nor baggage. The formidable character of these troops is established by the slaughters rather than defeat, of the finest armies of Europe, and even of our own country. This signal superiority of the more modern Indians in war, to their primitive ancestors, and in the northwestern region of our country more particularly, was, in no small degree, derived, as has been observed, from foreign assistance. Still the Indian must be freely allowed great personal bravery on his own system of tactics for saving native life, demanded by the slow course of population. Unexampled hardihood, indomitable perseverance and fortitude in pursuing the object of his craft, or his vengeance to the direst extremity, are undeniable characteristics of the Indian race. Added to those qualities, their systematic aversion to work, on a principle of honor, and they would almost seem doomed to utter extermination, before the sure and solid progress of agricultural society—it is socially the contest of spirit with strength—genius with judgment. That the experiments under the benevolent policy of our own government on our western waters, may prove the fallacy of this inference, must be the prayer of every good man.

These aids of foreign arms and provisions seem first to have been received by the Indians, in the wars which took place between Canada and the British provinces. With these exceptions, and some traffic in peltries, the country, west of the great mountain chain of the Alleghany, was, in its aboriginal condition, as late as the middle of the last century.

This state of occupation and barbarian independence was not long permitted to continue, owing to the conflicting claims of France and England to this desirable region. Both these powers had peculiar claims to this great central region of North America. France certainly preceded Great Britain in exploring the northwestern country of North America. The missionaries of France had penetrated the far Northwest—the entrance to Lake Superior, Detroit, Michillimackinac; the waters of the Mississippi to their mouth had been explored by the French, early in the sixteenth century. France had erected a fort at Detroit, Le Boeuf, Presq' Isle, and at Venango; at Vincennes, on the Wabash, and Fort Chartres on the Mississippi. Still the British government claimed these northwestern regions, or at least set up, what has recently been

termed a protectorate over them, by virtue of ancient conquests of these regions by the Six Nations; who became the fast friends of Great Britain; and acknowledged by treaty in 1701 a species of dependence upon her, more nominal than real. The truth is, the covenants of treaties, beyond simple peace and war, are not likely to be well understood, or critically examined by a race of savages.

Presents, immediate gratification of wants, and promises for the future, are the most efficacious instruments of influence in negotiations with barbarians. Mere faith, independent of its immediate fruits, has but little influence on the minds of a people in a savage state of society. Yet the settlements of the British colonists were not only incomparably superior in population; but they were more immediately contiguous to the disputed country lying adjacent to the provinces of Pennsylvania and Virginia. And although between the native proprietors of the soil and the European colonists of either France or England, this might be immaterial; not establishing any title against them: yet between the European rivals for dominion in America, it might have some reasonable weight. While the French were confined to the banks of the St. Lawrence, or had only explored, not settled the region on the Ohio river, the English had crossed the Blue Ridge, and were ready to climb the Alleghanias.

NOTE.—The above is a preliminary portion of the History of the *Valley of the Ohio*. It is significant of the body of the work of which the author has already collected a vast amount of materials. During his preparation of the *History of the Commonwealth of Kentucky*, he gleaned, from conversation and correspondence with the old and leading men of the West, many incidents of historical importance, and also discovered among the archives of Virginia many documents pertaining to the History of the West, which could not with propriety be introduced in that work. Also the journals and private papers of distinguished pioneers in the West, which were placed in his hands, afforded a rich resource for an extensive history of its settlement by the Americans. His former work will therefore be but the nucleus around which the immense treasures of this work will be gathered.

MR. BUTLER is peculiarly fortunate, in having enjoyed the advantages of deriving the most reliable and multifarious data for the work he has undertaken. And in this respect he may be considered as the man most pre-eminently capable of giving accurate annals of the history he narrates. But he has a still stronger claim on the consideration of the public. MR. BUTLER is a man of letters. Familiar with the literature of modern and ancient ages he is also gifted with that comprehensive faculty which enables the philosophic historian, to promote the civilization of the people, by indicating with liberal conservatism the Law of the Progress of Humanity.—*Editors.*

ILLINOIS.

PAST, PRESENT AND FUTURE.

BY BLUFFDALE.

"My native country! thee,
Land of the noble free,
Of thee I sing."

NO. I.—THE PAST.

The charter of the great Central Railroad of Illinois, by the Legislature of that State, was a measure, the importance of which, few of the present generation can justly estimate. It is one of those events which occur at rare intervals, in the history of nations and States, that exert an influence over the destinies of the people, for centuries. We regard the charter of that road as one of the most important *Epochs* in the annals of Illinois. Let no one smile at the *term* we have just employed, nor at the importance we attach to the affairs of that State. With a territory of fifty-five thousand square miles, nearly every acre of which is susceptible of profitable cultivation, the Ohio and the Mississippi, sweeping along the whole extent of the southern and western borders, leaning her head upon the inland seas of the North—we ask, can the destiny of *such* a State be *unimportant*? If to *this*, we add the inexhaustible mineral treasures of that territory, which human industry will one day develop—its mines of lead, iron, and coal, extending over entire counties: can we be mistaken in believing that Illinois, its *past*, *present* and *future* prospects will be acceptable to the readers of a periodical that has done more to advance the permanent interests of the valley of the Mississippi, than any other, of similar design, that has yet appeared. You will pardon this involuntary compliment, for it is *sincere*;—a tribute justly due to the arduous, and I fear, *unrequited* labors of many years.

I have spoken of the "*Epochs*," or important events in the history of Illinois, upon which its future destiny was suspended. *Several such* have occurred. One of these was the discovery of Illinois, in 1680, by LaSalle and Father Hennepin, and the taking possession of that vast region, in the name of Louis XIV., of France. It was a scene, worthy of the pencil of a painter. None more interesting ever glowed upon the canvass of Claude Lorraine.

When the boundless prairies of Illinois, in all the verdure of early spring, burst upon the view of these two men, the Warrior and the Priest, what visions of the long distant future must have risen up before them!

The Chevalier saw the proud banner of "*France and Navarra*" wave over an immense and lovely region, that would one day be densely populated with a race, speaking in the polished accents of his native language, and giving to the sovereigns of "*La Belle France*" an immense preponderance of power over North America.

The Jesuit, prostrate in humble adoration before the cross which he had already planted, in this new soil, thought of the millions of souls that might here be won for heaven. Perhaps, too, visions of new conquests for the "*Sons of Loyola*," rose up before his mind's eye—visions of countless savages, gathered into civilized communities, exceeding even the achievements of the Order, in the wilds of Paraguay.

The next "*Epoch*," which we shall notice, in the history of Illinois, may possibly startle many of our readers. It is the elevation of William Pitt, the first Earl of Chatham, in 1755, to the head of the "*Coalition Ministry of Great Britain*. France and England had been contending for the possession of the territories claimed by each of those powers, in North America. Campaign after campaign had resulted in the signal defeat of the British arms. The French were victorious in nearly every engagement. Lakes Champlain and George were in their possession, giving that nation a passage into the very heart of New York. The principal English fort in that quarter, had capitulated to Montcalm. The army commanded by Gen. Braddock, upon which so much reliance was placed, both in England and in the colonies, had been utterly annihilated. The French had established a line of Forts, from Canada to the mouth of the Mississippi. So long as she maintained these posts, France was secure of her possessions in the West. The English nation, oppressed with an almost insupportable weight of taxation, murmured, loudly, at the expense of prosecuting any further a fruitless contest, in which the people of Great Britain felt no personal interest. They demanded peace on almost any terms, and cared little for the colonies.

At this important crisis, Pitt was placed at the head of the Ministry. Instead of making a treaty of peace with France, and leaving her in quiet possession of her posts, till she had time to render them impregnable, he resolved to prosecute the war with vigor.

He remodelled the entire revenue system, replenished the exhausted treasury, and infused his own energy into every department of the government. An immense force, naval and military, was raised, and placed under the command of officers of the most efficient character. In opposition to all former practice, in the British army, important commands were given, in frequent instances, to *young* officers, who had their renown yet to *earn*. One of these was *Wolf*. But we will pursue that topic no farther. The talents of Pitt were victorious, and Canada, Illinois and other possessions of France, became British colonies.

Another "*Epoch*," in the history of Illinois, an event that might have changed all the subsequent history of that State, was the treaty of Great Britain with the United States, at the close of the Revolutionary war; usually denominated: "*The Treaty of Paris*."

The Commissioners, on the part of Great Britain, demanded, as a *sine qua non*, that the territory north-east of the Ohio river, should forever remain under the protection of England, who would hold it for their Indian allies, to whom it should be given *in perpetuity*, as a reward for their faithful services in the late war. The surrender of this territory was demanded with pertinacity. Unless it was conceded, the British Commissioners declared that the Convention must terminate.

At that period, the region in question was little known in the United States, and even Dr. Franklin, and John Jay, two of our Commissioners, regarded its surrender as a subject of secondary importance, compared with a renewal of the struggle with Great Britain. Our country was exhausted with the long continued war, and immediate peace was demanded with one voice, by the people, who were ready to make any sacrifice to obtain it, not incompatible with their rights. Nothing opposed the acknowledgement of the Independence of the United States, by England herself, but the surrender to Great Britain, for the Indians, of lands which the latter had *always held*, and of which we had no need. The territory of the United States was *larger*, without it, than would probably be occupied for centuries.

This is said to have been *the first view* which the two American Commissioners named, took of that demand, though confidently asserted in the secret history of that diplomacy, we do not vouch for its truth. It militates against neither their intelligence, nor their patriotism, that, for a time, in so important a crisis, they should have hesitated upon a question which threatened to plunge our impoverished country, *again*, into the evils of a long protracted war.

John Adams, the third Commissioner on the part of the United States, refused, from the first, to sign a treaty surrendering that territory, and his colleagues soon adhered to the same determination.

Whatever may have been the true history of that diplomacy, in relation to the early views of Franklin and Jay, it is *certain*, that Great Britain, not only demanded that territory, but yielded the point, *unwillingly*.

Hardly a doubt exists in the mind of any one, acquainted with the condition in which our country was left, at the close of the war, that a vast majority of the people would have accepted such a treaty rather than renew the struggle.

Had that region been thus placed in the power of England, not the whole history of Illinois only, but that of the United States also, would have been different. The former, instead of being one of the most flourishing of the United States, would, at this hour, compose a part of the British Empire, upon which it is boastingly said that "*the sun never sets.*" It must not be forgotten, that on the surrender of Canada to England, that nation took possession

of Illinois, and established over it a military government. But a slight change in the course of events would have made that State either a French or British colony.

The next "*Epoch*," we shall notice, is the "*Ordinance of 1787*," an emanation of the "far-seeing mind" of Thomas Jefferson. By that "*Ordinance*," involuntary servitude, except for the punishment of crimes, was forever excluded from the present State of Illinois. That measure was of immense value to the territory over which it extended, and its influence over the prospects of Illinois, will be felt, to the remotest period of her history.

The subject of slavery in that State, we regard only as a question of *political economy*. We have no surplus sympathy to expend upon the well-fed black, while so many thousands of our own race, especially in our cities and towns, endure privations and sufferings, to which the slave is a stranger, and we believe in the French proverb: "*Charité, bien ordonnée, commence par soi-même.*"

The beneficial effects of the Ordinance of 1787, are too manifest to require from us any proofs of its important bearing upon the interests of that State. In a climate where the staple productions of the soil are the cereal grains, the long continuance of winter will forever be a serious drawback upon the value of slave labor, and except in *rare instances*, render it seriously unprofitable.

In a free State, like Illinois; labor is *honorable*. The pride of character is not broken down, by performing the same services for himself, or others, that in a slave State, are performed by slaves. True, there is not the *individual* wealth, there, which is so often found in the planting States; but nearly every family *own* the soil they cultivate, for the love of independence is born with the American. There is something holy in the toils and privations, which the poor undergo, to buy them a farm, sometimes no larger than forty acres, the smallest division of government land. But the poor man toils there, with *courage* and with honest *pride*, for:

"He sees his little lot the lot of all;
Sees no contiguous palace rear its head,
To shame the meanness of his humble shed."

Viewed, simply in the light of dollars and cents, we regard as an important "*Epoch*," the exclusion of slavery from Illinois, whose climate forbids the production either of *cotton* or the *sugar cane*.

The last "*Epoch*," in the history of that State, which we shall notice, is that which we named at the commencement of this article: the "*Charter of the Central Railroad*," stretching from the mouth of the Ohio to Lake Michigan, extending over five degrees of latitude, through the very heart of that State. We do not regard the system of internal improvement, attempted many years since, as a measure calculated to exert any lasting influence

over the affairs of the State. True, the sum engulfed in that unstatesmanlike enterprise, was *immense*, leaving a debt still *unpaid*, of more than sixteen millions of dollars. But, proudly, may every son of Illinois hold his head erect, in the presence of honorable men, and say: "*that debt, large as it is, and uselessly squandered as the amount was, never has been, and never will be "repudiated," but every dollar of it will be honestly paid.*" It can be paid, too, without affecting the prosperity of the State, or sensibly retarding her onward career.

We have now concluded all that we intend to say of the *Past*. Our next number will be devoted to the "*Present*" and the "*Future*," in which we trust the reader will find some statistical data, that may not be entirely uninteresting.

THE PLAINS,

Being a Collection of Veracious Memoranda, taken during the Expedition of Exploration in the year 1845, from the Western Settlements of Missouri to the Mexican Border, and from Bent's Fort on the Arkansas to Fort Gibson, via South Fork of Canadian—North Mexico and North Western Texas.

By FRANCOIS DES MONTAIGNES, of St. Louis.

CHAPTER THE FOURTH.

In which Francois proves that he is on slippery ground, by conducting the reader in a roundabout way to the very point he started from.

About 12 o'clock, on the 26th June, A. D. 1845, our animals were harnessed, our tents were struck, and we were moving rapidly towards the West; it was raining, and the prairie was heavy and wet; yet these were things to which we were pretty well accustomed, and formed no serious obstacles to our onward movement. The loose mules and horses, in other words the loafers of the cavalcade, attempted as usual to raise a row and enjoy a small stampede, but the effort resulted in a failure. For *this*, too, was another matter in which we professed to be *connoisseurs*, and therefore used sufficient precautions to prevent.

Everything, therefore, went off finely; the waggons were not overladen, and the rivulets easy to cross; so we rolled on our way as smoothly as the gently undulating country permitted, until a few hours had placed ten good miles, at least, between us and the last camping ground, which I shall designate *Camp Ursa*, or *Bear Camp*, in commemoration of the brilliant hunting scene detailed in the preceding chapter. I do this, not in a spirit of waggery nor of malice; Heaven forbid! but under the firm impression, that the proceeding is sanctioned by the example of almost every explorer of distinction, from the time of Sindbad and Gulliver to the present epoch of topographical surveys and astronomical expeditions. Have we not Independence Rock and Halt in the mud? The Waggon Mound and the Great Basin, Cow creek, Cut-nose creek and Big John's spring? Purgatory creek and Dead Man's Journey? Brown's Hole and Fremont's Peak? Why hesitate, then, to bestow upon the locality of so many spirited scenes, a humble *soubriquet* as well deserved as any of the sounding titles just enumerated? *Camp Ursa*, therefore, shall be the technical term used, in alluding to the spot hereafter, whether for the pleasant associations connected therewith, or for important data having a direct bearing upon other portions of this history. By the bye, it may be as well to mention, for fear we may forget it, (with the villainous memory we happen to be blest with,) that the *sanguinary* oration of our warlike little Captain at the above named camp, produced considerable of a sensation among the explorers, and though the disapprobation, confined itself for the most part, to a low grumbling and mysterious shakes of the head, there were certain "unterrified", who openly made known their sentiments, and announced their utter contempt for the whole expedition.

Some ten or a dozen of these individuals, including several of the best men, as also the unfortunate Dogberry or Verges, whatever his name was, whose scalp

had just ran so narrow a risk, presented themselves at the Captain's tent, and throwing up their commissions and horsepistols, chartered a conveyance, which happened opportunely in camp, and with a hearty hurrah, were whirled swiftly over the rolling prairie, in the direction of Westport; preferring the artificial comforts and small potatoes of civilization to all that barbaric glory we expected to be crowned with, on our return from this great scientific survey of the West. The mess of eight in which Francois happened to have been billeted, suffered severely by the panic occasioned, as before stated, by the sanguinary sentiments of the Captain; several had joined the deserters, and had even possessed the impudence to insist upon the worthy Frenchmen accompanying them: using, as an important argument, that it was far preferable to be supping cozily in the pleasant little village of Westport, than to be promenading over a wet prairie all night, with a heavy gun, and run the imminent risk of being shot in the morning. Their sophisms fell, like some of the husbandman's seed, on barren places; not meaning to say, however, that the Frenchman's head was absolutely empty, but that its thickness did not prevent every word from passing out at one ear as fast as it entered the other.

Brimful of enthusiasm and provisions, he was a salamander; the personification of confidence, he never imagined the bare possibility of ever missing a regular meal much less losing his scalp, at least, not before the great objects of the expedition, in which he was so deeply interested, were fully attained.

One would naturally suppose that he would have taken the departure of his friends much to heart; on the contrary, I am sorry to say, he seemed rather pleased than sad; it may have been selfishness, or it may have been the laudable gratification one naturally feels at the good fortune of friends; and, again, as his friend Ezekiel remarked, "it mought'pt."

One thing, however, is certain; the disconsolate Frenchman experienced quite an agreeable alteration in the latitude and longitude of his tent, and nearly killed himself the first day, in discussing the rations of the mess so materially increased by the recent desertion. *Verbum sat*, is applicable in a hundred ways, and one move of this luxurious sort, *sat* sufficiently heavy upon Francois' stomach, as to restrain his appetite for several months afterwards within moderate bounds, and frequently afford him with its pleasant associations, a comfortable cud to chew during many a day's hard travelling on short common.

The reader will certainly be astonished, when he is again informed, that we have travelled ten miles from Bear Camp. For, contrary to the plan of all travels, journals or loiterings heretofore published, these memoranda do not transport the reader over the subject by easy and pleasant stages, but hoist him about, as if he were a ball or a shuttlecock, from one point of the prairie to another, and back again, as though a straight forward course were entirely out of the question, and not to be considered as at all appertaining to the system of good and reliable memoranda. To the suspicious reader, however, who views this crawfish species of travelling as the result of venturing upon slippery ground, we would suggest that it is an invariable custom with some learned Chinese and Japanese doctors to commence a book of travels, by beginning at the last page, which we, for the most part, look upon as the proper place for a conclusion. But, without wishing or attempting to follow the plan of these eccentric writers, I have sought, like the painter, who views the landscape under various aspects, so as to select the striking picture for his canvass, like the cicerone, who leads the stranger round about his favorite ruin or group, so as to present it in the proper shade, or like the surveyor, who proves his work by taking a back bearing now and then, to his last station,—to present the classic Bear Camp again before my readers, in order that the pleasant recollection thereof may, like Francois' luxurious dinner, furnish him ample food for future reflection, when the dull monotony of prairie travel fails to present the stirring incident so naturally expected.

With all this impudence, however, I will not so trespass upon generosity, as to make many such flying *détours*; for we may now consider ourselves as fairly launched upon the great prairie ocean, which constitutes the Steppe of North America; stretching from the *rancherias* of Chihuahua to the 47th degree of latitude, and from the frontiers of Missouri to the Rocky Mountains; and though a minute survey of all its features be a grand *desideratum*, the possession of the magic drum and ball of the Arabian nights, would scarcely enable us within the prescribed limits of any one book of travels, to do justice to one tithe of its wonders.

The weary traveller, therefore, may safely wrap him in his robe by the camp

fire, and assure himself an unbroken night's slumber, without fearing to be transported in a moment to unheard of and out of the way places, unless, in the long march before us, another Bear Camp present itself like an oasis, with its Verges and its Cicero and its Mike Fink, and justify by its importance, a repetition of the bird's-eye views, so essential to a full appreciation of its merits and beauties. Allons donc! At night, our waggons were always, when practicable, driven in the form of a rude circle, and in the interstices our tents were placed, so as to form what Santa Fe traders call in Mexican parlance a *carál*. Within this enclosure our animals were picketed for the night, sufficient length of rope being allowed to each, to enable him to crop the grass around, within a circle of ten or twelve feet diameter. The pickets used by us were principally iron pointed, and round; about eighteen inches in length, and having a revolving ring attached, about four inches below the head, to receive the rope or halter. A square picket of hard wood is preferable to one of this description, being much more difficult to extract in loose soil, whilst the round one works itself out with every movement of the lariat.

At the first approach of day, of which we never failed to be duly informed by the musical throat of every mule on the ground, we freed them from the pickets, and suffered them to graze at will over the prairie, outside camp, under the surveillance of the day guard, until the order to march.

I give these simple memoranda a place here, not for any remarkable intrinsic value they may possess, nor with the expectation of much edifying the reader with the detail; as such minutiae are, for the most part, common place, and devoid at the present day of the interest they once possessed, but merely as parts and parcels of the subject, which, if not picked up, and properly disposed of at once, will, at some unforeseen moment, be stumbled upon unawares or remain so entirely forgotten as to make their very absence observed. Several additional hands, Canadians, joined us at this third encampment, principally veterans in prairie and mountain life, who attach themselves to an expedition of this sort, with the easy nonchalance of men pursuing their natural and favorite avocations. The presence of these individuals relieved, to some extent, the void occasioned by the absence of the disaffected, and made our band number about eighty rank and file, throwing in the *commander in chief*.

And here let me edge in a word or two about the Canadian *engagé* or hired hand; that last remnant of the old voyageur, the last button on his ancient capote. Like a man of metal, he stands out in bold relief, the personification of much of that stoical philosophy, for which the western voyageur was famous,—the snows and tempests of time scarcely silvering his raven locks, running the gauntlet of danger and toil, and going down beneath the grass of the wilderness, as though he went to his long rest to the sweet music of the chapel bell of his native village. No; we cannot do justice to the Canadian *engagé*; too much cannot be said in his favor, not of that hybrid, however, understand me to say, which has sprung up of late years, and attached itself like a fungus to the main branch, so as frequently to be confounded with the real, but of the actual bona-fide Canadian *engagé* of the mountains. With his possible sack, containing all he possesses, perhaps, his blanket, his steel, his pipe and his tobacco, he is fully equipped for any trip or voyage, it is immaterial in what direction; for he subscribes as freely for a five year's sojourn on the upper Missouri, as for a three months cruise among the Caws. He looks upon life as a lease at will, and as such not necessary to be retained forever. He, consequently, is careless of danger, reckless of limb, and, for a few dollars per month, will rove from the borders to the mouth of the Gila, or the head of Behring's Straits. The prairies and the Rocky mountains, with their buffaloe, their beaver, their snows, and even their Indians, exert a strange power of fascination over this class of adventurers, and attract them as effectually, as the famous Rock of Magnets did the ill fated vessel of Sindbad, the sailor. And here, ensconced in some elk-skin lodge, or maybe camping beneath the shelter of some mountain crag, he strikes his steel, and puffs away whatever care he may have, in the curling smoke of his mackinaw. A perfect Diogenes under his tub! The *engagé*, however, like his predecessor, the *vieux voyageur*, has almost performed his trip; one disappeared with the cordelle and the bateau, and when the buffalo ceases to roam over the great plains, and the Indian's fire no longer smokes amid the mountains, the *engagé's* term of service will have expired; knocking the ashes from his short pipe, he will wrap him in his blanket, and enter that unfathomable futurity, from which romance and remembrance only can invoke him.

Exhibition of the Industry of All Nations.

We call the attention of our readers to the following Circular issued by the Secretary of the St. Louis Committee for the Exhibition of the Industry of All Nations, to be opened at New York, on 2d May, 1853.

Sir—The Committee at St. Louis, appointed by the “Association for the Exhibition of the Industry of All Nations,” are desirous to discharge their duties in a manner that will do credit to the State, and, if possible, convince the people of Europe and America, that Missouri possesses the elements of wealth in greater variety and volume than any other portion of the globe, of equal area.

The extensive system of railroads recently devised and adopted by the people of this State will require aid from capitalists residing beyond its limits, and it is to be regarded as fortunate for the people of Missouri, that the approaching Exhibition, at New York, affords a favorable opportunity of making our resources known to the world. This opportunity should not be permitted to pass without improvement.

Aware of the lively interest which you feel in the prosperity of our State, I take the liberty of directing this, with the accompanying documents, to your address, and respectfully solicit your co-operation in causing the resources of Missouri to be fully represented at the **WORLD'S FAIR**.

It is much to be desired that specimens of the mineral and vegetable products of every county in the State should find a place in the *Crystal Palace*. Specimens of our leading staples—*Hemp, Tobacco, Corn, Wheat, Flour, Wool, &c.*, should by no means be neglected.

