ENGINEERING and MINING JOURNAL.

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CONTENTS.

MESSRS. MALTER, LIND & CO., Engineers and Mill-Builders, have removed to No. 189 Broadway.

DR. ROSSITER W. RAYMOND is at present making an extended professional trip, embracing Colorado and other Western mining regions.

MR. A. J. CAMPBELL, Director of the Trojes Mining and Smelting Company, Limited, recently arrived, by the steamer Nankin, from Mexico, on his way to England. He returns to Mexico in October.

MR. RICHARD P. ROTHWELL, the Managing Editor of this JOURNAL, arrived at St. John's on the 12th instant, and left that port for Saint Domingo on the 13th. He will probably reach New York between the 10th and 15th of July.

WE publish elsewhere in this number an interview with the Secretary of the Robinson Consolidated Mining Company, who, though evidently quite inexperienced in mining matters, has furnished the public with some valuable information relative to the company's finances.

WE have received from the publishers, GEORGE H. ADAMS & SON, of this city, a *Map of the San Juan Mining District*, Colorado, compiled and drawn by Mr. A. F. KIBBE, of San Miguel, Colo. Besides including a small but complete map of the State of Colorado, and its railroad system, it gives the new local names of towns, mountains, and gulches in all the mining camps, including Durango, Rico, and the new county of Dolores; the new railroads and railroad towns; the proposed railroads, wagon-roads, and trails; and the elevation of mountains and towns above sea-level. It is colored in counties, is 25 × 27 inches in size, printed on linen paper, and folded in cloth cover for pocket form.

AMONG the live questions treated in No. 3, Vol. II., of the *Journal of the United States Association of Charcoal Iron Workers* are: Charcoal, its Manufacture, Transportation, Measure, etc.; Records of Blast-Furnace or Forge Operations; Preparation of Stock; Possible Methods of Improvin Present Processes; Forestry; and Uses of the Product of Charcoal Iron-Works, etc. The next issue will contain the announcement of the time, place, and general programme of the Second Annual Meeting of the Association. It is intended to issue the *Journal* bi-monthly, making each year a complete volume. A very satisfactory interest has been developed in the Association and its work; the membership had increased, in April last, to two hundred, to which, no doubt, many names will be added at the forthcoming annual meeting. The Association of Charcoal Iron Workers and its *Journal* have filled a void, and both are now so well started on a firm basis as to be beyond any possibility of any thing but success.

STATEMENT OF ANTHRACITE COAL TONNAGE FOR MONTH OF MAY, 1881, COMPARED WITH SAME PERIOD LAST YEAR.

	May, 1881.	May, 1880.	Difference Increase.	For year 1881.	For year 1880.	Difference. Increase.
Phil. & Read. RR	534,063 15	452,403 01	81,660 14	2,336,074 00	2,150,631 06	188,442 14
Lehigh Val. RR.	415,681 11	325,367 16	90,313 15	2,013,999 06	1,561,640 13	452,358 13
Cent. RR. of N. J.	299,479 18	225,348 13	74,131 05	1,471,369 12	1,243,393 01	227,976 11
Del., Lack. & W. RR	301,660 16	251,992 13	49,668 03	1,580,496 18	1,334,101 04	246,395 14
Del. & Hud. Canal Co.	214,865 14	174,078 15	40,786 19	1,176,339 04	1,072,197 11	104,141 13
Pennsylvania RR.	194,921 07	120,464 18	74,456 09	823,674 17	564,989 12	258,685 05
Penn. Coal Co.	90,061 10	69,657 14	20,403 16	464,446 00	395,834 04	98,611 16
N. Y., L. E. & W. RR.	36,008 03	31,767 01	4,241 02	179,859 02	152,691 12	27,167 10
Total	2,086,742 14	1,651,080 11	435,662 03	10,049,258 19	8,475,479 03	1,573,779 16

The stock of coal on hand at tide-water shipping points May 31st, 1881, was 562,719 tons; on April 30th, 1881, 528,198 tons; increase, 34,521 tons.

The above statistics are furnished by Mr. JOHN H. JONES, Accountant. Although the production in May was but 1,651,080 tons, as compared with 2,016,640 tons in April, and 2,086,743 tons in May, 1880, the stocks on hand were increased 34,521 tons during the month. The aggregate (562,719 tons) of stock, however, is by no means large, and should not give the companies trouble. The shipments for the first five months of this year were 10,049,259 tons, or at the rate of over 24,000,000 tons per annum, and show an improvement on the corresponding period of 1880 of 1,573,780 tons.

The following tables will be interesting:

	Percentage shipped in five months. 1881.	Percentage shipped in five months. 1880.	Allotments proposed for a combination in 1877. Per cent.
Phila. & Reading RR.	23¼	25¼	28¾
Lehigh Valley RR.	20	18½	18¾
Cent. RR. of N. J.	14¾	14¾	13¼
Del., Lack. & W. RR.	15¾	15½	12¾
Del. & Hudson Canal	11¾	12¾	12¾
Pennsylvania RR.	8¼	6¾	7¾
Penn. Coal Co.	4½	4¾	6
N. Y., L. E. & W. RR.	1¾	1¾	....
	100	100	100

It will be observed that the Reading Company, which, a few years past, claimed from 30 to 31 per cent, and was afterward acknowledged by all of the other companies, excepting the Lehigh Valley, to be entitled to 28¾ per cent, has fallen off to securing but 23¼ per cent of the business; while the Lehigh Valley has gone up to 20 per cent; and the Delaware, Lackawanna & Western, which was to be allotted 12¾ per cent, is now securing 15¾ per cent of the trade. The Central Railroad of New Jersey and the Pennsylvania Railroad show improvements on the allotments offered them. The Delaware & Hudson Canal Company and the Pennsylvania Coal Company join the Reading in losing ground.

THE MINING DEBRIS QUESTION IN CALIFORNIA.

This important question, raised in California, appears from late advices to be likely to have some chance of speedy settlement. The people of the State of California, through the Attorney-General, have taken out an action in the Superior Court of Sacramento County against the Miocene Mining Company. The plaintiff asks that the mining company be enjoined and restrained perpetually from discharging any tailings from its lands or mines into Feather River. It is claimed that the Sacramento and Feather rivers have been declared by the legislature of the State of California to be navigable streams, and that the *débris* from the hydraulic mines has materially impaired the navigation, and further that the beds of these rivers had been greatly widened and the channels shallowed, thereby causing the overflowing of their banks and the submerging of considerable portions of the lands on each side of the rivers, with consequent depreciation of the value of the lands.

The defendant, the Miocene Mining Company, is organized under the laws of the State of New York, for the purpose of mining in Butte County, in the State of California, and claims to own about 1500 acres on Feather River, which is capable of being worked to a depth of about 30 feet below surface by the hydraulic process. A ditch and iron pipes conduct a sup-

ply of 3000 inches of water to the mine, under a pressure of 350 feet; which is discharged through monitors from nozzles eight inches in diameter, discharging into Feather River some 12,000 cubic yards of material per day. The plaintiffs recite these and other minor facts, and go on to maintain that not only are the rivers made unfit for navigation, but that more than 50,000 acres of good and valuable lands are rendered unproductive and valueless, in consequence of the fact that from 1 to 15 feet of tailings or *débris* have been deposited thereon; and further, that 100,000 acres of improved and valuable lands in the valley of the Feather River, below Oroville, at present uninjured, will be rendered valueless if the defendant is not restrained from further dumping tailings in the river as at present practiced. It is also claimed that the water of the rivers is so fouled and polluted as to be unfit for use; and that the natural drainage of the lands and the sewerage of the towns and cities in the Feather and Sacramento river valleys are greatly interfered with, and thereby the health of the inhabitants impaired.

It is stated that the action was brought in California because the only adequate remedy is by an injunction from a court of equity, the influence which could be brought to bear on a jury being such as would make it difficult to convict for the offense. The plaintiffs therefore pray that the defendant, pending the action, be restrained from dumping into Feather River any *débris*, tailings, or foreign matter from the mine until the final hearing and trial of the action, when the defendant be enjoined and restrained perpetually.

The injunction was issued by Judge DENSON in accordance with the petition of the plaintiff, and was at once served upon the Miocene Mining Company. In consequence of this injunction, a large number of men have been discharged from some of the hydraulic mines. The San Francisco *Alta* says:

"Very few of the 'slickens' and 'anti-slickens' people have investigated what is at stake on the hydraulic mining side of the case. We have made inquiries, and find out the following particulars: There are in the counties affected 6000 miles of ditches and canals, ranging in length from one mile to one hundred. The cost of construction aggregates $30,000,000. In the hydraulic mines, according to the season, there are employed all the way from 5000 to 10,000 men. Out of this the number of Chinamen employed will not come up to 500. The capital invested in hydraulic mines is over $150,000,000. The yearly product of these mines ranges in the aggregate from $12,000,000 to $15,000,000. The population of the mining counties affected by the principles of the suit begun is 130,000, and the population directly affected by the present suits is 60,000.

"The above figures should make those who are so hastily rushing lawsuits against the running of 'slickens' into the river cautious. Cool heads and men of reason should be placed to the front. If a compromise could be effected, all in the end would be better off. Destroying hydraulic mining means the destruction of a market for the farmer and the agriculturist that will make an amount of land now under cultivation equal in value to the mining interests involved worthless. For this reason, if for no other, should the miner and farmer see if they can not come to some understanding and avoid the continuation of the present litigation, which in its progress will involve a serious loss to the whole State, no matter which side comes out victorious."

NEW PUBLICATIONS.

SECOND GEOLOGICAL SURVEY OF PENNSYLVANIA. H 5. *Report of Progress in Armstrong County. By* W. G. PLATT. *With a Colored Map of the County.* Harrisburg. 1880. 8vo, 338 pages. *(Full indexes.)*

In his letter of transmission, Professor LESLEY sums up the general nature of this volume in a paragraph which we can not do better than quote. Indeed, the introductory remarks usually furnished by the accomplished chief geologist to accompany the reports of his assistants are the best reviews that can be written; and we are often led to regret that we have not space to publish them in full, rather than attempt briefer comments of our own. Says Professor Lesley:

"Armstrong County, being situated midway between the oil regions of Clarion and Butler and the Pittsburg coal region of Westmoreland, relies for its mineral prosperity on the lower coal-beds which outcrop along all its valleys; on its universal outspread of Ferriferous limestone, which sometimes becomes very thick; on the overlying Buhrstone brown hematite iron ore, which has supplied in past years numerous small charcoal furnaces; and on some local outcrops of valuable fire and pot clays. Building and flag stone outcrops are only too numerous for the agricultural interest of the district; many of the valleys being turned into wildernesses by towering cliffs and innumerable blocks of fallen stone. Local coal mines, ore-beds, limestone quarries, and clay pits are then the topics of this report, which consequently is of a thoroughly prosaic and practical character; but the geologist, and even the artist seeking for indications of the picturesque, will find matter of reflection in its pages; and in one respect its geological lessons are of exceptional importance."

From his further remarks, we infer that the geological lessons to which he alludes are connected with the triple or quadruple structure of the great Pottsville conglomerate xii., which includes the Mercer and the Sharon groups. Mr. PLATT has treated this conglomerate as a unit, and has regarded certain dark, bituminous shales containing local layers of coal as underlying it, and as the equivalent of the Mauch Chunk red shale, xi. But these shales, and a thin coal seam of the same group, have been recognized by other geologists of the survey as belonging to the Mercer group; and Professor LESLEY, judicially summing up the evidence, gives his judgment for the present in favor of that view. The question is merely one of names, and the chief geological "lesson" conveyed in it, so far as we can see, is the lesson of the importance of independent surveys of adjoining districts, mutually checking one another's classification.

The reader who has followed the progress of the present geological survey of Pennsylvania, and compared its successive volumes with the accounts of the corresponding districts in the report of ROGERS, will doubtless have felt that the earlier picture was far simpler and easier to understand. This is always the case in preliminary investigations. A few leading facts are noted, and bold generalizations are made to connect them. But more careful and minute inquiry too often dispels the charm of completeness and symmetry thus thrown around imperfect data. The facts are multiplied, and the difficulty of arranging them in orderly sequence is increased in proportion. The first story was pretty, but not true; and the higher beauty of truth must be wrought out by patient touches, and must be meanwhile for a time obscured by the very process which will finally bring it to view.

A good example is furnished by the bituminous coal-field of Western Pennsylvania. The first survey found in Armstrong County two, and only two, great anticlinals, the so-called fourth axis and fifth axis, with the fifth bituminous basin between them. But it now appears that the fourth axis is not continuous; that the fifth was wrongly located; and that a number of others, long and short, which rise and disappear in the middle of the basins, were overlooked altogether. A similar state of facts is disclosed in every other part of the bituminous coal-field; so that, as Professor LESLEY says, "the uniform simplicity of structure formerly ascribed to it is lost to view, and it takes its regular place now with other complicated regions of the earth's surface." To such patient and thorough work as the Pennsylvania corps has been doing, must we look for the final solution of the perplexing problems of geological history.

BRITISH EXPORTS OF IRON AND STEEL.

Messrs. W. W. & C. RICHARDSON, of London, furnish us with the following statistics extracted from government returns:

RAILROAD IRON EXPORTED TO	Month ended May 31.			Five months ended May 31.		
	1879.	1880.	1881.	1879.	1880.	1881.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
United States	1,720	29,439	39,907	2,904	93,873	127,346
Russia	8,156	92	3,023	10,629	327	5,214
Turkey	.....	.....	883	746	4	4,352
British India	8,261	7,592	6,946	46,347	60,974	37,698
British North America	9,001	5,212	18,019	11,921	17,742	23,235
Egypt	.....	320	372	330	3,582	3,651
Australia	7,074	8,292	6,723	34,772	29,823	36,416
Brazil	3,499	1,815	2,696	16,521	9,904	16,869
Holland	1,054	504	1	1,111	1,520	161
Spain and Canaries	1,204	174	3,064	6,583	4,393	5,390
Sweden and Norway	1,053	340	659	9,500	871	684
Chili	11	40	11	605	406	346
Denmark	4	1	38	75	42	75
Peru	542	220	146	1,531	687	595
Germany	631	49	4	1,858	49	66
British Possessions in South Africa	1,047	309	404	2,956	3,424	1,201
Italy	4,180	3,344	1,040	7,814	7,138	9,707
Other countries	2,394	3,056	4,179	11,404	24,263	24,036
Total	49,831	60,802	88,715	168,707	259,022	297,042
Total exports from Great Britain of iron and steel to all countries	291,911	360,603	356,664	1,018,000	1,733,130	1,365,944
Estimated total of iron rails	3,743	8,764	18,661	18,004	58,364	60,173
" " steel rails	40,165	44,735	61,001	118,070	166,977	197,860
Total of rails	43,908	53,499	79,662	136,074	225,341	258,033
Exports of the following to the United States:						
Pig-iron	5,305	73,758	38,444	19,994	431,805	148,279
Old iron for remanufacture	3,260	28,755	10,183	6,938	167,226	34,779
Steel unwrought	496	5,838	9,563	2,458	25,590	34,009
Tin plates	11,775	13,804	12,940	56,001	71,134	68,420
Hoops and sheets	323	6,992	2,444	680	26,998	9,512
Bar, angle, bolt, and rod	184	6,566	1,019	1,142	39,929	5,180

The exports for May show an improvement on several months past. The total exports for the month, however, are slightly less than for the corresponding period of 1880. The shipments of railroad iron were much larger than for the same month of last year, and a fair improvement on April. It will be observed, however, that nearly half of the exports were to the United States. British North America and Russia figure largely in the improvement in railroad iron shipments.

The shipments of all kinds of iron and steel to the United States during May aggregated 114,500 tons, or at the rate of nearly 1,400,000 tons per annum. The shipments for the same month in 1880 and 1879 were 165,152 and 23,063 tons, respectively. The total shipments for the first five months of this year were 427,525 tons, or at the rate of nearly 1,300,000 tons per annum. The shipments for the first five months of 1880 and 1879 were 110,117 and 855,555 tons, respectively.

The iron trade of the United States is suffering to this day from the excessive shipments of pig-iron and old iron during 1880. It is gratifying to observe to what an extent the shipments of these have been reduced. The other articles shipped here have found a ready consumptive market, and have not gone to any great extent into stock to act as a depressing influence on business and prices.

THE MEETING OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS AT MONTREAL.

The thirteenth annual meeting of the American Society of Civil Engineers was opened in the William Molson Hall, McGill University, Montreal, on the morning of the 15th inst. On the platform were Principal J. W. DAWSON, the professors of the University, and many other prominent citizens, including the Mayor. According to the custom of the Society, its President does not act as chairman of the meeting, to which honor Mr. THOMAS C. KEEFER was unanimously elected. An address of welcome, offering the freedom of the city, was read by the Mayor, and was indorsed by the Presidents of the Board of Trade, Corn Exchange, and others. The Chairman then introduced Principal DAWSON, who, in the course of his remarks, said:

"Not being an engineer, I can not refer to those works in which you are professionally interested; but as a geologist, I may introduce you to the ancient and venerable formations on which our city stands. The Lower Silurian limestone of Trenton age, which underlies a great part of the Island of Montreal, a congeries of organic fragments, has nevertheless attained to the hardness and density of a marble, and is our chief material of construction along with its companion beds the Chazy and the Black River limestones. These may be well seen in the extensive quarries near the city. The next formation in ascending order, the thick and soft Utica shale, has permitted our noble river to excavate its bed along its outcrop, and furnishes a kindly rock in which to construct the great tunnel which is some time to cross our river and to relieve the Victoria Bridge. Breaking through the Trenton limestones, we have the grand mass of igneous rock of dioritic and syenitic character, which forms Mount Royal, on which our Mountain Park is laid out, and which serves also the more homely use of supplying material to macadamize our streets. Dr. Hunt and Dr. Harrington have worked out much of the chemical and microscopic characters of this great and varied mass. Associated with the mountain in origin is the patch of volcanic breccia on St. Helen's Island, a remnant of the ancient cone of the Montreal volcano, and which, by the fossils of the Upper Silurian age associated with it, fixes the age of the chief eruptions of our mountain. Lastly, in the much later Leda clays and Saxicava sands of Pleistocene age, overlying the older formations, we have the material of our bricks; and in them the geologist can collect abundant specimens of marine shells, identical in species with those now living in the northern part of the gulf of St. Lawrence, and indicating the submergence of our country under the cold waters of the Arctic Sea in that age known as the Glacial period, and in which the imagination of certain extreme theorists would have us believe that our continent was covered with a mantle of solid ice. The Montreal that now is profits by all these preparations of past geological ages, and, having passed out of its glacial age, can welcome you to a summer clime, a rich vegetation, and the hospitality of a growing if not yet a great city."

Vice-President WELCH responded on behalf of the Society in a humorous speech, in the concluding part of which he said that the real and highest aim of the engineer, by the works he constructs and by the union of the whole world into one by the construction of railroads, canals, and telegraph lines, is to civilize mankind.

Among some of the papers read at the meeting were the following: Comparative Economy of Light and Heavy Rails, by A. WELCH; Wrought-Iron Columns, by R. CLARKE & Co.; Repairs of Masonry, by O. CHANUTE; Weights and Measures, by E. LATIMER; Strength and Durability of the Copper-Tin-Zinc Alloys, by R. H. THURSTON; Standard Time for Railroads and Telegraphs in America, by SANDFORD FLEMING; Montreal Harbor Improvements, by G. D. ANSLEY for JAMES SHEARER; Sewerage Systems, by R. HERIVEY; Report of Committee on Cement Tests, by Mr. WHITTEMORE; Improved Level, by PEREZ VANTTRUHLE; Water Elevator, by WRAGGE CHANUTE; an exhaustive paper on the Reinforcement of the Anchorages and Renewal of the Suspended Superstructure in Iron of the International Railroad Suspension Bridge at Niagara Falls, by Mr. L. L. BUCK.

The short but important paper read by Mr. SANDFORD FLEMING on Standard Time for Railroads and Telegraphs in America dwelt on the great importance of having a system of standard time on the railroads of North America.

At the evening session, various letters and telegrams were read, tendering special trains and invitations to visit points of interest. The President of the Society then read his annual address, in which he stated that it was the first time the meeting had assembled outside the United States. The address contains a great deal of interesting matter on water-power, and concludes by pointing to the frequent inconvenience in cold climates arising from the formation of that peculiar form of ice called anchor or ground-ice.

The discussion of Mr. SANDFORD FLEMING'S Standard Time then took place.

Mr. HILGARD, of Washington, agreed with the views expressed by Mr. FLEMING. As it was to be referred to a special committee, he did not propose to say much on the subject. It was proposed to have 24 meridians at different places in the world, which would be just one hour apart. At every one of these meridians, the time will be the true time of the place; half an hour east of it, the time will be slow; and half an hour west of it, the time will be fast. There would be some difficulty about the time between the meridians; but the system would possess undoubted advantages over the present complicated one. If the system were ado ted on this continent, and other continents followed suit in adopting it, the first meridian from which all other times would be regulated would be on this continent.

Mr. A. P. BOLLER, of New York, asked how the system would apply to railroad time-tables, and how would they know when they passed the hour-posts?

Mr. HILGARD replied that the time-tables could be printed as at present, with the meridians marked in the margin.

Mr. E. P. HANNAFORD said he sympathized with the movement. He thought it was a fit subject for the serious and mature consideration which the proposed committee would be able to give it.

The following committee was appointed to take the paper into consideration: Messrs. SANDFORD FLEMING, of Canada; CHARLES PAINE, of Cleveland, Ohio; A. J. CASSATT, Philadelphia; J. TOUCEY, New York; J. E. HILGARD, Washington; T. EGLESTON, New York; Gen. T. G. ELLIS, Hartford, Conn.

Other papers were read and discussed, after which the meeting adjourned, and paid a visit to Ottawa on the 16th.

On the 17th, the meeting was called to order at 10.30 A.M., and after the reading of a paper by Vice-President WELCH, on the Economy of Light and Heavy Rails, the business session was held. In the afternoon, various places of interest were visited, including a sail round the harbor, the locks of the Lachine Canal, the Victoria Bridge, the workshops of the Grand Trunk Railroad at Point St. Charles, and the Montreal Water-Works.

In the evening, the members of the Society gave a reception in the Windsor Hotel, which did not conclude till after midnight.

On Saturday, the 18th, before proceeding to Molson Hall, an exhibition was given by the Fire Brigade. The session opened with the usual resolutions of thanks; after which, papers on the Strength of the Phœnix Columns were read by the Secretary, followed by a paper on Sewerage Systems, by R. HERING.

Professor THURSTON read a paper on the Strength and Ductibility of Copper, Zinc, and Tin Alloys.

Mr. C. LATIMER addressed the meeting for the purpose of showing that the British inch was used in the construction of the great Pyramid, and exhibited an entirely new mathematical demonstration.

In answer to Mr. WELCH, Mr. LATIMER said he believed that the British inch differed by a one thousandth part from what it was at the time the Pyramid was built. He did not look upon that as a matter of particular value, because the measure had been preserved with great exactitude, and stood to-day a perfect measure.

The following committee on the testing of iron and steel was named: Professor EGLESTON, Messrs. BOLLER, CLARKE, COLLINGWOOD, and METCALF.

The meeting then adjourned.

In the afternoon, the delegates witnessed the game of Lacrosse on the Montreal Lacrosse Grounds, and in the evening they nearly all departed, a majority for their States and about 40 or 50 by the night train for Quebec. Sleepers were provided for their accommodation on the regular train.

THE ROBINSON CONSOLIDATED MINING COMPANY.

A reporter of the ENGINEERING AND MINING JOURNAL called upon Mr. JAMES K. SELLECK, Secretary of the Robinson Consolidated Mining Company, from whom he elicited the following information in criticism of an editorial published by us last week:

"Mr. Roberts has no material interest in this company. He never owned but one share of the stock, and doesn't own any more now. He was the president of the company during the first year of its existence, and was retired last March, since which time he has had no connection whatever with the affairs of the company, and has never been in its office to my knowledge.