All articles designed for exhibition, will be stored at St. Louis, free of charge until shipped. And in cases where the parties are unable to pay freight, articles, if thought worthy of exhibition by the Committee, will be forwarded at the expense of the State.

Individuals forwarding articles for exhibition, should name some person in St. Louis, who will pay freight and charges from here to New York.

Printed Forms of Application may be obtained by applying to the Secretary to whom all articles designed for exhibition should be addressed.

Committee at St. Louis:

H. A. Prout, Chairman,
Charles P. Chouteau,
Thos. S. O'Sullivan,
A. B. Chambers,
Louis V. Bogy,
Adolphus Meier,
Samuel Gaty,
R. M. V. Kerchival.

L. M. Kennett, Treasurer,
Win. H. Belcher,
A. S. Mitchell,
Thornton Grimsley,
Thomas Allen,
Wm. Glasgow, Jr.,
Henry Burr,

M. Tarver, Secretary.

The following is an extract from the Circular of the President of the Association at New York :

“In making this application we desire to have it understood, that we intend to call forth a complete representation of the entire Resources of the Country, as well of Raw Materials as of Manufactured Articles. We hope to see abundant specimens of the Cereal products of the Northern and Western States, of the Cotton and Sugar of the South, as well as of all the other great agricultural staples of the Country. Of similar importance are the Mineral treasures of our Continent. We are particularly desirous that our Building should contain a complete collection of the various Ores which the active industry of our People is daily bringing to light, of the metals produced from them, in their various stages of development, and also of all other Minerals. This would include as well Coal, Granite and other similar substances, as those chemical products more especially used in the Arts. The Ores should be accompanied by the Rocks in which they are found, and if possible, by plans and sections of the measures in which they lie. It would also be of great interest to exhibit, either by Models or descriptive Drawings, the different processes employed in the reduction of the ores and the manufacture of the Metals. You will readily see the importance and value of a collection of this kind, and if the specimens are forwarded to us, we shall take such measures for their classification and arrangement as will best subserve the objects of the Exhibition and, at the same time, add to the information and experience of our People.”

ADVERTISING DEPARTMENT.

Stationery.

WITTER, 88 Walnut street, corner of 2d, St. Louis, Mo. German and French standard works, Novels and School Books. Blank Books, Writing Papers, Music Paper, Slates & Ink, Engravings, Prints, Steel Pens, Inkstands, &c. - Printing and Binding executed in the best manner. Orders for England, France and Germany are executed at the shortest notice.

Trunks.

M. PENDZINSKI, Premium Trunk Maker. Constantly on hand, at wholesale and retail, and made to order at the shortest notice, Hard Leather Trunks, Solid Leather Steel Spring Trunks, Valises, Carpet Bags, Packing Trunks, Ladies' Dress Boxes, &c.

Trunks repaired in the best manner. Call and examine for yourselves before buying elsewhere, as I am determined to sell as low as any house in the trade, at all risks, No. 42 North Second street [Westside,] between Chestnut and Pine streets, May, 1851.

Furniture.

W. M. HARLOW, proprietor of the St. Louis Furniture Store, manufactures and keeps constantly on hand every variety of household furniture, mattresses, window blinds, willow ware, &c.

Also, manufactures to order every article in his line, with despatch. Orders from abroad promptly attended to, and goods carefully packed. All goods warranted as recommended.

New Warehouse, No. 88 Second street, between Olive and Locust streets, St. Louis, Mo.

Commission Merchants.

ANGELRODT & BARTH, Commission and Forwarding Merchants, No. 126 North Second Street, between Vine Street and Washington Avenue, St. Louis, Mo.

Drugs.

CHARLES, BLOW & CO., Importers and Wholesale Dealers in Drugs, Paints, White Lead, Oils, Window Glass, Glassware, Perfumery, &c., Nos. 70 and 72 Main Street, St. Louis, Mo. - N. B. Ginseng and Beeswax bought at highest market rates.

St. Louis Cotton Factory.

A. DOLPHUS MEIER & Co., Manufacturers of St. Louis Cotton Yarn, &c., Importers and Dealers in HARDWARE and CUTLERY, No. 23, corner of Main & Chestnut Streets, St. Louis, Mo.

Paper hangings.

WOLF & ENGERT, importers and dealers in Paper Hangings, Colors and Fancy Papers, No. 49 South Second street, between Elm and Myrtle, St. Louis, Mo. Constantly on hand, all kinds of oil and water colors, paper-hangings, chimney screens, tester pieces, window shades, marble, marroquin, Gold and Silver paper, painters' and Dutch gold bronze, lead pencils, paint boxes, paint brushes, drawing paper, &c. April, 1850.

Brushes.

F. DINGS & CO., importers of German, French and English Fancy Goods, and manufacturers of all kinds of brushes, No. 47 Main street, St. Louis, Mo.

Jewelry, Watchmaking & ENGRAVING.

P. STUBENRAUCH & SONS,
No. 11 N. 3d str. between Chestnut & Market,
and No. 17, Chestnut street opposite the New
Post Office.

Would call the attention of the public and the trade generally to their extensive stock of Jewelry, Watches and Clocks. They also are well enabled by long practice and experience to perform all kinds of engraving, in stone as well as metal, in the best style, such as seals for Notary Publics, for Insurance Companies, for Railroad Cos., and all other Companies.

All orders promptly executed and on the most liberal terms.

College.

JONATHAN JONES' COMMERCIAL COLLEGE, St. Louis, Mo., incorporated by the General Assembly, January 24, 1849. With full authority to "grant diplomas, award degrees, confer honors, and exercise all and singular, the privileges common to Commercial Colleges, authorized by law in other States." - Charter, Sec. 2.

Young Gentlemen wishing to prepare themselves for business pursuits, are respectfully invited to call during business hours and examine the mode of imparting instruction, the progress of the pupils, and the superior facilities extended to those desirous of qualifying themselves for the practical duties of the Counting House. Personal references given to above one hundred and eighty (180) Practical Accountants now in charge of Books in this city, all of whom have completed their business education in this institution.

N. B. For CIRCULARS containing information in regard to the terms, the course of instruction and all business connected with the above, call at the "Book-keeping Department," corner of Fourth and Chestnut streets, or address JONATHAN JONES, St. Louis, Mo.

Saddlery.

T. GRIMSLEY & CO., Dealers in all kinds of Saddles, Bridles, Harness, Trunks, Carpet Bags, &c., No. 68 Main street, four doors below Olive st., St. Louis, Mo.

Banking House.

LUCAS & SIMONDS, Bankers and Exchange Dealers, Corner of Main and Chestnut Streets, St. Louis, Mo.

Hats & Caps.

H. & R. B. WHITEMORE & CO., wholesale dealers in Hats, Caps, Bonnets and Straw Goods, No. 143 Main str., St. Louis, Mo. Cash paid for Furs and Deer Skins.

THE
WESTERN JOURNAL
and *Civilian*.

VOL. IX.

March, 1853.

No. VI.

ARTICLE I.

MISSOURI: Past, Present and Future.

During a period of more than five years devoted to the publication of our Journal, we have labored with untiring zeal to establish a system of public economy adapted to the geographical relations, climate and natural resources of the valley of the Mississippi. And although our work, in this behalf, is not accomplished, yet recent events authorize the belief, that the views we have advocated will, in time, be carried out by the inhabitants of this region.

In discussing the various topics, relating to this important subject, we have occasionally alluded to the policy of Missouri in terms, which to some may have appeared unkind and perhaps unjust; but it is a source of gratification that we now find something to commend in both its people and policy. We believe that the people of Missouri have not been correctly understood by those of other States, and we now desire to place them in their true light before the world.

The natural wealth of Missouri has been developed by very slow degrees. But this is not to be attributed so much to a want of intelligence, industry or enterprise, on the part of its inhabitants, as to a variety of causes beyond their control. For many years the course of events has been adverse to the settlement and improvement of this State.

The institution of slavery has prevented the citizens of non-slaveholding States, who desired to pursue the business of farming, from coming to Missouri; while many, in the Southern States, have doubtless been deterred by the opinion, that property in slaves was less secure in this than in the States farther south.

These causes have been in operation ever since the adoption of the Constitution, and have prevented immigration from the non-slaveholding States almost entirely; except in the case of a few merchants, traders and artizans.

But other causes have operated against the settlement of Missouri by emigrants from the slaveholding States: the acquisition of large districts of land from the Indian tribes, in the States of Georgia, Tennessee, Alabama, Mississippi, Louisiana and Arkansas, has followed each other in such rapid succession, that individuals of the older slaveholding communities, desiring to emigrate, have been attracted to a climate better adapted to a profitable employment of slave labor, and more congenial to their constitutions and tastes. These causes, combined with the cost of transporting agricultural products from the interior to a market, have greatly delayed the development of our agricultural resources, and depreciated the producing capacity of the State in the estimation of many at home and abroad.

Nor have events been more favorable to the development of our mineral wealth. The discoveries of lead, in the vicinity of Galena, checked the progress of mining for that metal in Missouri for many years, and at a time when the business of mining had begun to revive in this State; the discoveries of gold in California attracted the miners to the shores of the Pacific, leaving our rich deposits of lead to be removed by a race of men possessing more patience and content with prospects less brilliant, but more certain, than mining for gold in California. The production of iron, also, has been affected by external causes. The gradual reduction of the duties on the foreign article, under the Compromise Act of 1832, was calculated to discourage prudent men from erecting works, especially in a country so new as Missouri. And, before sufficient time had elapsed, after the rate of duties was increased, under the law of 1842, to enable our citizens to get fairly under way in the iron business, the tariff was again reduced to a rate which convinced well judging men that, except at locations possessing extraordinary advantages, the making of iron in Missouri would be unprofitable.

And, besides, the population of Missouri, thinly scattered over its broad area, and grouped in settlements far apart, have been deprived of the benefits derivable from intimate intercourse and

frequent interchange of views and opinions. Thus situated, they have, long since, perceived that other States were leaving them far behind in respect to the improvements of the age; and though conscious of their own rich and varied resources, and desiring their development, yet they were incapable of appreciating the power which they possessed to improve their condition; there was no concert in action, none in opinion.

Under the influence of so many causes adverse to the settlement of the State, and to its progress in improvements, the native energies of the people have been paralyzed, presenting a case similar to that of an individual possessing unbounding wealth without the capacity of making it available for any other purpose than that of sustaining his own existence. Indeed, when we review the facts connected with the history of Missouri, and contemplate the nature and extent of the improvements required to counteract and surmount the influence of the adverse causes enumerated, it is obvious that an extraordinary degree of intelligence and moral courage was required, on the part of the people, to systematize and undertake the accomplishment of a plan, commensurate with the wants of the country. But the people of this State have learned, from experience, that communities as well as individuals must counteract the operation of adverse circumstances, by active and well directed exertions, or their natural wealth will remain undeveloped: or, if drawn out, will go to enrich those who possess a greater degree of energy and enterprise. Missouri has awakened to a sense of her strength. She has assumed an attitude, and adopted measures consistent with the high career indicated by her geographical relations and natural resources. Indeed, there was no other alternative than that of submitting to the consequences of events over which she had no control, permitting her wealth to remain buried in the earth, the social and commercial advantages of her central position to be diverted and transferred to her neighbors or, placing herself, at once, by a bold but judicious movement at the head of a great system of improvement embracing the entire region west of the Mississippi. Had she not given form and substance to this idea by legislative enactments, all efforts to develop the resources of the State by constructing railroads, of a local character, would have been enfeebled by the want of concert at home, and the lack of respect and credit abroad. Can she sustain the position assumed, and accomplish the grand design indi-

cated by her system of internal improvement? A glance at her present condition and resources will afford an answer to this inquiry.

The State of Missouri embraces an area of 67,380 square miles, with a population, according to the census of 1852, of 724,667 inhabitants, and is believed to possess the elements of substantial, enduring wealth in greater variety and volume, than any other State in the Union, east of the Rocky Mountains. Her public debt, at the close of last year, except a small amount of bonds issued in aid of the Pacific railroad, amounted to only \$857,000, while the ordinary revenue exceeds the expense of the Government. And withal, the producing classes are free from pecuniary embarrassment, and eminently prosperous throughout the State.

With these resources in the hands of an intelligent, industrious and enterprising population, numbering 724,667 and rapidly increasing, cautious and timed, indeed, must be the individual who doubts the capacity of the people of this State to accomplish all they have undertaken. Missouri, in 1853, should not be compared with Missouri as she has been in times past, when there existed no social combinations for public improvement, no general law authorizing individuals to form corporations for industrial purposes, no efficient system of common school education, no benevolent institutions designed to ameliorate the condition of the unfortunate; when State and local measures were tested by the standard of party and national politics; when party principles and abstract doctrines in the science of government were discussed, until the people believed that their prosperity and happiness depended more upon the action of the General Government than upon their own industry and good conduct. The reformation which was manifested first by the acts and proceedings of the General Assembly of 1848—49, has revolutionized the State in the short space of four years. Since that period a system of railroads, more comprehensive and complete than any elsewhere devised, has been projected, and provision made by the State for a loan of its credit to the amount of \$8,250,000, to aid in constructing about 1100 miles of route, traversing every important district of the State. The surveys on three of these routes have nearly been completed, and the work, on one of the lines, is progressing as fast as consists with the economy of the enterprise. A general law, authorizing three or more individuals to form corpo-

rations for mining and other industrial purposes, passed at the session of 1848-49, has been so amended as to make it eminently useful; a system of common schools, introduced at the same session, was adopted by the late General Assembly; provision has been made for a geological survey of the State;* a liberal provision has been made in behalf of an Asylum for the Insane, and, also, for the support of a Juvenile Reform School. And as further evidence of the spirit of the late General Assembly, we may mention the appropriation of \$4,000 for the purpose of procuring and forwarding specimens of our minerals for exhibition at the "Crystal Palace," about to be opened at New York, for the Exhibition of the Industry of All Nations.

As faithful historians, however, it is our duty to record the fact, that the late General Assembly refused to modify the interest or usury law, so as to authorize parties to contract for any rate not exceeding ten per cent. per annum; it also rejected a bill to authorize limited partnerships;—measures which we have regarded as highly beneficial to the mercantile and, consequently, to the general interest of the State. But in view of the many excellent measures adopted by the late General Assembly, we feel no disposition to complain that some few which we desired and labored for, have been rejected. Enough has been done to establish the great principles of progress, and convince the world that Missouri has assumed her true position among the States of the Union. No apprehension need be felt that she will relapse into the state of apathy, from which she has been aroused. The people are beginning to comprehend the power and efficacy of social combinations, the pecuniary and social advantages to be derived from a speedy, certain and cheap mode of transporting persons and property, and the vital importance, in a social and political point of view, of an efficient system of common school education. Their feelings of patriotism have been awakened; emotions of State pride have been excited; and their mental visions enlarged, embrace objects more grand and worthy of attainment, than any which have heretofore occupied their attention.

In view of all these elements, physical, social and moral, we are fully persuaded that there is no other State or Territory of this broad confederacy which offers so many solid advantages to the

* This measure passed in the House of Representatives at the session of 1848—1849.

agriculturist, miner and manufacturer, as our own State of Missouri. It is true, that there are many inconveniences, and even drawbacks, incident to the commencement of all pursuits in a new country; but these must soon disappear in a region whose resources are in a state of rapid development, and where new avenues are being opened to the commerce of the most distant parts of our common country. To say nothing of the works of improvement now in progress east of the Mississippi, our own system of railroads, when completed, by the co-operation of other States, will open a communication with Fond du Lac, of Lake Superior, the waters of Hudson's Bay, the valley of the upper Missouri to the base of the Rocky Mountains, San Francisco and the mouth of the Columbia on the Pacific ocean, the valley of the Red River, of the South, the Gulf coast of Texas, and with the city of New Orleans. These lines, all radiating from the city of St. Louis, will constitute a system of railroads which, in connection with the navigation of the Mississippi and its tributaries, will afford to the commercial metropolis of Missouri more extensive facilities for the exchange and distribution of commodities, than can ever be enjoyed by any other city on this continent.

Though possessing her full share of talent, Missouri, as a State, has hitherto exerted no remarkable degree of influence upon the public policy, economy or social condition of the other States. But should the Union of this Confederacy be preserved to an indefinite period, it is obvious that she is destined, in time, to stand at the head of American States. With a population as dense as that of Massachusetts, Missouri would contain about 8,600,000 inhabitants, and it may be affirmed that, including the inhabitants of cities, she is capable of sustaining a population of 15,000,000 in a comfortable condition. Her broad area and central position, embracing the commercial metropolis of this great valley, will enable her to exert a larger influence upon the destinies of the nation, than any other State of the Union.

These views of the future, suggest reflections which should be improved by every citizen of the State; they are full of admonition, of instruction.

In respect to the general policy of the nation, the central States must, by virtue of the laws proceeding from their geographical and social relations, exert a controlling influence upon the border States, and holding the balance of power, will, when all parts of the country shall have been fully occupied, control the policy of

the nation. Hence the destiny of this mighty republic, so far as it depends upon the actions of men, will be in the hands of the central States of which Missouri must be the chief. Then, what a field is here for the labors of the philanthropist, the study of the statesman, the instructions of philosophy, the teachings of christianity!

A just appreciation of the future pre-eminence of Missouri amongst the States of the Union, is calculated to elevate the moral tone of its inhabitants, and energise their character. For it is natural, that a deep sense of responsibility should incite them to a scrupulous discharge of their duties, while a consciousness of their power will lead them to the undertaking of great enterprises, which smaller States could never hope to accomplish.

Owing to the slow progress made by Missouri in the improvements of the age, many of her citizens have emigrated to California; but we sincerely hope that the changes which have taken place in the policy and prospects of the State, will henceforth reconcile our people to remain in a country possessing the elements of comfort and happiness in greater variety and abundance, than any to be found upon the coast of the Pacific ocean. In concluding, we respectfully commend the foregoing suggestions to the consideration of those who contemplate a removal to the Pacific coast. We admit that the field of enterprise in that region is broad, and, in a high degree, attractive. But it should be borne in mind, that the privations and sacrifices incident to the settlement and pursuits of California greatly exceed the benefits derivable from the mines, the agriculture or commerce of that State.

If a reasonable and sure reward for the toils of industry, if the benefits which flow from institutions calculated to promote the highest objects of man's being, and a field where the labors of the philanthropist, philosopher, and statesman may exert a wider influence, than elsewhere on this broad continent, can satisfy the minds of our citizens, then have they a home, which no rational individual would exchange for a residence on the shores of the Pacific with all their golden attractions.

ARTICLE II.

CALORIC.

A Fragment.

AN ESSAY ON CONGELATION, CONDENSATION, EVAPORATION, THE FORMATION OF CLOUDS, AND THE PRODUCTION OF RAIN, AND SNOW.

By HON. A. BEATTY.

Second Part.

The process of congelation is a very simple one. When so much *caloric* is extracted from a quantity of water as to bring its particles within the sphere of cohesive attraction, a solid mass is formed, called ice. The same thing takes place, when mercury is exposed to a degree of cold 40° of Fahrenheit below zero. It then becomes a solid substance. The like principle is applicable to all metallic substances, and to all other bodies in a fluid state. They will all become solid—or congeal—by the abstraction of a portion of their *caloric*.

It has been shown, in the first part of this essay, that if a change were not wrought in the state of vapor, soon after it leaves the earth, it would be condensed by the great degree of cold that always exists in the higher regions of the atmosphere, and return to the earth, in the form of dew or rain. That cold is capable of condensing vapor, is very manifest. Instances of this fact may be seen in the condensation of steam, in passing through the worm of a cooler. Another familiar instance of this fact is the adhesion of particles of water, to the exterior surface of a glass tumbler, containing some cold water, during a warm summer's day. The effect of the tumbler, rendered cold by the water, upon the vapor continually floating in the lower regions of the atmosphere, during a warm summer's day, is like that of the water in the cooler, upon the steam passing through the worm. The water, in both instances, has been converted into vapor, by the agency of *caloric*. When this *caloric* is drawn off, the vapor will again assume the liquid form.

The extraction of *caloric* from the steam of boiling water is always effected, in some degree, by bringing it in contact with substances, whose temperature is below 212° . But in the case of a condensation of vapor, by the glass tumbler, it would not be perceptible unless the cold were sufficient to reduce its temperature considerably below that point.

The reason of this is, that the temperature of the atmosphere is always greatly below 212° , and the solvent power of the air, which causes it to absorb the water, as fast as it is condensed by the tumbler, unless the process of condensation is very rapid, which is always in proportion to the difference between the temperature of the water and the atmosphere.

I will here mention a circumstance, which ought to have been noted, in the first part of this essay. It was there stated that so soon as the particles of water have their surface so much extended by the agency of *caloric* as to overcome the power of gravity, they will ascend in the form of vapor. But it must be observed, that it is not necessary, nor is it actually the case, that the water is separated into particles so minute as to give them a surface more than sufficient to counteract the power of gravity. If these divisions were produced by mechanical means, this would be necessary. But being occasioned by the agency of *caloric*, a fluid whose specific gravity is greatly less than that of air, which, having a strong affinity for the particles of water, unites with them, and enables them to ascend on principles similar to those by which a balloon is raised in the atmosphere. The balloon, of itself, is incapable of rising, but when filled with a quantity of gas, whose specific gravity is much less than that of the atmosphere, it is enabled to ascend, with a considerable weight attached to it.

Thus particles of water, though not specifically lighter than the atmosphere, are enabled to ascend, because of the *caloric* united with them. And when deprived of this *caloric*, they will again fall to the earth, unless they shall have formed a combination with the atmosphere, before the *caloric* is thus drawn off from them. Hence the reason why vapor condenses, by being brought into contact with cold substances. For then, in consequence of their inferior temperature, having a stronger affinity for *caloric*, draws off that fluid from the vapor, and causes it to condense.

The capability of substances, whose temperature is less than 212° , of condensing steam, being thus established, it is necessary to show why vapor is not condensed immediately after it leaves the earth. This, it was observed in a former part of this essay, is owing to a combination which is effected between the vapor and our atmosphere. Although such a combination does take place, at no great height from the earth, yet this will not account for the vapor's not being immediately condensed by coming in contact with the atmosphere. Vapor is always of the same temperature with the water from which it arises, and as evaporation goes on in every degree of temperature, from 32° to 212° , it necessarily follows, that water may exist in the form of vapor, when the temperature of the atmosphere is nearly as low as the freezing point. When vapor rises from boiling water, it possesses great elasticity, and would continue to do so at a temperature of 212° . But when below that point, the vapor gives out a part of its *caloric*, and its temperature is reduced so as to form an equilibrium with the air with which it comes in contact. It still, however, exists in the form of vapor, but with a greatly diminished elasticity. It has been shown, that a glass tumbler, filled with cold water, will condense vapor when its temperature is below that of the vapor, but will not when its temperature is equal or superior to it. The air

is not better, probably not so well calculated to condense vapor as the glass tumbler; when, therefore, evaporation is going on, in the natural way, the vapor cannot be condensed, because the air with which it comes in contact, is of the same temperature with itself; and as it rises higher in the atmosphere, its temperature is gradually reduced, and is thus kept in equilibrio with the surrounding atmosphere. Hence complete condensation cannot take place, though this is effected, in some degree, as a necessary consequence of its being deprived of a part of its *caloric*.

Perfect condensation seems to be produced by a sudden contact of vapor with substances, whose temperature is considerably below that of the vapor. Thus if the breath is suddenly brought in contact with a cool mirror, it immediately condenses. In this way we may account for the falling of dews, during the night. The air, near the earth, expands considerably during the day. When the sun sets, it, in some degree, condenses, and thus the cold air of the higher regions of the atmosphere is suddenly mingled with the vapor, which has been raised during the day, and has not yet affected a combination with the atmosphere. But although vapor will not be immediately condensed, upon coming in contact with the atmosphere, yet it is evident that if it should continue to rise, it would reach such a degree of cold as would cause it to condense, and fall in the form of dew, rain or snow. This, however, is prevented by its combining with the atmosphere so intimately as to compose a part of it. This like all other combinations, must be ascribed to the laws of affinity, one of the most universal and active agents in the operations of nature. The absorbant power of air is familiar to every person. Thus after a heavy rain the roads are dried much sooner by a high wind than by a warm sun. Another familiar fact is the drying of linen on a windy day. This operation is performed, during a windy day, without the least assistance of the sun. The reason why a high wind more rapidly absorbs moisture, than air at rest, is that the affinity of air for moisture diminishes in proportion to the quantity absorbed. During a perfect calm, the air, in contact with the moist substance, soon becomes saturated, and can absorb no more until a part of its moisture is drawn off by the adjacent air, by reason of its undiminished affinity. But all the air adjacent to the moist body having soon become saturated, the process of absorption will progress very slowly. But when the wind is high, there is a continual supply of unsaturated air, in contact with the moist body; the absorption must, consequently, progress very rapidly.

This great absorbing power of air is a very fruitful source of supply for future rains, in addition to the supply derived from the process of evaporation. If the absorbing power of air is as great as the instances alluded to prove it to be, how much more so must it be when water is changed into vapor? Water, in a state of vapor, exposes a surface very greatly superior to what it did in a

liquid state, and thus enables the unsaturated air to come in contact with the very minute parts of the water, and consequently increases the rapidity of the process.

If other proofs than those already referred to, to show that vapor combines with the atmosphere, at no great height above the earth, are necessary, they will be furnished by experiments made with the hygrometer to determine the moisture of the atmosphere, at different heights from the earth. If such combination did not take place, there would be, during a drouth, a considerable accumulation of moisture in the atmosphere, arising from the evaporation constantly going on. We might also expect to find floating, in the higher regions of the atmosphere, an immense quantity of moisture, in the form of clouds. But so far from the elevated regions of the atmosphere being continually involved in a thick fog, as might be supposed from the quantity of vapor continually ascending, it is found that the air is much drier there than near the surface of the earth. This was experienced by M. Sausure and M. De Lac, in a journey up the Alps. The air was found to be excessively dry, and evaporation to go on much more rapidly, than in the region below. The surface of their bodies was parched, and an excessive thirst took place by reason of the rapid absorption of moisture. The same dryness was indicated by the hygrometer, which scarcely indicated any degree of moisture, even when they were surrounded with clouds, hail and rain. These facts prove that there is a change wrought in the state of vapor, soon after it rises from the earth. Vapor when it first rises, sometimes assumes the appearance of fog, which, when examined with a microscope, appears to be composed of very small spherules of water, hollow and filled with a fluid specifically lighter than air, by means whereof they ascend into the atmosphere. So long as the aqueous gas retains this form, it retains its humidity, and will communicate moisture to the hygrometer. In this state it readily condenses, when brought into contact with bodies of lower temperature, and this the more readily in proportion as its temperature exceeds that of the substances with which it comes in contact. The colder substance, having a stronger affinity for *caloric*, extracts so much of that fluid from the water as to produce an equilibrium, and then the condensation ceases.

But if, before condensation, the vapor has had time to combine with the atmosphere, it forms a part of its base, in like manner as oxygen forms the base of oxygen gas. When this combination is complete, the air will no longer show any degree of moisture, by the test of the hygrometer; nor is it capable of being condensed, by coming in contact with cold substances, without some chemical agency, by which a decomposition shall have been effected. It now forms a part of the atmosphere, and is capable of moving, with the utmost facility, to the most distant regions of the earth. Hence we perceive the reason why countries, about the sources of

large rivers, receive back the immense quantities of water, which are continually flowing from thence to the ocean.

Upon the ocean, in consequence of the abundance of moisture, evaporation proceeds more rapidly than on the land, and consequently a greater quantity of vapor combines with the superincumbent atmosphere. Hence it follows, that the sea atmosphere soon becomes heavier than that over the land; and as the air has a constant tendency to keep up an equilibrium, currents of air will flow from the sea to those parts where the atmosphere is lighter. As there is also a tendency in the air, to preserve an equilibrium of saturation, it follows that the water evaporated is, by means of its combination with the atmosphere, carried to all parts of the earth, though probably not in exactly equal proportions. The process of evaporation, which is continually going on, is not only aided by the wind, but also by the sun's rays, for we frequently see fogs dissipated in a short time after the sun breaks out.

But, on the other hand, it must be observed, that this *combining process* is not only checked, but completely suspended, when from any cause, a chemical decomposition of the atmosphere takes place. In such case, moisture is always given out, and this will, of course, prevent any combination for the time being. We frequently behold clouds suddenly formed, and as suddenly dissipated, but without any rain falling. In what manner, and by what causes these suddenly changes take place, is not well understood. The formation of clouds arises from a decomposition of a part of the atmosphere, by which its moisture is given out, in a greater or less degree. Hence we may account for the phenomena attending the formation of clouds, and the production of rain and snow. But, before I enter upon this subject, I will make some observations upon the manner, in which this decomposition takes place, premising, however, that it is a subject, by no means, clear of difficulty.

When moist air is suddenly rarefied, by being freed from pressure, there is always a precipitation of water, as may be distinctly seen, when the receiver of an air pump is quickly exhausted. Under the article, Recce's Cyclopaedia, the following experiment is related. "There is a curious phenomenon, in the fountain of Hiero, constructed on a very large scale, in the Cremnitzean mines, in Hungary. In this machine the air, in a large vessel, is compressed by a column of water, 260 feet high. A stop-cock is then opened; and as the air issues with great vehemence, and, in consequence of its previous condensation, becomes immediately much expanded, the moisture it contains is not only precipitated, as during the exhaustion of a receiver, but falls down in a shower of snow, with icicles adhering to the nose of the cock."

It may be added, that Dr. James Hutton, Fellow of the Royal Society, Edinaburgh, has shown that by mingling a portion of

transparent, warm, humid air with a portion of cold air, the mixture will become opaque, and a part of the water will be precipitated. Here a partial condensation of vapor takes place, and *rain* is produced. From the experiments related above, it appears that a sudden expansion of air is always attended with a precipitation of a part of its moisture, and that by mingling warm, humid, transparent air, with that which is considerably colder, condensation, to a greater or less extent, is produced. Hence we may perceive the manner in which clouds are formed, especially during the prevalence of warm southerly winds. Such winds are usually warm, and containing much moisture, in a state of combination, when they come in contact with a northern atmosphere, condensation, to a greater or less extent, must take place, according to the principles of Dr. Hutton, and consequently clouds will be formed. In the process of condensation, large quantities of *caloric* are given out. This produces an expansion of the atmosphere, which causes the mingled air, which had accumulated by the southern winds, to rise, like smoke from a chimney, and being thus relieved, in part, from pressure, causes a farther expansion, and the giving out of more moisture, until it has so far accumulated, that the atmosphere can no longer bear it up, when it will fall in the form of rain.

Southern winds blowing towards northern mountains, when approaching them, must rise rapidly, in proportion to the ascent of the high lands, and being thus freed, in some degree, from the pressure of the atmosphere, moisture must be given out rapidly, unless some countervailing cause is in operation to check the decomposition of the atmosphere.

From the great variety in the motions of the wind, parts of the atmosphere will frequently be greatly expanded; and from like causes, there will frequently be an intermingling of cold and warm air, which will cause the formation of clouds, but rain will not always follow as a necessary consequence.

It is probable that the electric fluid has an agency, in producing a combination between vapor and the atmosphere, and in the formation of clouds, and keeping them suspended. From experiments made with the electric kite, by means of which the electric fluid may always be procured, in dry weather, and more rapidly in proportion to the height to which the kite is raised, it is evident great quantities of this fluid are contained in the atmosphere, and particularly in the upper regions thereof. It is also a fact, that when a cloud is passing, during the time the kite is up, little or no electricity is collected, unless the cloud is heavily charged with the electric fluid.

ARTICLE III.

Geological Researches in Missouri.*

BY DR. M. M. MAUGHAS.

I purpose giving, in this paper, a minute or specific account of the rocky strata of my vicinity, so far as researches running through several years, and my limited knowledge of geology will allow. Hitherto, it appears to me, notices of the geology of our country, that have appeared in print, have been much too general to convey to any one, except the thoroughly initiated much useful information: and I think that it is only by describing specifically strata as they show themselves in particular localities, (observing always generalities in nomenclature that will embrace extensive areas) that leading strings can be placed in the hands of young aspirants, after this kind of knowledge, and the corps of enquirers in this interesting field of physical science can be recruited. The district of country for which the section is intended, is that portion of Callaway and Montgomery counties drained by Loutre and Au-Vaux rivers; the description of particular strata occasionally extends much further. Whether anything useful can be gleaned from this effort, remains to be seen. If attention can be called to the subject, and some one can be waked up that can and *will* do better, I shall be abundantly gratified.

DILUVIAN, DRIFT OR BOULDER CLAY.—The boulder formation overlies every other on the north side of the Missouri river, in this State, and indeed vestiges of it are not wanting on the south side of that stream, though the general opinion appears to be that it stops short there. A fine, very hard felspathic boulder lies in Jefferson city, besides some brecciated rocks of more questionable origin. And upon enquiry of members of the Legislature, who reside upon the Osage river, I learn that granite boulders are occasionally seen in that region.

The general appearance of this formation is that of a heterogenous mass of yellowish clay spread over the surface of the hard and regularly stratified rocks below unconformably; and studded throughout, both upon its surface and within its entire substance, with boulders or fragments of rocks, of foreign aspect, varying from a few pounds in weight to several hundred tons, all of them primitive or azoic rocks except the chert, which, in some places, is very abundant and very fossiliferous. The granite boulders present every shade of color and degree of hardness usual for that rock, but is usually of the kind termed syenite, when argil or hornblend take the place of mica: indeed no granite boulder has been seen by myself that contains mica, but some seem to be made up entirely of quartz and feldspar. Numerous boulders of greenstone are found, and many of dark ferruginous looking sandstone, the particles of which appear to have been stuck together by heat, and which contain iron ore boxes approaching a square form, which, when broken, contain very smooth

* Read before the Missouri Historical and Philosophical Society, January 27th, 1853.

yellow clay; also some boulders are found of a very hard breccia made up of angular fragments of flint containing fossils cemented by ferruginous clay and sand. Indeed there are perhaps few primitive rocks of much durability that are not found at some place or other in this clay. Quartz, milky, greasy and nearly black, basonite, porphyry, gneis, all the hard varieties of iron ore, geodes, and a certain hard stone, which the country people say can not be broken, and supposed to be saussurite, as that is said to be the most refractory of rocks.

The general appearance of this formation is attempted to be shown in the section, every thing there represented having been seen and examined by myself, in wells when being dug, and on the surface. Two places were carefully examined in Danville and vicinity, where the excavators exposed sand resembling beach sand regularly stratified as left by the waves: many other places have been mentioned to me, in all of which the sand rendered the cistern useless by drawing off the water. It is on this clay, the vast prairies of our country mostly lie, not that timber will not grow on it, though no kind grows so thriftily as on the soil resulting from the disintegration of the limestone in the hills, but because it is on this that grass obtains its maximum luxuriance, the annual burning of which destroys and keeps down the growth of timber.

The maximum thickness of this formation has not been ascertained. One hundred feet has been passed in the vain attempt to get water in some large prairies without getting through it. In small prairies it is generally about twenty feet thick. It can readily be conceived, why it should be thinner in these than in large prairies, when it is recollected that the entire formation has been removed by the action of rain and running water, except on the highest lands; hence broad flat prairies have suffered less from this cause, than small ones which are always more rolling. It is almost universally found, that where the clay has been most removed, the accompanying rocks lie the thickest, as the water removes the clay and leaves the more durable rocks. In some very large prairies a rock is seldom seen, yet by looking about, an observer can occasionally find a boulder protruding above the clay.

Chert, or silicious stones, commonly abound throughout this formation that are more or less charged with organic remains, some of the lumps being almost wholly made up of encrinites and shells. Encrinites, pentacrinites, very large and very small spirifers, penbrenites, pentamen, producta, orthis, teretraçula, and numerous other shells, some of them exceedingly small, others large. It should be remarked, however, that in nearly every case the shell has entirely disappeared, leaving only the internal and external form or cast. In a few cases, the shells of spirifers, with the internal spiral arrangement, has been beautifully preserved in pellucid quartz.

It should be observed in this connection, that this clay is interspersed throughout with rolled pebbles precisely such as are found upon the seashore, varying in size from a dozen pounds weight to that of sand, and of every shade of color, from the most transparent quartz to red, green, blue and black pebbles, all very hard and smooth as though they had been frozen to the bottom or lower portion of ice near the shore; and carried away with it when warm weather broke

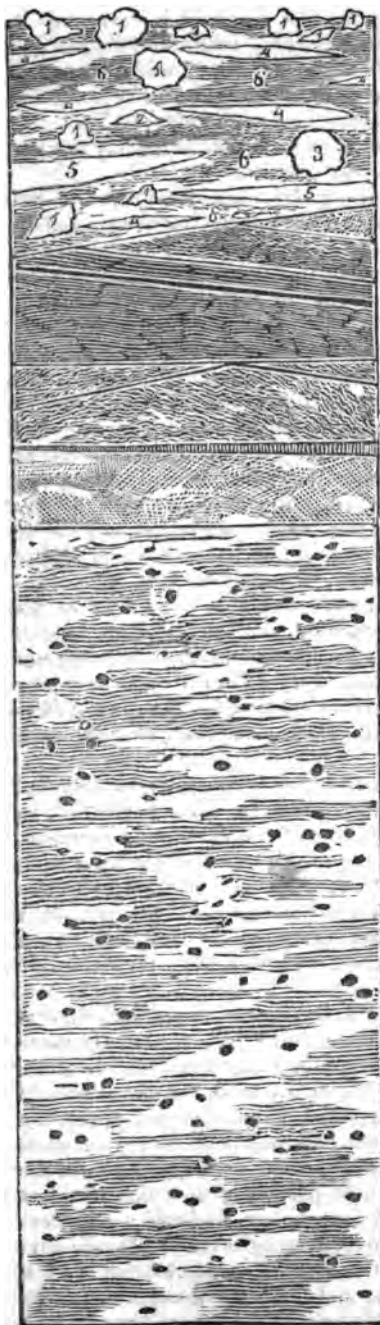
up the freezing and suffered the ice with the pebbles attached to move away. Under these circumstances, one would expect the ice would have attached itself also to recent shells at the bottom of shallow water near coasts: this may have happened: but those shells could not well have become fossilized in the boulder clay, but would not, and the clay could not retain even their form or impression. It has been said by some, that shells not fossilized have been found in or on this clay; but I think that they were muscle shells, that had been collected in rivers and carried to the highlands, to be used as food by the aborigines of the country.

The boulder clay appears to have been deposited upon the bottom of a shallow sea, and to have been conveyed hither by floating ice. The evidence of the first is to be found in the fact that this deposit rests sometimes on the fine grained sandstone, sometimes on the encrinital limestone, and occasionally on the coralline bed; the rocks above having been removed by the action of waves and currents in shallow water, so that the clay rests unconformably on them. The second seems to be proven by the impossibility of conveying gigantic boulders four or five hundred miles, and strewing them over a sea bottom by any other agency known than ice floes. It would seem that icebergs, loosened from certain cliffs, where they became charged with clay and rocks of definite kind, were afterwards stranded in particular places by coming in contact with bottom; because the hard rocks, in certain localities, are frequently of the same kind, and immediately adjoining, perhaps on the next acre, they are of a different kind. One locality may be seen strewed thickly with rocks of volcanic origin, as basalt and greenstone, many of which are in large balls, made up of concentric layers like the coats of an onion, another strewn as thickly granite boulders without mica. And still another with chert, highly charged with organic remains, of a date later than those contained in rocks below, and all these, sometimes repeated, may now and then be seen on a few hundred adjoining acres.

This clay is frequently passed through in digging wells, (though in some places in large prairies, one hundred feet has not reached the rock below), when sometimes the fine grained sandstone, sometimes the new encrinital limestone, and in one place, in Nine-mile-prairie, the coralline, hard, smooth, water-worn, and full of corals, was found at the bottom of a well underlaying the clay. The surface appearance is generally as above mentioned, different localities showing different kinds of rock in the soil; but by penetrating the clay vertically, we find the various kinds at different depths, thus showing that the deposit was gradual, and that various icebergs were stranded on the same place at different times, and thus the sea bottom was covered to some hundreds of feet with this miscellaneous formation.

The general color of the boulder clay is compounded of the shades between white and red, generally yellowish, but very variable in color, seldom dark or black: even the blackest hornblend boulder decomposes into redish clay.

We suspect, also, that much of our boulder clay came here in the form of stone, for upon penetrating the clay, we sometimes find portions of it imperfectly stratified, occasionally stratification is perfect for very short distances, as in sand, (see the section), but we now



BOULDER CLAY.

1. Boulders, red green, black & mixed.
2. Rotten boulder crushed by pressure.
3. Rotting rose colored granite with unrotted nucleus.
4. Semi-stratified clay of different colors.
5. Finely stratified sand, like beach sand.
6. The general mass of the boulder clay.

Fine grained sandstone & conglomerate.

NEW ENCRINITAL LIMESTONE.

Place of the bituminous coal.

CORALLINE LIMESTONE.

OLD ENCRINITAL LIMESTONE.

Variegated marlite and Jefferson building rock.

Prismatic, or coralline sandstone.

White sandstone.

A succession of marlite, limestone, arenaceous and argillaceous limestone; but no continuous sandstone, reach from the white sandstone to the water line of the Missouri river, a distance of near three hundred feet at Jefferson city. Some fine oolitic limestone, in very regular strata, occurs in the upper part, and some oolitic chert in the lower part of this series. Only a slight approximation to relative thickness is given in this section.

and then encounter a mass of clay not like that which surrounds it, but all alike. On one side of a large cistern, while in being dug, I saw a mass of clay, some ten feet in diameter, much redder and more homogeneous than that surrounding it, with a nucleus of rose colored felspathic granite in the center, about a foot in diameter. That this had been a boulder of about ten feet each way, was as plainly marked as if the whole rock had remained solid granite.

As regards the manner of depositing this clay, it appears to me, that taking the whole of the observable phenomena together, impossible to arrive at any other conclusion, than that it was deposited in water. How otherwise can we account for the seams of finely stratified sand that are occasionally met with, sufficiently extensive to carry off water from a cistern well. For it should be remembered, that persons that live on this formation have no springs, nor can they obtain water by digging wells in the ordinary manner; but they form cisterns by digging in the common form for a well, wall it up and running in water from above by means of a house roof or shed constructed for the purpose. In this way the cisterns, or wells as they are here called, hold water perfectly; except when in being dug a seam of stratified sand is encountered, and so well are well diggers aware that this will drain off the water, that, unless the sand is so near the surface, that they do not care for the water to stand higher in the well than where the sand occurs, the digging is at once abandoned and another site sought for at some distance, so as to avoid the sand. The glacial theory might account for the different kind of rock being found near each other in groups, because in countries where much upheaval has taken place, very different rocks are near each other on the same place, but cannot account for the great difference in the kind of rock found at different depths overlying each other in this singular formation.

What is meant by the glacial theory here, is the doctrine imputed by an American writer, whose notice I saw in some periodical, to Mr. Lyell and M. Agazis, to wit, that the scratches found on rocks, and the dispersion of boulders was due to the action of ice upon land; true glaziers; and that to support it, they had manufactured an ultra arctic climate for our hemisphere at a late period of its history. It is but justice to these very eminent gentlemen, to say that I have seen nothing of the kind from themselves, except Lyell's Hypothetical Climates in his principles.

The strongest argument to my mind, in favor of the glacial theory, is the scratches observed on mountain or hill sides, apparently made upwards. Whether these are entitled to the weight assigned to them, I can not say, having not seen anything of the kind, but have thought that by possibility the country may have been elevated since the scratches were made. We can all see how rock may be scratched at the bottom of a shallow sea by icebergs, such as we now see in the northern seas charged with rock: that portion of the floe heaviest charged with rock, of course, would hang below, and when considerable momentum should be given the iceberg by wind or oceanic currents, upon coming in contact with the bottom, would plough it up if soft; and if hard rock, as limestone, and the iceberg contained at its bottom a hard quartz or granite firmly held in the ice, as the glacier's

diamond in metal, the limestone would be scratched more or less in the direction of the wind or current, as has been observed in Ohio and elsewhere.

Further, I can not conceive how it would be possible for glaciers to remove much the largest portion of the fine grained sandstone, and a great deal of the new encrinal limestone, and carry the debris hundreds of miles (for it has not been left in this basin) and deposit the drift upon the sloping and denuded edges of the rocks. But the sea may have done it. And the natural effect of water in a shallow sea would be to denude such portions of its bottom as was most elevated, and carry the debris away.

The country attempted to be described in this paper, constitutes a small part of an extensive basin, extending from an anticlinal axis in Indiana on the East to a supposed axis of elevation crossing the Missouri river near Jefferson city on the West: and from the Ozark mountains on the South, to where the coal bearing rocks crop out, not very far from latitude forty-two on the North. Intermediately the rocks are nearly horizontal, not dipping from the anticlinal axis near Jefferson city to the Mississippi river, more than about three hundred feet in a hundred miles, and showing scarcely a fault or a fracture, so that they have never been more disturbed in position than they now are.

FINE GRAINED SANDSTONE.—The upper member of hard rock visible in our region, is the fine grained sandstone, which is only found occasionally lying upon, or filling depressions in the next lower, the new encrinal limestone. It is a fine grained sand rock, variegated, reddish, bluish and ashy white: sometimes minutely stratified, the strata occasionally differently colored. It is what is called sharp grit, that is the particles appear to be angular or very little rounded; hence it affords good grindstones. It is not micaceous at any point seen by me. The very minute sparkling particles sometimes seen on its surface, seem to be reflections from facets of quartz particles.

I do not know what its capacity may be for resisting high degrees of heat, but it looks like some fine sandstone I have seen. No organic remains have been seen in it, though it must be confessed that very little search has been made for them. It seems in one place to be capped by a light conglomerate consisting of rounded pebbles in a clay matrix, and light iron ore in small cubes. Again its place appears to be taken by brown oxide of iron in stratified masses like the sandstone, which is sometimes so arenaceous as to constitute a true ferruginous sandstone: but is frequently a pure brown oxide of iron.

This rock is admirable adapted to building purposes, being soft in the quarry, so as to be cut freely with the pick-axe, but becoming hard by exposure to the air, maintaining sharp angles when it is exposed in cliffs without much cracking. The diversity of color seems to depend upon the presence of iron in different degrees of oxidation. It sometimes becomes blacker upon exposure to the weather, and I think always redder by much heat. This is obviated in selecting for architectural purposes by choosing the ashy colored portions of the rock, which, indeed, predominates.

As before observed, this rock is only found in detached masses, filling depressions left in the rock below by movements of elevation

If it was ever continuous, it has been denuded extensively: most likely while it was being elevated, and while it was yet soft and wet, seeing that deep in the quarry it is yet soft, but very hard and unyielding when fully dry. The tumultuous action of the sea antecedent to the deposition of the boulder clay, may well have torn away most of this wet sand; and that this season of tumult did exist at that time, is proven by the fact that the place of this sandstone is sometimes taken by coarse conglomerate, made up of rounded pebbles, varying in size from a foot in diameter to coarse sand, in a clay matrix, which at Fulton is exposed in mural cliffs of about sixty feet in height. The boulder or erratic black clay reposes quietly upon it wherever the sandstone or its equivalents have been able to maintain their integrity. When they have been removed, the clay lies on the rock below.

NEW ENCRINITAL LIMESTONE.—Under the fine grained sandstone lies what I have denominated the new encrinital limestone. The circumstance of its underlying the sandstone renders it more general than that rock, as it has been less accessible to denuding operations. It occurs in strata of from one inch to four feet in thickness, generally 8 to 18 inches. It is more disposed to be cavernous than any rock we have, some stalactites in those caves that have been explored, are semitransparent; but they are generally opaque, and plainly composed of concentric coats. This rock is subcrystalline, and made up in great part of broken columns of encrinites with many characteristic shells. It is, when of the best quality for architectural purposes, of a light sky blue color, rendered white by hammering. At other places it becomes more or less yellow, and whether this yellow color is owing to the presence of iron, magnesia or clay, I have not certainly ascertained, but am inclined to the opinion that it is clay, from the fact that when the stone is very yellow, it is generally soft, and disintegrates rapidly when exposed in cliffs. It is a superior building rock, being in layers of every convenient thickness, and retaining a uniform quality over considerable areas: at the same time it is not very hard, but is tough enough not to splinter or chatter, as it is called by workmen, under the hammer or chisel, at the same time it is very durable, being able to resist atmospheric vicissitudes a long time. It also is able to bear considerable ranges of heat, it being the best stone for fire-places, except the old encrinital limestone hereafter to be described, which last is the second rock below that now under description.

The encrinites in this rock are large and well preserved, some of them being an inch in diameter. They are mostly round but manifestly of different species; some, however, are spheroidal, though the latter kind are not numerous. This stone contains many shells in addition to its encrinites, not generally very well preserved and difficult to detach from the rock, many of them appear to be different from those found in the rock below.