"With reference to the 'speculative value of the stock being much too high,' I have to offer in contradiction of that statement the last report made by me on the first day of June, at which time a dividend was declared of $50,000 on the capital stock of the company, leaving, including the purchase of a smelter, over $130,000.

"The Jacque claim against the company has been denied twice in the State courts. It is now in the Federal courts, and we are assured that the decision will be against any claim of Jacque's. At any rate, he claims only a half-interest in one of the ten claims owned by the company.

"The mine contains $3,000,000 net value in sight, or very nearly that. Instead of insiders working their way out, they are working their way in; for they are getting all of the stock that they can, and the president of the company has become one of its largest stockholders. Mr. Waddingham purchased the entire interest of Governor Robinson's heirs, and is now the holder of over 150,000 shares of the stock, which he holds as an investment, not selling or caring to sell one share of it. The treasurer has also become one of the largest stockholders.

"The present management of this company ought to be sufficient to guarantee the public against any loss. Take the list of directors, with its officers. The President, Mr. Brayton Ives, the former and very popular President of the New York Stock Exchange; the Treasurer, Mr. S. V. White, is the present President of the New York Mining Stock Exchange; Mr. Waddingham is the land and cattle king of the West, owning more acres of land than any other man that stands on American soil to-day. He is the principal investor in this stock. He paid for 150,000 shares $1,000,000 to the administrators of the estate of Governor Robinson. He has been offered $10 a share for it since, but would not accept it. With the exception of about 5000 shares, the stock is all held by these few parties, not tied up; for either of them, or all of them, have a perfect right to go on the market if they like.

"In regard to the ore being refractory, that is not true. We are working our ore cheaper than any other company in the territory, that we

know of, and are getting better terms. This refractory ore, that you speak of, is such ore as you will find in all mines; but it is the average of the ore that you have to take, in making up your estimates. If it wasn't for that, the very rich ore would work to disadvantage.

"The mine, in my judgment, will last twenty-five years, from indications that we have now, and we have got enough in bullion and in cash and due us to-day from ore delivered, to pay four dividends such as we are now paying; but it is the policy of this company to have a surplus at all times against any contingency. We shall pay dividends monthly, and we shall probably pay extra dividends. That is what we intend to do, but our monthly dividends will be regular."

MINING IN NEWFOUNDLAND.

By Alexander Murray, C.M.G., F.G.S.

We have received from Mr. ALEXANDER MURRAY, Director of the Geological Survey of Newfoundland, the following interesting facts in regard to the mineral capabilities of the island, in which he gives the conditions under which the ores occur, as well as a statement of the quantities exported since the inception of the celebrated Union and Tilt Cove mines in 1864:

The ores of copper have been found in all the older formations in Newfoundland, from the Laurentian gneiss at the base to the Carboniferous series at the summit, the qualities of which vary greatly with the age and condition of the rocks with which they are associated. Thus, in the Laurentian series, the rich ores of variegated and sometimes gray sulphides of copper are more frequent than any other, and for the most part in white quartz veins intersecting the strata; but while the ores have in many cases been found on analysis to yield at the rate of from fifty to seventy per cent of metal, the quantities that are available at any one place hitherto tested have never yet been found sufficiently abundant to warrant an outlay of capital on the working of a mine.

In the succeeding series, which I conceive to be the equivalent of the Huronian of Canada, and have provisionally called *Intermediate*, as being intermediately situated between rocks of the Laurentian and Primordial Silurian ages, very rich ores of copper are likewise well known at many parts, chiefly in white quartz veins, and also in faults and dislocations particularly near the junction with the fossiliferous Primordial; in which cases, the indications may sometimes be regarded as favorable for the probable future development of mines. Several attempts have already been made in this direction at various parts of the distribution of the series; but except at a few places, chiefly near the junction with the newer formations, with but slender prospects of a successful issue.

By reference to the Custom-House returns of exports, I find that the amount and value of copper ore shipped at St. John's between the years 1854 and 1864, inclusive, was as follows:

Ore—627½ tons; value, $22,980 = £4596 sterling.

The places where this ore was raised are not specified; but I believe it was all derived from rocks of intermediate age, by which the greater part of the peninsula of Avalon is occupied.

In addition to the above export from St. John's, 544½ tons, valued at $19,179, were exported between the years 1875 and 1879; but a considerable if not the larger portion of this ore was produced from Tilt Cove and other of the early openings in Notre Dame Bay.

Although the presence of copper is frequently indicated by stains of green carbonate and small nests of yellow sulphuret in the lower Primordial strata, I am not aware of any instances where the ores occur in mass, or in intersecting veins or lodes, except it may be close to their immediate junction with the older series, on which they repose unconformably, or butt up against in faults. At some parts of their distribution, such as in the islands of Conception Bay, these older Silurian rocks are but very little disturbed, resting in nearly a horizontal attitude, and scarcely at all altered. At other parts, such as Trinity Bay, St. Mary's Bay, Langlois Island of the Miquelon, and elsewhere, they are greatly disturbed by intrusions of igneous rock, and occasionally to some extent metamorphosed; but they are almost everywhere crowded with organic remains, the types of which indicate the ages they represent to extend from the horizon of Primordial or Cambrian to the newer Potsdam groups of the United States and Canada. Strata representative of Potsdam, Calciferous, and Lévis ages, containing abundance of typical fossils, are extensively displayed on the western and northern parts of the island; the former, in many cases, resting directly on Laurentian gneiss unconformably; but, except it may be to a very limited extent in Canada Bay, near the Clouds Mountains, I am not aware of any deposits older than the Potsdam at these parts; nor have I seen any indications of the presence of the Huronian or Intermediate system north of Bonavista Bay, or anywhere near the western shores. Galena, in calcareous veins, is of frequent occurrence in these Lower Silurian rocks; but, except in small isolated crystals or patches, the ores of copper are particularly rare, and in no case such as to be considered economically valuable.

But the cupriferous formations proper of Newfoundland, according to my views of the structure, are unconformably above all the former, and consist mainly of a set of metamorphic and igneous rock, corresponding exactly, in mineral character and condition, with the rocks of the Eastern Townships of Canada—described by Sir William Logan under the title of "the Quebec Group." I am quite aware that these views, as regards the structure, are at variance with those entertained by several distinguished geologists in Canada, whose opinions, however, do not seem to be very unanimous on the subject; and there can not be a doubt that in many cases the evidences appear to be so contradictory at different localities that the difficulties in arriving at the truth are exceedingly great. Nevertheless, so far as my own observations go (and I have studied the succession at nearly all parts of its distribution in Newfoundland), I am led to the conclusion that the stratigraphical position of this metamorphic group belongs to an horizon intermediate between the Calciferous and Hudson River group, probably chiefly of Chazy age, which is in accordance with the structure of Sir W. E. Logan.

The group consists of chloritic, dioritic, and felsite slates, interstratified with compact diorite, bands of red jasper, dolomites, great masses of serpentine or serpentinous rock, and volcanic products. In nearly all these rocks, the ores of copper are more or less disseminated; but it is among the schistose portions, especially the chlorite slates, that they seem to be most abundant, and it is in rocks of that quality chiefly where the principal mining operations have hitherto been conducted. At some parts of the distribution, these rocks are distinctly stratified, the lines of deposit being well displayed in layers of different quality—beds of jasper, conglomerate, etc. The whole series is magnesian more or less, but particularly toward the top, which appears to be the horizon of the serpentinous masses, with large accumulations of volcanic ash. Toward the base, the rocks become calcareous, the cliffs of strata much incrusted with carbonate of lime, and some strata of a pure white crystalline limestone occur, which are fossiliferous. The fossils are too obscure to be identified with certainty; but one form bears a strong resemblance to a *Maclurea*, another to a *Bellerophon*, a third to a *Murchisonia*, and some rather large sized *Encrinite* stems. Near the horizon of this limestone, moreover, we find a set of black slates, which contain graptolites. Vast intrusive masses of granitoid rock, and great dikes of greenstone malaphyre and other traps intersect the formation.

The only mines of importance in active operation up to the present time are all situated in Notre Dame Bay, and these are: Union Mine, Tilt Cove; Betts Cove Mine, Colchester, in S. W. Arm of Green Bay; Little Bay Mine, Rabbits' Arm, and Seal Bay. Many openings and minor workings have also been made at various parts of the bay, at each of which the ores of copper were more or less indicated, some of which may eventually, when capital and skilled labor are brought to bear, be found sufficiently remunerative to be worked to advantage.

It will be seen by the annexed memoranda that the total value of the copper and nickel ore extracted since 1854, but by far the larger proportion since 1864, when the Union Mine, Tilt Cove, was first opened by Mr. Smith McKay, amounts to nearly one million sterling.

The following memoranda show the quantities and value of copper and nickel ores exported from the island of Newfoundland: From 1854 to 1864, there were cleared from St. John's 627½ tons of copper ore, valued at $22,980, chiefly from Huronian rocks; and from 1875 to 1879, there were cleared from St. John's 544½ tons of copper ore, valued at $19,179, partly from openings in Notre Dame Bay. Total, 1172 tons, valued at $42,159. From 1869 to 1879, there were cleared from Tilt Cove (from the Union Mine), 49,719 tons of copper ore, valued at $1,572,154; and 411 tons of nickel ore, valued at $32,740. From 1875 to 1879, from Betts Cove, 125,556½ tons of copper ore, valued at $2.982,836 (these figures include 750 tons of regulus, valued at $34,500, shipped in 1878). The ores returned for 1878–79 were largely derived from Little Bay mine, and partly from Colchester, all belonging to the Betts Cove Mining Company.

Thus, the total of the ores of copper and nickel exported since 1854, amounts to $4,629,889, or nearly £1,000,000 sterling.

KOKOMO, TEN MILE DISTRICT, COLORADO.

EDITOR ENGINEERING AND MINING JOURNAL:

SIR: I had occasion to visit, a few days ago, the little town and mining camp of Kokomo, about fifteen miles north of Leadville; and as I think it is destined to come into prominence as a mineral-producing district, some knowledge of its ores and mines will prove acceptable. It is only this year that the Denver & Rio Grande Railroad extended its branch as far as Robinson, situated just the other side of the Great Continental Divide; and by the first of August, it will have reached Kokomo. Running nearly due north from Robinson, through the valley of the same name, is the Ten Mile Creek, from which this quite recently developed district derives its name. On the right, going north, we have the Great Continental Divide; and on the left, Sheep's Mountain, both ranges running nearly parallel.

Kokomo is situated upon the eastern slope of Sheep's Mountain, one mile and a half north of Robinson, where the Robinson mine is located, at present involved in litigation. Two years ago, but one or two prospectors' cabins occupied the site of the present town. Now, some three hundred cabins and houses are scattered on the hill-side, and many others in process of erection. Several saw-mills are in operation, and hotel accommodations are already very excellent. Although the camp is not yet "booming," it is making rapid strides; and when under the stimulating influences of the railroad, it will develop of course with increased rapidity. Upon the hills on both sides of the valley, hundreds of claims have been located. This is more particularly the case upon Sheep's Mountain, where every available foot of ground is occupied; but with few exceptions, no development except that required by law has been prosecuted.

The largest and most productive mines in the camp are on the summit of Elk Mountain, a spur of the Sheep's range, at the foot of which the town is located. The Aftermath and White Quail, situated upon the apex of the cone, 200 feet above timber-line, at an altitude of over 12,000 feet, are most deserving of mention, being probably the best developed properties in the district. There are, however, other claims of importance in the district, as the Milo, Climax, Badger, Eagle, Bob Emmet Tunnel, Laura, etc., etc.

I procured a horse and ascended to the Aftermath, to whose superintendent, Mr. D. W. McKinzie, I am indebted for information concerning the workings, etc. The formation on Elk Mountain is similar to that at Leadville, differing from the latter only in the fact that no porphyry is present in the stratifications proper. Elk Mountain is separated from a large peak west of it by a valley of erosion, more properly termed in Western phraseology a "gulch." The geological deposition upon both hills is as follows: After passing through some ten or twelve feet of *detritus*, a rather coarse red sandstone is encountered; this varies in thickness from 100 to 170 feet or more. Directly under this, separated from it only by a selvage of soft fat clay, a foot or so in thickness, lies the ore-body or deposit, which, like that at Leadville, is an earthy carbonate of lead carrying silver, and discolored by hydrate of iron. The thickness of this ore-body has not yet been proved; but its lateral extension is fairly established by outcrops upon the mountain-sides.

Under the carbonates we find the characteristic limestone of the Leadville deposits; but what occurs below that is not definitely known; pro-

bably micaceous sandstone as above. Upon the hill-side opposite, the stratifications corresponding to those on Elk Mountain are clearly discernible at a distance of a mile, showing conclusively that the valley was eroded. The strike of the strata is about N. 38° E.; the dip is about 28° from the horizon and toward the west. At an angle of about 40° with the strike, a porphyry dike breaks through the formations, and is traceable for about a mile, and then disappears. The sandstone is probably Carboniferous: no older rocks occur anywhere upon the hills.

The Aftermath property is directly upon the summit of the mountain, where the deposit was struck after passing through a few feet of waste. The company has sunk an incline in the ore-body, following the dip. After the first one hundred feet, drifts are driven at right angles to the incline north and south, every fifty feet. The character of the ore remained quite uniform until the 400-foot level was reached, where a streak of refractory sulphides was struck, consisting of undecomposed galenite with pyrites disseminated largely through the mass. Such refractory ores are very objectionable, as they can not be reduced in the furnaces there; and running rather low in silver, it hardly pays to transport small quantities to Argo. The earthy carbonates run from 30 to 65 ounces Ag per ton, and the output at present is from 40 to 50 tons per day, although not working to full capacity. In the lower workings, all the levels are laid with iron tracks, a new shaft and engine-house combined has just been completed, and every thing is getting into shape for continuous work during the winter.

The White Quail property consists of one shaft, one tunnel, and an incline, all within a radius of 300 yards; the principal working being distant about 200 yards from the Aftermath, upon the same outcrop. The tunnel has been run in about 150 feet, and at present the breast is in the porphyry dike above alluded to.

The snow is still deep in some places, though melting rapidly upon the top of the mountain, and prospectors upon the stope are greatly inconvenienced by surface-water. The deposit has been located upon all its outcrops on the hill-side, and development is only retarded for want of capital and enterprise. In conjunction with its mines, the White Quail Company owns the only smelter in the camp; but a new one is in process of erection, and it will probably reduce most of the Aftermath's ore.

These prospects upon the mountain which I have alluded to, opposite the Elk, which have been sufficiently developed, have disclosed what is apparently a second contact; and a number of fissure-veins carrying galena have been discovered on Sheep's Mountain not far from Robinson.

Further down the valley, quite extensive hydraulic placer workings are prosecuted. The gold-bearing sand is said to be some of the richest in the State.

The camp certainly bears a very promising aspect. The miners expect a "boom" before the summer is past, and I think with ample justification. The ore, it is true, is not high grade; but there is plenty of it, and it is easily worked.

TRO.

LEADVILLE, June 18.

A DIRECT PROCESS FOR TREATING FINE IRON ORES.*

By W. E. C. Eustis, Boston, Mass.

This may not be entitled to the credit or discredit of being a direct process; still, as nothing but iron is reduced to the metallic state, I think it may be called *direct*.

Interesting experiments have been carried out with the following process at the copper smelting-works of the Orford Nickel and Copper Company, Capelton, P. Q., Canada.

1st. The fine iron ore is mixed with a sufficient proportion of fine coking coal, and is coked in any of the ordinary methods for making coke. The effect of this is to convert the iron oxide into sponge in such a shape that the usual trouble of oxidation is avoided.

2d. The resulting mixture of coke and sponge is melted down in an ordinary cupola, the coke furnishing more than sufficient fuel for that purpose.

I may briefly point out here that in the first place the iron is sponged, and this, as is well known, contains no phosphorus or silicon when the reduction takes place at a low temperature; and in the second place, this sponge is melted down in a cupola in which there is no zone of reduction for phosphorus or silicon, and that consequently the resulting iron should be free from both of these impurities.

3d. The liquid sponge, now carburized, is run into an open-hearth furnace, where the requisite degree of hardness or softness is obtained by adding some of the fine ore and the usual dose of ferro-manganese.

I have merely given above the rough outlines of the process; but it is my intention, as early as possible, to bring the process more fully before the Institute.

IRON ORE IN THE UNITED STATES.

The general impression with the public has been that the supply of ores for the manufacture of iron was abundant in every part of the United States, at least where iron-works were originally erected and the business of iron-making has been most extensively carried on. But the enormous growth of this interest, and the enlargement of old works, as well as the erection of new ones of great capacity, have already induced a general effort to find new and more important deposits of ores. The public are familiar with the recent importation of Spanish and African manganiferous ores, which began nearly ten years ago, and has been directed chiefly to supplying the want of manganiferous materials for the Bessemer converters. In 1876, the fiscal year, 20,000 tons of this manganiferous ore were imported; in 1877, 65,000 tons; in 1878, 25,000 tons; and in 1879, 142,000 tons. During the same period, the ordinary Canadian ores imported at the lake ports to the extent of 30,000 to 40,000 tons yearly for several years, fell off to 10,000 tons.

During the year 1879 and a part of 1880, a vigorous effort was made to utilize the abundant iron ores of Eastern Virginia, especially near Lynchburg; but as it was directed principally to the establishment of new works, it was not in any great degree successful. The ores of the eastern slope of the Alleghanies, or rather those east of the Blue Ridge, are very persistent in containing injurious proportions of sulphur and phosphorus, and, while they could be worked to advantage in combination with purer ores, they afford an insufficient stock for new works, to which other ores can not readily be brought for mixture in reduction. Farther westward in Virginia, however, there are better ores, and the quantities are practically inexhaustible. To obtain access to these by railroad from Pittsburg, is now the occasion of great interest and almost of excitement in that city, many manufacturers believing it to be a necessity to the maintenance of the necessary supply of ores for that locality. The proposition is to build a road southward from Pittsburg, connecting through West Virginia with the valley of the James River, entering it from the west, and opening up a vast new region, abounding in superior ores, and in timber, coal, and every description of valuable produce. Mr. Joseph D. Weeks, who made a careful examination of the entire valley of the James River, and a full report upon and analysis of its ores, urged strenuously the building of this proposed road, which, in a distance of 300 miles, would develop an enormous supply of iron ore.

The alternative at Pittsburg is to draw on the Lake Superior ores—ores of the finest quality, but always high in price. The quantity of ore mined at Lake Superior increases rapidly; but it is drawn upon now by many other demands—by Chicago very largely, and by new works erected in Upper Michigan. Cleveland absorbs a very large quantity, and other points on the way to Pittsburg, so that the works at Pittsburg not owning mines in that region are often compelled to pay $6 and $7 per ton for Lake Superior ores at Cleveland, where they are landed from the lakes. The Lake Superior region has doubled its product of iron ore within five years, with little change in the make of pig-iron; but the statistics at hand do not show what share of this ore-product has been diverted to the new works in Illinois and elsewhere west of Pittsburg.

The product and shipment outward of iron ore from the Superior region was, in

	Ore, tons.	Pig-iron, tons.
1876	977,543	61,911
1877	960,982	29,685
1878	1,123,093	17,404
1879	1,414,182	39,583
1880	1,975,602	48,502
Total for five years	6,452,092	197,085

But the production of pig-iron increased from 1,868,961 tons in 1876 to 4,295,414 tons in 1880, and of Bessemer steel from 525,996 in 1876 to 1,203,179 tons in 1880; both thus being doubled in five years. Evidently the growth of Western works is to absorb the increased supply of Lake Superior ores; the five States nearest to these ores, Ohio, Illinois, Indiana, Michigan, and Wisconsin, produced in 1880 1,088,529 tons of pig-iron, consuming, probably, two and one half times this tonnage of ores.

In the Southwest, Missouri and Arkansas, there are immense natural deposits of excellent iron ore, but they are too remote to become available for Eastern works. Only about 300,000 tons of ore appear to have been mined there in the last year, making in Missouri 105,555 tons of pig-iron. A small amount only was brought east of the Mississippi River to the iron-works of Illinois and Ohio. It would appear practicable to mine the ores of the exposed knobs in Missouri much more largely, and to ship them by water on the Missouri and Ohio rivers to Pittsburg at very moderate rates; but it does not appear that they are much sought for, or much spoken of, in the present very earnest discussion of the subject going on at Pittsburg.

At the East, attention is again directed to Canada for the supply of the greater works of Eastern Pennsylvania, at Bethlehem, and also for the Cambria Company. Extensive arrangements are reported to have been made recently for the Bethlehem and Cambria works, to obtain supplies of magnetic and hematite ores from Madoc, in Canada, the Dufferin and Nelson mines. The cost of mining is not great, and transportation is convenient through the New York and Pennsylvania canals. A small quantity has for many years been brought from the vicinity of the St. Lawrence River in Canada for mixture with Pennsylvania ores, and delivered here at very moderate prices. It is still remarkable that the Spanish and Algerian ores are almost the cheapest that are brought to the Delaware from any source, as freights and original cost prices have been for three years past.

With a prospect that the growth of the iron industry will add fifty per cent to the present within the next five years, raising the total to 6,000,000 tons at least—the gain from 1876, with its 2,093,236 tons, to 1880, with 4,295,414 tons, being more than 100 per cent—the supply of acceptable ores is evidently a serious question, especially with Pennsylvania. It especially justifies the solicitude felt at Pittsburg, and the efforts there made to open up the great stores of Virginia and the South.—*Bradstreet's.*

IMPROVING THE MISSISSIPPI.—A dispatch to the New York *Tribune*, dated St. Louis, June 22d, says that, during the week past, a committee of the Mississippi River Commission, consisting of General Q. A. Gillmore, the President of the Commission; Major C. R. Suter, of the Corps of Engineers; and B. M. Harrod, of New Orleans, were in session in this city, and visited points on the Missouri River as high up as Kansas City, for the purpose of determining the character and extent of the outfit to be used on the lower river upon the work to be constructed under the direction of the Commission. It is expected that from thirty-five to forty miles of bank will be revetted with brush and wire mattress, during the approaching working season on those parts of the river near Plum Point and Lake Providence, where bad bars obstruct low-river navigation. The bank is graded for revetment by washing it down to a gentle slope with powerful pumps after the process of placer mining. The mattress will be continuous in each bend, and in places will require to be 200 feet wide, the lower edge resting in deep water, and the upper on or near the crest of the bank. Permeable dikes for contracting the width of the river will be constructed on the Plum Point Division at various places. These will consist of piles wattled with brush, of brush and wire screens anchored to the bottom and buoyed on the upper edge, and other devices, the object being to check the current over large areas and build up a new bank by a deposit of solid matter. It is expected that the full commission will meet in St. Louis early in July.

* A paper read at the Lake Superior Meeting of the American Institute of Mining Engineers, August, 1880. From the Transactions of the Institute.

PROGRESS IN SCIENCE AND THE ARTS.

Unrecognized Qualities in Charcoal.—Among the numerous and varied properties possessed by charcoal, says the *Scientific News*, there is one—one, too, of the most wonderful—which does not seem to be adequately recognized, probably from its being imperfectly known, except to physicists. It is that of being able to condense and store away in its pores many times its own bulk of certain gaseous bodies, which it retains, thus compressed, in an otherwise unaltered condition, and from which they can be withdrawn, as required, as from a reservoir.