This stone, in some localities, contains much chert imbedded in its substance, like flint in the chalk; being in rows conformable to the stratification, and nodular masses. In the stone under consideration these masses are much flattened, and are frequently whitish, sometimes chalky, but occasionally dark, now and then of variously colored

lamina arranged concentrically. Sometimes near a fourth part of the entire rock is made up of these cherty masses; but the singularity attending it is, that although the limestone is almost entirely made up of organic remains, none has been seen in the chert, except some pretty well marked impressions in this chert as it occurs near Fulton. This is directly opposed to phenomena observed in the chalk, and so far as I know to all analogy; organic remains or their impressions being most likely to be preserved in flint. A more diligent search may detect organic remains in this cherty matter at other localities, but this will not cure its want of analogy, organic remains preserved in flint being in chalk the rule and here the exception.

This rock varies in different localities in thickness from ten to forty feet.

CORALLINE LIMESTONE.—Immediately below the new encrinital limestone occurs the coralline bed, which is perhaps the most important rock we have on account of its considerable thickness, its great range, its organic remains and its mineral contents, our bituminous coal lying within it, above its middle. It is commonly an unsightly rock to the builder, being not always regular in its stratification, and decomposing into large hard lumps and flattened masses, thickest in the center on the hill sides, where it is exposed to the weather. These masses are commonly large corals, as *astreas*, (*Madrepore*) and clusters of turbinated *Cyaphyla*. In some places, however, as on *Chorette*, in Warren county, it occurs in regular strata, and of the whiteness of statuary marble, but of finer grain; though its uniformity of texture is so frequently interrupted by the presence of organic remains, which for the most part has been cemented into crystallized carbonate of lime, that it will not likely answer the purpose of marble, except perhaps for indoor ornaments. This stone varies much at different places in its lithological characters, though it is nearly always highly charged with organic remains, the bulk being made up of corals of many species, large and small. Shells abound of numerous species, spirifers, producta, orthoceratites, ammonites and strophomina abound, with a great variety of others not known to me. The shells are often in a state of excellent preservation, retaining their pearly lustre, but are very difficult to procure owing to the hardness of the rock in which they are firmly imbedded. Sometimes, however, the rock in certain localities is soft, and the interior of shells filled with hard carbonate of lime, in which event the stone is washed away by the action of water in rivulets leaving the coats of shells very perfect and abundant. Some of this rock is yellow, and destitute of shells; in this case it is called ochre, and is used as a lithic paint. In this rock a good deal of argillaceous iron ore is found, rather poor and often pyritic.

But the great deposit of value in this rock, is the bituminous coal which occurs in the upper portion of the bed. It has been observed, that where coal is found, the coralline limestone appears to thicken up at the expense of the beds below, especially the old encrinital limestone and Jefferson building rock, and perhaps of the prismatic sandstone and underlying white sand. The coal is overlaid by a few feet of black bituminous shale, and underlaid by shale or clay, more or less indurated, of various colours, often of considerable thickness

containing some crystals of sulphate of lime and iron pyrites, but is not thought to be bituminous.

The great variety of shells preserved in this rock presents to an eye, little practiced as mine in fossil conchology a perfect confusion: univalves straight, closely coiled, loosely coiled, or so coiled as that the parietal of the shell shall not quite touch, chambered and unclambered, with and without siphuncles. Bivalves without number, with some crustaceous; corals from the size of a hair to hemispheres of a hundred pounds weight, heaped promiscuously together, presents a labyrinth that the clue afforded by paleontology alone can unravel. It is somewhat singular that among the coal, the overlying shale and the underlying clay, I have not been able to find the impression of a plant or anything certainly of vegetable origin. True some specimens of coal upon the surface of deposition looks to be made up of charcoal from small sticks pressed together in confusion, but I have not been able with any glass in my possession to detect vegetable fibres in them.

The coal is the common bituminous coal, such as is found near St. Louis and in the Illinois coal field generally, and is not greatly different from that found at Pittsburgh. On the waters of Loutre (east), it is only two feet thick, while on Cedar (west) the same bed is eight feet thick; the county of Callaway intervening; in crossing which, from east to west, it thickens as above from two to eight feet.

The lithological character of the coralline bed varies from a very hard compact limestone, of texture adapted to the reception of a finer polish and splinting fracture, to a soft porous stone unfit for use. Its want of uniformity in texture and lack of free stratification, (the strata deep in the quarry frequently becoming united together, or cease to be stratified,) together with its rough exterior where exposed, and its known disposition to crack by heat, has given it a bad name among builders as a material, except for cellar walls and other coarse work. But it is our most valuable stone for lime, indeed there is no other rock in our country that will make good lime. There appears to be little or no difference in the color of the lime made from white and dark portions of the rock, the color being expelled by burning. Indeed some specimens of this rock is as black as Egyptian marble, and yet make white lime. The coloring matter in this case is probably bitumen, as all our fossiliferous limestones emit an odor of petroleum upon being rubbed together, and at the same time give the smell of clay upon being breathed upon. The yellow portions of this rock is, however, not used for lime burning.

This rock, like limestones in Europe and elsewhere, frequently becomes arenaceous. When it is sandstone, there are no shells in the sandstone itself, but by careful examination nodules of limestone may be found imbedded in the sandstone, rich in fossils characteristic of the coralline bed. This bed varies in thickness from fifty to one hundred feet, and perhaps more.

OLD ENCRINITAL LIMESTONE.—This is a stone of no great thickness, underlying the coralline bed. It is frequently arenaceous and argillaceous in its lower portion, and variable in texture, being sometimes hard and again soft. Its upper portion appears to be made up, even in a greater degree than the new encrinital limestone, of broken

stems of encrinites; though they are so broken, and so thoroughly incorporated into the sub-crystalline texture of the rock as at first sight almost to escape observation. When exposed in cliffs, it is in a rotten crumbling condition, insomuch that the people call it a coarse sandstone. It sometimes forms low cliffs notwithstanding its crumbling condition, because its strata are thick, and it has a tendency like the cliff limestone of Ohio, Indiana and Wisconsin, to break vertically. It looks not unlike the true cliff limestone, and like it burns into lime with great difficulty, making a coarse yellowish lime; but upon being dissolved in sulphuric acid, no magnesian crystals are formed.

It is decidedly the best material we have for lining fire-places, indeed it bears far better than any limestone I ever saw, becoming harder by the heat usually raised in such places. This stone may be valuable for large buildings when thick strata are desirable, being, no doubt, hard deep in the quarries, for it appears to be the weather that has partially decomposed it in exposed places; but we use it only for lining fire-places, and for that purpose prefer the crumbly portions on the surface, which have long been exposed to atmospheric vicissitudes, and really know nothing of the rock as it occurs deep in the ground. Corals other than encrinites have not been observed in this rock, except a very few cyaophyla, it however contains shells not in a good state of preservation. They are not generally diffused through this as is the case with the rock above it, but seem confined to certain localities, where they are sometimes seen in great abundance, individually, but nearly all of one or two species. It is, however, interesting as being the first or oldest rock we have that contains them at all, at least so far as we yet know. In this rock the encrinites, though numerous, are small, and do not appear to be exactly of the same kind of those that occur in the new encrinital limestone.

I am inclined to think that most geologists would class this, the coralline bed, and the new encrinital limestone together, and call them one rock, because encrinites which are first seen in this, can be traced through the coralline bed, even where thickest, into the new encrinital limestone; though they are very rare in the coralline bed until near the upper part where they become more numerous and larger. But at the beginning of the coralline bed the encrinites of the old encrinital stone seems to have been cut off suddenly, scarce a trace of them appearing for a considerable distance. In fact the whole appearance to my eye seems suddenly to change lithologically and paleontologically, both at the beginning and end of the coralline bed. The old encrinital bed is from ten to twenty feet in thickness, and is sometimes wanting, as intended to be represented in the section.

THE JEFFERSON BUILDING ROCK, OR ARGILATIO SILICIOUS.—Under the old encrinital limestone occurs about twenty feet, sometimes more, of variegated marlite containing more or less abundant strata of the Jefferson building rock: so called because it is very well developed at the city of Jefferson, and is the material of which the body of the State capitol is built. It is the argilatio silicious limestone of Dr. King. It is easily recognized when seen by its smooth uniform texture and fine grain, as well as by its beautiful even stratification, resembling in this respect the description of the English Lias—though unlike that it contains no organic remains,

As the name given it by Dr. King imports, it is composed of lime; clay and fine silicious particles; at Jefferson city it is found in very harmonious proportions, that is, the proportion of each is such that a rock is produced of great beauty and easily wrought. It is, however, not always thus constituted, being sometimes too hard and again too soft as silex or clay happens to predominate. At Portland it is too soft, containing an excess of white clay which renders the stone very handsome, easily cut with a knife or chisel, but too soft for durable architectural purposes. At Prairie-Fork it is too hard to be easily wrought, the hardening principle being an excess of silex, which renders it more durable than elsewhere. At Danville it contains an excess of lime, which whitens and hardens it, renders it too brittle to work well with hammer or chisel, and liable to crack by exposure to the weather. Some large lumps have been observed in this bed, perhaps not exactly belonging to the seams of the Jefferson building rock, which, it is thought, might answer for coarse statuary.

It is probable that the marlite of this bed will at some time be found useful in fertilizing our lands when they become exhausted by cultivation. Some of the seams are purely argillaceous, but commonly they effervesce freely with acids, and are quite indurated, but disposed to disintegrate readily upon exposure to the weather.

PRISMATIC SANDSTONE AND UNDERLYING WHITE SAND.—The last mentioned bed rests upon the only sandstone of any extent in the district of country drained by Loutre river. The upper member of this sandstone I have named provisionally prismatic sandstone, from the circumstance of its vertical arrangement of grain, or its disposition to break vertically, and its entire want of stratification. To my mind's eye it presents somewhat the appearance of having once been a sea bottom covered with weeds or corals about the height of rye, but standing so thick as almost to touch each other, and then quietly filled to the top of the weeds with sand which ultimately took place of the vegetable fibre, and which was afterwards, in most places, consolidated by oxide of iron in solution. It is sometimes nearly white, in which case it is scarcely more than an incoherent sand, still showing the vertical arrangement, but commonly it is a hard red sandstone, overlying conformably a considerable thickness of white sand. It is from two to six feet thick, and owing to its hardness and manner of breaking it frequently stands in mural cliffs protecting the underlying sand. The sand of which it is composed appears to be grains of pellucid quartz slightly rounded by attrition, stained and cemented together by iron.

The grain is too coarse for grindstones except those of the coarsest quality, and owing to the rounded condition of its particles, it is not sharp enough. It is sometimes used for supports under the corners of cabins and underpinning for barns, for which it is a good material.

The white sand underlying the prismatic sandstone may be termed saccharoid, resembling a good deal fine loaf sugar. It is commonly white, and though sometimes hard when encountered deep in the ground, it disintegrates rapidly when exposed to the weather; and is frequently seen in cliffs under, and protected by, the prismatic sandstone, crumbling down and forming a talus of snowy whiteness at the foot of the cliff. It is made up of comminuted fragments of nearly

pellucid quartz slightly worn, and although as before observed, it is commonly white, there are localities where it is reddened and hardened by iron, in which event it becomes a pretty firm stone, used frequently for building. It is stratified thinly in places, in others the strata may be four feet thick; frequently no marks of stratification can be seen. A singular circumstance in relation to stratification is to be seen in this rock, indeed, it could not obtain in any but a sandstone. I mean a stratification oblique to the line of deposition. These lines of false stratification dip in different directions as the location varies where it is observed, showing that these strata were not produced by a general cause, but by such as were local and perhaps temporary in their effects.

Mr. Lyell has shown how such strata can be formed by sand moved by the force of wind, and I saw and made a drawing of similar strata in a sand bank in the Missouri river, produced by the action of the waves and current. An idea may be readily formed of those oblique or false strata by inspecting the section accompanying this, where an attempt has been made to delineate these strata as seen in the rock. They have already been formed in a shallow sea or on land, where the waves or wind could drive along sand dunes, and form these strata by rolling down sand on the leeward or protected side of the dunes; and as no organic remains have been found in it, the determination of its sub-marine or sub-aerial formation may be somewhat difficult.

I am inclined at present, judging from a single location only, to think that the cannel coal is found immediately under this sandstone. The locality referred to is the celebrated "Cote sans des Sein mine," where a sandstone agreeing with this lithologically is seen overlying the bed, and as I know of no other such sandstone in the country, I suspect it is the stone under consideration. To be sure, some of the arenaceous limestones of Loutre may be sandstones on the Au Vase, but near the Cote sans des Sein mine, the coralline limestone is found at about the proper height above this stone to identify it as the white sandstone of Loutre. The prismatic sandstone was not observed on the Au Vase, but it was not looked for as I did not then know where to look for it, or that it was of any geological importance.

This is the only rock in our region that baffles the efforts of well-diggers, it is too hard to dig with the pick-axe, and too soft to blast advantageously; besides it cuts their tools badly.

If, as I suspect, the cannel coal lies under, and near this rock, it may lead to the discovery of that important fuel in places remote from Callaway and Cole counties, where it is now found. This rock is found under the entire country drained by Loutre, and has been traced into Warren county on Chorette, and along the Missouri river to near Pinkney, where it plunges beneath the water down stream. But as the edges of all the strata must curl up in the direction of the Iron Mountain, this rock probably shows itself again in the southern part of St. Louis and Franklin counties, where cannel coal may possibly be discovered. But this at the present time is wholly hypothetical, as no opportunity has occurred to me of examining that region.

This coal bed is probably the most extraordinary known. Some have thought that it might be a local deposit, or out of place and tilted on edge, which could account for its great apparent thickness at Cote

sans des Sein. But it is found on both sides of the little river Au Vase, and on both sides of the Missouri river, at a number of localities at about the same altitude; and is now said to be found further west in the county of Cooper. I have specimens from every known locality, and they are all alike, except one which differs somewhat from the others in appearance, though it is cannel coal, and does not differ in burning from other samples of that fuel. The lines of deposition in the bed at Cote sans des Sein are very indistinct, but appear to me to be horizontal. 'Tis true that the freest lines of parting dip at a very great angle, but I pretty well satisfied myself that they were lines of cleavage.

The coal in its appearance and burning resembles the best Scotch cannel coal; though it ignites easier and burns purer than that fuel. But the great characteristic of this bed is its extraordinary thickness and perhaps its wide diffusion, the bed having been penetrated forty feet at Cote sans des Sein, without passing through it, or finding a seam, or any changes, except a supposed improvement in quality; and the bed having been already found in several counties, at great distances and on each side of the Missouri, and likely of the Osage river. While in Europe this kind of coal is only found occasionally, and as would appear rather an exception to the great bituminous formation, it is here the principal, only one seam of coking coal being found in this part of the State, and that only from two to eight feet thick, while the cannel coal seam is more than forty feet without a seam. The bituminous or coking coal has its place in the coralline limestone of the sketch, and the cannel coal about 150 feet below; probably just under the white sandstone of our vicinity.

ROCKS BELOW THE WHITE SANDSTONE.—Here we find a vast succession of stone, in thin strata mostly; but occasionally we meet with a thick stratum of very hard limestone, commonly containing numerous small cavities lined with calc. spar. Some of these thick strata would make a more durable building material than any stone in the country, if its hardness and its maintaining sharp angles for ages in the exposed faces of cliffs be a good test.

Near the upper part of this series oolitic limestone is found in place on the Dry-Fork of Loutre, and near the bottom, at Portland, occurs layers of oolitic chert. No organic remains have been found in this, which is much the thickest bulk of our rocks; or indeed, in any below the old eocrinital limestone, unless by possibility some appearances in the oolitic limestone may be bones of fishes.

The whole formation in this section of country below the white sandstone may be called a succession of impure limestone strata, of various and uncertain colour and quality, argillaceous, arenaceous and some nearly pure limestone strata forms this group with occasionally thin seams of sandy marlite, colored red, yellow, blue and sometimes green.

In exposed faces of cliffs in this series frequently a great deal of the rock is brecciated, in other places no breccia can be seen. Commonly the included fragments are small, but sometimes they are a foot or two in diameter. The coarsest breccia observed consisted of flint included in coarse sandstone. Most of the fragments included in limestone are flint also. No one strata in this series appears to ex-

tend far; indeed to the observer it presents the appearance of having been formed in very turbulent times, and under circumstances inimical to animal life: therefore we are not surprised at finding no organic remains there. However, I saw some chain coral in sandstone on an ancient mound that had either been procured from this series, or brought from a considerable distance. And very lately I have seen at least two species of calenepora in sandstone on the bank of the Missouri river, below Portland, that I think must have come from this formation, though they were not in place.

The portion of country drained by Loutre and the river Au Vase is a nearly perfect plain, except where running water has scooped out ravines. The rocks, where they can be seen on each side of an intervalle, even that of the Missouri, are the counter part of each other. There are, however, a few cases of want of uniformity of intensity of the elevating force, but only one fault has been seen, that of the city of Jefferson, and even that is not a fault certain, but may be a rapid cunner of the strata, part of which is concealed by overlying detritus. Our rocks when viewed on a small scale appear to be perfectly horizontal, but it is believed that a part of Callaway and Boone counties lie on an anticlinal axis: for from Callaway county east the rocks certainly dip two or three hundred feet in a hundred miles; because the coralline limestone containing our bituminous coal dip so much that from being nearly the highest rock in Montgomery, it comes half way to the water line of the Missouri river, at the west line of St. Charles county, and at the town of St. Charles it is believed to occupy the lowest uplands by its upper members, where it bears some coal, and at the chain of rocks near Bellefontaine it is seen plunging beneath the water of the Missouri river as you descend. Thus at Bellefontaine, (if I am right in my opinion of the stone seen there,) it would seem that the coralline limestone had disappeared below the water, but as I elsewhere remarked, the strata may curve up in the direction of the Iron Mountain. Accordingly we find that at the city of St. Louis it is again above the water line, and south of that place it probably obtains a still greater elevation in the direction of the Marmac river, and is again bearing coal.

If these conjectures be well founded, (for I acknowledge that out of Callaway and Montgomery counties they are little else than conjectures,) the coralline limestone may be the coal bearing rock throughout Illinois.

It has been thought by eastern geologists that the coal could not be below the encrinital limestone, because it was contrary to all analogy. But, although there is an encrinital limestone below the bituminous seam, (the old encrinital limestone) it is much less entitled to the appellation than the new encrinital stone, on account of the encrinites in the former being much less developed and much smaller than in the latter. Foreign geologists also think that coal should always be liberally accompanied by sandstone and conglomerates, when in point of fact although we have abundance of coal, we have but a single sandstone of any importance, and only an occasional trace of conglomerate exists at Fulton, where it is seen fifty or sixty feet thick at a single locality.

Now if it be true, as is intimated by travelers, that no rock containing organic remains is found at or near the mining country, in the vicinity of the Iron Mountain, and that near that place or at it, the granite becomes the surface rock, forming there an anticlinal axis, from whence the lead bearing rocks dip away south under the chalk and other members of the secondary series; and north under the coal and fossiliferous strata of the northern part of the State: it must be true that none of the lower fossiliferous rocks occur in this country; that the devonian, silurian and cambrian systems comprising such an immense thickness in Europe and in New York, is wanting here; or can it be that one coal is below other coal? If the granite ridge near the Iron Mountain be really granite in place, as I suppose it is, the thickness of rocks intervening between that and our protozoic strata are inconsiderable, and can be easily enough traced out by a competent geologist carefully examining the strata that will be found dipping north from said granite ridge to the Missouri river, and particularly those rocks denuded by the Maremac and its tributaries. When this is done, it may be found that the Devonian and Silurian which are in force as far west as Louisville, has thinned out, and that the coal measures rest directly on the magnesian limestone and saccharoid sandstone found to underlie the blue limestone in Wisconsin; or that the cliff limestone, so rich in fossils elsewhere, has lost them here, and bears metallic ores in their stead. Be this as it may, it is a matter of great interest to determine the point, and to class our rocks properly, both to the man of science and to the practical miner. Much valuable ore has been rejected as worthless and thrown away by our miners for want of knowing what to expect to find among the rocks where they worked, and for want of some knowledge of the appearance of metals in their mineralized state. All this might and should have been obviated ere this by a scientific examination and classification of our rocks. The greater interest is felt in this matter because of the fact that our lead bearing rocks somewhat confuse foreign geologists who have looked at them, none having traced them to any fossiliferous strata, some refer them to the very lowest, others to the highest rocks that can possibly bear lead. In fact our lead bearing strata are generally looked upon as a geological enigma. It is believed that this enigma can be solved completely by examining with care a line from north to south of a hundred miles in length, which, considering the nearly horizontal condition of our rocks, would embrace but a small thickness of strata.

ARTICLE IV.

The World's Fair at New York.

AN ACT to appropriate money to aid in exhibiting the natural and other resources of the State of Missouri, at the World's Fair, to be held at the city of New York, in May, 1853.

Be it enacted by the General Assembly of the State of Missouri, as follows:

§ 1. That Luther M. Kennett be, and he is hereby appointed the Agent of the State, to collect from all parts of this State, specimens of the mineral, agricultural, mechanical and other productions of this State, to be forwarded by him to the World's Fair, to be held in the city of New York, in May, 1853; and for this purpose, the said agent shall take such steps as he shall deem necessary, to carry out the objects hereby contemplated; and to enable said Agent to discharge the duty hereby assigned him, the sum of four thousand dollars is appropriated out of any money in the Treasury of this State, not otherwise appropriated.

§ 2. The Auditor of the State is authorized to draw his warrant from time to time, in favor of L. M. Kennett, for such sums as he shall call for, within the amount of the appropriation hereby made.

§ 3. The said Agent hereby constituted, shall be required to make report to the Governor of this State, as to the manner in which the duties under this act are performed by him, so soon as practicable after his labors shall cease under this Act.

§ 4. This Act to take effect and be in force from its passage. Approved, February 24, 1853.

Exhibition of the Industry of All Nations at New York.

THE UNDERSIGNED having been appointed by Act of the Legislature, agent for the State of Missouri, to take charge of and forward to N. York, such articles of the growth, product or manufacture of the State as it may be for her interest and advantage to exhibit at the Great Fair of Industrial Exposition about to take place in the city of New York, gives notices that he is prepared to receive and forward to their destination, free of expense, all articles of the character mentioned in the circulars published by the Committee at New York, and the auxiliary Committee of the city of St. Louis.

The cereal products and other Agricultural staples of our State, and especially its Mineral Treasures should be fully represented. The committee say "we are particularly desirous that our building should contain a complete collection of the various ores, which the active industry of our people is daily bringing to light, of the metals produced from them, in their various stages of development, and also of all other minerals. This includes coal, granite and

other similar substances, also chemical products more especially used in the arts. The ores should be accompanied by the rocks in which they are found, and if possible by plans and sections of the measures in which they lie. It would also be of great interest to exhibit, either by models or descriptive drawings, the different processes employed in the reduction of the ores and the manufacture of the metals. All specimens forwarded will be classified and arranged so as best to subserve the objects of the exhibition, and add to the general information and experience of our people. Paintings in frames, and sculpture, will be received and exhibited." For further particulars, reference is made to the circulars of the association, which have been generally published in the newspapers of the State.

The undersigned will receive and pay charges on all articles intended for the exhibition forwarded to his address, and will submit the same to the auxiliary committee in St. Louis for inspection. All such specimens as may be approved by the Committee will be forwarded to New York, at the charge of the State of Missouri, and proper means will be taken to insure their exhibition at the Fair in a suitable manner, and the disposition of them afterwards as the parties furnishing them may desire. To this end the Agent appointed by the Legislature will attend the exhibition, if the interest excited should furnish such an amount of her products as to do justice to the vast resources of our State. For full information and all particulars respecting the Exposition, address **M. TARVER, Esq., Secretary of the Committee at St. Louis, or**

L. M. KENNETT.

NOTE.—Individuals possessing knowledge of any valuable or rare mineral, and not intending to exhibit the same, will please correspond with Mr. Kennett or with Mr. Tarver, who will take steps to have it procured in case it should be deemed a proper object of exhibition.

ARTICLE V.

St. Louis and the Southeastern States.

MR. EDITOR.—I see but one link wanting in the chain to connect us with Charleston and Savannah on the Atlantic coast, and that is, between Cairo and Nashville. Col. Morrison and the Belleville folks intend to construct a road from that town to intersect the Illinois Central Road at Big Muddy,—then we are at Cairo. But Kentucky and Tennessee have delayed and hesitated in regard to this important link, though evidently the most important road in which they could have engaged: for Cairo is to be the most mighty grain and meat depot the world ever witnessed; as much greater than was ever found in Egypt of old in times of famine, as is the Father of waters greater than Cakokia creek. They seem to think their interest is connected with Indiana and Ohio, and

hence have been *talking* about roads from Nashville to Henderson and to Louisville—thence on to Cincinnati.