That eminent scientist, M. Saussure, undertook the task of a systematic examination of this subject, with a result which will prove surprising to the general reader. Operating with blocks of fine boxwood charcoal, freshly burnt, he found that, by simply placing such blocks in contact with certain gases, they absorbed them in the following proportions:

	Volumes.		Volumes.
Ammonia	90·00	Carbonic oxide	9·42
Hydrochloric acid gas	85·00	Oxygen	9·25
Sulphurous acid	65·00	Nitrogen	6·50
Sulphureted hydrogen	55·00	Carbureted hydrogen	5·00
Nitrous oxide (laughing-gas)	40·00	Hydrogen	1·75
Carbonic acid	35·00		

It is this enormous absorptive power that renders of so much value a comparatively slight sprinkling of charcoal over dead animal matter as a preventive of the escape of the odors arising from decomposition. A dead dog having been placed in a box in the warm laboratory of an eminent chemist, and covered with charcoal to the depth of between two or three inches, could not be discovered to have emitted any smell during several months, after which time an examination showed that nothing of the animal remained but the bones and a small portion of the skin. The large excess of oxygen over the nitrogen in the atmosphere, which, according to the above table, was absorbed by the charcoal, and which thus rendered harmless the noxious vapors given off by the carcass as they were absorbed, is doubtless owing to the fact above stated, and the further fact of the charcoal never becoming saturated.

In a box or case containing one cubic foot of charcoal may be stored, without mechanical compression, a little over nine cubic feet of oxygen, representing a mechanical pressure of one hundred and twenty-six pounds to the square inch. From the store thus preserved, the oxygen can be drawn by a small hand-pump.

From the fact of the charcoal absorbing oxygen in so much greater proportion than nitrogen, we have here a means of utilizing its discriminating powers of selection in obtaining unlimited supplies of oxygen from the atmosphere, which contains nitrogen four times in excess of its oxygen, or 20 per cent oxygen, whereas by the separating or selective powers of the charcoal the mixed gases capable of being extracted from it contain over 60 per cent of oxygen. It only suffices to withdraw this now highly oxygenized air into another vessel of charcoal, by the further exposure to which the proportion of oxygen will be increased to a still greater extent. This indicates a most feasible means by which atmospheric air can be decomposed in such a way as to provide a cheap supply of oxygen.

One can not readily recognize the fact, which is nevertheless true, that the condensing power of charcoal, as applied to ammonia, is equal to what would be obtained by subjecting this gas to a pressure of nearly 1260 pounds on the square inch.

Slumgullion.—The Gold Hill *News* thus addresses itself to the definition and illustration of this word: "Slickens" is a granger word used in California to designate the slimy deposit or sediment which settles upon farming lands irrigated with the dirty water from hydraulic and other mining operations in the mountains. The original and only proper and appropriate term for that stuff is "slumgullion." That was always its legitimate name, from the earliest times down, among the old miners. Here in Nevada, what is known as "slums" or "slimes" is the sediment from quartz-milling operations, and carries a considerable amount of silver in the form of chloride. Caught and settled in dams or ponds, some of these slums or slimes pay well for re-working. It is of a similar nature and consistency as the California slumgullion. "Slickens!" What grass-headed cow-boy gave it that name there in California? Any body who ever waded through, shoveled, or had any thing to do with a deposit of that familiar old material knows the only natural word which fully expresses its character is "slumgullion." The substitution of the word "slickens" simply shows degeneracy, and the degree to which California has become grangerized.

The Tunnel under Dover Straits.—From London, June 17th, we learn that Sir Edward Watkin, chairman of the Southwestern Railroad Company, has informed a meeting of that company that two experimental shafts for the proposed channel tunnel have been sunk on the English side and two on the French side, and that from one of the shafts on the English side a gallery eight or nine hundred yards long and seven feet in diameter had been driven. The progress during the last week has been sixty-seven yards, which is equal to two miles yearly. They have thus solved the question of the rate of progress for the experimental gallery, and ascertained that the lower strata is impermeable to water. The French experiments have realized exactly the same results. They had arrived, he said, at an understanding with the French Tunnel Committee that on each side of the channel a further heading of a mile should be driven. When these headings are finished, which certainly ought to be in six months, one tenth of the question would have been dealt with, and a further treaty would then probably be proposed, under which each party would accomplish the remaining nine miles on its side in view of meeting in the middle of the tunnel. A seven-foot gallery ought, on this system, to be completed in five years.

Prehistoric Finds.—While working the lead mines in the province of Segovia, some seventy miles west of Madrid, Spain, an immense cavern was found, containing, upon an argillaceous deposit and in the midst of stalagmites, five hundred skeletons of men and women. Besides ten well-shaped and perfect skulls of a prehistoric type, there were chipped stone and quartz implements and fragments of rude pottery. In France, in the lower Tertiary beds near Rheims—which were considered nearly if not quite Azoic—Dr. Lemoine has discovered fossil remains of an extremely interesting fauna, comprising numerous new species, and even some new genera, of mammals, birds, and reptiles. Many of these species exhibit characters intermediate between those of types which have been heretofore described.

New Gas for Heating Purposes on Shipboard.—Dr. Siemens proposes that, instead of heating the retorts by means of coke in ordinary furnaces, the raw material left in the retorts after the gas has been expelled be subjected to the influence of volumes of steam. The steam, being decomposed by the latent heat of the material, passes as gas of enormous calorific power around the retorts, and so acts as an active means for the distillation of gas for illuminating purposes.

The Stephenson Centenary at Newcastle.—Thursday, the ninth of June, was a red-letter day in the Newcastle-on-Tyne calendar, the town giving itself up to the celebration of the centenary of the birth of George Stephenson. London *Engineer* of the 10th says that the decorated streets were crowded, the works were idle, the Tyne was given up to pleasure, "and into the town poured by road, rail, and river a continuous stream of people." The display of ancient and modern locomotives was specially noteworthy. Of old locomotives, there were, one of Stephenson's Killingworth engines; the Darlington "Locomotion;" one constructed by Mr. Kitchin, at Darlington, thirty or forty years ago; and the Hetton Company's old engine. Of typical modern engines, prominent railroad companies sent representatives. From the Brighton Works came the Stephenson; a fine Midland engine was designed for the occasion by Mr. S. W. Johnson; two or three heavy Lancashire and Yorkshire locomotives; two from the British line; and four or five Northeastern engines. There was a large collection of models. Our contemporary promises to treat the subject more in detail in its next issue. The number for June 10th has an engraving and description of Murdock's locomotive of 1784, which, "there is no reason to doubt," "is the first locomotive steam-engine ever made in England. The first locomotive ever constructed was built by Cugnot, a French engineer. The original model was made in 1763, and the machine itself was tried in 1769."

The Union Company, at Dortmund, Germany.—These immense industrial establishments cover an area of about 20,000 acres, and include altogether 12 coal-pits, 18 blast-furnaces, 458 coke-ovens, 32 heating stoves, 284 puddling, welding, and reheating furnaces, 17 cupola furnaces, 4 Bessemer converters, 402 boilers, 31 roll-trains, 63 steam-hammers, 381 steam-engines (together, 14,874 horse-power), 484 tool and adjusting machines, and 239 forges.

Death of Benjamin P. Smith.—Benjamin P. Smith, Treasurer of the Gutta Percha and Rubber Manufacturing Company, 23 Park place, died of consumption on Sunday evening at his residence, 187 Prospect place, Brooklyn. He was fifty-one years old. When a very young man, he was a bookkeeper in the Hanover National Bank, in this city. Thence he went to Taunton, Mass., and became a manufacturer of boots and shoes. He returned to this city to become the financial agent of Warren Spadone & Co., jewelers, at 104 Maiden lane. Soon afterward, he was elected the Treasurer of the Gutta Percha and Rubber Company. He leaves a wife and five children.

UTAH RAILROADS.—Two new railroads are surveying from Salt Lake City to the mines of Park City.

CYFARTHFA, WALES.—Three of the furnaces have been blown out. For nearly one hundred years, the furnaces at Ynysfach have been lit, and, with the brief exception of a few years ago, have continued to illuminate the district.

SALT LAKE & WESTERN RAILROAD.—SAN FRANCISCO, June 18.—A dispatch from Carson City, Nev., says that articles of incorporation of the Salt Lake & Western Railroad were filed here yesterday. The road will run from Salt Lake through Nevada to San Francisco.

CONSOLIDATION OF UTAH ROADS.—SALT LAKE CITY, UTAH, June 20.—The Utah Central, Utah Southern, and Utah Extension railroads have been consolidated under the name of the Utah Central Railroad, extending from Ogden through Salt Lake City to Frisco, a distance of 280 miles. The new organization has 42,250 shares of $100 each, about $15,000 per mile.

CONSOLIDATION IN MISSOURI.—The St. Louis *Globe-Democrat* says that a movement is on foot to consolidate under one management the Iron Mountain Company, with a capital of $3,600,000; the Pilot Knob Iron Company, capital, $2,000,000; Vulcan Iron and Steel-Works, capital $1,000,000; and the Grand Tower Mining, Manufacturing, and Transportation Company, capital $1,000,000. Should this scheme be carried out, it is said the Vulcan Steel-Works will be enlarged so as to make their output the largest in the country.

RAILROAD BUILDING IN SONORA.—An article in the Arizona *Daily Star* of June 14th says that advices from Hermosillo, Sonora, state that 2000 federal troops have arrived in Yaqui County, between Rios Yaqui and May's, and on the commencement of the survey on the Brannon Grant 6000 more will be put in the same locality. Prominent officials of the State apprehend difficulty with the Yaqui Indians; but the government is bound to give the surveyors protection, even if a much larger force is required. Grading on the Guaymas Railroad has been completed fifteen miles north of Hermosillo. There is enough iron at Guaymas to track the road to Magdalena, but a scarcity of ties prevents work from going on faster. Governor-elect Carlos Ortis takes his seat on September 16th.

NEBRASKA, TOPEKA, IOWA & MEMPHIS RAILROAD.—A Topeka (Kan.) dispatch says that the Nebraska, Topeka, Iowa & Memphis Railroad was organized here June 17th, to run south from Topeka to Girard, Kan., via Iola, thence through Missouri and Arkansas to Memphis, Tenn., also north from Topeka to the northern boundary of Kansas, and thence to Lincoln, Neb. F. W. Giles, of Topeka, was made president, and a strong directory chosen from points along the line of the proposed road. A fund of $8000 was raised to make the survey. Aid will be voted by the different townships through which the road passes, and Eastern capitalists have engaged to take the bonds and assume the construction. The route is through a strip of country having no railroads at present, taps the fine coal-fields of Southern Kansas and Missouri, and makes advantageous

Southern connections at Memphis. The preliminary survey will be made at once and the road pushed to completion.

PARIS ELECTRICAL EXHIBITION.—WASHINGTON, June 21.—The following is a list of the American exhibitors at the Paris Electrical Exhibition of 1881, to open August 1st:

Electro Graphic Manufacturing Company, of New York; White House Mills, Hoosac, N. Y.; Weston Electric Light Company, of Newark, N. J.; Clinton N. Ball, Troy, N. Y.; Standard Electric Light Company, of New York; G. Morgan Eldridge, of Philadelphia; Smithsonian Institution, of Washington; Louis G. Dreyfus, of New York; Joseph M. Hirsh, of Chicago; Elisha Gray, of Highland Park, Ill.; Electric Purifier Company, of New Haven, Conn.; W. G. A. Bonarill, of Philadelphia; United States Electric Light Company, of New York; Thomas A. Edison, of New York; August Parts, of Philadelphia; George Cumming, of New York; L. G. Tillotson & Co., of New Yo k; Dodson & Egee, of Philadelphia; United States Signal Office, Washington; Robert Haase, of Indianapolis, Ind.; Charles W. Hubbard, of Boston; Alexander Graham Bell, of Washington; Electro-Dynamic Company, of Philadelphia; W. J. Phillips, of Philadelphia; Western Electric Manufacturing Company, of Chicago; Volney W. Mason & Co., of Providence, R. I.; A. Emerson Dolbear, of Somerville, Mass.; Theodore Schmauser, of Allegheny City, Pa.; United States Patent Office, Washington; Connolly Brothers & McTighe, Washington, D. C.

AN OHIO RAILROAD SYNDICATE.—A dispatch from Columbus, dated June 17th, says that for some time rumors have been afloat that a movement was on foot looking to the building of another railroad to the coal-fields in the Hocking Valley region, which would compete for the coal trade, which has grown to enormous proportions within the past few years. A syndicate was formed in Cleveland, which has bought up some of the finest coal lands in the State, including 10,000 acres near New Straitsville, one of the heaviest shipping points on the Hocking Valley Railroad. A few days ago, articles of incorporation were filed with the Secretary of State by Cleveland capitalists—Charles Hickox, Henry B. Payne, J. H. Wade, and others—for the purpose of constructing a railroad from Columbus to the coal regions, the line to run almost parallel with the Hocking Valley Railroad. The capital stock of the line was placed at $6,000,000, and the right of way was already being secured. The directors of the Hocking Valley system, which includes the Columbus & Toledo and the Ohio & West Virginia railroads, learned of the true state of affairs, and recognized the fact that a new competing line, with such valuable coal-lands, could do no less than seriously affect the revenues of their line. The Cleveland syndicate made propositions to purchase the controlling stock of the various lines under the Hocking Valley management. The price to be paid, it is understood, is 180 for the Hocking Valley and 125 for the Columbus & Toledo. The price has not yet been settled upon for the Ohio & West Virginia stock. The length of the Hocking Valley road is 102 miles, the Columbus & Toledo 117 miles, and the Ohio & West Virginia 83 miles. The two first mentioned have long been regarded as the best paying and most valuable railroad properties in the State. It is understood that the new management will not remove the present officers, and that M. M. Greene will continue as president for five years. It is believed here that the Standard Oil Company has forced the Hocking Valley managers to negotiate. The members of the syndicate will leave to-morrow morning on a tour of inspection over the various roads. On the 20th, the Hocking Valley Railroad offices were thronged by stockholders anxious for particulars regarding the sale of the Hocking Valley and Columbus & Toledo roads to a Cleveland syndicate, which is largely interested in the Standard Oil Company, and Cleveland, Columbus, Cincinnati & Indianapolis Railroad. While the option offered by the Cleveland parties is to remain open until July 1st, during the interval all holders of stock being offered 180 for Hocking Valley and 125 for Columbus & Toledo stock, several shareholders have already signed articles of sale to render certain the transfer of the road to the new owners.

CHESTER, IRON MOUNTAIN & WESTERN RAILROAD.—The St. Louis *Missouri Republican* of Friday, June 17th, says that a party of gentlemen, embracing a syndicate of capitalists of New York City and a number of gentlemen connected with the large financial enterprises in Missouri and Southern Illinois, is now in the city. The object is the inauguration of a railroad enterprise which will be of great importance to several of the wealthiest mineral counties in the southern part of the State, and will largely aid in the development of that section of country. The proposed railroad will extend from St. Mary's, nearly opposite Chester, Ill., on the Mississippi River, directly west through Ste. Genevieve County to Farmington, the county-seat of St. François County, thence west to Iron Mountain, and so on through Iron County to Salem, in Dent County, where it will form a connection with the branch from Cuba of the St. Louis & San Francisco Railroad. A branch will be run from a point near Farmington directly north through St. François County to Bonne Terre, where the St. Joseph and the De Lassus lead mines are situated. In addition to the development of the agricultural wealth of these counties, the road will have very great importance as a connecting link between the mineral deposits of Missouri, which are phenomenal in their richness. The iron banks of Dent County have been as yet only opened to a limited extent. Although the ore lies there by the thousands of acres, it has been practically of no value, the cost of transportation to bring it into market or to bring the coal to it having been so great as to consume all the profits in its production. Upon the completion of the proposed road, the ore can be cheaply conveyed to the Mississippi River in the immediate vicinity of the coal-beds of the Grand Tower and Carbondale regions. The same is true of the ores of Pilot Knob and Iron Mountain. The large capital invested in the St. Joseph and De Lassus lead mines has had to pay an extravagant royalty for transportation. Until within a quite recent time, coke for the production of the lead has had to be hauled by teams over rough and mountainous roads to the mines, and the pig-lead conveyed over the same roads for nearly twenty miles to the Iron Mountain Railroad. Within the past two years, these lead companies have built and equipped a narrow-gauge road to their mines, and the cost of this road has been entirely paid for already by the saving to the companies over the ancient method of hauling by teams.

The proposed new road, which will be known as the Chester, Iron Mountain & Western Railroad, will be of standard gauge, and on this account will be able to connect with all other systems in the country. The capital stock is $2,500,000, and of this sum a sufficient amount to comply with the statutes in regard to incorporation was subscribed immediately upon the opening of the books of subscription. The board of directors for the first year, who were elected in this city, are: Gerald B. Allen, of St. Louis; J. Wyman Jones, President of the St. Joseph lead mines; Charles B. Cole, President of the Iron Mountain, Chester & Eastern Railroad; Nathan Cole, of St. Louis; Charles B. Parsons, of Bonne Terre; Charles Ridgely, of Springfield, Ill.; James L. Hathaway and Hugh M. Camp, of New York City; Newton Crane, St. Louis; and Leon Bogy, of St. Mary's, Mo. The articles of incorporation were filed with the Secretary of State yesterday, and the work of building the road will be commenced immediately. Some years ago, a line of railroad following about the same route was projected, and about $300,000 was expended in grading the line. This project was abandoned during the panic of 1873. It is probable that advantage will be taken of the grading done by that company, in order to hasten forward the work of the present company.

GENERAL MINING NEWS.

ARIZONA.

We quote from latest Arizona exchanges as follows:

GLOBE DISTRICT.

MACK MORRIS.—Stoping is still done in the third level. The prospects at the mine and at the mill continue to be satisfactory.

OLD DOMINION.—In the tunnel on the Old Dominion, they recently struck the ledge about 90 feet west of the shaft, and have penetrated it to the distance of three feet, finding very rich oxide and green carbonate ores. On the New York & Chicago, at a distance of 210 feet from the mouth of the tunnel, a cross-cut was run 23 feet without striking the south wall; the shaft is down 50 feet. Two 30-ton smelters are now building; and as soon as the smelters are running, a large force of men will be put to work.

TOMBSTONE DISTRICT.

ARIZONA QUEEN.—The Last Chance, now the property of this company, is opened by a shaft 100 feet deep, from which good ore has been taken.

FLORA MORRISON.—The frame of the new hoisting building stands in place. The work of pushing down the three shafts of the property still continues, as also the drifting operations in the northerly workings.

GRAND CENTRAL.—The sinking of the main treble-compartment shaft was resumed on the 8th. The hoisting is by whim, and the grading operations, heretofore carried on, have been suspended, all that was necessary to be done having been completed. The carpenters are preparing and fitting timbers for the hoisting-works building, the foundation for which has been laid. From every quarter of the underground explorations, there are good reports. The stopes and ore-breasts on all the levels are looking and yielding well.

HEAD CENTER.—Work progresses on 1st, 2d, 3d, and 4th levels, the developments in each of which look well and yield a good quality of ore.

CALIFORNIA.

AMADOR COUNTY.

ONEIDA.—The Amador *Ledger* of the 11th inst. says: We regret to announce that this mine has come to a complete stand-still. On Tuesday, the ropes were taken off, and every thing in connection with the working of the mine was thereby brought to a close. Whether the mine is to be abandoned permanently or not, is of course unknown. This stoppage is not altogether unexpected. For a year past, the underground work has been confined to taking out small bodies of ore from the upper levels, without any thing being done in the way of prospecting. These reserves having been exhausted, this mine, which has been a busy hive of industry for a quarter of a century, reverts into solitude. The mill is still running, with rock enough on hand to keep it going for a few days longer.

BODIE DISTRICT.

The *Free Press* of the 14th inst. reviews these mines as follows: The Bechtel is yielding ore from every underground excavation, and the ore is hauled to Noonday mill, twenty stamps of which (the North Noonday side of the mill) will be turned upon Bechtel ore within a few days. The west cross-cut, 1000-foot level, of the Standard, is in favorable ground, with a constantly increasing flow of water from the face, indicative of the close proximity of the ledge. The stopes are all looking well. The prospects of Consolidated Pacific have not materially changed, except an improvement in the west vein north. Bulwer Consolidated is to be cut at a point 140 feet below the 400-foot level by a west cross-cut commenced on Saturday last from the south drift, 500-foot level, of the Standard. North Noonday is showing some improvement, particularly in the North drift, 312-foot level. Boston Consolidated is cutting out the 300-foot station, and sinking will be continued for another level. South Bulwer is still drifting north in a fine vein of clean ore on the 620-foot level. Union Consolidated is still meeting with most encouraging prospects in the west cross-cut, 150-foot level, and steam hoisting-works are to be erected on the mine at an early day. Bodie Consolidated is looking well and yielding the usual quantity of high-grade ore, and a cross-cut has just been started to cut the old bonanza veins at greater depth. South Noonday is still cross-cutting in favorable looking vein-matter. The Lent shaft is now fully equipped and ready for the water. Black Hawk is cross-cutting east on the 800-foot level in quartz and porphyry, the latter being highly impregnated with iron pyrites. The new Colcord vein of the Syndicate maintains its width of three feet, and the ore continues to hold its high grade. Bodie Tunnel is keeping the Miners' Mill supplied with ore from veins 7 and 20. Addenda is prospecting, its otherwise unused drifts and cross-cuts being filled with ore heretofore broken down. Noonday is looking about as usual. North Standard was started up during the past week, South Mono will start this week, and it is believed that Belvidere and South Bodie will be started up within the next two weeks.

COLORADO.

BOULDER COUNTY.

CARIBOU.—The Caribou Consolidated Mining Company has utilized the water-power of that mine by the putting in of a new Rand air-compressor and mine-drills. It is claimed by this means a saving in the running expenses of from $12,000 to $20,000 a year can be made. The bullion receipts of the mine for three weeks in May aggregate $27,877, the largest production of the mine for several years for the same length of time.

CLEAR CREEK COUNTY.

FREELAND.—The Idaho Springs *Advance* says that the management of the Freeland is now pushing the breast of the Freeland level into the mountain. To give air at the breast of this level, and to facilitate the delivery of ore to the Minnie level, it was found necessary to cut an uprise 65 feet from the breast of the Freeland level. This uprise demonstrated the fact that the heaviest body of ore yet discovered in the mine is immediately at the breast of the tunnel. A shaft 20 feet deep has been sunk on the proposed site of the deep prospecting-shaft on the Freeland level. From 30 to 40 tons daily are run through the concentrator, all of which is taken from the Freeland and Minnie levels. That from the Platt

level is hauled to the company's mill at its railroad switch and ore-bins on Clear Creek.

NYANZA.—Regarding this lode, the Georgetown *Miner* says that the contractor is pushing the drift ahead westerly as fast as possible. The breast is 115 feet west of the tunnel, and carries a fair gouge with streaks of mineral, but not in remunerative quantities. No drifting has yet been done east of the tunnel. The *Miner* says: The Nyanza has a large crevice, and we shall not be at all surprised to hear of the company running on to a pocket of ore at any time. The breast of the drift is a little west of the ridge of the mountain.

GUNNISON COUNTY.

IRON BONNET.—Among the properties in the Tin Cup District, attracting considerable attention, is that of the Iron Bonnet Silver Mining Company. The company owns three claims located on West Gold Hill, about one half-mile west of the well-known Gold Cup group of mines. The Leadville *Herald* lately stated that on the Iron Bonnet lode was an incline of 30 feet all the way on the vein.

LAKE COUNTY.

The output from the Leadville mines at the present time is probably between 750 and 800 tons per day. This is a good showing, considering the enforced idleness of several of the leading mines, and the fact that there are others capable of doubling their present production. It is reported that shipments will be resumed from the Chrysolite on June 27th, and this item alone will form an important part of the daily product. There is no doubt also that some arrangement will shortly be made by which the Little Pittsburg Company will be enabled to begin shipping from the New Discovery claim. The Morning Star, which is shipping about 40 tons per day, is capable of largely increasing its output, and there are other mines whose output is at present restricted for want of necessary machinery, etc., which will shortly be in a position to send out larger amounts of ore. The Amie mine continues shipping the usual amount of low-grade iron ore. The Leadville *Democrat* is authority for the statement that the mine is worked on lease, Manager Van Wagenen's clerk being the lessee. But little work is doing on the Big Pittsburg Company's property, on account of an injunction granted by Judge Miller, in Denver, at the suit of the owners of the Dolphin lode—which lies adjacent to the Big Pittsburg—who claim that the ore recently taken out by the Big Pittsburg people belongs to them. Climax is sending out a small amount of ore, and prospecting continues from the south shaft, from which a drift is driving into iron. The ore from the Dunkin is running very low; shipments about 50 tons daily. Highland Chief has again shut down, owing to the low grade of the ore, which does not pay for running and smelting. Reports from the Hibernia are conflicting; the manager states that the production will exceed that of last month; but it is hard to see how this can be, in view of the fact that the shipments only amount to about 10 tons daily, and the grade of ore has fallen off wonderfully. Little Pittsburg is taking some ore from Nos. 2 and 6 shafts. Little Chief is looking better than for some time past, and is shipping about 15 tons of good ore daily. Miner Boy has accumulated considerable ore, and it is announced that the shipments will at once be doubled; the mine is reported to be looking well. The Leadville *Herald* says that a large body of rich chloride ore is developing in the workings from the new Waterloo shaft of the Morning Star. The Robert E. Lee Company has stopped work in the richest part of its territory, owing to the quantity of water. When the new hoisting and pumping machinery is completed and in place, operations will be resumed in these workings.