But what are the Ohio and its tributaries as arteries of produce and commerce, when compared with the Upper Mississippi, Missouri, Illinois and all their branches? All these streams will pour their millions into Cairo. On a road from Cairo to Nashville, thence to Charleston, hundreds of millions of produce would pass every year and find ready sale in Tennessee, Georgia, Alabama and the Carolinas; while all our cloths, silks, everything except the heaviest articles, would come quicker to us by this than any other route; quicker *by weeks* than by New Orleans, and *by days* than through the Ohio. We should find a ready market in the States named for *staple* articles raised among us, also for fruit and vegetables; while the South would have leisure to grow and manufacture cotton, silk, sugar and tea for us.

Because we have always gone to Baltimore, Philadelphia and New York for our goods, and know little about the South; we think the southern Atlantic cities "*mighty far off.*" But they are hundreds of miles nearer than New York or Baltimore. Take the figures—Charleston to Augusta 136½ miles—to Atlanta 170—to Chattanooga about 120, *i. e.* to the Georgia and Tennessee line, it is 102, and perhaps 18 to Chattanooga—thence to Nashville 150, railroad completed 116 miles, through in a month or two—thence to Cairo, the unsupplied link, say 150, and say 150 more to this city: whole distance from St. Louis to Charleston 875 miles; the distance is 13 miles less to Savannah, the commercial emporium of Georgia. Say we travel at 20 miles per hour: 875 by 20 gives 43 hours: we can go to the Atlantic in 48 hours, and have five for the exchange of mails etcetera. With a good boat hence to Nashville, you can reach Baltimore via Charleston, Wilmington and Richmond, 30 hours quicker than by the Ohio river and Baltimore railroad, though it is now completed through to Wheeling.

When the road from Cairo to Mobile is completed, that city will become a great out-let to our produce; but the Florida Cape and Keys are dangerous places for the navigator, and goods ordered that way will be exposed to destruction or very high rates of insurance.

When the road is constructed to Cincinnati, and thence to Wheeling, of course, the whole thing will be changed, and we can soon reach Baltimore, but it will be always require one more day's travel to reach the Atlantic, than by the southern route. Twenty-four hours "*'s some*" in these days of progression, lightning speed and "*'spiritual*" communication.

In conclusion, I ask if we can not, at St. Louis, set this ball in motion? The Nashville folks say they will build this road, and thus

supply this link; and more than once I have rapped their knuckles for their tardiness: yet no move is made. In the fall of 1851, I saw waggons in abundance hauling goods from Smithland, 150 miles nearly to Nashville!

The trade to the southern Atlantic cities and country would be worth more to us in *one year*, if we had a continuous road intersecting with them, than our Pacific road—a noble object, indeed, and well worthy our untiring efforts, will be in the first ten years of its existence. Suppose we send a committee consisting of our most influential and enterprising citizens to Nashville on the next steamer, to ascertain if this missing link cannot be found or manufactured? In the mean time let the memory of the Belleville folks be jogged a little to hasten on their road to the Central.

Another thought: the South by their late commercial convention in Baltimore, are determined to screw up their courage to a higher point in importing and exporting at their own cities, so as not to be dependant on such as reside on the north side of a certain line: now will not our efforts to have a direct communication with them, have a salutary influence, strenghten our friendship and encourage them to import for our immense wants in the West?

Will you allow another suggestion, before the cry of “copy, copy” addresses you? We are to be a great manufacturing city: our boundaries are to be enlarged and crowded in a great degree by a busy industrious population: we shall need ten years hence 50 to 100 thousand bales of cotton to be manufactured; for the South yet, though she has in operation about 200 factories, does not and can not consume a *tenth* part of her chief staple: this road will enable us to procure it at the cheapest rate and of the best qualities. If we buy their cotten, sugar and rice, and patronize their importations, we may reasonably expect they will purchase our flour, corn, pork, bagging, hay and fruits, beside other countless articles.

The interests of St. Louis were never linked with more important measures to increase her growth and prosperity than this very road. Who will interpose to prevent it? What rival interests can operate to produce enmity or create obstacles? We may confidently anticipate the warmest reception in Nashville and “material” aid; also from Charleston, Savannah, Augusta and scores of other towns along its route. Shall we hesitate? or shall we alone put this ball in motion, which will roll the wealth of the South into our city as does our mighty river its unmeasurable waters into the Gulph?

AMICUS.

JOURNAL OF INTERNAL IMPROVEMENTS.**Arkansas and Missouri Railroad.****CHALK BLUFF & FULTON R. R. U. S. GRANT. U. S. SURVEY, ETC.**

Arkansas may be considered the pet child of the General Government. No other State in the Union has been favored with a more liberal grant of the Public Domain. No other State in the Union has been surveyed with such kind regard by the officers from Washington City. A singular coincidence, too, has occurred between the United States Railroad Survey and the Grant of Lands by Congress for that State. From the northeastern to the southwestern corner of Arkansas the survey and the grant are on the same line, while the grant is extended to provide for branches reaching from the eastern to the western boundary all being made to concentrate at the capital, in the heart of the State.

The Survey and the Grant are on the same line, because the survey commenced in the State at the western base of Chalk Bluff, in township 22, range 7, east, at a point due south of St. Louis, and was continued almost in a straight line through Little Rock to Fulton, on Red River; and Chalk Bluff is on the line from Cairo, *via* Little Rock to Fulton; and the grant was made for the railroad on this last mentioned line.

By investigating the report of this U. S. Survey, made by Capt. Barney, which was reviewed in the *Western Journal & Civilian*, vol. 8, page 408, we find the length and the cost of this railroad through Arkansas; and by investigating the Law of the U. S., making this grant of lands to Arkansas, which law is published in this vol., page 346, and applying the grant to the length of this main trunk line, we find the amount of acres granted to aid in its construction; and then, by assuming that the land along the road would be worth \$2.50 per acre, minimum price of lands reserved from the grant, we arrive at a demonstration that the land will be worth more than $\frac{1}{2}$ the construction of the road will cost. And by assuming that the cost of equipment will be \$3,000 per mile, which is a liberal allowance, we find that the cost of the road ready for operation, is only \$2,921,101 more than the value of the land.

This problem is one of momentous importance for the consideration of capitalists, and upon its clear elucidation the "Cairo

and Fulton," or "Mississippi Valley Railroad Co's." bonds will be in demand, and the stock in the road at a premium from the beginning.

We have paid very particular attention to this subject during the six months just past, and will now, in few words, demonstrate the problem, starting with the most reliable basis, and proceeding to the conclusion with the most irresistible reasons.

The U. S. Survey, by Capt. Barney, above alluded to, is the basis of this calculation. The cost of the construction of the railroad from St. Louis *via* Little Rock to Fulton on Red River, 460 miles, with iron rails, 65 pounds per yard, is \$8,316,874 (see report of survey).

The cost of construction of the portion of this railroad, within the limits of the State of Missouri, from St. Louis to Chalk Bluff, 175 miles, is found, on a careful examination and apportionment of the costs of the construction of the 3d division made by Capt. Barney, added to the costs of construction of his 1st and 2d divisions, to be \$3,514,773. Therefore, by deducting the costs of construction of the Missouri portion of this railroad from the whole, the cost of construction of the Arkansas portion of this railroad is \$4,802,101.

Next, as the length of this whole railroad is 460 miles, and the Missouri portion is 175 miles, the length of the Arkansas portion of this railroad is 285 miles.

In order to give an appropriate and definite name to the Arkansas portion of this railroad, which will apply with exact fitness both to U. S. Survey and the Grant of Congress; as township 22, range 7, east, through which the line of the Survey and the line of the Grant both run, *via* Little Rock to Fulton, is near the western base of Chalk Bluff, we will call the Arkansas portion of this road **CHALK BLUFF & FULTON RAILROAD.**

Chalk Bluff & Fulton R. R. is therefore, by the authority of the Agent of the Government, shown to be 285 miles in length; and the cost of construction of *Chalk Bluff & Fulton R. R.*, is, therefore also, by the same authority shown to be \$4,802,101.

By referring to Law of Congress, making the grant of land to Arkansas and Missouri, we find the amount to be contingent mainly on the length of the road, "which lands," in the words of the 2d sec. of the law are definitely described as "being equal in

quantity to one-half of six sections in width on each side of said road." Therefore the quantity of land granted to the Chalk Bluff and Fulton Railroad is equal to six sections in width, in solid body, and to as many sections in length as there are miles on the road.

Now the Chalk Bluff and Fulton road, is, as above stated, on the authority of the Agent of the U. S., 285 miles in length. Therefore, by multiplying 285 and 6, we find that the number of sections granted to the Chalk Bluff and Fulton road is 1710; and as there are 640 acres in a section, therefore 1,094,400 acres are granted to the Chalk Bluff and Fulton road.

Here we will assume, what will, no doubt, be readily acknowledged, by the "knowing ones" in this business, as a reasonable position, that the lands granted are worth, on an average, \$2.50 per acre, as they can be disposed of only after the route is located and "as the work progresses," and therefore the prospective price must be a necessary element in the consideration of the present value.

Taking then this position of \$2.50 per acre, as the average value of the land for the purpose of being "applied in the construction of said road," and as the law declares they "shall be applied to no other purpose whatsoever;" it follows that the value of the 1,094,400 acres is \$2,736,000.

But the U. S. Survey declares that the cost of construction of this road is \$4,802,101, and therefore it follows that the value of the land is worth more than $\frac{1}{2}$ the cost of the construction of the road by \$334,950.

Referring again to the report of survey, we find that Captain Barney says:

"As the cost of construction of depots, station and engine houses, workshops, &c., must depend upon the nature and extent of the business on the road, no provision has been made for them in the above estimates."

The cost here mentioned is called the *equipment* of the road, and includes the costs of locomotives, cars, &c.—everything necessary for the practical operation of the road.

The *equipment* of main leading trunk roads, costs on an average, according to the opinion of the most experienced engineers, \$8,000 per mile; and as the Chalk Bluff & Fulton road is consid-

ered, by the law of Congress, such a trunk road, and as its length is 285 miles, therefore the cost of its equipment is \$855,000.

By adding the cost of construction to the cost of equipment, we find the road ready for operation at a Total Cost of \$5,657,101.

But the value of the land granted to the road was proved to be \$2,736,000; therefore the cost of the Chalk Bluff & Fulton Railroad, in complete running order, exceeds the value of the land granted for it by only \$2,921,101.

We maintain the above as a demonstration of this problem, and challenge any caviller against our conclusion, to find any error in the above calculation, excepting only what would be produced by the addition of $\frac{1}{2}$ of a mile to the length of the road.

Such being the state of this enterprise, and the Cairo and Fulton Railroad Co. having been incorporated, last winter, by the Legislature of Arkansas; all the stock necessary for that Company to obtain is *two millions nine hundred and twenty-one thousand one hundred and one dollars*, in order to finish the whole work, and put it into operation from Chalk Bluff *via* Little Rock to Fulton.

Though the stockholders in the Cairo & Fulton Railroad may realize a *princely*, yet the State of Arkansas will as surely realize an *imperial* fortune from this enterprise.

Missouri is less fortunate than Arkansas, though none the less rejoiced at the brilliant fortune that is now realized, (and yet it can be scarcely realized) by her warm-hearted sister State.

The Missouri portion of the Arkansas & Missouri Railroad forks at Chalk Bluff, on the boundary line between the two States. The General Government applied the survey to one prong, and then applied the grant to the other prong. One prong extends from Chalk Bluff to St. Louis, 175 miles along the line of the survey, though the distance on an air line is not 150 miles, and may be about 160 miles *via* the Iron Mountain. The other prong extends from Chalk Bluff to the mouth of the Ohio, about 100 miles *via* New Madrid. Missouri is therefore on the horns of a dilemma, but she will take the dilemma by the horns, and will finish both prongs. A movement was made in the Legislature of Missouri, on the 19th February, to accept the lands granted by the United States to this State, on the 9th Feb., and to transfer the same to the Iron Mountain Railroad Co. for the purpose of building the

Missouri portion of the Cairo and Fulton Road. As the air line from the mouth of the Ohio to Chalk Bluff passes over the body of the Swamp District, the movement was made to build this road around the Swamp, and alternate sections of the Swamp lands were to be applied to aid in the construction of the road. HON. THO. ALLEN, President of the Pacific Railroad, and member of the Senate, introduced and passed a bill to this effect, on the 19th. But the House of Representatives had passed a bill granting the Swamp Lands to the counties, respectively, in which they were situated. And as the Legislature had resolved to adjourn on the 24th February, the House bill was pushed through the Senate, and the Senate bill was withdrawn from the House for amendment where it remained at the heel of the Legislature, with a multitude of other bills. The Legislature had, however, passed a General Railroad Law, providing for every emergency, and under this general railroad law the Cairo and Chalk Bluff road can be built; and it may be its rails will be laid, along a part of the route, on the bank of a canal to be dug to levee and drain the Swamp District, in connection with a system of internal improvement for Southeast Missouri.

The Iron Mountain portion of the Arkansas and Missouri Railroad will be quickly extended through South Missouri to the point of bifurcation at Chalk Bluff.

Various routes have been surveyed from St. Louis to the Mountain, and the one just concluded makes the center of the Mountain 82 miles from Hazel St., St. Louis. Modifications may be made reducing the distance to 79 or 80 miles, modifications dependent on selection of route with the view of best accomodation of the country. Grades are not over 45 feet per mile, and that only at few points.—Cost in operating order about \$30,000 per mile.

Private and corporate subscriptions of stock in the I. M. R. R. amount already to several hundred thousand dollars. St. Louis Co. alone proposes to increase its subscription to \$500,000, State Credit has been conditionally granted for \$750,000, which, together with the additional private and corporate subscription reasonably anticipated, when wanted, from St. Louis and along the route, will amount to \$2,000,000. The balance will be raised by the contractors and on the bonds of the Company.

The Iron Mountain is about 80 miles from Chalk Bluff, and therefore by this route, Chalk Bluff will be about 160 miles from St. Louis. And as by Capt. Barney's survey Chalk Bluff is 160 miles from Little Rock, Little Rock and St. Louis will be—about 320 miles—only $\frac{1}{2}$ a day apart.

Memorial of Minnesota.

LOUISIANA AND MINNESOTA RAILROAD.

The cause of the Mississippi Valley Railroad is espoused with a bold spirit in Minnesota. One of its leading and influential advocates wrote us the following, under date

Mr. Henry Cobb, St. Paul, Min., Feb. 19, 1853,

DEAR SIR:—It affords me pleasure to be able to inform you that the bill of which I sent you a copy some days since, chartering the Louisiana and Minnesota Railroad Company of Min., has passed both branches of the Legislature, and is now a law. We have passed several other R. R. charters, but it appears to me that the one referred to is the most important. We expect here in Min. to connect your great southern R. R., at this place, with the Lake Superior R. R., for which we have a charter. We will need more means than can be raised in Minnesota to accomplish this, but we trust our southern capitalists will take sufficient stock in the Minnesota portion of the road as will enable us to go on with it.

There is now a grand struggle with eastern capitalist, to secure the trade of Minnesota; there has, during the present session of the Legislature been several eastern companies asking for charters to build railroads through Minnesota, such men as * * * * * and many others. Will you allow the East to secure the valuable trade of the Northwest? * * * * *

Yours, truly,

GEO. W. FARRINGTON.

We would here state that St. Charles County proposes to take \$100,000 in the N. M. R. R., and St. Louis County alone \$1,000,000; \$500,000 in the N. M., and \$500,000 in the I. M. R. R. links in the chain from Louisiana to Minnesota. The I. M. R. R. is already surveyed, and the work rapidly progressing.

The following is the Memorial to Congress introduced to the Legislature of Minnesota, Feb. 4th, 1853, by Mr. Farrington, member of the Council, and author of the above letter.

MEMORIAL OF MINNESOTA.

TO CONGRESS, MEMORIALIZING FOR A GRANT OF LAND TO AID IN CONSTRUCTING THE LOUISIANA AND MINNESOTA RAILROAD.

To the Hon., the Senate and House of Representatives of the United States in Congress assembled:

The Memorial of the Legislative Assembly of the Territory of Minnesota, respectfully sheweth:

Whereas, the subject of connecting the Gulf of Mexico and the Territory of Minnesota by a railroad, is now deeply engaging the attention of the American people in the valley of the Mississippi river; and in view of the contemplated construction of such a road from New Orleans to the northern boundary of the State of Iowa, the Legislature of Minnesota, at its present session have passed an act incorporating the Louisiana and Minnesota railroad Com-

pany, for the purpose of building and constructing a railroad from a point on the Mississippi river, in the vicinity of St. Paul to intersect the aforesaid contemplated road; thus making a complete communication through the States of Louisiana, Arkansas, Missouri, Iowa, and the Territory of Minnesota, which is most desirable, and every year becoming more and more indispensable.

The vast Territory South of the Minnesota river lately acquired by treaty, from the Sioux Indians, abounds in rich and fertile prairie, in extensive forests, is well watered by numerous lakes, as well as from rivers and smaller streams, arising into the interior and flowing in the Mississippi and Minnesota rivers.

This part of the Territory is also supposed to abound in mines of lead and iron ore, which yet remain undeveloped; in connection with these natural advantages, the construction of the proposed road, offers increased inducements to the emigrant and settler seeking a home in the West. The rapid settlements, and the ready sale of the lands both upon the rivers and in the interior, whenever they are brought into market; the speedy conveyance of the mails, the transportation of men, munitions of war and provisions to the military posts upon the North-western frontiers, all commend the enterprise, most strongly to the attention and patronage of the general government.

In speaking of the advantages, we would in the same connection refer to the necessities of such a road, influencing as it would the most vital and important commercial interests of the entire North-west; and particularly the country immediately bordering on the upper Mississippi river.

In consequence of the increase of our population, and the necessity of furnishing facilities and inducements to those who are destined to emigrate to Minnesota; in consequence of the extensive and increasing trade carried on with the Indian tribes within our borders, and the commerce with the settlements of the Red river of the North; and in consequence of the anticipated construction of a railroad from Lake Superior to St. Paul, by which the extensive mineral productions, and the commerce of said Lake, will find a channel and outlet into the valley of the Mississippi; as well as the entire commercial interests of the Territory, an uninterrupted communication by railroad from the Territory has become absolutely necessary.

The obstacles that interrupt and suspend the navigation of the Mississippi river during many months of the year, cannot be overcome; from four to five months above the Missouri river the Mississippi is closed by ice; and during the summer and autumn, the navigation is frequently entirely interrupted and suspended, in consequence of the low water at the Rapids, and during every season the navigation of the river is attended with great destruction of property.

Your Memorialists deem it unnecessary to specify further in detail, the advantages that the general government, as well as the States and Territories west of the Mississippi river, would derive from or the necessities that require the accomplishment of such an enterprise.

Your Memorialists therefore respectfully urge upon your Honorable bodies, the importance of providing for a survey and location of a route for a railroad leading from St. Paul to intersect a road at such point on the southern line of this Territory, as shall be deemed advisable; and that a grant of land, of every alternate section for ten sections wide, on each side of the line of said proposed road, be made for the construction of said railroad.

Missouri and Iowa Railroad.

We find in a late issue of the "North-East Reporter," published at Canton, Mo., an able and spirited address from a committee appointed at a meeting of the citizens of Canton and Tully, on the subject of the Missouri and Iowa Railroad. The region through which this road is proposed to be located is represented as an excellent agricultural district, and remarkably favorable to the construction of a railroad. The direction of the route also conforms to the true system of trade and travel. But while we commend the public spirit of our friends of the Northeast, it is proper to remark that our knowledge of the resources of the country through which their road is proposed, is not sufficient to enable us to form a judgement in respect to its profitableness as a dividend paying enterprise. There are, however, inducements to the construction of public works of more importance than the dividends accruing from their operations; and if a railroad can be built by means raised in just proportions from the people to be benefitted—as by county subscriptions—the wealth and prosperity of a community may be greatly promoted even though the dividends should fall below the ordinary rate of interest; and we doubt not that such would be the case in respect to the work under consideration. We desire to see the resources of the country developed, and trust that Northeast Missouri will find no difficulty in raising the means necessary to the construction of a work calculated to develop the wealth of that interesting region.

Superior Social Advantages of the Mississippi Valley Railroad.

BY EDWARD WYMAN, OF ST. LOUIS.

There are many points of view presented in the great project of a railroad stretching out its iron arms far to the North and South of us, which are interesting to contemplate, and, which should not, we think, be altogether overlooked by us in our contemplation of the enterprise. We purpose, briefly, to allude to but one or two of these, leaving the detail of thought which they suggest to be carried out by individual minds, to whatever extent they may be disposed to exercise their reflective powers.

We have long been accustomed to contemplate, with great satisfaction, our position in this vast central valley of the Republic; and it is with reason too that we have indulged in bright anticipations of our future prosperity and importance, as we have seen by a single glance at our maps how fortuitous is our geographic location, midway, as it is, between those to great highways of the world, the oceans which wash our Eastern and Western shores. More especially, has this been the case since the tide of Emigration, rolling westward, has poured its enterprising multitudes into the vast fertile regions which lie upon the west of the Mississippi, redeeming them from barbarism; and California too, disclosing her hidden treasures, has invited a world to the reaping of her bountiful harvest. Such has been the course of events for the past few years, and such must it continue to be for years to come, that we may reasonably conclude the day is not far distant when our centrality will be not only geographic, but social and political—when we shall no longer feel as we have felt, that we are a mere out-post upon the verge of civilization, but are its central seat—not a mere extremity of the body politic but the very heart of it.

Hitherto the eye of expectation has been turned to but one quarter—the *East*—and we have felt that the elements of our commercial growth lay almost solely in that direction. But a new order of things has arisen. Already have we begun to feel the reflux influence of that vast wave of population which has dashed past us and diffused itself upon the far-off shore of the Pacific; and already too have we commenced the reaching out of a strong and mighty arm, which shall gather to us and carry past us the rich treasures of that prolific soil. Indeed, it is but recently, that we have really begun to feel where we are and what we are. Suddenly, and we may say almost unexpectedly, do we find ourselves neither in the East nor the West, neither at the North nor the South; but completely surrounded by the four quarters of the Republic, all of which not only *may* but *must* be made tributary to our ultimate wealth and pre-eminence among the Cities and States of the Union.

With such unexampled rapidity has this state of things been effected, and so great has been the apathetic security we have felt in our local advantages, our natural resources and the superiority of our geographic position, and so restless and so strenuous too all the while has been the spirit of enterprise which is abroad in the land, that we have been almost surprised into a crisis in our condition—a

crisis demanding of us a more thorough appreciation of the spirit of the age, and a better understanding of the great popular agencies and instrumentalities, by which social and commercial prosperity are now to be retained and augmented. Casting our eyes about us, we have seen that human ingenuity and human industry have found substitutes for natural facilities, where such facilities do not exist; and that human enterprise and human perseverance have triumphed over natural obstacles, where such obstacles *do* exist; and though we have been slow to comprehend and feel the importance of the lesson taught us, we have at last, we trust, begun fully to realize its truths, and are awaking to the emergencies and necessities which press us from all directions. So far as these exist to the East or West of us, our attention has been arrested, the determination fixed, the resolve made and our energies roused to meet them. Eastward we have already projected and commenced the construction of railways, extending from us in various directions; and one, full of promise in the future we are now pushing forward to our western frontier, destined we hope not only to keep pace with the tide of emigration but to anticipate and outstrip it, and ultimately link us to the great concourse of our brethren who have already gathered, and the greater one yet to be gathered in that vast region, which lies between the Rocky Mountains and the Pacific. This is undoubtedly a wise policy, the fruits of which will ere long be matter of general observation and rejoicing. That there is yet to be not only a vast amount of *commercial* but also an equal amount of *social* good from these great undertakings, no one, who understands the civilizing and harmonizing potency of an easy and rapid transit from one section to another, can for a moment doubt. We are, perhaps, sufficiently awake to whatever interests we may have which lie in an Eastward or Westward direction; and we rejoice in the increasing evidence that we are taking new views also of our relations to the North and the South, and are propounding the inquiry, how we may not only retain but may multiply the benefits to be derived from both.