IRON MINE.—The Leadville *Herald* says: Iron Hill, at the Iron Silver and Silver Cord mines, is the busiest section about Leadville at present. For the first week in June, the ore-shipments amounted to 1640 tons, or 275 tons a day, and this week the amount is fully holding up. At this rate, the shipments for the month will reach 7000 tons, an amount never equaled in a month by any mine in the camp. The manager says that the mine is looking exceedingly well at present, and the ore-production can be continued for an indefinite period. He is taking out ore from the Tucson shaft and from both inclines of the Iron. He is also raising from the Rock and Dome, and will in a short time be producing from the Stone.

LITTLE CHIEF.—The Leadville *Democrat* speaks of the improved condition of this mine as follows: The Little Chief, although withdrawn from the list of Leadville's bonanza mines, nevertheless continues an important factor in her production of ore. During the month of May, the mine netted, over all expenses, enough to allow Manager Wood to make a remittance to the New York office of $10,000, and still retain a handsome surplus in the banks here. The mine is looking better than it had for a month past, and the product of June is expected to greatly exceed that of May. The shipments during five days of last week amounted to 90 tons. The last lot of ore settled for contained 80 ounces of silver to the ton and 20 per cent of lead. The average net return received from the smelter is $65 per ton. Besides extracting ore, and following up small stringers of mineral, considerable dead-work is doing. Prospect-drifts are driving into the porphyry dike, between the south and middle ore-bodies, and exploration-work also continues in the iron deposit to the south. The principal resource of the present production is south of the center of the mine, contiguous to the old No. 3 shaft

PARK COUNTY

LONDON.—The Park County Mining *Bulletin* reports that a shaft-house has been built at the mouth of the upper tunnel. The workings consist of two tunnels, the lower of which, a cross-cut, is in nearly 500 feet. A vein of lime has been cut, and as the ore is in the lime formation, it is thought it will be reached within the next 100 feet. The upper tunnel has been run in on the vein about 450 feet, and shows a vein of gold-bearing quartz which carries three distinct pay-streaks which assays show to be good ore. It is reported that the company will build a mill to treat the ore, provided it makes a satisfactory showing when tapped by the cross-cut below. Eighteen men are working in three shifts.

SAN JUAN COUNTRY

THE ALLIED MINES.—The Ouray *Times* says: These mines are located in Imogene Basin, and owned by as wealthy and enterprising a company as has yet invested in the San Juan country. The company owes its success mainly to the able supervision and untiring efforts of William Weston, its superintendent, who first located the mines, and developed them until they attracted the attention of the company, which he organized some twelve months ago. An experienced millwright is on his way from San Francisco to locate and grade for the mill buildings and set up the machinery on its arrival. The company expects to erect as soon as possible an 85-ton concentrator at the forks of Imogene and Sneffels. Arrangements have been made to have all the lumber needed sawed near the mill-site. The saw-mill is now getting into place, and will rapidly cut all the lumber for all the buildings. Connecting the mines with the ore-house and mill will be a system of five lines of tramway, to be erected during the summer, by a mill-wright to be sent in from Chicago. In addition to this, a 30 horse-power engine is shipping with the other machinery.

MONTANA.

Our Montana exchanges contain the following:

ALICE.—The winze that is now sinking from the 500-foot level is down 180 feet. On the lower levels, the work is confined to the west drifts. The east 300-foot level is retimbering.

AMY SILVERSMITH.—Work is going on day and night. Eight-hour shifts have been put on, and three feet a day is made in sinking the shaft, which has reached a depth of 60 feet.

BASIN CITY.—A letter written to the Butte *Miner* says: The mining district in which Basin City is located is now passing through the usual crisis to which all new mining camps appear to be subjected. Next year, several hundred locations, if not represented prior to the first day of January, 1882, will become vacant and subject to re-location. About 400 locations of mining claims have been recorded in this district, covering some 8000 acres of ground, and the prospector now finds it a difficult job to make a new discovery that is not within the limits of some one of these locations, and is consequently discouraged and abandons the work. A great many locations of seemingly good and promising prospects are owned by parties who do not live in this section, but can legally hold their claims from other parties who would develop and open the ground if they could have the opportunity; but as the law now allows the locator nearly two years to represent his claim, in certain instances much valuable ground becomes dead property in present hands. In one or two years hence, when the time expires for the present locations, and new ones are made by parties having sufficient capital to open up and develop the claims, a radical change for the better will take place, and Cataract Mining District, of which Basin City is the business center, will come rapidly to the front. In proof of this, we can show that in all cases where a reasonable amount of money has been expended in opening the mines, the property has improved in all respects, giving great promise of valuable mines.

MOULTON.—The three-compartment shaft has attained a depth of 380 feet. The cross-cut which is running south from the 200-foot level to tap the vein is now in 114 feet; the 300-foot cross-cut is in 65 feet. In both cross-cuts, work is progressing at the rate of about 30 inches per day. In the shaft, the vein will probably be struck at a depth of between 600 and 700 feet. Work on the new mill is pushed vigorously.

NEVADA.

COLUMBUS DISTRICT.

NORTHERN BELLE.—The *True Fissure* of the 11th says: During the week, there has been no material change in the shaft levels, except at a point 45 feet above the second, near the center of the mine, where a body of good average ore has been opened, and which looks very promising. The twelfth level also shows finely, turning out considerable ore of good quality. The levels above the adit are looking well throughout, and producing as usual. Both mills are running steadily, and doing good work. Mill No. 1 started up on the 1st instant, ten stamps on Mount Diablo and ten on Northern Belle ore. Bullion shipments on June account to the 8th instant amount to $23,325.17.

THE COMSTOCK LODE.

The Gold Hill *News* of the 15th summarizes as follows: The cross-cuts at the Sierra Nevada are going steadily forward at the rate of four feet per day. Of cross-cut No. 1, the superintendent is of the opinion that it will be in interesting formation in about 100 feet more; of No. 2, he estimates the distance to reach the ledge to be about 200 feet in all, 76 feet of which has been run. At the Utah, a drift is running on the 400 level, the management having an idea that ore lies near that level. When the shaft was sunk, explorations were not carried on above the 500 level. The Ophir-Mexican winze is down over 2870 feet; and as it is quite cool there, good progress is made in sinking. The 2400 level of the Hale & Norcross, from which the three-compartment winze has been started, is uncomfortably hot. Sinking at the Gould & Curry and Best & Belcher shaft goes steadily on. There is no trouble experienced from the water. The hydraulic pump at the C. N. S. shaft has been repaired so far as the last break is concerned, but the management considers it necessary to strengthen it in other parts before starting up. The usual work is carried on at the Crown Point and Belcher mines. The amount of ore extracted is the same as last reported—35 and 40 tons per day. The Alta and Forman shafts are again sinking, and good progress is made in each.

EUREKA DISTRICT.

The Richmond Company, of Eureka, in sinking the last 200 feet of its main shaft, cut through the limestone zone and penetrated the quartzite; since sinking was resumed, some 50 feet have been made. The Eureka *Sentinel* says that the barren quartzite has given way to an almost pure white quartz carrying a fair amount of metal. Assays average right along $30 per ton. It is a magnificent article of flux, and now the ore taken from the shaft is being saved in the dumps for shipment to the reduction-works.

PROPOSALS AND SALES.

For the benefit of many of our readers, we compile weekly such proposals and solicitations for contracts, etc., as may be of interest. The table indicates the character of proposals wanted, the full name and address of parties soliciting, and the latest date at which they will be received:

Dredging at the mouth of Duck Creek, Del., and Chester Creek, Pa.; J. A. Macomb, Col. of Engineers, U. S. A., U. S. Engineer's Office, 1125 Girard street, Philadelphia, Pa	June 27, 1881.
Dredging Channel, and Blasting and Removing Rock in New Rochelle Harbor, N. Y.; John Newton, Colonel of Engineers, U. S. Engineer's Office, Room 31, Army Building, corner Houston and Greene streets, New York City	" 27, "
Dredging at Choptank River, Maryland; William P. Craighill, Lieut.-Colonel of Engineers, U. S. Engineer's Office, 70 Saratoga street, Baltimore, Md	" 30, "
Furnishing such Supplies as may be required from time to time by the Assay Office during the twelve months ending June 30th, 1882, embracing Acids and other Chemicals, Coal, Charcoal, Crucibles, and other Necessary Supplies; Thomas C. Acton, Superintendent U. S. Assay Office, New York City	July 1, "
Construction of Water-Works for the Borough of McKeesport, Pa., including a Reservoir of about five million gallons capacity; Pump and Boiler-House of brick 45×75, Crib Abutment at River, Suction-Pipes, and Rising Main; also nine miles, more or less, of Cast-Iron Distributing Main from 4 to 20 inches diameter, Special Castings, Stop-Gates, Fire-Hydrants, Lead, etc. Plans and Specifications can be seen and blank proposals for the various parts of the work can be had at the office of Hatch & Taylor, Civil Engineers, McKeesport, Pa., Committee McKeesport Water-Works, McKeesport, Pa	" 2, "
Construction of the Railroads from Bage to Cacequy, and from Cacequy to Uruquayana, in the Province of S. Pedro do Rio Grande do Sul. Particulars can be had by application to the Brazilian Consulate-General, No. 71 Broadway, Room No. 62, New York City	4,
Construction of the Iron Superstructure of a Railroad Bridge over the Savannah River, on the Charleston & Savannah Railroad, near Savannah, Ga.; also, for Completing the Foundations (now in an unfinished condition) of the same Bridge. The Bridge will be about 1000 feet in length, including a Draw-Span. For further information, apply at the Office of the Company, at Charleston, S. C	" 4, "
Constructing and Erecting Pumping Machinery, having a capacity sufficient to deliver 60,000 cubic feet of water per minute 8 feet high, from the South Branch of the Chicago River into the Illinois and Michigan Canal; Carter H. Harrison, Acting Commissioner Department of Public Works, Chicago, Ill	" 8, "
Dredging in Mobile Harbor, Ala., in Tampa Bay, Fla., at the mouth of the Suwanee River, Fla., Escambia River, Fla. and Ala., in Apalachicola Bay, Fla., in Pensacola Harbor, Fla.; and for construction of Jetty at Pensacola Harbor, Fla.; A. N. Damrell, Captain of Engineers, U. S. A., U. S. Engineer's Office, Mobile, Ala	" 9, "
Blasting and Removing Solid Rock and Boulders from the Columbia River, adjacent to and below the Site of the Locks at the Cascade. The amount available for this work is $50,000 or more. Contractors are requested to visit the site for the purpose of examining the charts, which locate the obstructions, and of determining for themselves the character of the work required. Specifications and blank forms may be obtained on application to G. L. Gillespie, Major of Engineers, Brevet Lieut.-Col., U. S. A., U. S. Engineer's Office, Portland, Oregon	Aug. 6, "

DIVIDEND-PAYING MINES.

NAME AND LOCATION OF COMPANY.		Feet on Vein.	Capital Stock.	SHARES. No.	SHARES. Par Val	ASSESSMENTS. Total levied to date.	ASSESSMENTS. Date and amount per share of last.			DIVIDENDS. Total paid to date.	DIVIDENDS. Last Dividend.			HIGHEST AND LOWEST PRICES PER SHARE AT WHICH SALES WERE MADE. June 18. H.	June 18. L.	June 20. H.	June 20. L.	June 21. H.	June 21. L.	June 22. H.	June 22. L.	June 23. H.	June 23. L.	June 24. H.	June 24. L.	SALES.
Alice, s. c	Mon	3,000	10,000,000	400,000	25	.....	.....	.....	.....	160,000	June	1881	10	.....	.....	6.88	.....	7.25	7.00	7.63	7.00	7.13	.....	7.13	.....	2,700
American Cons	Col	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Amie Con. s. L	Col.	.....	5,000,000	500,000	10	*	.....	.....	.....	305,000	May.	1880	10	.45	.42	.45	.42	.45	.42	.42	.40	.42	.40	.42	.....	15,475
Argenta, s	Nev	1,500	10,000,000	100,000	100	130,000	Mar..	1881	20	40,000	Feb	1880	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Barbee & Walker, s	Ut'h	.....	1,000,000	100,000	10	*	.....	.....	.....	60,000	Nov.	1880	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bassick, G. S	Col.	.....	10,000,000	100,000	100	*	.....	.....	.....	25,000	Feb.	1880	25	13.00	.....	12.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	200
Belle Isle, s	Nev.	1,500	10,000,000	100,000	100	45,000	June	1881	75	300,000	Dec.	1879	25	.22	.17	.15	.....	.16	.....	.....	.....	.20	.....	.....	.....	1,210
Belcher, G. S	Nev.	1,040	10,400,000	104,000	100	2,328,000	Apr.	1881	75	15,397,200	Apr.	1876	75	.....	.....	4.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	100
Bodie Cons., G	Cal.	.....	10,000,000	100,000	100	75,000	May.	1879	1 00	1,200,000	Mar.	1880	25	7.00	.....	7.00	.....	7.00	6.75	7.00	.....	.....	.....	7.00	.....	875
Breece	Col.	.....	5,000,000	200,000	25	*	.....	.....	.....	2,000	Feb..	1880	01	1.05	.....	1.15	.....	.....	.....	.....	.....	.....	.....	.....	.....	700
California, G. S	Nev.	600	54,000,000	540,000	100	.....	.....	.....	.....	31,320,000	Dec..	1879	50	1.80	1.55	1.80	1.60	1.70	1.60	1.60	1.50	1.60	1.55	1.50	1.15	6,585
Calumet & Hecla, C	Mch	.....	2,500,000	100,000	25	.....	.....	.....	.....	19,350,000	Apr..	1881	5 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Caribou Con., S	Col.	1,400	1,000,000	100,000	10	*	.....	.....	.....	50,000	Mar	1880	10	.....	.....	.....	.....	.....	.....	8⅝	.....	.....	.....	3.35	.....	200
Catalpa, S. L	Col.	.....	3,000,000	300,000	10	*	.....	.....	.....	150,000	May.	1881	20	2.30	.....	2.35	.....	2.20	.....	.....	.....	2.00	.....	.....	.....	500
Chrysolite, S. L	Col.	.....	10,000,000	200,000	50	*	.....	.....	.....	1,100,000	Apr..	1880	50	5.50	4.90	5.25	5.00	4.90	.....	5.25	.....	5.00	.....	5.13	4.85	4,025
Climax, S. L	Col.	.....	2,000,000	200,000	10	*	.....	.....	.....	180,000	Aug.	1880	90	.....	.....	.58	.57	.59	.....	.....	.....	.58	.56	.60	.56	3,400
Cons. Virginia, G. S	Nev.	710	54,000,000	540,000	100	411,200	June	1873	3 00	42,930,300	Aug.	1880	50	3.90	3.50	3.95	3.60	3.80	3.70	3.60	3.55	3.65	3.45	3.38	3.13	17,720
Copper Knob, C	N.C.	.....	1,000,000	1,000,000	1	*	.....	.....	.....	15,000	Nov.	1880	02	.09	.08	.09	.08	.09	.08	.08	.....	.09	.08	.08	.07	22,800
Copper Queen	Ariz	.....	2,500,000	250,000	10	.....	.....	.....	.....	25,000	July.	1881	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Crown Point, G. S	Nev.	600	10,000,000	100,000	100	2,573,370	Mar.	1881	0 50	11,588 000	Jan..	1875	2 00	.....	.....	.....	.....	.....	.....	2.90	.....	.....	.....	.....	.....	100
Deadwood-Terra G	Dak	.....	5,000,000	200,000	25	.....	.....	.....	.....	†340,000	June	1881	20	8.50	.....	.....	.....	.....	.....	8.50	8.00	.....	.....	.....	.....	315
Dunkin, S. L	Col.	.....	5,000,000	200,000	25	*	.....	.....	.....	200,212	June	1881	7½	.93	.85	.92	.85	.81	.80	.86	.78	.80	.78	.75	.70	7,300
Eureka Cons., G. S. L	Nev.	.....	5,000,000	50,000	100	100,000	May.	1876	1 00	4,630,000	June	1881	50	.....	.....	30.50	.....	.....	.....	32.25	31.25	.....	.....	33.00	.....	420
Excelsior W'k'r & M. Co	Cal.	525 acres	10,000,000	100,000	100	100,000	June	1881	1 00	950,000	Sept.	1880	25	.....	2⅜	1⅞	2¼	.....	2¼	.....	2⅛	.....	2.00	.....	1.75	1,950
Evening Star, S. L	Col.	.....	500,000	50,000	10	.....	.....	.....	.....	300,000	June	1881	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Father de Smet, G	Dak	.....	10,000,000	100,000	100	.....	.....	.....	.....	340,000	July.	1881	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Findley, G	Geo.	.....	200,000	200,000	1	*	.....	.....	.....	8,000	May.	1879	1c	.30	.28	.....	.....	.29	.....	.....	.....	.....	.....	.....	.....	3,100
Freeland, S	Col.	.....	5,000,000	200,000	25	*	.....	.....	.....	50,000	May.	1880	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glass Pendery, S. L	Col.	.....	5,000,000	250,000	20	.....	.....	.....	.....	50,000	May.	1881	10	1.95	1.90	.....	.....	1.95	.....	2.15	2.10	2.25	2.20	2.25	2.20	2,400
Gold Strip, G	Cal.	.....	1,000,000	150,000	10	.....	.....	.....	.....	90,000	July.	1881	15	.....	.....	2.60	.....	.....	.....	.....	.....	.....	.....	.....	.....	100
Gould & Curry, G. S	Nev.	612	10,800,000	108,000	100	3,260,000	Feb.	1881	50	3,826,800	Oct.	1870	10 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand Prize, S	Nev.	1,500	10,000,000	100,000	100	290,000	May.	1881	25	450,000	Sept.	1880	0 25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Great Eastern, G	Dak	1,200	300,000	300,000	1	*	.....	.....	.....	16,000	July.	1880	01	.26	.23	.27	.22	.26	.25	.25	.....	.25	.....	.25	.24	31,400
Green Mountain, G	Cal.	4,350	1,250,000	125,000	10	*	.....	.....	.....	165,625	June	1881	7⅛	6.00	5.88	6.00	.....	.....	.....	.....	.....	.....	.....	5.25	.....	1,800
Hale & Norcross, G. S	Nev.	400	12,200,000	112,000	100	3,642,000	May.	1881	50	1,598,000	Apr.	1871	5 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hibernia, S. L	Col.	.....	7,500,000	300,000	25	*	.....	.....	.....	180,000	July.	1881	10	.95	.87	1.00	.91	.94	.88	.88	.80	.72	.65	.71	.61	192,867
Homestake, G	Dak	.....	10,000,000	100,000	100	200,000	Apr.	1878	1 00	1,020,000	June	1881	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Horn-Silver, S. L	Uth.	.....	10,000,000	400,000	25	*	.....	.....	.....	200,000	Jan..	1880	25	17.00	.....	17.25	17.12	17.50	.....	17.25	17.00	17.25	.....	.....	.....	1,160
Hukill, G. S	Col.	3,288	1,000,000	200,000	5	*	.....	.....	.....	210,000	Dec..	1878	10	.98	.97	.98	.96	.98	.89	.95	.90	1.00	.93	.90	.....	4,700
Independence, S	Nev.	1,500	10,000,000	100,000	100	155,000	Apr..	1881	0 20	225,000	Sept.	1879	25	.20	.....	.....	.....	.20	.....	.....	.....	.....	.....	.22	.....	650
Indian Queen, S	Nev.	.....	250,000	125,000	2	*	.....	.....	.....	268,750	June	1881	05	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Iron Silver, S. L	Col.	.....	10,000,000	500,000	20	*	.....	.....	.....	200,000	May.	1881	20	2.40	2.35	2.35	2.30	2.30	2.25	2.25	2.20	2.20	.....	2.15	2.10	14,350
La Plata, S. L	Col.	.....	2,000,000	200,000	10	*	.....	.....	.....	340,000	July.	1881	7½	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Leadville Cons., S. L	Col.	.....	4,000,000	400,000	10	*	.....	.....	.....	150,000	Jan.	1880	15	1.35	1.25	1.40	1.35	1.40	1.30	1.35	1.30	1.30	.....	1.30	.....	6,225
Leeds, S	Uth.	3,000	6,000,000	60,000	100	36,000	Feb.	1881	15	78,000	Oct.	1878	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Little Chief, S. L	Col.	.....	10,000,000	200,000	50	*	.....	.....	.....	700,000	Aug.	1880	50	1.40	1.30	1.35	1.30	1.40	1.30	1.35	1.25	1.30	1.25	1.25	1.20	10,900
Little Pittsburg, S. L	Col.	30 acres.	20,000,000	200,000	100	*	.....	.....	.....	1,350,000	Mar..	1880	50	3.00	2.80	2.85	.....	3.00	2.95	.....	.....	2.90	.....	2.90	.....	1,350
Martin White, S	Nev.	22,900	10,000,000	100,000	100	85,000	Mar.	1881	25	90,000	July.	1879	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Moose, S	Col.	39,000	2,000,000	200,000	10	*	.....	.....	.....	550,000	Mar.	1878	25	1.30	.....	.....	.....	1.30	.....	.....	.....	1.25	.....	1.25	.....	3,000
Navajo, S	Nev.	500	10,000,000	100,000	100	175,000	Dec.	1880	0 20	25,000	Mar.	1881	25	.78	.70	.....	.....	.75	.74	.70	.....	.70	.....	.....	.....	2,710
N. Y. & Colorado, G	Col.	.....	1,000,000	50,000	20	*	.....	.....	.....	25,000	July.	1879	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Northern Belle, S	Nev.	1,600	5,000,000	50,000	100	.....	.....	.....	.....	1,875,000	June	1881	75	.....	.....	19.75	.....	18.50	.....	18.00	.....	.....	.....	.....	.....	410
North Belle Isle, S	Nev.	1,500	10,000,000	100,000	100	25,000	Feb..	1880	15	15,000	Sept.	1880	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ontario, S	Uth.	3,000	10,000,000	150,000	100	.....	.....	.....	.....	3,475,000	June	1881	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ophir, G. S	Nev.	675	10.080,000	100,800	100	3,092,800	Mar.	1881	1 00	1,603,200	Jan..	1880	1 00	8.25	..	8.75	8.50	.....	.....	8.50	.....	8.25	8.00	7.38	7.25	580
Plumas, G	Cal.	.....	1,000,000	100,000	10	.....	.....	.....	.....	151,000	July	1879	8	.45	.....	.50	.....	.50	.....	.....	.....	.....	.....	.....	.....	500
Rising Sun, S	Cal	.....	750,000	150,000	5	*	.....	.....	.....	101,250	May.	1881	7½	2 65	.....	2.60	.....	2.60	.....	2.65	2.60	.....	.....	.....	.....	2,600
Robinson Cons, S. L	Col.	.....	10,000,000	200,000	50	*	.....	.....	.....	225,000	June	1881	25	10.50	10.25	10.25	.....	10 50	10.25	.....	.....	10.13	.....	.....	.....	860
Savage	Nev.	.....	11,200,000	112,000	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sierra Nevada, G. S	Nev.	.....	10,000,000	100,000	100	4,550,000	Apr.	1881	1 00	102,000	Jan.	1871	1 00	16.25	15.88	16.50	.....	.....	.....	15.00	.....	15.75	15.50	13.50	.....	500
Silver King, S	Ariz	3,650	10,000,000	100,000	1	.....	.....	.....	.....	650,000	June	1881	25	.....	.....	.....	.....	22.00	.....	.....	.....	22.25	.....	.....	.....	200
Spring Valley, G	Cal..	1,500	200,000	200,000	100	*	.....	.....	.....	50,000	Jan.	1881	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Standard, S. G	Cal.	.....	10,000,000	100,000	10	50,000	July	1878	1 00	2,775,000	June	1881	75	23⅛	.....	23.75	.....	.....	.....	24.25	.....	24⅛	24⅛	24⅛	24⅛	865
Starr-Grove, S	Nev.	.....	2,000,000	200,000	10	.....	.....	.....	.....	160,000	June	1881	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stormont, S	Uth.	2000 ac's	200,000	200,000	10	*	.....	.....	.....	135,000	Nov.	1880	30	3.00	.....	.....	.....	2.75	.....	2.50	2.40	2.50	.....	2.50	.....	1,500
St. Joseph, L	Mo..	.....	1,000,000	100,000	100	.....	.....	.....	.....	.....	May.	1881	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tombstone, S	Ariz	.....	12,500,000	500,000	25	*	.....	.....	.....	750,000	June	1881	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yellow Jacket, G. S	Nev.	1,200	12,000,000	120,000	100	4,093,000	May.	1881	1 00	2,184,000	Aug.	1871	2 50	.....	.....	.....	.....	.....	.....	6.00	.....	.....	.....	.....	.....	10

G, Gold. S, Silver. L, Lead. C, Copper. * Non-assessable. † The Deadwood mine paid in dividends, previous to the consolidation, $275,000 and the Golden Terra paid $75,000.
Total shares of Dividend-Paying stocks sold during the week, 371,272.