This great project of a railway which shall unite the northern and southern extremes of the Mississippi Valley, novel and immature as it yet is, is nevertheless in our opinion the grandest conception and the noblest of its kind which has yet engaged our attention. It is one promising not only to us but to the country at large an incalculable amount of good, some of which we will attempt, though imperfectly, to make appear. We know that the great question in all enterprises of this nature is, "*cui bono?*" what good will it do? We know too that there are different kinds of good, and that among them the *pecuniary* good is almost the only one which receives the consideration of men; and we further know and admit, that in the very nature of things, it is the pecuniary good that must after all determine the expediency of commencing, prosecuting and completing such stupendous undertakings. This great work, now attracting the attention of many minds, if it is ever accomplished as we believe it will be, will be accomplished, because men have faith in the pecuniary good which is to result from it; because, in the speculative parlance of the times, it can be made to *pay*. That it will do this I think the evidence already spread before the readers of the Journal fully conclusive. It is another kind of good—a *collateral* good, to which we wish to call

attention; and if the question be raised whether such good can appropriately have place in our considerations upon the subject, we answer that we wrong ourselves, and do violence to the nobler sentiments of our nature, unless we give it place. There are undertakings which men combine to accomplish, and to which they cheerfully lend their aid, when no pecuniary good is to follow, and when no appeal can be made to the more sordid passion of a lust for lucre. When our arms are victorious in battle, and we celebrate with costly magnificence a great military achievement, we stop not to enquire whether it will pay. It would sully our patriotism to do so. When a great and good man dies, and it is proposed to perpetuate his memory in an enduring monument as a testimonial of our esteem and our love, we stop not then to enquire whether it will pay. We should debase ourselves to do so. And even in the proposal before us, so widely different in its character, although as we have admitted, the grand and leading inquiry must be, is there a pecuniary good in it, still if this question can be satisfactorily answered in the affirmative, it cannot be regarded as inapt or unprofitable to inquire further if there be collateral good also.

There is then, we think, a vast amount of this kind of good to be reasonably looked for from the construction of this great national highway—a good which every lover of social harmony and every individual desiring the stability and permanency of this Union will delight to contemplate. We base it upon the theory which we advance, and which, had we the space, we think we could fully establish that in a Republic, occupying such a vast territorial space as we do, the strongest intersectional ties are the great thoroughfares of human life and industrial products which assume a North and South direction. This theory arises from certain fixed and immutable laws of nature, and the consequent physical peculiarities and developments which characterize different portions of the earth's surface. In all ages of the world, a wide difference of latitude seems to have been marked by no greater diversity of soil, climate and productions, than is the contrariety of human pursuit, human sympathy and human sentiment. Congeniality of mind, community of thought, fraternal feeling and identity of social and political interest, seem all to have been limited by the same isothermal lines, and to have extended Eastward and Westward along the same parallel of latitude, rather than North and South along the same meridian. We believe that historic truth will justify the assertion that national antipathies and sectional prejudices have almost invariably settled, like the magnetic needle, in a North and South direction. Certainly the most bitter warfare of olden times was between nations widely separated in that direction, rather than the other; and the most bitter prejudices of modern times exist between communities whose juxtaposition is on the same meridian and not on the same line of latitude. Even our own country may be instanced in exemplification of the theory. How much less of asperity of feeling and collision of sentiment is there between the East and the West, than there is between the North and the South. That this is the case, none, we think, will deny; and that it is natural and unavoidable too we must also admit. But great and deplorable as this evil is, it is by no means of such magnitude as it might have been under a different structure and arrangement of the prominent features

of our territorial domain. It seems to us as though a special superintending Providence had so directed the configuration of that part of this Continent which was to become the abode of Republicanism, at least to preserve the bond of social Union. So completely are we surrounded on almost every side by the largest bodies of water, that our boundary is all but a continuous shore, and our country may almost be circumnavigated; while the general course of our great inland streams, our great mountains and valleys, most happily for us, is North and South. Certainly we have not half an eye to the beneficent arrangement of Providence if we cannot in this discover great good. It was an English not an American Poet who said—"Lands intersected by a narrow frith abhor each other; mountains interposed make enemies of nations that had else like kindred drops been mingled into one." The sentiment is no doubt just, applied to many countries but certainly not to our own. And yet, so much of general truth is there in it, that we are inclined to the belief that it would have been applicable to us, had the general direction of our mountains and our streams been Eastward and Westward rather than Northward and Southward. As it is, the bond of brotherhood has scaled the mountains and crossed the streams, and these have proved no greater barriers to the flow of fraternal feeling than to the transmission of the Electric current. But otherwise, who can say it would have been thus? Had our own Mississippi, for instance, instead of bisecting our country longitudinally from North to South, taken a direction from West to East, and had our two great ranges of mountains, the Alleghany and the Rocky, run parallel to it on either side, sending out tributaries to the North and South only to swell the current Eastward, who can say that it would not inevitably have become what it has sometimes been feared a Mason and Dixon's line was destined to be? Who can say that instead of being as we now are, a united, happy and prosperous people, we might not have been a discordant, factious, miserable one? Who can say that our energies and our resources would not have been consumed in border warfare, and that the flow of fraternal blood would not have resulted in unrelenting hostility and perpetual alienation? There is that in the records of our past history, and there is that still existing in the constituent elements of our social condition, which warrants the presumption that such *would* have been the case. Had we the power to analyze that combination of influences, by which in times of great peril and a threatened disruption of the Union, we have been saved from the horrors of such a catastrophe, we believe it would be found that there had been physical, as well as moral agencies conspiring for our safety and that among them was the fortuitous arrangement of the great natural features of our territorial surface. Along the borders of our own river, from one extreme to the other, there have been uninterrupted peace and good will; and in times of angry strife and impending ruin, the unanimity and harmony of this great range of States have exerted a powerful influence in rebuking and quieting discordant factions in other quarters. We believe then, most fully, that there is a fraternizing influence in this mighty stream, flowing as it does in a meridional channel. So fully do we believe it, that had we the power, by a single word, to check its rapid current and send it with all its burden of commerce

Eastward past the doors of our own kindred and our own native homes, or Westward to bear on its surface the multitudes who throng to the land of gold, we would do neither. We would rather say to it, flow on as by a wise and divine decree you were made to flow—flow on as ever, not only to gladden the land with your fertilizing waters and promote the interchange of the grosser commodities of commerce, but flow to gladden human hearts and to promote the interchange of friendly feeling, of kindly sympathies and of mutual regards, and thus cement as ever the bond of social Union.

Such are some of our views of the current course of the Mississippi. Of a similar character are those also which we entertain of the great project before us of a railway which shall run parallel with it. If there is any truth in the ideas we have suggested, they are equally as applicable to the road as to the river; and may be urged with a force as much greater, as the conveyance upon the one is more direct and rapid than upon the other. We look upon a railway under almost every circumstance as a great civilizer—a great pacificator. It furnishes so direct convenient and rapid means of intercommunication; it so far annihilates both space and time and brings widely separated communities into such close juxtaposition that they know each other better and esteem each other more; it so multiplies the comforts and luxuries of life by commercial exchange, and so enhances the pleasure of life by the diffusion of knowledge, that it has proved and must ever prove one of the greatest of civilizers. It is not more literally a leveler of the mountains which lie in its path, than it is of the barriers of sectional prejudice which it breaks down, dissipating all antagonism of interests and producing in its stead a reciprocity of kind feeling and action. Indeed we cannot contemplate this vast net work of railways covering our land, grasping in its embrace the remotest corners of the Union, without the feeling that they possess as it were a mighty magnetic power, which is forever to prevent a disrapture of the whole into broken fragments, and counteract the evils that may have been apprehended from our increasing extent of territory.

If they do possess such a power (and we cannot think it altogether visionary that they do) then is it most devoutly to be wished that the many cities and towns scattered throughout our borders, which are so many marts of commerce or seats of social and political influence, may be indissolubly linked together by these iron bands, and the strength and integrity of our Union be symbolized in the compact. We have made but little allusion to the great question as to what will be the *pecuniary* good resulting from the prosecution of the specific enterprise under consideration. We have avoided it purposely, not that we regard this as unimportant or even secondary to such considerations as have been suggested; but because this is a question which necessarily must be, and has been discussed, and because we have felt that there would be a liability, in the eagerness of our search for this, to overlook what seems to us a greater amount of *collateral* good than often attaches to enterprises of this kind; and if this road has not already been proved a commercial necessity which must be supplied, it is hoped that those who are competent to do it will yet prove it, so that, although it be not positively a social necessity, the country at large may derive from it whatever of good it is peculiarly calculated to effect aside from its benefit as a commercial facility.

STATISTICAL DEPARTMENT.

TREASURER'S REPORT.

TREASURY DEPARTMENT,
Treasurer's Office, City of Jefferson, Jan. 7, 1853. }

In compliance with the law regulating the Treasury Department, the undersigned has the honor to submit to the General Assembly the following biennial report for the two years ending 30th September, 1852 :

[A]

Receipts in the first year.

1st quarter, 1850	\$150,444 62	
2nd quarter, 1851	235,366 99	
3rd quarter, 1851	21,639 56	
4th quarter, 1851	72,834 88	
	\$480,286 05	

Receipts in the second year.

1st quarter, 1851	\$ 83,734 13	
2nd quarter, 1852	256,211 75	
3rd quarter, 1852	37,043 46	
4th quarter, 1852	115,433 71	
	\$472,423 05	
	\$952,709 10	

The receipts into the treasury are composed of the following items, to wit:

Revenue	\$622,747 09	
Seminary fund	50 00	
Saline fund	2,050 00	
State school moneys	162,626 21	
Printing fund	1,772 30	
Internal Improvement fund	107,956 18	
Executors and administrators	5,783 31	
Tobacco Warehouse fees	1,751 25	
Act to enclose the Capitol, and for other purposes	35 95	
State Lunatic Asylum	3,054 91	
State stock dividends	44,881 90	
	\$952,709 10	

[B]

Disbursements in the first year.

1st quarter, 1850	\$ 36,947 45	
2nd quarter, 1851	228,472 61	
3rd quarter, 1851	238,721 31	
4th quarter, 1851	63,731 68	
	\$567,873 05	

Disbursements in the second year.

1st quarter, 1851	\$ 36,322 78	
2nd quarter, 1852	90,620 26	
3rd quarter, 1852	126,793 47	
4th quarter, 1852	92,889 77	
	\$346,626 28	

\$914,499 33

The disbursements consist of the following items, to wit:

Civil officers	\$74,407 72
Costs in criminal cases	48,909 61

Special acts	13,181 65
Assessing and collecting revenue.....	36,362 54
General Assembly	58,851 67
Copying Laws and Journals.....	1,425 84
Distributing Laws and Journals.....	1,440 00
County Revenue	2,054 97
General Contingent Fund.....	7,743 53
Publishing Decisions of Supreme Court.....	4,945 15
Act to provide for the education of the deaf and dumb	2,040 00
Printing Laws and Journals.....	8,960 12
Militia Officers.....	606 31
Act to provide for defending title, &c.	1,000 00
Act to provide for paying expenses, subsisting troops, (Mexican war).....	153 65
Act concerning northern boundary line of this State	1,256 12
Asylum for Deaf and Dumb.....	459 91
Taking the Census.....	37 50
Interests on State Bonds.....	225,515 80
Principal on State Bonds.....	74,261 00
Act to educate the Blind.....	3,000 00
Reclamation of Swamp Lands.....	21,500 00
Improvement of White River.....	8,000 00
Contingent expenses of General Assembly.....	5,768 16
do. Milita.....	60 82
do. Elections.....	199 30
do. State Treasurer.....	473 55
do. Governor and Secret. of State	1,572 99
do. Register of Land.....	1,008 24
do. Attorney General.....	264 86
do. Auditor of Public Accounts	501 92
State School Moneys.....	129,517 96
Road and Canal Fund	1,615 00
Seminary Fund.....	1,220 44
Internal Improvement Fund.....	122,212 65
Executors and Administrators.....	510 49
Military Fund.....	1,818 70
Building the Capitol	286 07
State Lunatic Asylum.....	51,325 09
	<hr/>
	\$914,499 33

[C]

Balance in the Treasury 1st of October, 1852.

FIRST STATEMENT.

Balance in the Treasury October 1st, 1850.....	\$676,721 71
Deduct wolf certificates burnt by the committee in Oc- tober, 1850	4,790 00
	<hr/>
	671,931 71
Add receipts in two years, ending 30th Oct., 1852....	952,709 10
	<hr/>
	\$1,624,640 81
Deduct disbursements in the two years ending 30th October, 1852.....	914,499 33
Deduct amount of interest on State bonds ordered by a resolution of the General Assembly, approved Febru- ary 6th, 1851, to be placed to the credit of the Treas- urer.....	260,668 79
Deduct deficit of Peter G. Glover, dec'd, late State Treasurer.....	33,488 75
	<hr/>
	1,208,656 87
	<hr/>
Balance in the Treasury 1st October, 1852.....	\$415,983 94

[D]

SECOND STATEMENT.

Receipt given by A. W. Morrison to the committee and to the administrator of Peter G. Glover, dec'd, late Treasurer, as follows :

In cash	\$179,177 77
In deposits in Bank	84,564 84
In State bonds and interest thereon	19,869 59
In wolf-scalp certificates	1,417 00
State Land Office certificates	2,035 71
Auditors warrants	548,391 91
Add amount received from November 13th, 1851, to September 30th, 1852	457,779 00
	\$1,293,535 82
Deduct amount of warrants redeemed by Peter Glover, dec'd, late treasurer, and receipted for by A. W. Morrison	548,391 91
Deduct amount of warrants redeemed by A. W. Morrison, from 13th Nov., 1851, to Sep. 30th, 1852	329,159 97
	\$877,551 88
Balance in the treasury 1st October, 1852	\$415,983 94

The balance consists of the following funds, including the balances due the same on the 1st October, 1850.

Building the capitol	\$509 45
Road and Canal Fund	917 12
State School Moneys	38,623 47
Mormon, Iowa, and other years	864 61
State Tobacco Warehouse, [fees]	5,807 25
Seminary Fund	50 00
Sinking Fund	4,517 00
Saline Fund	5,835 31
Improvement of Main street	1 07
Internal Improvement Fund	29,904 17
Executors and Administrators	9,676 08
Act to enclose the Capitol, and for other purposes	36 65
Military Fund	102 04
State Tobacco Warehouse Bonds, [premium]	36 25
State Lunatic Asylum	599 19
State Stock	44,881 90
Revenue Fund—composed of Cash	73,986 79
Deposites in Bank	173,916 79
Wolf certificates	3,813 50
State Land certificates	2,035 71
State bonds and Interest thereon	19,869 59
	\$415,983 94

The foregoing is a statement of the condition of the Treasury for the last two years, commencing 1st October, 1850, and terminating 30th September, 1852.

The following statement will exhibit the condition of the Road and Canal fund, which the Treasurer, by an act of the General Assembly, entitled "an act concerning the Road and Canal fund, approved March 7th, 1835," is required to submit in his biennial report.

[F]

Condition of the Road and Canal Fund.

Balance in the Treasury, October 1st, 1850	\$2,522 12
--	------------

Deduct apportionment made in January, 1850, and paid to the following counties in the last two years, viz: Cape Girardeau, Dodge, Harrison, Jasper, Laclede, Madison, Reynolds, Scott, Wayne and Ripley, to each \$161.50.....	1,615 00
Balance in the Treasury, 1st October, 1852.....	\$917 12

Counties to which apportionments are due.

St. Louis and Shannon counties are each entitled to the last apportionment, viz: \$161.50.....	\$323 00
Ripley county is entitled to apportionments previous to October, 1846.....	591 13
Surplus in the Treasury over the several apportionments.....	2 99
Balance in the Treasury, 1st October, 1852.....	\$917 12

The foregoing tables contain a full statement of the amount of receipts into and disbursements from the Treasury in the two years ending 30th September, 1852.

There has been received into the Treasury from the 1st October, 1852, to the 1st December, 1852.

Of Revenue.....	\$110,915 47	
Of Special Funds.....	1,880 75	
	<hr/>	\$112,796 22

Warrants have been redeemed in the same period which were drawn on Revenue Fund, amounting to.....	\$64,449 28	
And on Special Funds.....	2,541 02	
	<hr/>	66,990 30

Balance in October quarter 1852.....	\$45,805 92
--------------------------------------	-------------

It will be observed by reference to tabular statement F. that there has been no Road and Canal Fund received in the last two years. Since the 1st of October last, however, there has been received of that fund \$39,405 84, which amount has been apportioned amongst the several counties of the State as required by law, giving to each county \$375.

In the balance as reported in tabular statement E, is included \$19,869 59 of State bonds with interest. There is also included in said balance \$2,035 71 of State Land Office certificates, which the Treasurer by "an act for the relief of persons who have bought State Lands which have been rejected, approved March 9th, 1849," was required to receive from the several State Land Receivers.

I suggest that an act be passed authorising the Auditor to issue warrants for the above amounts, that the vouchers may be filed in the proper office.

Respectfully submitted

A. W. MORRISON, State Treasurer.

Population and Revenue of Missouri in 1852.

Counties.	Population.	Amount of Revenue paid in 1852.
Adair,	2,977	\$506 46
Andrew,	9,244	3,719 75
Atchison,	2,040	506 91
Audrain,	3,845	1,232 68
Barry,	4,382	480 44
Bates,	1,819	425 39
Benton,	4,613	1,027 48
Bollinger,	3,793	581 31
Boone,	14,565	6,079 98
Buchanan,	13,990	5,937 78
Butler,	1,717	224 98
Caldwell,	2,555	.....
Callaway,	14,149	4,190 27
Camden,	2,419	454 19
Cape Girardeau,	10,920	.....
Carroll,	6,188	2,017 18
Cass,	4,860	2,100 83
Cedar,	3,267	651 13
Chariton,	7,618	4,460 35
Clark,	5,572	2,126 28
Clay,	8,484	6,401 94
Clinton,	4,318	1,626 41
Cole,	5,597	2,347 15
Cooper,	12,742	6,154 72
Crawford,	5,931	1,166 81
Dade,	4,216	906 48
Dallas,	4,016	695 45
Daviess,	6,059	1,788 62
Dent,	2,001	364 05
De Kalb,	2,689	508 24
Dodge,	599	63 48
Dunklin,	1,240	178 36
Franklin,	11,193	4,608 78
Gasconade,	5,740	1,086 61
Gentry,	4,198	.....
Greene,	12,291	2,584 25
Grundy,	3,260	870 80
Harrison,	2,608	.....
Henry,	4,340	1,711 67
Hickory,	2,709	515 98
Holt,	4,355	964 29

Population and Revenue of Missouri in 1852.—Continued.

Counties.	Population.	Amount of Revenue paid in 1852.
Howard,	14,070	\$9,224 80
Jackson,	13,914	7,009 43
Jasper,	4,682	840 06
Jefferson,	9,090	2,536 30
Johnson,	9,410	2,660 86
Knox,	2,876	1,381 80
Laclede,	3,393	490 36
Lafayette,	14,511	1,016 66
Lawrence,	5,903	1,024 78
Lewis,	6,586	2,859 11
Lincoln,	10,461	3,017 98
Linn,	4,514	1,244 66
Livingston,	4,457	.....
McDonald,	2,719	284 05
Macon,	7,517	.....
Madison,	5,581	1,720 78
Marion,	12,000	.....
Mercer,	3,336	422 12
Miller,	3,919	772 06
Mississippi,	3,285	1,574 69
Moniteau,	5,572	1,535 66
Monroe,	11,285	4,069 40
Montgomery,	6,064	2,090 21
Morgan,	4,512	1,413 22
New Madrid,	3,678	1,651 90
Newton,	4,336	972 39
Nodaway,	2,279	579 60
Oregon,	2,018	225 11
Osage,	5,914	1,439 59
Ozark,	3,708	.....
Pemiscott,	1,308	245 16
Perry,	6,406	1,512 10
Pettis,	5,585	1,691 53
Pike,	13,277	6,028 91
Platte,	16,436	9,678 12
Polk,	6,372	1,432 91
Pulaski,	4,202	757 23
Putnam,	1,852	175 50
Ralls,	6,006	3,972 00
Randolph,	9,917	3,449 81
Ray,	8,721	4,300 27
Reynolds,	1,949	245 86

Population and Revenue of Missouri in 1852.—Continued.

Counties.	Population.	Amount of Revenue paid in 1852.
Ripley,.....	2,514	377 91
St. Charles,.....	12,492	3,368 66
St. Clair,.....	3,849	1,118 36
St. Francois,.....	5,703	1,711 59
Ste. Genevieve,.....	5,443	1,524 68
St. Louis,.....	121,853	88,754 79
Saline,	9,096	4,249 88
Schuyler,	3,447	484 36
Scotland,	5,178	1,047 43
Scott,.....	3,420	1,073 17
Shannon,	1,346	.....
Shelby,.....	4,396	2,205 13
Stoddard,.....	4,476	610 65
Stone,	1,648	174 07
Sullivan,.....	3,360	620 81
Taney,.....	3,082	403 15
Texas,.....	2,724	.....
Vernon,.....	2,517	731 00
Warren,	5,776	1,741 59
Washington,.....	8,162	2,581 53
Wayne,.....	3,847	609 37
Wright,.....	3,968	521 76
Total Female,.....	308,825	
Total Male,.....	331,109	\$270,410 25
Total free persons of color,.....	2,526	
Total Slaves,.....	87,207	
Total Population.....	724,667	

THOMAS ALLEN,
PRESIDENT PACIFIC RAILROAD.

The subject of this sketch is a native of the town of Pittsfield, Berkshire county, State of Massachusetts. His grandfather, the Rev. Thomas Allen, was the first settled minister of Pittsfield, and founded the first congregational church there, and performed a laborious and active service at the head of his congregation for 46 years. He was the Berkshire clergyman described by Edward Everett in his life of Gen. Stark—[*Spark's Lib. of Am. Biog.*, p. 97]—and is remembered for his zeal in behalf of the liberty of the colonists, and rendered conspicuous service on various occasions during the American Revolution. The house in which he lived is still standing on the old estate purchased of the Indians, and is now the property of the grandson, and there the grandson Thomas was born August 29, 1813. His father, Jonathan Allen, was one of twelve, rather remarkable sons. During the war of 1812, he was assistant Deputy Quartermaster General, was for many years a Senator and Representative in the State Legislature, and at the time of his death, in 1845, postmaster of Pittsfield. He was perhaps the first importer of Merino sheep into this country, having, in 1809, made a selection in Spain himself. The Rev. William Allen, now a resident of Northampton, Mass., and for many years President of Bowdoin College, Maine, is the only one left of the twelve sons of the grandfather. The mother, now living, Eunice Williams Larned, is a daughter of Col. Simon Larned, and a sister of the present Deputy Paymaster General U. S. A.

Thomas Allen, the subject of this sketch, is one of a family of fourteen brothers and sisters, of whom seven are now living. One brother, George, was an officer in the army from 1818, and died a Lieut. Colonel at Vera Cruz, Mexico, at the close of the war.

Thomas was first sent to school at the village academy, on the green, scarce two hundred yards from the old mansion. Subsequently his father removed to a farm in the eastern part of Pittsfield, in the valley of the Housatonic river, and directly at the base of the Green Mountain range. Here Thomas was sent for several years to an ordinary district school—schoolmistress in the summer, and schoolmaster in the winter. Here it was that Thomas formed a taste for rural pursuits and pastimes which now is a marked characteristic and will probably adhere to him through life. His father's meadow in "haying time" was his Arcadia. The speckled trout played in the little brook, and the woodcock nestled in the alders. He learnt alike how to take them, and how to turn a swarth and make a hay cock. No boys excelled him in the use of the angling rod and fowling piece. His father kept a great variety of stock, and amongst the rest a few hounds. He became very fond in the winter season, whenever Cicero and Virgil could spare him, of joining his father in a fox hunt. This was an exciting sport, and on one occasion his persevering zeal led him so far from home that the fatigue brought on a very serious attack of liver complaint, which affected his health more or less for many years.

His father having determined to give him a liberal education, sent him for final preparation for college to an academy in Amherst, which he disliked very much, and stayed but a month. Afterwards he was sent to the Berkshire Gymnasium, in Pittsfield, then under the charge of Rev. Chester Dewey. While there he roomed for a while with one of his tutors, Mark Hopkins, now the distinguished President of Williams College, and was in all respects under good influences and good instruction. The students published a little weekly paper, called the "Mis-

cellany," which contained the best of their compositions. Of this Thomas was elected the editor.

When sufficiently advanced in Greek and Latin, he was sent to Union College, Schenectady, Eliphalet Nott, President. His examination was satisfactory, but his age was insufficient, the rules of the college requiring that the age shall not be less than 16. On his promising, however, that he would be of the requisite age before the regular term commenced, he was admitted. His college life was not distinguished by anything remarkable. He was always in good standing as a scholar, and showed himself capable of performing every task, and of acquiring his lessons with more readiness than most students. During the senior year he was under the special instruction of Dr. Nott, and he has said that he remembers those teachings as having been of great advantage to him through life, and accordingly holds his old teacher in love and veneration.

Having left the college some few months before commencement, to enter a law office at Albany, he received no award of honors from the faculty, but the students of the Philomathean Society elected him to deliver to the class a farewell address. This duty he performed. He graduated as Bachelor of Arts in July, 1832. He entered upon the study of law in the office of Mr. James King, of Albany, since deceased, but remained there only until the fearful approach of the cholera of that year.