FINANCIAL.

Gold and Silver Stocks.

NEW YORK, Friday Evening June 24.

The business of the week aggregates 909,747 shares, an improvement on the previous week in the amount of business, but not in prices, which have been weak under a general bearish feeling. There is considerable inclination to "short" many of the stocks, but the feeling that they are mostly held by cliques prevents this. The Comstock shares have had a moderate business at declining prices, but the transactions are far below the two preceding weeks. California, under a business of 6585 shares, declined from $1.80 to $1.15. Consolidated Virginia had a much larger business, and in the general weakness was fairly maintained; the sales aggregate 17,720 shares at $3.95@$3.13. Best & Belcher was fairly active at a decline of $2½ per share. Consolidated Imperial declined from 25@19c. on sales of 4600 shares. Sutro Tunnel was moderately active and weak, the sales amounting to 20,400 shares at $2.05@$1.80. The remainder of the list was well covered by moderate transactions at declining prices. So ends a California "boom" on nothing but the movements of one or two men.

The Tuscarora stocks have been quiet and steady.

The Bodie stocks have had a very fair business at steady prices. Bodie remains very steady. Standard, although quiet, has been very strong. Bechtel shows an improvement of 20c.

Chrysolite has been active and very weak. There are indications of a movement in this stock. We are sorry to say that we can not inform our readers which way. The sales for the week aggregate 4025 shares at $5.50@$4.85. Dunkin has declined from 93@70c. Excelsior has been quiet and irregular, between $2⅜@$1¼. Glass-Pendery, under a small business, advanced from $1.90@$2.25. Great Eastern was active, between 23@27c. Hibernia has been a feature, declining from $1@61c., under outrageous manipulation and actions of the insiders. If the dividend is rescinded, the Mining Stock Exchange should throw the stock off of the list; and if it was declared without being earned, somebody should be made responsible. The sales aggregate 192,867 shares. Horn-Silver has been quiet and strong. Iron Silver, under a moderate business, has been weak, declining from $2.40@$2.10. Little Chief was moderately active and weak. Robinson Consolidated has been quiet and a shade weak, declining from $10½@$10⅛. Stormont has been quiet and very weak, declining to $2.40 and recovering to $2½.

Big Pittsburg continues the downward course, having sold to-day at $1.55. Bull Domingo declined from $2.35@$2.05, on sales of 3000 shares. The Mariposa stocks have been quiet and weak. Silver Cliff has been active but weak; the sales aggregate 9780 shares at $6⅝@$5½. The product of this company is likely to be smaller than many stockholders suppose, from the fact (for what purpose we can not say) that the company is milling very low-grade ore, while it has much richer ore opened up. Oriental and Miller and the State Lines have been very active and weak.

The Leadville *Democrat* of the 19th says:

The Amie mine continues making small shipments of iron ore. The mine is said to be worked on a lease, Manager Van Wagener's clerk being the lessee.

Mr. Franklin Allen, a member of the New York Mining Stock Exchange, has announced his inability to meet his engagements.

The Homestake Mining Company makes the following fiscal statement from September 1st, 1880, to June 1st, 1881, presented at the annual meeting in San Francisco on June 14th, 1881:

RECEIPTS.

Balance in treasurer's hands, September 1st, 1880		$107,048.24	
Mine		157.04	
80-stamp mill		587.45	
120-stamp mill		959.32	
Saw-mill		17,797.59	
Blacksmith-shop		3,991.50	
Machine-shop		4,851.00	
Foundry		9,127.64	
Bullion, gross product	$906,728.53		
Bullion, sold at mine	4.00		
" premium	391.98	907,124.51	$1,051,644.29

DISBURSEMENTS.

Mine	$237,938.57	
Dead-work	15,864.50	
Homestake shaft	13,080.21	
Golden Star shaft	15,048.56	
80-stamp mill	54,691.73	
120-stamp mill	66,615.86	
Superintendent's residence	7,394 03	
Saw-mill	18,212.07	
Machine-shop	2,374.24	
Foundry	5,063.44	
Blacksmith-shop	1,653.98	
Tramway	9,052.05	
Property purchase	700.00	
Tailing concentration works	5,651.23	
Roads and grades	63.75	
Bullion charges	15,399.88	
Assay office	626.41	
Survey	1,060.21	
Interest	2,176.04	
Salaries	7,850.00	
Taxes	7,157.19	
Legal expense	1,667.75	
Expense	4,060.06	
Dividends, 9 regular and 4 extra	390,000.00	
Cash in hands of treasurer	$169,677.80	
Less superintendent's overdraft	1,435.27	168,242.53 $1 051,644.29

This report includes the dividend paid in May, but

NON-DIVIDEND PAYING MINES.

NAME AND LOCATION OF COMPANY.		FEET ON VEIN.	CAPITAL STOCK.	NUMBER OF SHARES.	Par.	ASSESSMENTS. Total levied to date.	ASSESSMENTS. Date and amount of last.			HIGHEST AND LOWEST PRICES PER SHARE AT WHICH SALES WERE MADE. June 18. H.	June 18. L.	June 20. H.	June 20. L.	June 21. H.	June 21. L.	June 22. H.	June 22. L.	June 23. H.	June 23. L.	June 24. H.	June 24. L.	SALES.
Albion, s L	Nev		15,000,000	150,000	150		May.	1881	35													
Alta-Montana, G	Mon		5,000,000	500,000	10	*				2.00	1.90	2.00	1.95	2.00	1.90	1.95		1.95		1.90		5,550
Am. Flag, s	Colo	5,300	1,250,000	125,000	10	*																
Bald Mountain, G	Colo		10,000,000	1,000,000	10	*				5c				6c	5c	5c		5c		5c		17,300
Barcelona, G	Nev		5,000,000	200,000	25	*				1.40	1.35	1.30		1.35		1.30		1.30		1.35		1,300
Battle Creek	Dak		5,000,000	200,000	25	*																
Bear Creek	Colo		30,000	30,000	1																	
Bechtel Con., G	Cal		10,000,000	100,000	100	162,750	Dec.	1880	0 15	1.00	95c	97c	75c	1.00	71c	1.15		1.10	73c	1.15		1,050
Best & Belcher, G & S	Nev	545	10,000,000	100,800	100	992,990	Mar.	1881	50	16.50	16.25			16.50	16.00	16.00	15.00	15.25		14.00		1,250
Big Pittsburg, S L	Colo		20,000,000	200,000	100	*				1.85	1.75	2.00	1.75	2.00	1.80	1.75				1.55		7,700
Black Jack, G	Cal		2,500,000	1,000,000	2½					1.10		1.00		1.10	1.05	1.10		1.15	1.00	1.05		2,600
Bonanza Calef	Mon		1,000,000	1,000,000	1	*				24c	15c	19c		14c								3,700
Bondholder																						
Boston Con, G	Cal		10,000,000	100,000	100	30,000	April	1881	30	54c	51c	57c				54c	52c	55c	50c	51c		4,600
Boulder Con, S	Colo		2,000,000	200,000	10					76c		65c	53c			60c						2,400
Bradshaw, S	Ariz			225,000																		
Buckeye	Colo		2,000,000	400,000	5	*														10c		100
Bull-Domingo, S L	Colo		10,000,000	200,000	50	*				2.35	2.10	2.15	2.05	2.15		2.15	2.05	2.05		2.05		3,000
Bullion, G & S	Nev	9429	10,000,000	100,000	100	475,000	May	1881	50													
Bulwer, G	Cal		10,000,000	100,000	100	30,000	Dec.	1877	50	3.00						3.00						200
Bye and Bye	Ariz		1,000,000	100,000	10	*				40c	39c	43c	40c	41c	40c	41c	40c	40c	37c	39c	37c	7,900
Calaveras, G	Cal	2,500 acrs	500,000	500,000	1	*				17c		16c		17c	16c	17c	16c	16c		16c	15c	12,100
Cal., S. H., G	Dak		10,000,000	100,000	100	400,000	Mar.	1881	0 25			1.75		1.75								300
Carbonate Hill, S L	Colo		4,000,000	400,000	10																	
Catskill, S	Nev		1,500,000	3,000,000	1																	
Central Arizona, S	Ariz		12,000,000	100,000	5																	
Cherokee, G	Cal		1,500,000	150,000	100													4½		4½		250
Cheyenne Cons, G	Dak		300,000	300,000	10					1.75	1.65	1.70	1.65	1.65						1.60	1.55	2,800
Colorado Central, S	Colo		3,000,000	300,000	10					1.10												500
Columbia Con., G & S	Nev		5,000,000	100,000	50																	
Cons. Imperial, G & S	Nev	468	50,000,000	500,000	100	1,375,000	April	1881	0 10			25c	24c					20c		19c		4,600
Con. Pacific, G	Cal	1,400	6,000,000	60,000	100	90,000	July.	1880	0 50	55c				55c		55c	54c	55c		55c		1,000
Con. Pay Rock, S	Colo		2,500,000	250,000	1									1.50						1.60		400
Crescent, S L	Colo		3,000,000	300,000	10	*																
Crowell, G	N. C		50,000	50,000	1					19c		20c	19c	20c		20c	19c	22c	20c	22c	20c	60,500
Dahlonega, G	Ga		250,000	250,000	1	*				6c								6c				5,000
Dardanelles, G	Cal		1,000,000	1,000,000	10																	
Dunderberg, S	Colo		1,500,000	150,000	10	*												7c				600
Durango, G	Dak		500,000	500,000	1	*						17c								14c		1,700
Empire, S	Ut'h		10,000,000	100,000	100																	
Enterprise	Colo																					
Glynn Dale Con, G	Cal		10,000,000	100,000	100	75,000	Jan.	1881	0 25	54c	52c	53c	51c	52c	51c	53c	51c	54c	53c	51c	52c	13,500
Gold Placer, G	Colo		5,000,000	200,000	25	*				42c		42c										500
Goodshaw, G	Cal		10,000,000	100,000	100	145,000	Feb.	1881	15	40c		40c				42c	41c			40c		2,800
Granville, G	N. C	1,231 acs.	300,000	300,000	1	*				5c				6c		6c				6c		3,350
Harshaw, S	Ariz		10,000,000	100,000	100																	
Head Center, S	Ariz		10,000,000	100,000	100	55,000	May.	1881	30													
Hortense, S	Colo		2,000,000	200,000	10																	
Julia, G & S	Nev		11,000,000	110,000	100																	
Kossuth, G & S	Nev		10,800,000	108,000	100																	
La Cosse, G	Colo	3,000	1,000,000	100,000	10	*				31c	32c	32c		33c	32c	31c		30c				4,500
Legal Tender, S L	Colo																					
Leviathan, S	Nev	2,000	10,000,000	100,000	100	35,000	Mar.	1881	25													
Lucerne, S	Colo	4,200	5,000,000	500,000	10	*														11c	10c	2,000
Malachite	Nev		1,000,000	200,000	5					1.20		1.30	1.20	1.30	1.20	1.30	1.20	1.30	1.20	1.25	1.20	5,900
Mariposa preferred, G	Cal	14,387	5,000,000	50,000	100	1,425,000	Dec.	1880		2.50				1.50	1.25	1.50				2.00	1.50	3.00		600
common, G	Cal	acres.	10,000,000	100,000	100	1,425,000	Dec.	1880														700
May Belle, G	Cal	1,500	10,000,000	100,000	100	66,000	Mar.	1881	0 10	10c										5c		150
Maydower, S	Colo		1,000,000	100,000	10	*																
Mexican, G & S	Nev	600	10,080,000	100,800	100	1,488,200	Jan.	1881	0 50	13.63	12.50					12.38				12.00		600
Michoacan Syndicate	Mex																					
Mineral Creek, S	Ariz		2,000,000	200,000	10	*				1.80						1.80	1.70	1.80	1.50	1.70	1.60	5,600
Miner Boy, G & L	Colo					*				99c	91c	1.00	96c	1.05	98c	1.10	1.00	1.05	1.00	1.00	99c	51,800
Mono, S	Cal	750	5,000,000	50,000	100	325,000	May	1881	50													
Moose Silver, S	Colo		3,000,000	300,000	10																	
Nevada Syndicate																						
North Standard, G	Cal		10,000,000	100,000	100							1.00		1.00		1.05		1.05	1.00	1.05		800
North Horn Silver, S L	Utah		4,000,000	400,000	10							12c	11c					11c				300
Noonday	Cal		6,000,000	60,000	100					1.70												100
Old Dominion, C	Ariz		2,000,000	200,000	10	*																
Oriental and Miller, S	Nev		10,000,000	400,000	25					1.70	1.55	1.65	1.5	1.65	1.40	1.50	1.25	1.45	1.25	1.40	1.15	61,600
Overman, G & S	Nev		3,840,000	38,400	100																	
Quicksilver preferred	Cal	8,500	4,291,300	42,913	100	*						69.00	64.75	67.50	67.00	69.50	67.00	69.25	66.00	69.00	66.50	13,000
" common	Cal	acres.	5,708,700	57,087	100	*						19.00		19.00	18.75	20.38	19.00	20.00	18.75	19.75	19.00	11,015
Rappahannock, G	Va	345 acres	250,000	250,000	1	*				20c		20c		20c		20c	19c	19c		20c	19c	5,600
Red Elephant, S	Colo		500,000	500,000	10	*						20c		19c	18c					15c		1,800
San Pedro, G & L	N. M		10,000,000	400,000	25							4.15				4.50						200
Silver Cliff, S	Colo		10,000,000	200,000	50	*				6.38	6.13	6.63	6.25	6.38	6.00	6.13	5.75	6.00	5.63	5.88	5.50	9,700
Silver Nugget, S	Ariz		2,000,000	200,000	10	*				6c	5c	5½c	5c			47c	45c	50c		51c	50c	7,500
Silver Nugget, new stock, S	Ariz		2,500,000	250,000	10					78c		69c		51c	40c	46c	49c	60c	55c	54c	57c	10,000
South Bodie, G	Cal	1,500	10,000,000	100,000	100	85,000	Nov.	1880	0 25													
South Bulwer, G	Cal	1,500	10,000,000	100,000	100	195,000	May	1881	0 25									30c				100
South Hite	Cal		2,500,000	100,000	25									96c	82c	85c		75c	61c	75c	65c	7,200
State Line No. 1, S	Nev		5,000,000	200,000	25					1.75								1.60	1.50			600
" No. 2, S	Nev		5,000,000	200,000	25																	
" No. 3, S	Nev		5,000,000	200,000	25																	
" No. 4, S	Nev		5,000,000	200,000	25																	
" Nos. 1 and 4, S	Nev									2.05		1.75	1.70	1.80		1.55		1.55				1,000
" Nos. 2 and 3, S	Nev									2.05	1.75	1.85	1.65	1.85	1.30	1.60	1.35	1.75	1.40	1.75	1.55	54,250
Sutro Tunnel	Nev		20,000,000	2,000,000	10	*				8.00	6.88	7.38	6.88	7.38	6.75	7.38	6.25	7.25	6.88	7.13	6.63	52,950
Tabor Mine Co										2.05	1.95	2.05	2.00	2.00	1.95	2.00	1.85	1.90	1.88	1.88	1.80	20,410
Tioga, G	Cal	1,500	10,000,000	100,000	100	24,000	May.	1881	0 15	60c				1.00		95c		75c	70c			600
Tip Top, G	Ariz	1,50	10,000,000	100,000	100	120,000	Mar.	1880								1.00		1.00		1.00		650
Tuscarora, S	Nev		10,000,000	100,000	100	95,000	Apr.	1881	0 15	31c	28c					31c	30c	30c				4,400
Unadilla, S	Colo		500,000	500,000	1	*						11c		11c								900
Union Cons, G & S	Nev	80	10,000,000	100,000	100	1,060,000	Mar.	1881	1 00	14.13	13.75	15.50	14.25									200
Vandewater, S	Nev		2,000,000	200,000	10	*				65c	57c	58c	56c	56c	52c	52c	51c	51c	50c	54c	50c	21,600
ashington, S	Ariz									99c												1,000
llshire, G	Cal		50,000	5,000	1	*																

G, Gold. S, Silver. L, Lead. c, Copper. * Non-assessable.

Total shares of Non-Dividend Paying Stocks sold during the week, 538,475. Total shares sold at all the Exchanges during the week, 909,747.

not the expenses of that month, which were about $52,000, nor the bullion product of second half of May, which amounted to $52,790.68 net. The average net profits for the 9 months were $50,132.70 per month.

Leadville records another disappointment in Hibernia. The stock has been declining, and now it is rumored that the dividend declared was not earned, and will be rescinded. There are rumors of the resignation of four of the directors and the superintendent.

DIVIDENDS.

The St. Bernard Coal Company, at Earlington, Ky., announces a dividend of two dollars per share, payable July 1tt.

COLORADO SPRINGS, COL., June 18.—The Denver & Rio Grande Railroad Company has declared a dividend of 1½ per cent, payable July 11th.

A report was current on the street this week, that the Delaware & Lackawanna Railroad would pay a dividend of 8 per cent. President Sloan says that the dividend will be declared the last week in June, but there is no certainty as to the exact amount.

Up to April 30th, 1881, the Bobtail mine of Colorado had produced $1,910,900, including $85,000 in the first four months of 1881. This mine has paid its stockholders $147,762 in dividends up to January 1st, 1881.

UNLISTED QUOTATIONS.

Mr. L. V. Deforeest, No. 70 Broadway, under date of June 24th, 3 P.M., reports the current quotations of unlisted stocks as follows:

	Bid.	Offer'd
Carbonate Hill	$0.15	$0.25
Defiance	.25	.30
Empire, of Cal.	....	1.50
Empire, Utah	1.00	2.00
Freeland	2.00	5.00
Falco	.40	....
Grand View	....	.25
Highland Chief	....	5.00
Honduras Rosario	4.10	4.50
Hite	....	7.50
Julian	....	1.25
Mack Morris	4.00	7.00
May Flower	....	$4.00
Native Silver	$0.50	....
Patagonia	....	0.75
Plata Verde	....	2.50
Sacramento	....	.25
Santa Cruz	....	.75
Sir Rodr'k Dhu	.05	.15
Small Hopes	.75	....
Telegraph Con., New	.50	.60
Trinity	....	1.00
Old Dominion	....	12.00

OFFICIAL LETTERS.

Allied.—An official report states that all the company's machinery (ten car-loads) arrived last week at Alamosa, Colo., at which point wagons were ready to convey it to Ouray, a distance of about 215miles, and it is expected that the teams will be two weeks in reaching the Allied mines.

Caledonia.—The superintendent reports, under date of Central City, Dakota, June 7th, as under:

Upon my arrival here, in December last, I found the mill running a few stamps very irregularly, for want of water; and as no supply could be got of clear water, without a very large outlay, I determined to build settling-tanks, to settle the tailings from the Deadwood-Terra mills. These tanks were completed the middle of February, and supplied enough water to keep our 60 stamps running until the 1st of April, when we got clear water from the Homestake ditches. I anticipate no trouble next winter in getting water, as our tanks have already proved of sufficient capacity to supply the mill without clear water. Until I came here, I found that the mine had been worked by stoping underground and square timbering, and the output of bullion had not paid the expenses of mining and milling. I therefore, as

soon as possible, changed the plan of working to that of an open cut, thereby greatly reducing expenses. We mill on an average 180 tons of ore per day, and so far the ore has averaged $3.55 per ton. Our actual cost of mining and milling will fall within $11,000 per month; and supposing our ore-bodies to average as well as they have done, we ought to make a monthly profit of $6000 to $7000, allowing for necessary dead-work in opening up new cuts and running the necessary drifts to connect with them. In regard to the future of the mine, I can only speak of probabilities, for except in the vicinity of the open cut the mine is virtually unexplored; but wherever on the surface within the trend of the ore-bodies any work has been done, ore has been found. It is probable that the ore will vary in quality from time to time, but I see no reason to doubt that it will average as well as it has done. As far as we can ascertain at present, we have three veins running parallel, and separated by intervening strata of slate about 50 feet thick. The discovery, or west ledge, as developed by underground working for 350 feet on its course, averages, say, 50 feet wide; the Caledonia, as shown by the open cut for 200 feet in length, averages 90 feet wide; and the Queen of the Hills vein is of unknown width, but from some surface shafts I estimate its width at 60 to 70 feet. The extent of ore is immense, and with our 60-stamp mill it will require many years to exhaust the surface workings.

Chapparal.—The superintendent reports:

Tunnel No. 1 in 178 feet; tunnel looking splendid. Contract price of Tunnel No. 2, $6 per foot. Every thing about the mine looking exceedingly well. The last contract on Tunnel No. 1 north will be completed in a few days. Will let another immediately, and push things in anticipation of increasing milling facilities.

Consolidated Yankee Fork.—The superintendent telegraphs: Started night shift. Running giant day and night. Prospects good.

Copper Queen.—The superintendent of the mine reports, under date of June 16th:

At the mine every thing looks well; face of open cut retaining the same characteristics and yielding good ore; face of south drift, third level, in good ore and looking splendid, the ore pitching south; have started new wing on second level, thirty-five feet south of wing No. 1, and purpose sinking it to the same depth as the third level and make connection with wing No. 3, so as to give thorough ventilation at the lower levels.

Great Eastern.—The superintendent telegraphs:

Mill running to fullest capacity and plates looking well. Rich rock. Fine breast of ore. The management reports the earnings of the mill larger than ever before. Have gained suit against Fraction, and have order of injunction.

North Horn-Silver.—Superintendent Couch telegraphs, under date of June 22d:

The shaft is progressing satisfactorily and looks well. The north tunnel is yielding ore which is selected for shipment. The vein is 20 feet wide.

Old Dominion.—The superintendent writes, under date of June 12th:

In the Old Dominion tunnel No. 1, we find the smooth and regular foot-wall of the ledge continues the same, and is the most regular wall I have seen in the district. As we advance, the ore improves in quality and quantity. We see no indications of the hanging-wall. Average assays, 39 per cent copper. The smelters will be running within 30 days.