Some family misfortunes at this time involved much loss of money, and there was now a crisis in family affairs. The oldest was in the army [there seems to have been a representative of the family in every war of the U. S.]. The next should go into a government office, and the next to a small farm. The course of Thomas is best shown by the following extract from a letter to a friend :

"My good father said to me: 'I have given you an education; here are \$25; it is all I can do—go and take care of yourself.' I took the boon with gratitude, and with a full determination to return it with interest, and to repay, if possible, the care of my always kind parents, I started for the city of New York. On the evening of the 18th October, 1832, I took lodgings at a Boarding House, at the corner of Wall street and Broadway, now occupied by the new Metropolitan Bank. My mind was not a little concerned in deciding upon the course of life. I was at the heart of a great city, and often felt a sense of utter loneliness and desolation. With a little purse that must inevitably be exhausted in a few weeks at most, what should I do? After revolving several plans in my mind, I resolved to persevere in the profession of the law, as I originally contemplated. Knowing that I had to work my passage into the profession, I kept a vigilant eye out for employment. In a few days I discovered in the Evening Post an advertisement of "a clerk wanted" in a lawyer's office. I lost no time in repairing to the hoped for haven. Alas! there had been many applicants, and the place was already filled, and the young man who filled it, looked out upon me with rather a patronizing air. I resolved, notwithstanding, to present my letters of introduction, and finally obtained permission to remain in the office and read the books, paying for the privilege in clerical labor. Happily for me, I was not long in discovering that my fellow student who received the salary, soon had a sinecure. My necessity, if nothing else, drove me to industry, and with better chirography, I soon won much of the business of the office, and I was firmly installed in a clerkship in Hatch & Cambreleng's office, Wall street, with a salary of \$300 per annum. In this situation I continued for three years, learning the practice of the law from the labors thrown upon me, and employing my leisure moments in studying the books. My pay was so small that I had to economize closely to get along. A part of the time I roomed in an attic apartment with a respectable journeyman jeweller, in Duane street, but though often for weeks without a penny in my pocket, I did not repine. Hopefully persevering, I increased my little income somewhat by copying for other members of the bar. Some of my letters, at this time, show an occasional trace of despondency, and sometimes a little disgust with the dry study of the law, which was not half so pleasant to me as holidays in the country. I was not satisfied whether New York was my

“proper place, and frequently had dreams of the West, and even of New Orleans. In 1833, President Jackson visited New York, followed a day or two after by the celebrated Indian Black Hawk. I wrote an account of the visit of those chiefs, describing their personal appearance and the unusual scenes following them in the city. I wrote now and then a comment or a criticism upon passing events, which I sometimes published in the newspapers. But my time was too much occupied in obtaining a living, to indulge my literary taste. Seeing that I had an editorial turn, a bookseller with whom I had become acquainted, joined me in a plan to publish the first penny newspaper ever published in America. While in the country, completing his arrangements, others got wind of the design, and before the plan could be executed, had issued a paper upon that plan. Others quickly followed. I then gave up the idea, and in September, 1834, became the editor of the Family Magazine, a monthly illustrated journal of useful general intelligence, J. S. Redfield, publisher. I edited this magazine in such moments as I could get from my law pursuits, for about a year and a half. The Magazine contributed materially to my support. About this time I was engaged by the principal law bookselling house of New York, to assist in compiling a digest of the decisions of the New York Courts from the earliest times down to that period. Upon this work I labored over a year. For my share of labor in that work, I received a small but select law library.”

Up to this time Thomas Allen seems to have struggled with a brave heart and resolute will, without yielding to his particular partiality for country pursuits, to overcome the difficulties of his position. His labors at this time were useful to others as well as to himself. The Family Magazine seems to have flourished in his hands, and some of his writings for it have since been republished, among others by Sears in his pictorial volumes. The digest of the decisions of the courts was published and republished, and is now the standard digest of New York, known as Clerks' Digest.

His first appearance before the public as a speaker was in 1834, when upon invitation he delivered an address on temperance before the Water Street Temperance Society of his native town. In 1835, at the age of 21, he, after an examination by the judges, was admitted to the bar of the Supreme Court of New York. One of his first employments, after opening an office, was in a collecting expedition in mid-winter through the State of New York, and along the south shore of Lake Erie, as far west as Sandusky. This undertaking was successfully accomplished, mostly on horseback, and while the snow was deep, and the weather severely cold. It was during the same year, that he received from his Alma Mater the degree of Master of Arts, and was also elected an honorary member of the New York Phi Beta Kappa Society—an honor which was then considered a high certificate of good character and scholarship. In 1836, during the canvass for the Presidency, when Mr. Van Buren was a candidate to succeed Gen. Jackson, he complied with an invitation to deliver an oration on the 4th of July before the Democratic Republicans of his native town. In this address which was published, he favored Gen. Jackson's administration, and the election of Mr. Van Buren. He also made two or three other addresses in the same cause during that canvass. His grandfather, father and many of his early friends having been of the Democratic Republican school, from the time of Jefferson down, he naturally came to the same politics. It was during the same season, that he was called upon by Gen. E. W. Ripley, the well known hero of Lundy's Lane, and then in Congress from Louisiana, and urged by him to remove to Louisiana, offering to resign him his law office and practice. Gen. Ripley was an uncle by marriage, and Allen accepted the invitation, and repaired to Washington, and spent the short session of Congress with him. During his stay there he was offered an office in Louisiana by the Sec. of the Treasury, Mr. Woodbury, which he declined. He em-

ployed some of his leisure moments in writing descriptions of scenes in Washington, which were published in some of the northern papers. This was the closing session of Gen. Jackson's administration, and the session of the expunging act. The U. S. Bank having been killed, the organs of the administration seemed to be turning against the State banks, and some of the writers advocated the destruction of all banks. The *Globe* was thought to have a strong proclivity that way, and by its course created considerable dissatisfaction among the friends of the administration. Some of these gentlemen thought it judicious, if possible, to infuse a little different spirit into that journal. Allen's letters had attracted some attention, and his authorship had been traced out. This led to a visitation from some of the friends of the administration above referred to, and an invitation by them to go into the *Globe* as an editor. This he declined unless he could control the paper, which not meeting the views of the proprietor, ended the negotiation. During this winter he became acquainted with Gen. Jackson, and most of the leading public men of that day. In the spring of 1837, after witnessing the inauguration of M. Van Buren, his uncle fell into such a state of mental and bodily health, that he was induced to postpone his visit to Louisiana, and to accommodate his uncle by making a tour on horseback over the military tract of Illinois, in order to inspect a large number of scattered tracts of land which his uncle held there. This was the occasion of his first visit to St. Louis. After a month's travel through the country between the Illinois and the Mississippi, he reached Peoria. Here he first heard of the suspension of specie payments, and of the universal catastrophe, which had fallen upon the country. Here he also found letters from distinguished statesmen, urging him to return to Washington, to publish a new paper. He returned to New York, where a meeting of many leading friends of the enterprise took place, and yielding to their solicitations, he wrote and published his prospectus for the publication of "*The Madisonian*," and immediately gathered together his press, material and workmen, and started for Washington. His enterprise awakened jealousy and enmity, and was attacked in advance. His first paper was issued on the 16th of August, 1837, and produced a very favorable impression throughout the country. The currency question then absorbed all others. The Sub-Treasury had been broached by Gouge, and a disposition was manifesting itself to destroy all banks, and to establish an exclusively metallic currency. The *Madisonian* took ground against these movements. One of its leading ideas was that a mixed currency is essential to a highly civilized and commercial State. On the 1st of September, Congress met in Extra session. After the election of Mr. Polk, speaker, the message of the President was read, and was found to contain unexpectedly a recommendation of the Sub-Treasury scheme. The *Madisonian* maintained its position. An election of printer was gone into. Gales and Seaton, of the *National Intelligencer*, Blair and Rives, of the *Globe*, and Thomas Allen, of the *Madisonian*, were the candidates. After three days' hard fighting, Mr. Allen was elected, on the 7th of September, and on the 12th ballot. He was then 23 years of age.

The difference of opinion between the original friends of the administration, on the ruling question of the day, led to warm discussions, and finally to a deadly feud. The spirit with which Mr. Allen conducted the discussion, on the part of the dissentients, who were stigmatized as "Conservatives," is doubtless well remembered by his cotemporaries. His opponents were called "Locofocos," and he was present at the meeting at Tammany Hall, N. Y., from which that name was derived. Mr. Allen's friends were called "Conservatives," because he had

happened to use the word in contradistinction to the course of those who were apparently bent on destroying all the State banks. Gen. Jackson seems to have had a consciousness of the strength of Mr. Allen's cause, when he predicted in a letter to Mr. Lewis that the Madisonian would overthrow the administration—a prediction that was perfectly fulfilled. Though frequently defeated, and reduced to a minority in Congress, Mr. Van Buren persevered in his course, and Mr. Allen and his friends could not turn back. Being for several weeks sick, nearly unto death, in the spring of 1839, he on his recovery wrote for the National Magazine a comprehensive review of the course of political events, which was extensively republished; and the same summer visited for several months the Virginia Springs, from which he wrote a series of "letters of a convalescent," descriptive of Virginia, which were much quoted. As the period approached for a nomination of candidates for the Presidency, for the election of 1840, Mr. Allen expressed his preference for his democratic-republican friend, Mr. W. C. Rives, of Virginia, but at the same time indicated a willingness to support Gen. Scott with a "conservative" candidate for the Vice-Presidency. Upon the nomination of Gen. Harrison and John Tyler, however, Dec. 6th, 1839, by the Harrisburg Convention, Mr. Allen being satisfied, that it was vain to keep up a separate organization, and finding the real opinions of the candidates corresponding nearly with his own, he at once resolved to support the nominations as the most effective method of defeating Mr. Van Buren.

The columns of his paper bear internal evidence of the persevering labor and zeal with which he conducted the canvass, and sustained these nominations as "the true democratic republican ticket." On the 11th of April, 1840, his whole printing establishment was burnt—supposed to have been set on fire by an incendiary. The whole loss fell upon him, and swept nearly all he possessed, except his library. On the 2d of May following, however, his paper was re-issued with new materials, and as he announced it,

"Self-born, begotten by the parent flame,
In which it burned—another and the same."

At the great National Convention of Young Men, held at Baltimore, May 5th, he addressed an assemblage in Monument Square, as one of the Vice-Presidents. He also addressed meetings in different States, during that campaign, and made a speech to his political friends at a public dinner given to him in his native town. His paper reached a circulation, during this canvass, of near 20,000. At the session of 1840-41 he was elected printer to the U. S. Senate. Gen. Harrison, at his arrival at Washington, took the earliest opportunity to acknowledge his indebtedness to Mr. Allen, and to say that he had correctly represented his views, and did him the honor to consult him in relation to the formation of the cabinet. Mr. Allen was at the bed-side when the venerable President died, and was cordially hailed as a friend by Mr. Tyler on his coming into the vacated office, and his paper was made the medium of executive communications. In the differences which ensued between Mr. Tyler and a portion of his cabinet, Mr. Allen took ground in favor of a united cabinet, and though charged with "blowing up the cabinet," he advocated simply, and without regard to personal consequences, what he deemed to be the true principle. He was sustained in this particular by Mr. Webster and Mr. J. Q. Adams, and was highly complimented on the floor of the Senate by Mr. Buchanan. Mr. Allen had a hand in the reconstruction of that cabinet, and used it in endeavoring to keep in Mr. Webster, and in bringing in Mr. Spencer. Never having been in favor of a National Bank, he found it perfectly consistent with his views, to sustain Mr. Tyler's Veto of the Bank bill. In the modified form in which it was

afterwards presented in response to Mr. Tyler's own views, he found more difficulty in attempting to reconcile the growing differences between Mr. Tyler and the Whigs. Not fancying another four years of political gladiatorship under the probable circumstances thus approaching, he took the first opportunity to withdraw from editorial life, and accordingly sold his establishment in the fall of 1841 to Mr. J. B. Jones. He was strongly urged to remain at Washington by the President, Mr. Webster and others, and Mr. Webster especially offered him many strong inducements, and his own powerful assistance with his pen, But nothing could induce him to continue. Mr. Allen is not, of course, responsible for the conduct of the *Madisonian* after he left it, but for the period of his control he may refer to its columns with pride and confidence. The peculiarity of Mr. Allen's editorial articles would be best illustrated by quotations, which we have not room for here.

In the spring of 1842 Mr. Allen came to Missouri, and in July married Miss Russell, daughter of William Russell, Esq., of St. Louis. Returning to Washington to settle his affairs there, he did not get fairly settled in Missouri until late in 1843. Though contributing to the education of brothers and sisters, he yet saved a small capital out of his business in Washington, which he judiciously invested in St. Louis, and this, with the property of his wife, has given him a competency.

At this period, Mr. Allen, when but twenty-eight years of age, had accomplished much of what so many consider the leading objects of life. Starting with a strong heart, but an empty purse, he had won position and fortune. But the details of his past life have been dwelt upon more at large than may be interesting to all, as showing certain peculiarities of character that eminently fit him for his present undertaking of a Pacific Railroad. With an intellect to aim for large results, he found himself possessed of energy, will, untiring perseverance and prudence to accomplish the end aimed for.

In St. Louis, Mr. Allen opened a law office, but in the course of a year or two, found his time otherwise occupied, and relinquished it. From this period, his name is connected with much of public interest. He published a pamphlet on the treaty of Paris of 1803. He addressed some articles to eastern papers against "letter smuggling," which were reprinted by the U. S. P. O. Department. By his writings and enterprise, he contributed largely to bringing into existence the St. Louis Horticultural Society, of which he was President for three years. In this connection it may be mentioned he was elected President of the National Pomological Convention, which sat at Cincinnati, but was not present to accept it. In 1847, he prepared for the St. Louis Delegation to the Chicago Convention a pamphlet, on the commerce and navigation of the Mississippi river and its tributaries. This pamphlet shows a great deal of research and judgment, and has been much sought for.

In March, 1848, Mr. Allen, at the request of a public meeting, made an address [printed] to the voters of St. Louis in behalf of a subscription to the St. Louis and Cincinnati railroad, and again he is found at a meeting of property holders advocating the widening of streets and extending the wharf.

In 1848, he was requested by the Whig Central Committee of St. Louis to run for the office of Senator, but, with the rest of the ticket, failed of an election.

These facts are only mentioned as showing his interest for the prosperity of St. Louis, and his active co-operation with its peculiar friends.

The project of a railroad to the Pacific having been discussed in various quarters, and Senator Benton having early in 1849 brought forward a bill in Congress to accomplish it, a large meeting of the citizens of St. Louis was called on the 20th of February, to take action on the subject. Mr. Allen reported to the meet-

ing a series of resolutions, strongly in favor of the construction of a "National Central Highway" to the Pacific, which were unanimously adopted, and subsequently received a hearty response from the Legislature then in session.

In May of the same year, a National Convention was called on the subject of the Pacific Railroad to be held at St. Louis, and 2,000 copies of the address of "the people of St. Louis to the people of the United States," from the pen of Thomas Allen, were published and freely circulated. The Convention was held in October. Fourteen States were represented. On adjournment, the duty was committed to Mr. Allen, of writing the address of the Convention to the people of the United States, and their memorial to Congress. This duty he performed. He was also sent as one of the delegates to the Memphis Convention, held the 23d of the same month.

But notwithstanding all the talk and conventions, there was in truth very little immediate expectation of a railroad in Missouri. Joint stock companies were not in high favor in this State, and Missouri had been a State for 30 years, without scarcely a dream of any practical internal improvement.

Many railroad charters had been granted from time to time, but so little value was placed on them, that except perhaps in two or three instances, the corporators never proceeded so far as even to organize. It was fortunate for the cause of internal improvement in Missouri, that the General Assembly, at the session of 1848-49, granted a charter for the Pacific Railroad. This charter was obtained through the instrumentality of a few individuals, who anticipating objections on the part of Congress to the construction of a national highway through the State, aimed to obviate any impediment which might arise from that source, by procuring a charter in advance from the Missouri Legislature. It was not expected that this work would be commenced as a local or individual enterprise, at least for many years.

From this time Mr. Allen seems to have devoted much of his thought and energy to this subject, and for some time to have fought single-handed against much prejudice and want of interest. On the 29th of January, 1850, he published a card calling public attention to the charter, and personally invited the corporators to a meeting. Before this meeting he read an address that, for comprehensiveness of view, and accuracy of detail, not only showed that he had really given his heart to the work, and thought and studied for its accomplishment; but also satisfied others of its present practicability. At this meeting the gentlemen present subscribed \$154,000, and actual life was given to railroads in Missouri. This address has been extensively republished and quoted over the country, and at the time did very much to establish, abroad from this State, confidence in the subject.

Subsequently, Mr. Allen was elected President of the company, and has remained as such to the present time, each year seeming to demonstrate more clearly his fitness for the position.

But the work had to be commenced. A chief engineer was appointed, surveys to Kansas made, the ground broken on the 4th July, 1851, and the contractors fairly at work by September. Meanwhile, Mr. Allen was elected to the Senate for four years, taking his seat in the winter of 1850-51. He aroused interest in the country for the Pacific Railroad by making speeches in nearly every county from St. Louis to Kansas, and got up numerous petitions praying Congress for a grant of land to aid the work. In the Senate, he succeeded in procuring a loan of State credit for \$2,000,000. This was the great measure of the session, and was carried only after a long and arduous contest. Taking a general interest in the Internal Improvement policy for the State, he introduced a general Plank-Road law, and a general law relating to telegraph companies.

After returning from the Senate, Mr. Allen, still giving his whole time to the Pacific Railroad, spent some time at the East, and on the 10th of June, 1852, Congress passed the long desired act granting to the Pacific Railroad alternate sections of land.

At the request of Mr. Allen, as President of the Railroad Company, the Governor called an extra session of the Legislature in September, for the purpose of acting upon the grant. At this session some controversy arose as to whether the lands should be located on a line to Kansas or on a line to the southwest part of the State, and nothing was accomplished, but a provision for the Hannibal & St. Joseph railroad, of which he was the author.

The outlines of a system of railroads for the State of Missouri connecting with the improvements of neighboring States, had been frequently discussed in the Western Journal, but hitherto the action of the Missouri Legislature in respect to the subject of internal improvements had been limited to isolated objects. The adoption of a system which would embrace the interests, promote the prosperity and insure the cordial co-operation of the people of all parts of the State, was regarded by Mr. Allen as necessary to a successful prosecution of those works, which had already engaged public attention. Acting upon these views, he submitted on the 8th of September a system of railroads for Missouri as follows:

The Pacific railroad from St. Louis to the Kansas; the southwestern branch railroad running from St. Louis to the western boundary south of the Osage river; a railroad to the Iron Mountain, with a right of extension to the Mississippi river or to the Arkansas State line; the North Missouri railroad, from St. Louis to the Iowa boundary line; the encouragement of the Hannibal and St. Joseph railroad; a railroad from the western terminus of the Pacific railroad up the Missouri valley, so as to connect the Pacific with the Hannibal and St. Joseph road.

It is a remarkable fact, that although the Legislature was not prepared for such a suggestion at the time, yet in less than four months the entire system was adopted, and a loan of the public credit, made to every one of the roads named excepting one which was lost by the veto of the Governor. This was accomplished at the second session of the extra session held in December.

This system of railroads for Missouri, as now established by law, with the public means granted to each, is as follows:

The Pacific Railroad, total State loan.....	\$3,000,000
Portion of land grant about 150,000 acres.	
The Southwestern Branch Road, State loan.....	1,000,000
Portion of land grant, about 1,150,000 acres.	
Iron Mountain Road, State loan.....	750,000
Hannibal and St. Joseph Railroad, State loan.....	1,500,000
Land grant to, estimated 600,000 acres.	
North Missouri Railroad, State loan.....	2,000,000
Total State loan authorized.....	\$8,250,000

During the recent regular session of the 17th General Assembly of the State, Mr. ALLEN introduced and procured the enactment of a number of laws. Among the most important is the General Railroad Law, which contains provisions calculated to give energy to all our railroad improvements. This law provides for the levying of taxes to pay municipal subscriptions to railroads, the receipts for which are to be convertible into stock. It also establishes the gauge for all railroads in Missouri at five feet six inches.

A law providing for a geological survey of the State, which Mr. Allen intro-

duced two years before, he carried through at the last session. By this law \$10,000 a year, for two years, is appropriated to this interesting object.

By another law of his, the Pacific Railroad Company are authorized to extend their road to any point west of the boundary of the State. This is preparatory to the procurement of power and means from the Congress of the United States, to continue the road to California.

Duly estimating the vast expenditures to be made in the purchase of railroad iron, Mr. Allen was desirous of seeing the manufacture of rails started in Missouri, where the raw material is so abundant. He therefore introduced a bill offering a bounty on the production of railroad iron in this State, but owing to subsequent illness he was unable to follow it up. The same may be said of an important bill he carried through the Senate, transferring the recent land grant of Congress, in aid of a railroad from Cairo to Fulton, so far as this State has title, to the St. Louis and Iron Mountain Railroad, adding thereto for the same purpose alternate sections of the State swamp lands.

During the above period of Mr. Allen's service in the Senate, he was Chairman of the Committee on Internal Improvements. And it may be truly said, that during that period more has been accomplished on that subject than was ever before even attempted within the State.

It may thus be seen, that from 1849 to the present time Mr. Allen has devoted his whole time to Internal Improvements for the State, looking to them for connections with either ocean. The same untiring energy has been applied to this that in early life brought success in everything undertaken for himself, and there is now every prospect of success in this. Mr. Allen's property is principally in unimproved city lots, and his exclusive devotion to the Pacific Railroad, to the neglect of private interests, must have involved much pecuniary loss.

Mr. Allen has, at different times, appeared before the public as lecturer, and generally on subjects connected with the progress of the country. His interest in the Pacific Railroad led him to a study of Eastern commerce, and last winter, in St. Louis, he delivered a lecture on "Japan and the Expedition," which showed a great deal of research into the history of that sealed nation. At the request of the Missouri Historical Society, it was repeated at Jefferson City, and by that society deemed so entertaining and instructive, that they ordered it printed in pamphlet form.

Mr. ALLEN is still President of the F. R. Co., having been four times elected to that office—4th time March 30, 1853. The great work over which he presides is so planned and located, and so forks, as to strike the western boundary of Missouri at two important points, one in Jackson, and one in Newton or McDonald county, each prong being about 300 miles long, one of which is destined, inevitably, to be the great thoroughfare of the California and Chinese trade.

The following paragraph which appeared in the "Evening News," of 31st of December, 1852, does no more than justice to the sagacity and indomitable perseverance, which characterize the subject of this sketch. After noticing the part which others had taken in establishing our excellent system of railroads, the writer says:

"But after giving all the credit due them to all the early and steadfast friends of the Missouri railroad system, it is not to be denied that to THOMAS ALLEN, Esq., of St. Louis, above all other men in the State, belongs the honor of maturing and establishing that system as the settled policy of the land. To his clear foresight, to his sound judgment, to his ardent support, and to his inflexible purpose, hopefully following up the cause he had espoused, in the darkest and most discouraging hours, and when the hearts of men ordinarily more sanguine, often failed them, do we chiefly owe the triumph that now swells with pride the breast of every citizen of the State."

Juvenile Reform Schools.

BY MRS. MARY R. HALL.

An article bearing the above title appeared in the "Western Journal" of December last, containing sentiments which should call forth a hearty response from all the philanthropic and humane, and lead to corresponding action.

To reflective minds, and more especially to those whose ardent desire is to promote the happiness and prosperity of our nation, nothing is so painful to behold, as the countless numbers of young, immortal beings, entering upon the stage of life, destitute of moral principle, regardless of the rights of God or man, trampling upon virtue, and addicted to every known vice. And then to feel that the sin lieth *not* at their own door; that they are *not*, in most cases responsible for the crimes they are led to commit; truly, this conviction should call forth every energy for the suppression of the evil.

Ignorance, is but a stepping-stone to vice; and where it is suffered to exist, vice must almost necessarily follow.

The little infant of a poor loathsome, degraded parent, when it first opens its eyes upon the light, is stainless and pure in spirit as a cherub! Its little soul has never felt the polluting impress of sin; its tiny hand has never been raised to do deeds of violence; nor has it ever profaned its God or cursed its fellow men! Days, weeks, months, pass away and lengthen into years during which a fearful change has been wrought.

From the first dawn of existence the child has breathed a polluted atmosphere. The mother's voice has never been heard in gentle accents, teaching the little one to lisp its earliest prayer; nor has he been taught to bow the knee, and lay the sacrifice of a broken heart upon the altar of the Most High!

The father has never instilled into the mind of his boy, principles of morality or virtue, nor warned him to shun the path that must terminate, inevitably, in disgrace and ruin.