San Pedro.—The manager telegraphs, under date June 18th:

After next week, you will receive regular shipments of gold and silver bullion. Plenty of water. The roughness of the mountain has delayed us. Am now working heavy silver deposits.

Standard Consolidated.—The official report, June 11th, shows that the east cross-cut, 1000 level, is in 298 feet. The west cross-cut is in 242 feet, and there has been considerable increase in the flow of water coming from the face. The total length of the east cross-cut, 700 level, is 673 feet; the rock at this point is very hard. The total length of the south drift, 500 level, is 291 feet, showing the vein 5 feet wide.

REVIEW OF THE SAN FRANCISCO MARKET.

The San Francisco list is lower, and the market seems to be very weak. It is stated that the Comstock mines were recently examined by John Mackey and J. G. Fair, who report that there are no favorable indications on the lode at present. Mr. Fair recently informed the public that something good was about to turn up. The probable explanation of the whole situation may be found in the reluctance of the public to "take hold" when, as indicated by recent events, a "boom" was projected, but fell short of its object. It is reported that the Nevada and First National Gold banks will consolidate in consequence of this condition of things. No improvement now is anticipated in the market until after the July holidays. There are reports current of a prospect of finding ore in the old Belcher mine. The ore-body, if found, will be in the lower part of the mine, above the deepest workings. This stock, however, in sympathy with the market, is lower.

The Sutro Tunnel is now discharging about 4,500,000 gallons of water per day from the mines. There is now a prospect of relieving the mines from water, and, with that end in view, various experiments are making upon the low-grade ores already developed in different mines, in the expectation of their being concentrated and reduced. It is rumored that the company intends shortly to begin prospecting some of the ledges which the tunnel cut while driven. An official letter says that progress in the south lateral tunnel from the 1st to the 15th of June was 133 feet. The drain-boxes in the main tunnel have been fully completed to the Combination shaft. Repairs have been made in the main tunnel and the usual amount in the north and south laterals.

The condition of the mines of the Bodie District, Cal., is shown by the following telegram:

Many mines are being closed for want of funds, among them the Belvidere, Jupiter, McClinton, Champion, Goodshaw, Booker, Maryland Consolidated, University, and Queen Bee.

SAN FRANCISCO MINING STOCK QUOTATIONS.

Daily Range of Prices for the Week.

NAME OF COMPANY	CLOSING QUOTATIONS. June 17.	June 18.	June 20.	June 21.	June 22.	June 23.	Opening. June 24.
Alpha	3½	4⅛	4	3⅝	3½	3⅜	....
Alta	4⅝	3¾	3¾	3¾	3¾	3⅜	....
Argenta	....	....	....	....	....	....	....
Bechtel	1	1	1	1⅛	1⅛	1¼	....
Belcher	3⅝	3⅝	3⅜	3⅜	3¼	3¼	....
Belle Isle	....	....	....	....	....	....	....
Best & Bel.	15½	16⅛	16	15¼	15⅛	13⅞	....
Bodie	7⅛	7½	....	7	7	7	....
Bullion	27-32	15-16	1½	1½	1½	1½	....
Bulwer	....	3	....	....	....	....	....
California	1⅝	1¾	1¾	1⅝	1½	1¼	....
Challar	2⅞	3	2¾	2¾	2⅝	2¾	....
Con. Imp	....	....	....	....	....	....	....
Con. Pacific	....	....	....	....	....	....	....
Con. Va	3½	3⅞	3¾	3½	3⅜	3½	....
Crown P'int	3	3	2¾	2¾	2½	2¾	....
Eureka Con	31	....	....	32¼	32	....	....
Exchequer	1½	1½	1½	1½	1⅜	1⅜	....
Goodshaw	....	....	....	....	....	....	....
Gould & Cur	8	8⅜	8⅛	7½	7½	6⅞	....
Grand Prize	11-32	....	5-16	5-16	5-16	¼	....
Hale & Nor.	4¾	4¾	4¾	4½	4⅜	4⅝	....
Mar. White	....	....	....	....	....	....	....
Mexican	12⅝	13½	12⅞	12⅝	12	11⅝	....
Mono	....	2¾	3¼	3	3	3	....
Navajo	....	....	11-16	....	....	....	....
North. Belle	19	....	17⅞	17	18	19	....
Noonday	1½	1½	1⅝	1⅝	1⅜	1¼	....
Ophir	8	8¼	8⅛	8	7⅞	7⅜	....
Oro	19-32	19-32	19-32	9-16	⅜	13-16	....
Overman	1½	1½	1½	1½	1½	1½	....
Potosi	3⅝	3⅝	3½	3⅜	3¼	3⅜	....
Savage	3¾	3⅞	3¾	3⅝	3½	3⅝	....
Scorpion	1⅞	2	1⅞	....	....	1⅝	....
Sierra Nev.	16	16⅜	15⅞	15⅝	14½	13⅝	....
Silver King	21⅜	21¼	22	22	22	21½	....
So. Bulwer	....	....	....	1¾	....	....	....
Tioga	....	....	....	....	....	....	....
Tip Top	4⅞	5	4¾	4¼	4	3¾	....
Tuscarora	....	....	....	....	....	....	....
Union Con	13¾	14⅞	13¾	13¼	12⅝	12¼	....
Wales Con	....	1⅝	1½	1½	1½	1½	....
Yel. Jacket	5⅞	6⅛	5⅞	5⅝	5½	5⅝	....

The company intends shortly to begin prospecting some of the ledges which the tunnel cut while driven. An official letter says that progress in the south lateral tunnel from the 1st to the 15th of June was 133 feet. The drain-boxes in the main tunnel have been fully completed to the Combination shaft. Repairs have been made in the main tunnel and the usual amount in the north and south laterals.

The condition of the mines of the Bodie District, Cal., is shown by the following telegram:

Many mines are being closed for want of funds, among them the Belvidere, Jupiter, McClinton, Champion, Goodshaw, Booker, Maryland Consolidated, University, and Queen Bee.

Philadelphia.

THE PHILADELPHIA MINING STOCK EXCHANGE.

The much-talked-of consolidation between the Annex and Philadelphia mining exchanges has, at last, crystallized into some definite shape. The governing committees of both exchanges have sanctioned the proposed amalgamation, and it only awaits the approval of the members to put it in practical effect. As there exists no opposition of consequence, the union will shortly be perfected. Stocks, this week, show improvement in prices. Since Iowa Gulch has declined and retired from prominence, other stocks have attracted the attention of investors and capitalists, and hence, better results are secured. Rara Avis has advanced to $1 cash, and $1.20 buyer 30; Governor's Group to 81c. cash, and 85c. on buyer's option. Long & Derry Hill, quoted at 5c. a few weeks since, is scarcely obtainable at 9c.; large orders from New York await fulfilling at that figure. In Arizona stocks, a decided decline is perceptible. Tombstone has reached $5.20; Orion, $1.05; and Girard, $2.15. Flora Morrison advanced to $4.25, but shortly afterward declined to $3.75. Tranquillity was quoted at $2.50.

The stock of the Minerva Mining Company is being well taken up, it being known that Mr. Fahy has put his own capital into it, not as a speculation, but for the purpose of working the mine, the success of which he is assured of, he having personally investigated the property and convinced himself of its value.

President Garver, of the Micawber Silver Mining Company, has heard from the superintendent, who is on Big Evans Gulch, five miles east of Leadville, that the shaft is down ninety-five feet, and that the ore assays twenty to forty ounces to the ton. The Miner Boy and Paymaster properties are adjacent to the Micawber claim, which is 300 × 1500 feet in size.

The following dispatch has been received from Central City, Colo., by General James Stewart, President of the Rara Avis: Ores from bottom of shaft assay $520 gold per cord; crevice uniform and wide. H. H. Boucher, Superintendent.

PHILADELPHIA MINING STOCK EXCHANGE.

NAME OF COMPANY.	Opening June 16.	Highest during the week.	Lowest during the week.	Closing June 22.	Total shares sold.
Amie	.46	.46	.43	.43	6,000
Argent	.35	.36	.32	.34	13,100
Buena	.23	.25	.23	.23	12,100
Cincinnati	.64	.64	.61	.61	5,600
Dauntless	.06	.08	.06	.07	11,100
Denver City Con	1.30	1.35	1.25	1.25	6,200
Diam'nd Tunnel	3.80	3.80	.....	3.80	1,400
Fairview Con	.04	.05	.04	.04	6,500
Findley	.25	.31	.25	.30	3,000
Fiske Con	5.60	5.60	.....	5.60	200
Girard	2.25	2.25	2.15	2.15	1,500
Golconda	.29	.29	.28	.29	9,800
Governor Group	.70	.85	.70	.83	7,200
Grand Union	.08	.09	.07	.07	16,050
Great Eastern	.23	.27	.21	.26	6,700
G'n's'n Imp't Co	.95	1.05	.95	.97	1,000
Hibernia Con	1.05	1.10	.90	.90	7,200
Homestake	.04	.04	.02	.02	3,000
Hukill	.95	1.00	.95	.97	3,900
Iowa Gulch	.41	.42	.37	.37	20,000
Leadville Con	1.35	1.40	1.25	1.40	6,900
Little Chief	1.40	1.45	1.30	1.35	4,600
Long & Dercy	.09	.10	.07	.10	50,300
Miner Boy	1.05	1.05	.....	1.05	700
Monitor	.50	.55	.50	.55	1,500
Mt. Lincoln	.09	.11	.09	.10	33,600
National	.03	.04	.03	.04	25,700
Orion	1.20	1.20	1.05	1.05	2,500
Pembina	.45	.45	.....	.45	200
Penn Breck	.10	.11	.09	.09	6,600
Permanent	.44	.45	.44	.45	1,500
Pizarro	.07	.08	.06	.07	28,450
Rara Avis	1.05	1.25	.08	1.25	2,100
Rico Pioneer	.06	.06	.....	.06	3,500
San Pedro Con.	.52	.57	.50	.57	12,500
Silver Cord	1.20	1.20	1.05	1.10	2,650
South Bite	.95	1.00	.95	.97	2,600
Standard	.08	.08	.....	.08	2,500
Tombstone	5.40	5.40	5.30	5.30	2,300
Victor	.04	.04	.03	.04	8,100

Boston.

The following is a synopsis of the transactions in mining stocks at the Boston Stock Exchange, and at the Boston Mining Stock Exchange, for the week ending June 22d. Friday, the 17th, was a holiday, and there was no session of either Board.

NAME OF COMPANY.	Opening June 16.	Highest during the week.	Lowest during the week.	Closing June 22.	Total shares sold.
Allouez, c	2½	2½	.....	2½	100
Arizona & Mass.	.95	1.00	.95	1.00	2,000
Atlantic, c	12	12	.....	12	75
B'n'nza D'v'l'mt	5¼	5½	5⅜	5 3-16	3,355
Brunswi'k Ant'y	17	17	15	15	30
Cal. & Hecla, c	233½	233½	231	231	57
Catalpa	2.25	2.50	2.13	2.13	2,010
Col. Dia. Tunnel	3.80	3.80	.....	3.80	300
Copper Falls, c.	7.00	7.00	.....	7.00	20
Copper Knob	.07	.07	.....	.07	300
Copperopolis	1.66	1.70	1.60	1.65	5,500
Crescent	1 3-16	1 3-16	1 1-16	1 1-16	2,200
"Cusic"	2.75	2.75	.....	2.75	100
Dana	.10	.10	.....	.10	50
Duncan, s	2¼	2⅜	2¼	2⅜	150
Dunkin	.90	1.00	.70	.70	13,900
Empire	.70	.73	.54	.65	65,150
Franklin, c	11½	11¾	11½	11¾	275
Gold Stripe	2.80	2.80	.....	2.80	200
Granger	.50	.50	.37	.40	850
Harshaw	8¼	8⅜	8¼	8¾	200
Huron	3½	3½	3¼	3¼	60
Income	.80	.80	.....	.80	300
Maine Mica	.60	.60	.....	.60	100
Mass. & N. Mex.	.50	.55	.50	.51	2,650
Mendocino	4.50	4.75	4.50	4.62½	2,250
Mesnard	.50	.50	.....	.50	50
Milton	.62	.80	.62	.73	31,550
National, c	2¼	2⅜	.....	2⅜	100
Osceola, c	32½	32½	32	32	40
Pewabic, c	12½	12½	.....	12½	20
Quincy, c	37¼	37¼	37	37	175
Ridge, c	3⅜	3⅜	.....	3⅜	50
San Pedro	4⅝	4½	4¼	4¼	600
Silver Islet, s	45	45	44	44	30
Simpson Gold	12	.13	.11	.12	9,700
Star	1.00	1.00	.....	1.00	200
Sullivan	3¼	3¼	2¾	2¾	607
Sul'v'n & Wa'k'g	3.75	3.75	.....	3.75	100
Sycamore	1.45	1.50	1.37½	1.37½	3,550
Tremont Silver	1.10	1.10	.95	.95	300
Twin Lead	.94	1.03	.90	.97	2,000
War Eagle	.38	.50	.38	.50	1,100
Young Hecla	.35	.35	.....	.35	500

c. Copper. s. Silver.

Copper and Silver Stocks.

Reported by C. H. Smith, 15 Congress street, Boston, Stock Broker and Member of the Boston Mining and Stock Exchanges.

BOSTON, June 23.

The market for the past week for copper stocks has been the dullest recorded for a long period; in fact, there has been comparatively nothing doing. The decline in ingo

COAL STOCKS.

NAME OF COMPANY.	Capital Stock.	SHARES. No.	SHARES. Par Val.	Last Dividend. Mo.	Y.	R't.	Rate per Ann.	Quotations of New York stocks are based on the equivalent of $100. Philadelphia prices are quoted so much per share. June 18. H.	L.	June 20. H.	L.	June 21. H.	L.	June 22. H.	L.	June 23. H.	L.	June 24. H.	L.	Sales from June 10th to June 16th inclusive.
	$		$				Per c'nt													
Am. Coal Co.	1,500,000	60,000	25	....	..	....	....							63						100
Cameron C'l.	2,500,000	50,000	50	....	..	....	....	43¼	43	42⅝	42¾	....	....	42⅞	42¾	42⅞	42¾	43⅞	43	9,400
Col. C. & I.	10,000,000	100,000	10	....	..	....	....	64	63½	64	.....	63½	63	64	.....	64¼	64	65¼	64¾	4,160
Ches. & O. RR	15,000,000	150,000	100	....	..	....	....	31	30¾	30½	30⅝	30⅝	30¼	30½	.....	30¾	30⅝	....	....	4,565
Consol. Coal.	10,250,000	102,500	100	Jan.	'77		2½	....	....	40	.....	....	....	40½	.....	40⅝	.....	41	40½	600
Cumb. C. & I.	500,000	5,000	100	....	..	....	....	....	....	....	.....	....	....	....	.....	....	.....	....	....	....
Del. & H. C.	20,000,000	200,000	100	May	81		1½	9		110	109¾	108⅝	109⅝	108⅝	111	109⅛	110⅝	109⅝	110¼	109⅝	6,000
D., L. & W. RR	20,700,000	524,000	50	Mar.	81		1½	6	124	122⅞	123	121½	123⅞	121¼	126	123⅛	125¼	124¼	124⅝	123	182,200
Elk Lick C Co	.....	.....	....	....	..	....	....													
Lehigh C. & N	10,418,550	208,971	50	Sept	76		1½	5½	46¼	46	46⅛	45¾	46	45⅝	46¼	45¾	46⅜	46	.....	7,254
Leh. V'y R. R	27,042,900	540,858	50	....	..	....	....	4	62¼	62¼	61⅝	61¼	61¾	.....	61½	.....	61½	.....	.....	1,476
Mary'd Coal	4,400,000	44,000	100	Jan.	76		1½	1½	....	..	..	....	31½	.....	31½	31	31⅜	31	20½	.....	1,100
Montauk C'l.	2,500,000	25,000	100	....	..	....	....	....	....	..	..	....	....	.....	....	.....	....	....	....	.....	....
Morris & Es'x	15,000,000	300,000	50	....	..	....	....	7	4	.....	126¾	126	125	.....	.....	.....	126	.....	....	....	1,100
New Cen. C'l	5,000,000	50,000	100	Dec.	80		2	....	30½	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	300
N. J. C. RR.	20,600,000	206,000	100	Apr	76		2½	2½	§	101¼	102	100⅝	102⅛	101	103⅛	102⅜	102⅜	101½	101¾	101	51,710
Penn. Coal...	5,000,000	100,000	50	Oct.	79		3	....	....	....	....	....	....	.....	.....	.....	.....	.....	.....	.....	92
Penn. R. R...	68,870,200	1,337,404	50	May	81		1	....	65¼	65⅜	65⅝	65⅜	65⅜	65	65¾	65¾	65¼	65¼	.....	....	51,080
Ph. & R. RR*.	34,278,150	685,563	50	Jan	76		2½	10	57⅛	57⅝	57⅜	57¼	58	57¼	62	58	61⅜	59¼	61⅛	60	48,878
Spring Mt. C'l	1,500,000	30,000	50	....	..	....	....	6													

* Of the sales of this stock, 34,693 shares were sold at the Philadelphia Stock Exchange, and 12,185 shares at the New York Stock Exchange.

† 110¾. ‡ 124½. § 102¼. Total Sales..... 368,015

copper to 17c. has put a damper upon speculation, and it is hard to find a purchaser for even the best stocks, while it is impossible to sell any of the non-producers at a reasonable price; on the other hand, the silver stocks at both Boards show a large increase in sales, with wide fluctuations in prices, large enough to satisfy the most avaricious "bull or bear."

Calumet & Heela declined from $233@$230½ on very small sales.

Franklin holds steady at $11½@$11¾, with sales of 150 shares only.

Pewabic, dull and inactive, at a decline from $13@$12.

Quincy declined from $38½@$37 on sales of less than 200 shares.

Atlantic steady at $12@$12¼.

Osceola declined from $32½@$32.

Huron sold at $3¼@$3¾, assessment, $3, paid.

National sold at $2¼, assessment, $2, paid.

Blue Hill declined from $4@$3¾.

The balance of the list entirely neglected.

In silver stocks, Bonanza Development has been active, with sales $5 1-16@$5¼, closing at the lowest price of the week.

Catalpa fairly active, $2¼@$2, touching the lowest point to-day.

Crescent, $1 3-16@$1.

Harshaw dull again at $8¼@$8⅜.

Silver Islet declined from $46½@$44, but was firmer to-day at $45@$45¼.

San Pedro, on favorable reports from the mine, was in active demand at $4¼@$4½.

Duncan Silver dull at $2⅜.

Sullivan stronger and in demand at $4, an advance of $¾.

At the Boston Mining Exchange, there has been an active market, confined principally to two or three specialties. Empire, of course, takes the lead as usual, in the volume of sales, aggregating over 50,000 shares, the extremes being 55@65c.; the market opened at 61c. declined to 55c. and rallied again to 65c., closing to-day at 61@62c.

Milton, of Maine, has been very active, sales aggregating over 40,000 shares. The opening price at 65c. was the lowest for the week, and the advance to 94c. has been rapid, with large sales on buyer 60 contracts at 6@8c. above regular stocks, affording good margin for making turns. The "bulls" are confident of putting the stock to much higher figures.

Dunkin has been hammered from 92 down to 73c. regular, and to 70c. seller 30. The mine passes its monthly dividend, and it is stated that the ore will not pay expense of smelting. About 14,000 shares have been sold the past week in this market.

Copperopolis steadily gains in favor and volume of business, touching $1.70 to-day.

Massachusetts and New Mexico dull at 51@52c.

Mendocino improved $½ with sales at $4¾, which was bid for it.

The remainder of the market was without special feature.

3 P.M.—At the afternoon Board, Calumet & Heela touched $230, but advanced to $230½; Catalpa sold at $1 15-16@$2; Blue Hill, $3¾; Sullivan, $4; Empire steady at $61@$62; Milton very active; sales at 94c., declining later to 86c., but closing strong at 89c. bid regular and 95c. buyer 60, for any part of 5000 shares; rest of market unchanged.

Coal Stocks.

NEW YORK, Friday Evening, June 24.

There has been rather a dull market to chronicle for this class of stocks for the past week. In the early part of the week, stocks were comparatively lifeless, and exhibited no notable features. Later on, there was a partial rally, but prices were not maintained, and gradually fell off, closing dull and weak. Of Delaware, Lackawanna & Western, 182,200 shares have changed hands at prices fluctuating between $121¼ and $126. It is stated that the company has earned between one and one and an eighth per cent in May on its capital stock, and that the quarterly dividend could easily be increased. Delaware & Hudson Canal has had sales of 6000 shares at $108¾@$111. New Jersey Central has had a business of 51,710 shares at $100¼@$103¼. Reading has been dealt in on this market to the extent of 12,185 shares at $57¼@$62. With few exceptions, the stocks of the various bituminous coal companies have been lightly dealt in at lower prices. Cameron Coal has sold from $42¾@$43⅝, closing at the latter price; the sales amount to 9400 shares. There was a sale on Wednesday of 100 shares of American Coal at $63.

A dispatch to the N. Y. *Times* dated Scranton, June 17th, says as follows:

President Frederick A. Potts, of the New York, Susquehanna & Midland Railroad Company, with a party of New York capitalists, arrived here last night to make a personal inspection of the advantages offered by this section for the extension of the new railroad from Stroudsburg to Scranton. The party includes W. S. Dunn, First Vice-President; Gen. A. L. Lee, Secretary and Treasurer; Charles McDonald, engineer; Mr. B. G. Clark, President of the Thomas Iron-Works; W. W. Hall, G. A. Hall, Sidney Hall, A. L. Holley, and others actively engaged in the new enterprise. The company owns 2500 acres of valuable coal land a short distance south of Scranton, formerly owned by the Pennsylvania Anthracite Company, and to this it expects to add by lease and purchase about 10,000 acres north of the city. Mr. Potts and party have been in constant conference to-day with individual coal operators and the owners of valuable lands, and it is understood that the result of these interviews has been entirely satisfactory to all concerned. First Vice-President Dunn told the *Times* correspondent that the extension of the new road from Stroudsburg would be definitely determined by this visit to Scranton, where the party intends to remain for several days. If local conditions are found as favorable as they have been represented, the road will be built, and the company will enter actively on the work of mining and shipping coal. The "individual operators," by which term the small companies engaged in mining, but which have no shipping facilities of their own, are known, express decided satisfaction over the prospect of the new extension to this city, as it will afford them an opportunity of making advantageous contracts for carrying their coal to tide-water. At present, they depend entirely upon the favor of the Delaware, Lackawanna & Western, and the Delaware & Hudson; and whenever the managers of these corporations fail to make favorable contracts, the individual operators suffer, since the terms of their peculiar agreement are such that they can not mine when the shipping corporations are idle. It is a case of the "king's sickness" affecting all his subjects, and has afforded cause for considerable complaint. With judicious management, the new railroad can command the entire traffic of these detached concerns, which aggregates quite a large tonnage in the Wyoming and Lackawanna Valleys. It is the intention to make Scranton the sectional center of the New York, Susquehanna and Western Company for Pennsylvania, with head-quarters located here.

Gas Stocks.

NEW YORK, Friday Evening, June 24.

These stocks are strong and advancing. A sale is reported of 24 shares of Manhattan at $191½.

Electric Lights.—The Brush Electric Lighting Company is about to erect in Union and Madison squares two masts, 150 feet high, one in each square. Permission has been given by the Park Commissioners to guy each mast from four posts, a few yards distant; each post to be not more than ten feet high. Each mast, when erected, will support an electric light of 36,000 candle power.

The following list of companies in New York and vicinity is corrected weekly by GEORGE H. PRENTISS, Broker and Dealer in Gas Stocks, No. 17 Wall street, New York. Quotations are based on the equivalent of $100.