On the contrary, his example is such as to lead the child at once to enter upon a course of vice, and to close up one by one every avenue of his soul; when at an early age the hardened wretch shrinks not from crimes too black to be recorded here. No light has been thrown upon his darkened mind from his intercourse with books, for alas! the child has never been taught to read! Thus he goes forth into the world to mingle with companions as hardened and vicious as himself when uncared for, unsought, and shunned by the virtuous and good, what remains for him but to rush madly on to ruin, unmindful of all consequences? Thus generation after generation passes away without any perceptible, moral change; their numbers increase with fearful rapidity, deluging our land with blood and guilt, polluting the very atmosphere they breathe, retarding the progress of virtue, and obstructive to the peace and prosperity of our nation.

And thus they are suffered to exist; plague-spots in every community, contaminating and corrupting all who come within reach of their baleful influence.

And so they will continue to pass on, unless vigorous efforts are

made for suppressing the evil, while there is yet hope that attempts to arrest its progress may be crowned with success. One thing is certain; these poor, degraded beings will never reform themselves. They have no *desires* for reformation, and allowing, that they *had*, they have no moral power to effect it.

What then is to be done? What is the duty of those who have the power, who are conscious that they have weapons in their hands, which if rightly wielded, must strike a deadly blow at the root of vice?

What is the duty of our Legislators; of those who have wealth, influence, and who fill high stations of honor in our country. in regard to this great evil, which is swelling and increasing every generation, and threatening the destruction of our glorious Republic?

While other great questions relative to national policy are agitating the public mind, shall *this*, which is of more importance than all others combined, be suffered to pass by totally disregarded? I speak not without due consideration, when I say that this momentous question is of vast more importance, than all others combined; upon which so many pens are employed, and which absorb the thoughts of many of our noblest minds! And why? Is not the fearful increase of vice and immorality undermining the foundation upon which the noble superstructure of our Republic rests? Is it not sapping the large life-drops from the very fountain of her existence—aiming its poisonous arrows at her noble heart—infusing its deadly venom into every vein and artery of her system—weakening every nerve and causing the whole fabric to feel such convulsive shocks, which if continued must terminate her existence?

In vain are institutions of learning multiplied in our land if the large class of poor, degraded human beings feel for them no interest and have no access to them. While the favored ones are struggling to climb up the rugged hill of science, the strong undercurrent of vice is successfully dashing its turbid waters against its base, and inch by inch will wear away each foothold, until it will be left in its ruins, unscathed by the toiling student, a blackened wreck of its former greatness!

Divines may exhaust all their energies and their eloquence, in striving for the promotion of virtue and religion in our land, but their voices are not heard by those for whom we now plead, they are not found among those, who go up to worship in the sanctuary of the Lord of Hosts.

Laws may be enacted and enforced, still vice moves on in bold defiance, gathering strength from increasing numbers.

True, benevolent individuals have snatched here and there a victim and torn off his fetters—Sabbath schools have accomplished much and yet the work is scarcely begun. The public mind is not sufficiently aroused upon this subject, and it is to be most fervently hoped that the voice from St. Louis may be heard throughout the length and breadth of our land, until an appropriation be made for the establishment of "*Juvenile Reform Schools*" in every city in our Union! It will add a gem of unrivalled lustre to the already brilliant coronet which sparkles on the fair brow of our sister city, if she stands first in this great and noble work of reform.

I have thrown together the above, scattering remarks, without regard to system or order, (for I write not to please the critic, unless it please him to find fault) and will close by adding a few more of my own which have already appeared in print; but which I think as appropriate in this place as any that suggest themselves to my mind at present.

Education alone can elevate human beings who have so long groped their way amid the dark avenues of ignorance, superstition and vice, till their benighted souls scarce bear the impress of God's holy image—till form and power of speech alone, distinguish them from the beasts that perish.

I am well aware, many will contend that but little can be done towards elevating such characters, that they will manifest their low origin after the utmost pains has been bestowed upon them. That there will always be grades in society, I do not doubt; but I do not believe that it must necessarily follow that thousands must sink down in ignorance and pollution till it becomes impossible to reclaim them.

There will always be *poor* in our land, but poverty should be no excuse for *ignorance* or *crime*. *Educate the mass, and there will be less poverty*: for where the mind is enlightened, corresponding efforts will be made to occupy a respectable position in society. I do not contend that children of illiterate, low-bred, vicious parents, will, as a *general* thing rise at once to distinction and honor, even though they may have the advantages of a common education.

But they will advance a *step at least*—there will be a very decided improvement of the old stock,—continue to educate, and the next generation will take a step *still higher*, and the next *higher yet*; and when a few generations shall have passed away—as an orator is proclaiming to assembled thousands, whose whole souls burn with the fire of his eloquence,—as the voice of the statesman reverberates through the halls of Congress, till lost amid the deafening shouts of applause;—as the man of God stands high upon the walls of Zion, proclaiming the great truths of the everlasting gospel,—as the pale poet sits till his midnight lamp but dimly burns, pressing his trembling hand upon his throbbing brow where ideas are rapidly concentrating, and struggling to be freed from the prison-house of his brain, that they may astonish the world with their powerful imagery—who, *who* will then trace back the generations long since passed away, and behold the ancestors of these exalted individuals, poor, unlearned, vicious,—inhabiting the low, dark hovels and the dens of crime, that now mar the beauty of every city and town?

Nay, tell me not that it is impossible for education to accomplish this great work! *It can and will do it!* Who would believe that the hundreds of the finest flavored apples all sprang from the wild crab-apple, which in its uncultivated state is so unwholesome and unpalatable; and from which we would turn away with a wry face if we attempted but to taste the fruit? And yet this is the case! And the potatoe, that root so highly esteemed is said at first to have been poisonous! And so might many of our choicest luxuries, be traced back to most humble origins, the *first* crop after cultivation was but little improved, but year after year of unremitting toil has brought them to that state of perfection for which our ancestors labored!

And is not the human mind, that noble specimen of God's workmanship, as capable of being improved as the wild unpalatable fruits of earth? *It most assuredly is:* and education shall be the great weapon of our warfare, which we will wage against ignorance and vice, until the object for which we strive shall be obtained.

Keokuk, Iowa, March, 1853.

THE PLAINS,

By FRANCOIS DES MONTAIGNES, of St. Louis.

CHAPTER FIFTH.

An episode, in which Francois puzzles himself, as well as the reader, in useless conjectures respecting the object of the Expedition as well as the probable cost thereof.

Having thus presented, with our inadequate descriptive powers, the *tout-ensemble* of this glorious enterprise, so as to afford the mind's eye of the reader, a *coup d'œil* at the ingredients which form its component parts, as well as an idea of the powerful precipitate constituting its basis, and which whenever cast into the mixture, causes the immediate descent of the balance to pusillanimity, it becomes us, as the *Froissart* of the stirring events of the period, to favor the friendly reader, with a glimpse likewise at the probable causes which *may* have originated the compound, and the probable important results to be expected from its administration by the wise pharmacopists who manufactured it.

In other words, these memoranda which set out ostensibly to narrate *facts*, should embody as far as possible, the various circumstances which may have influenced the chronicler, whilst digesting them; so as to afford the reader an equal chance with himself in balancing the *pros* and *cons* involved therein, and in determining from the context, whether prejudice has leaned to the right or left, and deprived even the facts themselves of that indispensable beauty of genuine History; strict and bona fide impartiality.

The reader, like a traveller with the *mirage* in view, has toiled on through the four preceding chapters, under the vain delusion, that each succeeding one, would, like some welcome finger-board, inform him of the distance yet to be traversed, or at least afford him some clue to the route he is pursuing.

But, like some of the unfortunate pilgrims mentioned by the good John Bunyan, he has been tempted to loiter, by the wayside and be amused with the tricks of rascally mules, and long yaras of marvellous hunts and still more marvellous speeches.

He has camped, cooked, eaten, slept, travelled and hunted with the explorers. He has chatted with the engages, and has peered into that museum and sanctum of science, the wagon of instruments; and, notwithstanding all this and a great deal more, he is doubtless as much in the dark as the most unsophisticated hand in camp, respecting the *why*, the *where* and the *wherefore* of it all.

What of *that*? Are there not compasses and theodolites in abundance?—What difference should it make therefore, whether our destination be Terra del Fuego or the Mountains of the Moon? It is none of our business at any rate, and provided we pay proper attention to our mules and assist at the wheel in case a wagon stalls or the observatory has to cross a mud puddle, we are doing our duty as explorers and taking a sufficient *reconnaissance* of the region for all practical purposes.

As to the *why* and the *wherefore* of all this *armada*. That is another question,

—“Aye there's the rub.”

For this is rather an indelicate query and very rude, when viewed in connection with some of the previous notes. But having started on this trip, with the full assurance of realizing his hopes and the oft repeated dreams of his boyhood—obtained by the warmest and strongest of written recommendations, Francois, for one, was bound for California; whether he ever succeeded or not, will be discovered in the sequel.

But the Expedition; the Pack-saddle Expedition, with all its droves of horses and wagons, and white men, camp-kettles and black cooks. Why was all this leaving the borders of Missouri and striking out towards the Far West?

Yes, the question naturally presents itself at this juncture of our narrative, as to the why and wherefore so large a body of armed men, sufficient to form a small army in the Indian Country, with their bands of horses, mules, and beeves, their train of wagons, laden with munitions, ammunition, provisions and equipments of every variety from one of Franenhofer's best refractors to Thomas Gray's patent iron pickets, etc, etc, etc, with kegs of brandy, pounds of vermicion and boxes of vermicelli and macaroni—are thus gathered together on our border, and what important results can possibly be expected from their future movements?

Here are eighty men or more, some two hundred head of horses and mules, hired or purchased at the expense of government, all (excepting the men) properly branded with the United States brand, (or rather with the letter F which amounts to the same thing,) and all to be paid for with United States money, out of the U. S. pocket.

(By the bye, for fear we forget it, the Frenchman's little patrimony at home paid an annual tax.)

The expense of such an enterprise therefore, though gotten up on the most economical scale, some of the men getting *only* fifteen and others *only* seventy-five dollars per month, and the bacon and sugar lasting *only* as far as Pawnee Fork, could not be insignificant, even for such a treasury as Uncle Samuel is known to have a right to check upon; and the results to be expected should doubtless correspond, in importance, to the greatness of the expenditure.

Forty, fifty or sixty thousand dollars, is an inconsiderable sum, to be sure, for a great and wealthy people, and especially for a free one; and *millions* have been expended since the flood, by the enlightened portion of the human race in exploring the countries and ascertaining the manners and customs of the barbarian balance. King and Queens, Czars and Emperors, have vied in equipping fleets and armies to search for and conquer new lands and nations for their respective crowns, and *Discovery* hand in hand with *Conquest*, with their overwhelming Banner of Progress, have traversed Oceans and Continents with their mighty tread.

The fleets of an Isabella and of a Ferdinand bore Columbus in search of a world. The enterprise of an Elizabeth scattered her navigators and bucanears over the Atlantic and Pacific, and the dollars of Uncle Samuel are bound for the expenses of the Great northwestern, mule-wagon and pack-saddle exploring expedition, of 1845.

Christopher Columbus discovered a hemis-phere, Captain Cook whole archipelagoes; Vancouver, Byron, Drake, Wallis, Wilkes, etc., sailed around continents and islands innumerable,—through sounds and straits, oceans, inlets, bays, and gulfs, and Franklin lies ice-bound in the Polar Seas.

What therefore have we to discover?

What world is there for us to conquer?

Has the Columbia ceased to flow into the Pacific, or the Colorado into the Gulf of California? Have Lewis and Clark ever crossed the Rocky Mountains or Pike and Gregg the *Llano Estacado*? Has the broad wagon road to New Mexico, become such an insignificant Buffalo path, since 1820, as to require an army of surveyors to ascertain its bearings, and have the Spanish Peaks ceased to be land-marks for the mountaineer and trader? Are geographers ignorant of the locality of Bent's Fort or Salt Lake, and has *The Great South Pass* been lately removed by the Indians or an earthquake, from the place it occupied, when our trappers passed through its broad defiles *many years ago*; in search of new stamping grounds beyond it? That the government of the United States find it necessary to despatch an expedition of this kind at an enormous cost, to ascertain the truth of such ancient axioms?

Does the solution of such practical problems require the mathematical science of an Archimedes or a Herschel, and all the pack animals to be purchased along the Missouri and Arkansas borders? No, the object cannot be discovery, for the simple reason that there is nothing but what *has been discovered*, long ago. There may probably be something to *analyze*; the Beer Springs for instance or the deposits of mountain rivulets, or something to be collected in the way of fossils and sphenopteris. But surely Uncle Sam would not pay so much for a whistle, nor for the rarest organic remains, even were the Petrified forest and the stalactite Buffalo included.

The object of this expedition, therefore, cannot be an idle one; neither projected for the improvement and amusement of government officers, at government's expense, nor for a topographical and analytical survey of the far west, intended to connect with Wilkes explorations and that of the *Japan Squadron*; as appropriations for such purposes are, for the most part, rather tardily acted upon, and generally share the fate of such Bills as propose a pension, an improvement in the navigation of western waters or others unimportant. If a strict and rigid survey of the great prairies and Rocky Mountains be in contemplation, preparatory to purchasing from the Blackfeet and Camanches, and cutting their war-grounds up into fortys and eightys, why does not government in its wisdom evince more of it, by sending out men as familiar with every hill and valley, every creek and river, every route and pass, every nook, corner, crag, crevice and hole, in this magnificent portion of America, as they are with their rifle and knife? who have chased the Buffalo over the level plain, and fought the grizzly bear in the rocky defiles *years ago*; who have wandered over the heated sands and camped in the eternal snow—who have chained their traps in the mountain stream and in the deep bottomed cañon, *years ago*; who have thirsted and starved and fought to the knife with the ferocious tribes infesting both willow bottom and boundless prairie, *years ago*; men who have grown grey, since they passed and repassed with their traps and their trappings, their animals and their beaver packs, through *The Great South Pass, years ago*; men who have passed through all these scenes without murmuring or flinching, or attracting attention even from that government which should have, at least, remembered them *many years ago*.*

Such men, for instance, as Fitzpatrick, the Sublettes, Campbell, Vasquez, Ashley, Smith, Bridger, Walker, etc., etc. These are the surveyors, these are the pilots, these are the savans, and practical ones at that, who could have informed Government, *years ago*, for a less sum than forty or fifty thousand dollars; whether a two horse wagon laden with household goods and gods, if not with instruments and specimens, could pass the Rocky Mountains. These are the "western men, who are animated with the spirit of exploratory enterprize which characterizes that people." (Vide Fremont's Rep., Expedition, sec, fol. 226.)

Those who have traveled, trapped and traded upon every stream of note, should certainly be capable of informing us of the character of those streams, and though their rifle and butcher-knife be but rude instruments to take an observation with, cannot we rely upon their statements as to whether California lies west of the Cordilleras, or the Navajoes south of the Arkansas? Can they not inform us of the Indian feuds, whether the Sioux are at war with the Crows, —the Arapahoes and Chiennes with the Apaches,—the Camanches with the Mexicans, etc., etc? Can they tell us anything of the habits of the Buffalo,—of the Bear, the Beaver, the Elk, the Deer, the Antelope, the Wolf, the Fox, the Prairie dog, the Indian and the rattlesnake; or are these animals, of which they are ignorant? Though unacquainted perhaps with the Linnaean phraseology and the dead languages, they may possibly speak a little Sioux or Spanish and hold an interesting conversation with the balance by means of the manual alphabet? Have they ever noticed *ribes aureum* in the mountain valleys, plums on the Washita or *pinus monophyllus* in the Sierras? Have they seen rabbits among the *artemisia*; had *cactus* in their moccasins, or fed the starving animals on *equisetum hyemale*, or the bark of the *populus canadensis*? Enough of this, a truce to such questions; for Uncle Samuel with all his foresight is certainly wrong for once, if the object be geographical discovery. He would certainly have employed such veterans as we have mentioned; if not as *chiefs*, most assuredly as *pilots* in guiding his greenhorn relatives over the vast solitudes which constitute the war-ground of the Redman and the home of the Trappers.

We must therefore look to the other horn of the dilemma for the solution of the query; Conquest must be the motive power, which prompts the old gentleman, to send forth his little army of sappers and warriors, dragoons and riflemen: Some important province, some mysterious land overflowing with milk and honey

* NOTE.—"And, for the guidance of the future historian of the West, we deem it but justice to state, while the witnesses are still living to confirm the assertion, that MAJOR FITZPATRICK, in the year 1824, led through the SOUTH PASS the first band of white men, who ever crossed that route to the Pacific slope."

See article by Solitaire in vol. 3, No. 34, of St. Louis Reveille, containing a brief account of Major Fitzpatrick.

and naked savages, lying deep in the recesses of one of the great Basins, perhaps, some wealthy and peaceful tribe, the Diggers, probably, who would prove industrious citizens after naturalization. The fisheries of the Columbia, perhaps, have caught the old man's eye, or may be he hears the groaning and clinking of gold dollars beneath the ponderous millions of *Mariposa!*

Pshaw; Alexander wept hundreds of years ago, because he had conquered all, and supposing there was any thing left at the present epoch, would Uncle Samuel, even in his dotage, send a fox to find his cheese or crows to cover his corn?

Conquest therefore is out of the question, as *filibustering* is a practice discountenanced and unassisted by our law-abiding government, which uses the most stringent measures to prevent and the strictest impartiality in punishing it. The Root diggers and Klamats, as well as the Mexicans and the Californians may rest contented therefore, whilst we can console ourselves under the embarrassing circumstances, with the reflection that we are going *somewhere*, for *some* purpose, for some fifteen dollars per month, and are literally *some* ourselves; we scarcely know *what*. Allons donc encore! We will attend to the packs and the mules, the botanist will tend to the gooseberries, the geologists to the fossils, the camp master to the wagons, the black cook to the macaroni and the captain to *himself*.

To the obliging reader, however, who has taken the trouble to read it, I would suggest that the above effusion is but another of those visionary episodes, to which all travellers and especially explorers are prone, and amounts to nothing more in fact, than a mere *conjecture* or *guess*, as he will readily pronounce it to be, after perusing it, and, as such, entitled to no more consideration, among these invaluable memoranda, than is justified by its affinity to the subject in hand or to the facts duly set forth and expatiated upon in the sequel.

It would have gratified the writer of this sketch to have had it in his power to throw more light upon this sombre portion of our narrative, and to have informed the reader, plainly and honestly, to what point of the compass we are destined as well as the object of the movement, but as has been shown, this were an impossibility by reason of the dense cloud of unmeaning mystery thrown over all, which caused all information on these points to be centred in one grand and illustrious focus of intelligence and science.

The broad, boundless prairie stretches out before us, and as we cast our glance over its ocean like surface, we almost hesitate to spread our untried sails, without knowing the port to which we are destined, or the purpose for which we are risking our lives upon its bosom.

State Lunatic Asylum of Missouri,

With emotions of gratitude, mingled with pride, we record the fact, that Missouri has prepared an Asylum for the Insane: grateful, for the liberal appropriations made for the relief of the afflicted, and proud of a monument which attests the public spirit and enlightened humanity of her people. It is by such works, that the sentiment of patriotism is cherished and strengthened in the hearts of men binding them to their country and to each other. School-houses, churches and humane institutions are the bulwarks of civilization, stronger and far more to be trusted than the prison and fortress.

We have carefully perused the report of the Board of managers of the late General Assembly, and are constrained to say that the document bears strong testimony of the enlightened judgement and philanthropy of the gentlemen under whose auspices the institution has been organized.

The buildings, with 460 acres of land, belonging to the institution, situated adjacent to the town of Fulton, are constructed on the most approved plan, and afford accommodations for 100 patients.

Though nominally opened on the 31st December, 1851, the institution was not in a proper condition for the reception of patients until the middle of the spring of 1852. Up to November 29th of 1852, 70 patients had been admitted: 36 males and 34 females. Of this number have been discharged "recovered" 4, "much improved" 2, "improved" 1, total 7, died 1. The superintendent adds: "there are 5 others I now consider well, who are remaining in order that their cure may be permanent." This must be regarded as highly encouraging, especially when it is remembered, that owing to the want of timely treatment, a large portion of the cases were of long standing, and the chances of recovery greatly lessened.

The managers recommend the enlargement of the building so as to afford accommodations for 200 patients, and we believe that the Legislature made an appropriation for that purpose, but we have not seen the law.

Among the many enlightened views contained in the report of the Superintendent, he suggests a modification of the law that will authorize the admission of all classes of patients, at the expense of the State. We have considered this suggestion in all its bearings, and feel convinced that it is the true basis upon which the institution should be established, and we trust the managers will continue to urge this policy until it shall have been adopted by the Legislature. The report of the superintendent, Dr. T. R. H. Smith, is highly creditable to him as a philosopher and philanthropist, and attests his qualifications for the delicate and responsible duties of his office.

The Board of Managers consists of John B. Leeper, President, Charles H. Hardin, Secretary, Thomas B. Harris, David McKee, John B. Snelson, M. D., Enos B. Cordell and George K. Budd.

The Drama.

The object of the Drama is to represent human nature. The object of the Church is to inspire divine nature. The harmonious combination of human and divine nature is the most perfect condition at which a sensible spirit can attain on earth. Some men are endowed with a genius of common sense. Some men are endowed with a genius of supersensual spirit. A few are endowed with a combination of both. Virtues and faults are found in the sphere of sense, and also in the sphere of spirit. Criticisms are written to guide the genius of common sense towards the highest point of civil refinement. Commentaries are written to guide the genius of the "divinity within us," towards the highest point of religious sensibility. Licentiousness is the greatest fault—liberty the greatest virtue in the eyes of all true critics of sense and spirit.

Civil and religious liberty is the aim of criticism; for it indicates not only proper conduct, but also proper motive; it not only polishes sensible manners, but also purifies conscious feelings, and thus places human in the most harmonious relation with divine nature.

These ideas may seem too nice for vain and coarse souls; yet tested by sound understanding and pure imagination, they are sustained by truth.

The drama—the legitimate drama, on these principles, promotes the cause of humanity. It polished the Greeks, and prepared them for a new order of existence.

“High on Parnassus’ top her sons she show’d,
 And pointed out those arduous paths they trod ;
 Held from afar, aloft, th’ immortal prize,
 And urged the rest by equal steps to rise.
 Just precepts thus from great examples giv’n,
 She drew from them what they derived from Heaven.”

And the apostle of the Gentiles, to sustain his argument at Mars Hill, quoted from one of their own poets, and in the establishment of the true divine faith among them, showed its harmonious relation to their civil refinement.

These views may be more fully illustrated hereafter. The legitimate drama will, of course, form the basis, and instances of the most elevated classic characters may be derived from the noble representations at the People’s Theater.

SUNSET GLEAMS FROM THE CITY OF THE MOUNDS. By **ETHEL GREY.** *St. Louis, Mo. New York. Printed by John F. Trow, 1852.*

Morning Rays we would have called these poems. Dew drops of Heaven and tears of tenderness, blooming flowers and bursts of affection, pulsations of wind and motions of spirit, diffused throughout her work, denote the tone and disposition of the mind of **ETHEL GREY.** Her **GLEAMS** are “morning rays,” for she is only 19 years of age. Her **GLEAMS** are morning rays, for they are fresh and refreshing. Her **GLEAMS** are morning rays, for they are signs of a brilliant day, arising on the literary field of Missouri.

We have just perused her 77 poems, 182 pages, 8vo., and have noted too many favorites to mention them here. Yet we cannot refrain from quoting a few lines replete with practical tendencies, and prolonging the tone of **LONGFELLOW’S** operating *Psalm of Life* :

LABORARE EST ORARE.

“Up and be doing; Time’s waters are flowing
 Ceaselessly on to Eternity’s main ;
 Ceaseless is every young seed in its growing,
 Till it produceth the life-cheering grain.”

“Ever press forward in some earnest motion,
 For every thing tells us that *motion is life.*”

Shrink from his labor! Ah! no rather say,
 With heart, soul and voice in the joyful uprising
 “To work is to worship”—to labor to pray.”

Nor will our admiration allow us to omit the notice of that pathetic and Heaven aspiring invocation of the departed :

“Isabel, Isabel,
 Spirit loved Isabel,
 Angel-born Isabel,
 Whisper to me !”

The harmony of the versification and the tenderness of the spirit breathed throughout this poem, soothes the grief which the subject occasions, and cheers the mind for the faithful performance of the duties of life. The paper and binding of the book, like the thoughts, are fine and guided. Six beautiful engravings embellish the work. For sale at Woodward’s. Price \$3.00.

This book should be returned to
the Library on or before the last date
stamped below.

A fine is incurred by retaining it
beyond the specified time.

Please return promptly.

Widener Library



3 2044 097 940 712