COMPANIES IN NEW YORK AND VICINITY.	Capital Stock.	Par.	DIVIDENDS. Rate per ann.	Am. of last.	Date of last.	QUOTATIONS Bid.	As'd.
	$		P. ct.				
Mutual, N. Y....	5,000,000	$100	6	1½	April '81	66	70
" Bonds...	900,000	1,000	6	3½	Feb., '81	100	105
N. York "	900,000	.....	8	4	May, '81	100	102
Metrop. "	2,500,000	100	10	6	Feb., '81	146	148
" Certfs..	1,000,000	.....	7	3½	Feb., '81	100	105
Harlem "	1,850,000	50	.....	3	Feb., '81	83	85
Manhat. "	4,000,000	50	.....	7	April, '81	190	191
Brooklyn, Bkln.	2,000,000	50	.....	5	April, '81	115	120
Nassau	1,000,000	25	.....	2½	Jan., '81	56	60
" Certfs..	700,000	1,000	7	3½	May, '81	98½	100
People's.....	1,000,000	10	.....	3½	Jan., '76	35	40
" 1st m. Bonds	400,000	.....	7	3½	May, '81	101	104
" Bonds...	100,000	.....	6	3	Jan., '81	80	90
Metrop. "	1,000,000	100	5	2½	Jan., '81	60	65
W'msb'g "	1,000,000	50	.....	2	Jan., '81	60	65
" Bonds*..	1,000,000	1,000	6	3	April '81	101	104
Citizens'.....	1,200,000	20	.....	3½	April '81	45	50
" Bonds..	315,000	1,000	.....	3½	April '81	105	107
J. C., N. J.....	750,000	20	.....	7½	Jan., '81	150	160
Municipal, N. Y.	2,000,000	100	.....	5	April '81	162	165
" Bonds..	750,000	100	7	3½	May, '81	105	110
Fort'n M'nicipal.	1,500,000	100	.....	...	.....	60	70

BULLION MARKET.

NEW YORK, Friday Evening, June 24.

The market has strengthened somewhat the past week on a better rate for and a smaller offering last week of India Exchange; but as an increased amount of bills will be offered by the Indian Council the coming week, the market has become quiet and rather nominal.

DAILY RANGE OF SILVER IN LONDON AND NEW YORK, PER OZ.

DATE.	London Pence.	N. Y. Cents.	DATE.	London Pence.	N. Y. Cents.
June 18...	51¼	111½	June 22	51¼	111½
June 20..	51⅛	111⅛	June 23	51¼	111⅛
June 21...	51 3-16	111¼	June 24	51¼	111½

BULLION PRODUCTION FOR 1881.

We give below a statement showing the latest bullion shipments. These are officially obtained from the companies, where that is possible; and where official statements can not be procured, we take the latest shipments published in those papers nearest to the mines reported. The table gives the amount shipped for the week up to the date given, as well as the aggregate shipments to such date, from the first of January, 1881.

The shipments of silver bullion are valued at $1.29·29 per ounce, Troy; gold at the standard $20.67 per ounce, Troy. The actual value of the silver in the following table is therefore subject to a discount, depending on the market price of silver. The price of silver being now about $1.12 per ounce, the following figures, where they relate to silver bullion, should be diminished by about 13½ per cent to arrive at actual value:

MINES.	States.	For the week.	Month of June.	Year from Jan. 1st, 1881.
*Alice, G. S.....	Mont...	$59,672	$50,672	$510,008
Barbee & Walker, S....	Utah...	.....	.....	81,155
*Belle Isle, G. S....	Nev....	.....	.....	12,060
Bodie, G.....	Cal.....	7,250	19,100	179,428
Bos. & Colo. S. W'ks.	Colo....	.....	.....	665,000
*California, G. S.....	Nev.....	.....	.....	107,164
Caribou, S.....	Colo....	.....	.....	71,238
Christy, S.	Utah...	3,525	18,095	198,931
Concordia, G.....	Cal	.....	.....	2,234
Connor, S.....	Utah.....	.....	.....	46,575
Contention, S.	Ariz....	22,000	78,990	943,498
Con. Virginia, G. S....	Nev.....	.....	.....	146,560
Crismon-Mammoth, G.	Utah...	.....	4,526	31,116
*Custer, G. S.	Idaho...	.....	.....	330,312
*Deadwood-Terra, G..	Dak.....	.....	.....	340,372
*Derbec, Blue Grav., G	Cal	.....	.....	53,022
Eureka Con., G. S. L....	Nev.....	35,200	97,950	776,223
Exchange Silver..	"	.....	.....	44,400
Fresno Enterprise, G..	Cal	.....	.....	9,600
*Frisco M. and S. Co.	Utah...	7,500	35,702	214,825
Germania.....	"	10,110	20,685	144,484
Grand Central Mill....	Ariz.	.....	40,000	290,854
*Grand Prize, S.	Nev.....	.....	.....	51,658
Hale & Norcross, G. S.	"	.....	.....	33,090
Harshaw, S.....	Ariz....	.....	.....	267,836
*Head Center.....	"	4,840	10,340	77,400
*Homestake, G.....	Dak....	.....	.....	468,030
Horn-Silver, S. L.....	Utah...	38,000	80,500	470,868
Idaho, G.....	Cal	.....	.....	157,000
*Independence, S.....	Nev.....	.....	.....	17,108
*Indian Queen, S.	"	.....	4,360	83,773
Iron Silver.....	Colo....	.....	.....	264,331
Jocuista, S.....	Mex.....	.....	.....	156,888
Little Chief, S. L..	Colo....	.....	.....	131,602
Mack Morris.....	Ariz....	5,220	5,220	106,731
Mingo.....	Utah.....	.....	.....	4,554
*Modock.....	Cal	.....	.....	34,704
Morgan Smelt'g Wks.	Utah...	.....	.....	24,179
Morning Star.....	Colo....	.....	.....	15,200
Mount Potosi.....	Nev	.....	.....	59,830
*Navajo.....	"	5,000	13,000	126,401
Noonday, G.....	Cal	11,000	17,060	182,743
Northern Belle, S....	Nev....	22,200	70,460	641,985
Oneida, G.....	Cal	.....	.....	8,684
*Ontario, S.....	Utah...	50,245	97,728	1,058,635
*Ophir, G. S.....	Nev.....	.....	.....	5,170
Pascoe, S.....	Utah.....	.....	3,150	18,320
Rebellion.....	"	.....	.....	10,512
Richmond, S. L.....	Nev....	.....	24,622	626,955
Robinson Con., S.....	Colo....	.....	.....	107,000
*Sierra Nevada, G. S..	Nev.....	.....	.....	179,001
Silver Bow.....	Mont	.....	.....	71,942
Silver Cliff.....	Colo....	.....	7,600	22,775
Silver King, S.....	Ariz....	.....	25,400	304,348
*Sullivan, S. L.....	Maine..	.....	.....	5,340
Standard, G.....	Cal	35,770	128,348	1,013,164
Star, S.....	Nev....	5,270	13,790	70,024
Stormont, S.....	Utah....	.....	.....	77,249
Syndicate, G.....	Cal	.....	5,800	44,387
Tintic M. and M. Co...	Utah...	.....	.....	53,224
Tip Top.....	Ariz....	.....	.....	245,900
*Tombstone.....	"	.....	.....	569,842
Union Con., G. S.	Nev....	.....	.....	43,100

G. Gold. *S.* Silver. *L.* Lead. * Official. † Net.

ARIZONA.

Copper Queen.—The shipment of this company from San Francisco, June 21st, was 171,392 pounds of copper bullion.

COLORADO.

Bassick.—The superintendent states that he received $400 per ton net for the first shipment of concentrates of ore from the mill.

Caribou.—The superintendent telegraphed June 22d: Completion of water connection has occasioned repeated delay; but all is running beautifully now. Will ship at least $8000 next Tuesday.

Dunderberg.—The superintendent reports that the June product will exceed that of May; $5000 worth of dry ore has been shipped and $10,000 worth of lead ore is ready for shipment.

Iron Hill.—For the first week in June, the ore-shipments

amounted to 1640 tons, or 275 tons a day, and for the week ending June 17th the amount is fully holding up. At this rate, the shipments for the month will reach 7000 tons.

Iron Silver.—The superintendent reports that, during the week ended June 16th, there were 3040 tons of ore delivered at the mill; the amount received was $46,064, and there remain 1506 tons unpaid for.

Little Chief.—Official reports from the secretary state that the ore settlements at Leadville from January 1st to June 1st have amounted to $131,602.44.

Little Pittsburg.—The superintendent reports for the week ending June 15th that he shipped 178 tons; settled for, 406 tons; unsettled for, 165 tons.

New Reduction and Smelting-Works at Mount Bross.—It is stated that a company is now organizing in Boston for the purpose of erecting large reduction-works at the foot of Mount Bross, near Dudley, Colo., for the treatment of the ores of the Dolly Varden, Moose, and other mines in that vicinity, which have thousands of tons of accumulated low-grade ores upon their dumps. The capacity of the works will be 100 tons per day. It has long been a felt necessity for the more rapid development of the mineral resources of Park County that works of this description and capacity should be erected, as only the very rich and high-grade ores would stand the necessary charges and expenses for transportation, treatment, etc.

Pitkin District.—The people of Pitkin have issued a circular to the mining world at large, in which they say that on the dumps of the mines of that district there are 14,275 tons of ore which runs $82 in silver, and 8270 tons of quartz ores which average $60 in gold. They say that with their present development the mines of Pitkin are capable of a daily output of from 200 to 300 tons.

Silver Cliff.—The shipments of bullion from this mill since our last report have been 6 bars, weighing 720 pounds.

May Output of the Leadville Smelting-Works.—The Leadville *Circular* of June 18th publishes the following:

Smelters.	Tons of bullion.	Assay per ton.	Total oz. silver.	Total amount silver & lead.
Grant Smelting Co.	608·01	200*	139,620·00	$223,042.95
Billing & Eilers	637·00	238	151,606·00	230,592.73
La Plata	662·28	136	130,870·08	238,317.26
California	391·60	147·03	47,682·68	90,725 80
Cummings & Finn	624·94	200	125,071·00	199,761.30
American Smelting Co.	154·93	248	38,422·64	57,847.76
Ohio & Mississippi	216·07	140	44,240·00	79,679.40
Total	3,748·58	...	677,512·40	$1,120,968.30

* Estimated.
Average price for silver during May, $1.12¼.
Average price for lead during May, $95 per ton.

The product of the Leadville smelters for the year to date foots up as follows:

Month.	Tons bullion.	Total dollars.
January	2,868	864,887
February	2,429	851,983
March	3,098	1,036,445
April	2,507	740,626
May	3,784	1,120,068
Total	14,686	$4,614,009

The grade of the bullion has remained throughout the five months about two hundred ounces to the ton, except during a brief period of February, when it ran fifty to sixty ounces higher.

The total production of the Leadville camp during the present year has averaged about $1,173,000 per month; and it is estimated that for the balance (seven months) of the year, the average would not be less than $1,400,000 per month.

The output for the week ending June 11th was 1009 tons, the largest output in the history of the camp.

CALIFORNIA.

Bechtel.—The *Free Press* reports that the shipping of ore from this mine to the Noonday mill commenced June 14th; twenty stamps will be started on the ore.

Belle Isle.—The yield of this mine for the month of May is officially reported as follows:

Yield in gold	$444.44		
Yield in silver	4,387.76	4,832.20	
Discount	$664.42		
Expressage	58.00	722.42	$4,109.78

Bodie.—The superintendent reports for the week ending June 11th, 251 tons of ore were hoisted; the mill crushed 141 tons of ore—largest average daily crushing had since the mill has been owned by the company. Average pulp-assay for the week $74.17, and the tailings $10.60 per ton.

Derbec Blue Gravel.—Officially reported by the secretary: The bullion production of this mine for the month of May was $2925.07. The cause of this falling off was, that our force of men was mostly employed in the sinking of a new shaft at the southern limit of the company's claim, which has already attained a depth of 150 feet.

Standard.—The superintendent reports, for the week ending June 11th, that 1254 tons of ore have been shipped to the mill; average pulp-assays for the week, $22.52; crude bullion received, 4035 ounces; shipped to the company, $33,162.03.

CANADA.

Gladstone.—The manager of this gold mine brought to Belleville, June 17th, two bricks of gold weighing 27 ounces, and valued at $550.

DAKOTA.

Father de Smet.—The superintendent reports, for the week ending June 15th, that 2010 tons of ore were extracted, and 1960 tons of ore milled.

MAINE.

Sullivan.—The total production of bullion to date is officially reported at $5399.96.

MONTANA.

Boulder.—It is stated that the last clean-up of one hundred and sixty-eight tons of ore from this mine treated at the company's ten-stamp mill, resulted in 316 ounces of gold, which brought in Helena $4740.

Butte.—Bullion shipments from Butte, for the week ending June 11th, aggregate $52,117.04.

UTAH.

Frisco Mining and Smelting Company.—This company has furnished us with the following statement of its May product of base bullion: Net pounds of lead, 544,049; ounces of silver, 39,960·99; ounces of gold, 75.075.

Horn-Silver.—The superintendent reports that the first car-load of bullion from the new smelter was shipped June 13th, and assayed 160 ounces of silver per ton. The furnaces are running well.

Salt Lake City.—The bullion shipments for the week ending June 16th aggregated $136,804.55.

Stormont.—The hauling of ore to the mill began on the 16th inst., and shipments of bullion, it is said, will be resumed shortly.

MISCELLANEOUS.

Bullion Receipts from the Mines to New York.—The bullion received from the mines at the various offices in this city during the week ending with yesterday, as compiled from various sources, amounts to $264,242.19, as against $412,938.61 reported in our last.

The Bullion in the New York Assay Office.—The officials at the Assay Office in this city are busy over the annual settlement between that office and the government. The office has on hand bullion of the value of about $60,000,000, the largest amount on record, which it has been unable to ship to the mint because the appropriation has been exhausted. The last Congress was asked to appropriate $50,000 for the purpose, but it decided that $20,000 was sufficient. In consequence, the amount of bullion mentioned will have to be handled a second time in weighing it for the annual settlement. This bullion is the result of about 700 melts; and as the metal has to be handled five times in the process of weighing, only six melts can be disposed of in an hour. It will require the labor of the force day and night from now until July 1st, when the accounts must be made up, to reweigh the bullion, and other business at the office is practically suspended. The bullion is weighed four times before perfect accuracy is thought to be attained. The Assay Office will receive no more bullion until July.

It is asserted as a fact that of the gold received at the United States Mint in this city, the Black Hills are the second largest producers in America.

Exports of Gold and Silver from New York.

Week ending June 18th	$120,000.00
Corresponding week last year	30,824.00
Since Jan. 1st this year	5,267,786.00
Corresponding period last year	4,333,167.00

Gold Interest Paid Out by the Treasury.

Week ending June 18th	$918,625.19
Corresponding week last year	194,979.18
Since Jan. 1st this year	27,493,549.05
Corresponding period last year	25,645,307.89

Resumption of Silver Sales by Germany.—A recent issue of the Paris *Bourse* says: Private letters which have just reached us from Berlin announce in a most positive way that the resumption of the sales of silver is seriously contemplated, and that this time even the warmest friends of the white metal and the double standard advocate the measure, apparently directed against England. We ourselves approve equally of it, and even go so far as to predict that much good will come of such sales, which would again drive the price of silver down, and can not but open the eyes of English economists to the true state of things in Germany. As matters stand, unfortunately, the greatest confusion reigns in these circles, and the papers bear daily witness of great ignorance as to what is really going on on the continent.

Thus, to cite examples, the *Times* positively asserts that gold coyly refuses to stay in Spain, while it is an acknowledged fact that for some years the coinage of Alphonses d'or has assumed unheard of proportions, and that the foreign exchanges continue to remain in favor of the country to such an extent that Spain, instead of yielding what she possesses, attracts gold from Paris. As regards Italy, the English papers believe that she could fare exceedingly well with a single silver standard, which system, according to our opinion, would, under the circumstances, prove downright ruinous to her. With respect to Germany, it may be read any day that monetary reform has been no success at all, and that the government has been completely unable to continue the course pursued hitherto, and that it was contemplating, in consequence thereof, a return to the old silver or a mixed standard, which by far suited the country best.

We could multiply examples of this kind at our pleasure, but we think that what precedes suffices to prove what we have asserted. As, at the same time, we are of opinion that words are of no more use, we desire to have the facts on our side, and for this very reason we welcome the idea of resuming the German silver sales as a means of getting the silver question out of the *statu quo* in which it has unfortunately remained too long. England does not move in the matter, with silver at 52d. and money easy at 2 per cent. It now remains to be seen what course she will take when the silver market is again thrown into a state of panic and the metal is becoming downright unsalable, while discount must again be raised to 8 or 10 per cent to prevent the exportation of gold.

WASHINGTON, June 23.—The Treasury Department purchased 362,000 ounces of silver to-day for delivery at the Philadelphia, San Francisco, and New Orleans mints.

Bi-Metalism in England.—LONDON, June 24.—The *Daily Telegraph*, in its financial article this morning, says: A memorial to Mr. Gladstone, on the International Monetary Conference at Paris and the silver question, is now signing at most of the London banks. It urges the government to offer, as Germany has done, all such guarantees and practical aid as may be in its power toward inducing and enabling the bi-metallic states concerned to rehabilitate silver.

METALS.

NEW YORK, Friday Evening, June 24.

There is no feature of note for the week under review in the metal market. There is not much doing, and, with the exception of tin, which is steady, there is a considerable degree of flatness all round.

Copper.—Sales have been effected of from about 400,000 to 500,000 pounds during the week at from 16¾@16½c. per lb., according to quantity taken. The market is demoralized, and the few who are buyers, probably from necessity, are getting copper from dealers and outsiders at the lower figure. The companies, however, do not seem prepared to meet these figures yet. The shipments under the contract of 4000 tons for Europe continue.

Our English advices by mail include June 14th.

June 7th. The market opened with a firm tone, with sellers scarce, and small sales of g. o. bs. at £59¼ cash.

June 8th. Chili Bars firm, and cash parcels scarce; g. o. bs. sold at £59¼@£59⅜ cash, with buyers at forward rate, sellers asking £59½. The customs returns continue to show a large falling off in imports into England, the diminution to end of May being 25 per cent. On the other hand, exports for the five months have been practically the same, showing 22,815 tons against 23,125 tons in 1880. Stocks of metal June 1st, this country (in all shapes), were 41,459 tons, against 41,530 tons on January 1st; showing that the home trade has only absorbed 9422 tons out of the supplies, against 15,741 tons last year. It seems curious that home consumption should have so much diminished, while the export trade remains unchanged.

June 9th. Small business; g. o. bs. at £59⅜ three months fixed prompt without breakage. For cash metal, £59¼ was offered and refused, holders asking 5s. more money.

June 10th. Strong demand for Chili Bars at £59¼ cash, holders standing out for £59½.

June 13th. A steady demand for cash metal continues, with moderate trade in g. o. bs. at £59⅝ usual 14 days, cash buyers at close offering £59⅜, holders 2s. 6d. more.

June 14th. Market fairly steady. Forward stuff can be more easily obtained, there being still a disposition to look unfavorably on the future of this article, and "bear" operators will therefore quote comparatively low prices. Sales reported of about 400 tons; cash g. o. bs. £59⅛@£59¾; three months, £60@£60½. Wallaroo, £70 nominal; Burra, £65½@£66; English Tough, £63½@£65; Select Ingot, £65@£66½; India Sheets, £70½@£71; Yellow Metal Sheets, 5⅞@6¼d. per lb.

STATISTICS OF COPPER—JANUARY TO MAY, AS PER CUSTOMS RETURNS.

		—Jan. 1 to May 31.—		
		1881. Tons.	1880. Tons.	1879. Tons.
Imports.	Pure in Pyrites	5,803	7,682	5,077
	" Precipitate	8,800	6,862	6,014
	" Ore	4,560	5,949	4,417
	" Regulus	2,011	3,375	3,471
	Bars, Cakes, etc	10,992	16,609	19,682
	Total	32,166	40,477	38,061
		—May only.—		
		1881. Tons.	1880. Tons.	1879. Tons.
	Pure in Pyrites	1,049	1,584	754
	" Precipitate	1,607	1,124	1,472
	" Ore	1,127	1,338	866
	" Regulus	795	41	76
	Bars, Cakes, etc	1,398	1,748	2,538
	Total	5,976	5,835	5,706
		—January 1 to May 31.—		
		1881. Tons.	1880. Tons.	1879. Tons.
Exports.	Raw (English)	7,533	5,655	6,333
	Sheets	5,754	6,240	5,950
	Yellow Metal at 60 per cent.	3,702	3,695	4,224
	Brass " " 70 "	1,251	929	1,021
	Total	18,240	16,519	17,528
	Foreign	4,575	6,606	5,809
	Total	22,815	23,125	23,337
		—May only.—		
		1881. Tons.	1880. Tons.	1879. Tons.
	Raw (English)	1,839	1,147	1,061
	Sheets	1,269	1,133	1,346
	Yellow Metal at 60 per cent.	767	654	931
	Brass " " 70 "	263	209	219
	Total	4,138	3,143	3,557
	Foreign	1,476	1,172	1,349
	Total	5,614	4,315	4,906
		—Jan. 1 to Dec. 31.—		
		1880. Tons.	1879. Tons.	1878. Tons.
Imports (all descriptions)		92,734	97,071	87,572
Exports —	English	44,587	44,575	42,282
	Foreign	14,895	17,837	12,719
Total		59,482	62,412	55,001

Tin.—The market has been steady throughout the week without being active. Straits for large lines is held at 20⅝@20¾c. spot and to arrive. In a jobbing way, 20¾@21c. is asked, and for Billiton, 21c.; L. & F., 21@21⅛c.

By cable to-day Singapore quotes £95 10s., cost and freight, equal to fully 21c. here. The market there is excited and tin scarce. The Billiton sale, which took place on the 21st inst., went off with an

average of 61·64fl. per picul, equal to $20¾@$20⅞ laid down here. London cables yesterday, buyers £91 spot, £92 for futures, with large, good business doing.

Our English advices by mail include June 14th.

June 7th. A rise of about 1 cent per pound reported from New York acted favorably on this market. On the 4th inst., fine foreign sold at 87¾s. sharp cash, but to-day first sale was made at 88⅛s. fourteen days, and 88⅜s. was paid at the close.

June 8th. An active demand for forward delivery, of about 100 tons, sold from 89⅝s.@90¼s. three months. In cash stuff we only heard of 10 tons at 89¼s.

June 9th. This metal is again a trifle dearer, with transactions at 89⅛@89¾s. cash.

June 10th. Late yesterday, a large business was done in forward metal, which sold at 90¾@91s. two months prompt. To-day opened with sales at 90⅛s. cash, selling up to 91⅛s.; closing sellers at 90⅝s. cash.

June 13th. An active speculation for the rise is going on, based on the idea that America may attract supplies that would otherwise come to this market, and we note extensive purchases since Friday last, with sales up to 91¼s. sharp cash, 92⅛s. three months prompt; remaining rather buyers than sellers at top rates.

June 14th. Market opened 91s. cash in 14 days; broke away to 90⅛s. immediate payment. Buyers then came forward, and a fair quantity was taken at 90⅝@90¾s. sharp cash, the latter being the closing quotation.

STATISTICS OF TIN—JANUARY TO MAY, AS PER CUSTOM RETURNS.

		—Jan. 1 to May 31.—		
		1881. Tons.	1880. Tons.	1879. Tons.
Imports, foreign		9,240	8,617	8,398
Exports.	Foreign	3,712	4,469	3,629
	English	1,835	1,791	2,053
Total		5,547	6,260	5,682
		—May only.—		
		1881. Tons.	1880. Tons.	1879. Tons.
Imports, foreign		1,747	979	1,858
Exports.	Foreign	643	903	1,748
	English	474	247	363
Total		1,117	1,150	2,111
		—Jan. 1 to Dec. 31.—		
		1880. Tons.	1879. Tons.	1878. Tons.
Exports.	English	4,395	6,218	6,210
	Foreign	8,785	8,844	6,620
Total		13,180	15,062	12,830

Tin Plates.—The market is without alteration excepting in Coke Tins, B.Vs., which are strong at $5. We quote, per box, as follows: Charcoal tins, Melyn grade, ⅛ cross, $6⅛; Allaway grade, $5¾. Charcoal Roofing, Dean grade, $5⅝ for 14×20, and $11¼ for 20 × 28; Allaway grade, $5¼ for 14 × 20, and $10¾ for 20 × 28. Coke Roofing, B. V. grade, $4⅞ @$5 for 14 × 20, and $10@$10¼ for 20 × 28. Coke tins, A. B. grade, IC, $5⅝@$5⅛; B. V. grade, at $5; ICW, $4⅛ for 14 × 20.

Messrs. Robert Crooks & Co., of Liverpool, under date of June 9th, say of tin and terne plates:

Rather more buying during the past week has for the time filled the cheapest sellers, who are now off the market. Buyers, however, show no anxiety to place orders, their views being that the large production at present idle will start up to again depress prices, even though a temporary improvement should be reached. On the other side, it must be remembered that if present prices last much longer, finance troubles are extremely likely to interfere with makers' out-turn.

Lead.—This market is dull and without prospect of immediate advance in price. The production is very heavy and the consumption is large, but there is no speculation in the article. We quote 4½c. per lb. The shipments over the St. Louis & San Francisco Railroad for the week ending June 14th were 294 tons.

Spelter and Zinc.—These continue in a state of dullness and inactivity. We quote the former at 4⅛@5c. for common domestic, and the latter in sheets at 6¾@7c.

We take the following from the Boston Commercial *Bulletin* of June 18th:

The property of the Lehigh Zinc Company in South Bethlehem, which includes all the buildings, furnaces, and machinery for the manufacture of oxide and spelter or sheet zinc, has been sold to R. J. & C. A. Heckscher, coal operators in the Schuylkill region, instead of being sold to John T. Lewis and others of Philadelphia, who were negotiating for the same. J. Price Wetherill, late engineer of the Philadelphia & Reading Coal and Iron Company at Pottsville, has been selected as superintendent. The zinc ore used will be brought from mines in New Jersey. A number of spiegeleisen furnaces will be built and operated under the new management, and the new metal works, which have been idle for some time, will be started up. Some necessary repairs to the old oxide furnaces will be made.

Antimony.—There is not much doing in this article. We quote Cookson's at 14⅛@14¼c., and Hallett's and Johnson's at 14⅛c.

Quicksilver.—The San Francisco *Commercial Herald* of June 16th says:

The demand is only fair, and it can be purchased at 37½c., although one party is still asking 38c. At the close, we hear of sales for China at 37¼c., which is a decline.

The exports for the week, by sea, were as follows:

To Hong Kong per Belgic, hence 11th inst.:

	Flasks.	Value.
Totals	360	$10,369
Previously since January 1st, 1881	19,921	574,897
Totals	20,281	$585,266
Totals same period, 1880	13,855	432,017
Increase in 1881	6,426	$153,279

Receipts since January 1st, 1881, 24,855 flasks.

Overland shipments from January 1st to May 1st, 1881, 3354 flasks.

IRON MARKET REVIEW.

NEW YORK, Friday Evening, June 24.

Some articles show a little more activity this week, but concessions have been necessary to bring about business. There is said to have been more inquiry, and the reports from consumers indicate that they are using more iron than ever before, and will be compelled to purchase liberally at an early date. There is still some cheap English iron on the market that acts as a depressing influence. E. P. Cutler & Co., of Boston, whose failure was announced last week, are said to have had about 25,000 tons of pig-iron hypothecated, which some say must come on the market, but which others think will not.

The Boston *Herald* of June 22d says:

The stocks of foreign iron are being decreased quite rapidly, as will appear from actual figures obtained from the custom-houses at the several ports of entry. The stocks of iron in bond April 1st, May 2d, and June 1st were as follows:

	April 1. Tons.	May 2. Tons.	June 1. Tons.
New York	226,242	190,131	151,876
Boston	18,635	15,397	10,569
Philadelphia	31,167	33,675	36,493
Baltimore	15,493	15,433	14,752
New Orleans	5,713	4,050	3,741
Totals	297,250	258,686	217,431

The total reductions in the stocks of foreign iron in bond in this country were 38,564 tons for the month of April, and 41,255 tons for the month of May.

American Pig.—There has been no business in this article worthy of note. We quote No. 1 Foundry at $24; No. 2 Foundry, $21½@$22; and Forge, $20@$20½.

Scotch Pig.—The arrivals have been small and are absorbed. Prices are a little higher in Glasgow, and freights very firm. We quote Eglinton at $20½@$21; Glengarnock, $22; Gartsherrie, $22½@$23; and Coltness, $23@$23½.

Messrs. John E. Swan & Brothers, of Glasgow, under date of June 10th, report 120 furnaces in blast, as against 115 at the same time last year. The quantity of iron in Connal & Co.'s stores was 562,084 tons, an increase of 857 tons for the week. The shipments show a decrease since Christmas of 112,729 tons, as compared with the shipments to the same date in 1880. The imports of Middlesbrough pig-iron for the same period show an increase of 29,297 tons. The following were the quotations of the leading brands of No. 1 pig-iron: Gartsherrie, 54s.; Coltness, 55s. 6d.; Langloan, 55s. 6d.; Summerlee, 54s.; Carnbroe, 51s. 6d.; Glengarnock, 51s. 6d.; Eglinton, 47s. Middlesbrough pig-iron was quoted as follows, f. o. b.: No. 1 Foundry, 40s. 9d.; No. 2, 38s. 9d.; No. 3, 36s. 9d.; No. 4, 36s. 3d.; No. 4 Forge, 36s.

Rails.—We hear of a sale of 5000 tons of steel rails at Chicago, for delivery during July, August, and September, at $60. Foreign steel rails are quoted here at $62, while for 1882 $58@$60 is asked. American steel for 1882 is quoted at $55@$57 at mills. There is a good inquiry for iron rails, although we do not learn of any business. We quote foreign in store at $45@$46, and American at tide-water at $48@$50.

Old Rails.—These show some activity, but at lower prices. Sales of about 5,000 tons of Ts. are reported at $25@$25½, and 300 tons of D. Hs. at $26½. We quote Ts. at $25@$25½, and D. Hs. at $26½@$27.

Wrought Scrap.—A sale of 500 tons selected scrap is reported at $25½. We quote at $26 from ship and $28 from yard.

We publish the following letters from our regular correspondents:

Cincinnati. June 22.

[Specially reported by JACOB TRABER & Co.]

Our market has been very quiet during the past week. The lower prices in Eastern markets and the lockout in our rolling-mills have contributed to check the demand considerably. During the last few days, however, invitations for offers have come in from different quarters for deliveries during the next six months, showing a disposition to contract at present prices. We quote:

	Four mos.
No. 1 Hanging Rock Charcoal Pig-Iron	$26.50@$27.50
No. 2 " " " "	25.50@ 26.50
No. 1 Tennessee " "	26.00@ 26.50
No. 1 Hanging Rock Coke "	23.00@ 24.00
No. 2 " " " "	22.00@ 22.50
No. 1 Jackson Co. Stone Coal "	20.00@ 23.00
H. R. C. B. Car-Wheels, all Nos.	40 00@ 41.00
Southern C. B. Car-Wheels, all Nos.	36.00@ 38.00
Virginia " " "	39.00@ 40.00

Louisville. June 11.

[Specially reported by GEORGE H. HULL & Co.]

The market is quiet, as is usual at this season of the year. We quote for cash as below:

FOUNDRY IRONS.

	No. 1.	No. 2.
Hanging Rock Charcoal	$28.00@$29.00	$26.00@$27.00
Southern Charcoal	23.50@ 24.00	22.50@ 23.00
H'n g Rock, Stc'l & Coke	23.50@ 24.00	22.00@ 23.00
Southern Stonecoal & Coke	23.50@ 24.00	22 00@ 23.00
"Amer. Scotch"	$22½@$23½	Silver Gray. $20.00@$22.00
Scotch Iron 24 @ 25		

MILL IRONS.

No. 1 Charcoal, cold-short and neutral	$21.00@$22.00
No. 1 Stc'l & Coke, cold-short and neutral	20.50@ 21.00
No. 2 Stc'l & Coke, cold-short and neutral	19.50@ 20.00
No. 1 Missouri and Indiana, red-short	25.00@ 27.00
White & Mottled, cold-short and neutral	18.0c@ 19.00

CAR-WHEEL AND MALLEABLE IRONS.

Hanging Rock, cold blast	$35.00@$41.00
Alabama and Georgia, cold blast	35.00@ 40.00
Kentucky, cold blast	35.00@ 40.00
Hanging Rock W. B	30.00@ 35.00

Richmond. June 20.

[Specially reported by ASA SNYDER.]

Slight changes in values and a quiet market sum up the iron market to this date.

Scotch Pig-Iron		$23.00@$26.00
Anthracite Pig-Iron	No. 1	22.00@ 25.00
" "	No. 2	20.00@ 23.00
" "	No. 3	19.00@ 22.00
Virginia Coke Pig-Iron,	No. 1	22.50@ 23.50
" "	No. 2	21.50@ 22.50
" "	No. 3	20.50@ 21.50
Va. Charcoal C. B. Wheel Iron		34.00@ 36.00
Old Rails		25.00@ 26.00
Wrought Scrap No. 1		22.00@ 24.00
Cast Machinery Scrap		19.00@ 20.00
Richmond Refined Bar Iron		2.5@
Horseshoes (Tredegar)		4 00@
Mule-shoes "		5.00@

Freight to New York, by sail, $1.75 per 2240 lbs.

St. Louis. June 18.

[Specially reported by HOFFER, PLUMB & Co.]

Beyond the fact that there are more inquiries, we have no change to report in this market. We quote for cash:

HOT BLAST CHARCOAL.

Missouri	$27.00@28.00
Southern	25.00@26.00
Hanging Rock	28.00@29.00

COKE AND COAL.

Missouri	$26.00@27.00
Southern	24.00@25.00
Ohio	23.50@25.00

MILL IRONS.

Cold short	$21.00@23.00
Red short	25.00@26.00

CAR-WHEEL AND MALLEABLE IRONS.

Missouri	$28.00@30.00
Southern	35.00@38 00
Ohio	35.00@42 00

Philadelphia. June 24.

During the past forty-eight hours, a few heavy sales of pig-iron have been made which, so far as they go, indicate a return of increasing confidence in the future of the blast-furnace industry. Ten days ago, serious intentions of blowing out were entertained. The same parties to-day say they will wait. Production is attended with no profit in some cases, and with many furnaces it is only a question of time when they will quit. The condition of the foreign market is the ruling factor here. Last week, seven thousand tons of foreign iron were thrown upon the Eastern market; but imports are declining, and it is believed the end is near. Sales of 500-ton lots are being made for current consumption at $19, at furnace, for good brands of Gray Forge; $17.50 for Middlesbrough; $21@$22.50 for Scotch, according to brand; $23.50@$25.50 for No. 1 Foundry, according to brand. The advance abroad in Bessemer pig has arrested business. Buyers are unwilling to pay over $22.50. There are orders for 40,000 tons on the market. The American Bessemer furnaces are working at a disadvantage. Muck bars are active at $38@$38.50. Merchant iron continues to improve, and the mills are booking orders at 2.35. Western interruptions from strikes are felt here in firmer prices and larger orders. The finished iron market is in excellent condition, and consumption is steadily increasing. Bridge and ship-building is consuming very large supplies. Plate and tank is meeting with increased demand, to cover pressing construction require-

ments; quotations are: angle 2·6c., tees 3c., beams 3½c., channels 3·4c.; tank 2·7@2·8c., refined 3¼c.; shell 3½c. The demand for iron for mines, especially in the far West, is growing steadily, and business with the Pacific coast is good. Steel rails are quoted at $60. Several new orders came on this week. For future delivery, $55 has been accepted for orders of some magnitude. Iron rails are meeting with demand at $46, and capacity for rolling is being added to meet requirements for next year. Old rails are dull and declining, but just at present holders refuse to sell largely. May imports and withdrawals from bond, of iron of all kinds, have been too far in excess of consumptive requirements to permit a stiffening of prices.

John H. Austin & Co.'s Special Market Report.

LONDON, E. C., June 9.

STEEL RAILS.—£6@£6 5s. per ton; market very quiet, and the disposition is to meet buyers for forward deliveries.

IRON RAILS.—£5 2s. 6d.@£5 7s. 6d. per ton. A few inquiries are afloat for light sections, 30 or 35 lbs. per yard; but the make of iron rails is now so restricted that a very small number of orders quickly influences the run of prices.

BAR IRON.—£5@£5 5s. per ton.

OLD RAILS.—Nominally 77s. 6d. per ton for O. D. Heads, and 72s. 6d.@75s. per ton for Flanges, c. i. f. U. S. ports.

HEAVY WROUGHT SCRAP-IRON.—Nothing doing.

OLD RAILWAY LEAF SPRING STEEL.—£5 15s.@£6 per ton, but a very small supply.

OLD CAST-IRON RAILWAY CHAIRS.—42@44s. per ton.

STEEL BLOOMS 7" × 7" AND UPWARD.—£5 15s. per ton.

BESSEMER PIG-IRON, Nos. 1, 2, AND 3.—52s. 6d.@55s. per ton, according to brand.

SCOTCH PIG-IRON.—Strong market, buyers 46s. 3d. per ton cash.

MIDDLESBROUGH PIG-IRON, No. 3.—39s. per ton cash.

COAL TRADE REVIEW.

NEW YORK, Friday Evening, June 24.

Anthracite.

There is but little to be said on the present condition of the anthracite trade. There is a very fair business being done, but largely at concessions which are fully as great, if not greater, than they have been. There is still a scarcity of vessels, which to some extent delays shipments. The present outlook is in favor of a continued curtailment of production during July, and unchanged prices. It is evident, however, that buyers will have to contend with higher prices for coal and higher rates of freights earlier in the season, and we again repeat our advice to take advantage of the present condition of the market, which is not likely to be materially worse before winter.

Harmony appears to reign again among the companies, and there is nothing at present to indicate a disruption or even a change of programme during this year. There is a certain amount of uneasiness on the latter question, but there is no perceptible movement to cause trouble.

The production of anthracite coal last week was 627,453 tons, as compared with 430,636 tons the previous week, and 401,434 tons the corresponding week of 1880. The total production from January 1st to June 18th was 11,446,667 tons, as against 9,507,469 tons for the like period of last year, showing an increase this year of 1,939,198 tons.

Bituminous.

There are rumors of important secret concessions on the part of the Baltimore & Ohio Railroad to the Cumberland trade. There is a fair incidental business being done, at very low prices, but there are no large contracts being placed. The shipments by the Maryland and American companies over the Pennsylvania Railroad last week were reduced, owing to a general freight blockade, caused by strikes and the destruction of a grain elevator.

San Francisco. June 16.

The Victoria, from Nanaimo, brought 1690 tons; Respigadera, 850 tons Wellington; Arcata, 550 tons Coos Bay; Sumatra, from Esquimault, 1200 tons. According to Australian advices, freights for this port are quoted at 10s. from Sydney and 14s. from Newcastle. For the four weeks ending May 19th, seven vessels had sailed from the above ports for San Francisco, with 12,321 tons of coal, and there remained on the berth loading for here ten vessels, whose aggregate tonnage amounted to 12,280 tons. The Idaho, from Tacoma, brought 332 tons Carbon Hill.—*Commercial Herald.*

STATISTICS OF COAL PRODUCTION.

The Production of Coke for the week ending June 4th, and year from Jan. 1st:

Tons of 2000 lbs.	Week.	Year.
Penn. RR. (Alleghany Region)	1,977	43,417
West Penn. RR.	2,244	50,598
Southwest Penn. RR.	29,003	632,495
Penn. & Westmoreland Region, Pa. RR.	3,881	80,386
Pittsburg, Penn. RR.	11,429	277,688
Snow Shoe (Clearfield Region)	159	3,360
Total	48,693	1,087,944

The Production of Bituminous Coal for the week ending June 4th was as follows:

Tons of 2000 lbs., unless otherwise designated.

	Week.	Year.
Cumberland Region, Md.	Tons.	Tons.
*Tons of 2240 lbs.	39,506	854,924
Barclay Region, Pa.		
*Barclay RR., tons of 2240 lbs	7,680	197,755
Broad Top Region, Pa.		
*Huntingdon & Broad Top RR.	3,189	104,067
East Broad Top	1,164	29,776
Clearfield Region, Pa.		
Snow Shoe	2,769	41,506
Tyrone and Clearfield	46,249	979,174
Alleghany Region, Pa.		
Pennsylvania RR.	5,413	117,855
Pittsburg Region Pa.		
West Penn RR	4,029	138,090
Southwest Penn. RR.	390	13,387
Penn & Westmoreland gas-coal, Pa. RR.	17,210	357,114
Pennsylvania RR.	10,022	262,895

*For the week ending June 18th.

Comparative statement of the production of anthracite coal for the week ending June 18th, and years from January 1st:

Tons of 2240 lbs.	1881.		1880.	
	Week.	Year.	Week.	Year.
Wyoming Region.				
D. & H. Canal Co.	75,418	1,516,370	47,284	1,342,030
D. L. & W. RR. Co.	93,533	1,794,025	61,614	1,497,947
Penn. Coal Co.	36,486	530,565	21,236	427,615
L. V. RR. Co.	47,506	504,042	20,617	445,416
P. & N. Y. RR. Co.	2,894	35,058	750	12,659
C. RR. of N. J.	44,990	1,020,358	24,815	661,437
Penna. Coal Co.	7,172	135,819	.....	112,978
	307,999	5,536,237	176,316	4,500,082
Lehigh Region.				
L. V. RR. Co.	111,803	1,866,946	63,114	1,347,099
C. RR. of N. J.	43,846	860,647	37,158	858,227
S. H. & W. B. RR.	.....	1,224	.....	5,831
	155,649	2,728,817	100,272	2,211,157
Schuylkill Region.				
P. & R. RR. Co.	155,517	2,715,828	109,687	2,460,648
Shamokin & Lykens Val.	*6,969	437,447	14,443	316,764
	162,486	3,153,275	124,130	2,777,412
Sullivan Region.				
St Line&Sul.RR.Co.	1,319	28,338	716	18,818
Total	627,453	11,446,667	401,434	9,507,469
Increase	226,019	1,939,198	.....	.....
Decrease	.....	.....	.....	.....

The above table does not include the amount of coal consumed and sold at the mines, which is about six per cent of the whole production.

Total same time in 1876	6,603,804 tons.
" " " 1877	9,093,025 "
" " " 1878	6,699,864 "
" " " 1879	10,982,190 "

*This report is not full.

The shipments of Cumberland coal over the George's Creek & Cumberland RR. by the Maryland and the American Coal companies for the week ending June 18th amounted to 1158 tons, making a total of 14,459 tons since the beginning of transportation.

The decrease in shipments of Cumberland Coal over the Cumberland Branch and Cumberland & Pennsylvania railroads amounts to 116,130 tons, as compared with the corresponding period in 1880.

FREIGHTS.

Coastwise Freights.

Per ton of 2240 lbs.

Representing the latest actual charters to June 24th, 1881.

PORTS.	From Philadelphia.	From Baltimore.	From Elizabethport, Port Johnston, South Amboy, Hoboken, and Weehawken.
Alexandria	.....	.85	.....
Annapolis	.....	.....	.....
Albany	.....	.....	.....
Baltimore	.....	.....	.....
Bangor	.....	.....	1.25
Bath, Me.	.....	.....	1.15
Beverly	.....	.....	1.20
Boston, Mass.	1.60@1.50	1 50	1.20
Bristol	.....	.....	.....
Bridgeport, Conn.	.....	1.35	.60
Brooklyn	.....	.....	.....
Cambridge, Mass.	.....	.....	.....
Cambridgeport	.....	.....	.....
Charleston	.80	.....	1.20
Charlestown	.....	.....	1.15
Chelsea	.....	.....	.....
City Point	.....	.....	.....
Com. Pt., Mass.	.....	.....	.....
E. Boston	.....	.....	1.20
East Cambridge	.....	.....	.....
E.Gr'nwich, R. I.	.....	.....	.....
Fall River	1.30	1.35	.80
Galveston	.....	.....	.....
Georgetown, D.C.	.....	.....	.....
Gloucester	.....	.....	.....
Hartford	.....	.....	.....
Hackensack	.....	.....	.90
Hudson	.....	.....	.....
Lynn	1.60	.....	.....
Marblehead	.....	.....	.....
Medford	.....	.....	.....
Millville	.....	.....	.....
Milton	.....	.....	.....
Newark, N. J.	.....	1.40	.....
New Bedford	1.30@1.40	.....	.85
Newburyport	1.60	.....	1.30
New Haven	.....	.....	.60
New London	.....	.....	.75
Newbern	.....	.....	.75
Newport	.....	.....	.80
New York	.85@.80	1.25	.....
Norfolk, Va	.....	.50	.....
Norwich	.....	1 50	.....
Norwalk, Conn	.....	1.40	.60
Pawtucket	.....	1.35	.....
Philadelphia	.....	.....	.....
Portland	*1.25	1.50	.....
Portsmouth, Va.	.....	.....	1.10
Portsmouth, N.H.	1.55	1.75	1.25
Providence	.....	1.35	.80
Quincy Point	.....	.....	1.25
Richmond, Va.	.90	.....	.....
Rockland	.....	.....	.....
Rockport	.....	.....	.....
Roxbury	.....	.....	.....
Saco	†1.50	.....	.....
Sag Harbor	.....	.....	.....
Salem, Mass.	1.70	.....	.....
Saugus	.....	.....	1.15
Savannah	.....	.....	.....
Somerset	.....	.....	.80
Staten Island	.....	.....	.....
Trenton	.....	.....	.....
Troy	.....	.....	.....
Wareham	.....	1.50	.....
Washington	.90	.85	.....
Weymouth	.....	.....	.....
Williamsbg, N.Y.	.....	.....	.....
Wilmington, Del.	.....	.60	.....
Wilmington, N.C.	.....	.....	.....

*And discharging. †And discharging and towing. ‡3c. per bridge extra. §Alongside. ‖And towing up and down. ¶And towing. **Below bridge.

DIVIDENDS.

THE

ROBINSON CONSOLIDATED MINING CO.

NEW YORK, June 1, 1881.

DIVIDEND No. 3.—The Board of Directors have this day declared a monthly dividend of $50,000 payable on and after June 15th, at the office of the Company, 18 Wall Street. The transfer-books will be closed from the 10th to the 15th inst., inclusive.

FINANCIAL STATEMENT FOR MAY, 1881:

Amount in bank and deposited during the month	$128,736.54
Bullion at Newark Smelting and Refining Works, and in transit to said works, less advances and freights	55,000.00
	$183,736.54
May 9. Purchase of smelters at mines	$87,500.00
Thomas Ewing's drafts and bills paid during the month	10,286.00
Dividends for June 15th	50,000.00
Surplus on hand	35,950.54
	$183,736.54

Attest:

JAMES K. SELLECK, Secretary. BRAYTON IVES, President.

NEW YORK, June 2, 1881.

THE STANDARD CONSOLIDATED MINING COMPANY to-day declared its regular monthly dividend of

SEVENTY-FIVE CENTS PER SHARE,

payable on 13th inst., at the Farmers' Loan and Trust Co., 26 Exchange Place, New York.

Transfer-books close June 4th, and open on 14th inst.

M. R. COOK, Vice President.

The New York office of this company is now with the Farmers' Loan and Trust Co., where the superintendent's reports and the monthly financial statements are on file, open to the stockholders.

OFFICE OF THE GOLD STRIPE MINING COMPANY OF CALIFORNIA, 18 Wall Street.

DIVIDEND NO. 4.

NEW YORK, June 15, 1881.

The Board of Trustees have this day declared a quarterly Dividend of FIFTEEN CENTS PER SHARE on the capital stock of this Company, for the quarter ending May 31st, payable on the 30th day of June, 1881.

Tranfer-books close on the 23d inst., and reopen on the 2d of July, 1881.

J. JAY PARDEE, Secretary.