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CONTENTS

IT will be seen, by the advertisement in this week's JOURNAL, that the Chrysolite Silver Mining Company has declared another dividend of $100,000, payable September 10th. According to present appearances, this should leave about $300,000 cash surplus at that time in the treasury. At the office of the company, it is said that this dividend is to be paid, simply because the money has been earned and can be safely distributed—two very good reasons, and not without novelty. *

DR. FEDDERSEN, of Leipzig, is engaged in the preparation of a supplement to the well-known and highly-valued biographical and literary dictionary of the exact sciences, published nearly twenty years ago by POGGENDORFF, the famous editor, for more than half a century, of the "Annals" which bore his name. At the time of his death, in 1877, Dr. POGGENDORFF had accumulated a large quantity of material for the continuation of his dictionary ; and all of this is at the disposal of Dr. FEDDERSEN, who is actively adding to it. Those who have used the original work need not be told that it contains, in compressed form, biographical notices of scientific writers in many countries, with lists of their publications. Since living authors are included, the usefulness of a new edition which shall cover the fruitful period of the last two decades, is evident. Dr. FEDDERSEN intends to comprehend this country as well as Great Britain and Europe in his scheme ; and the object of this notice is to bespeak for him the friendly co-operation of American *savants*. Since such co-operation will be limited to the filling out of blanks, circulated by him, with brief data concerning the life and scientific work of the receiver, it is to be hoped that neither modesty nor laziness may prevent it. *

A FEW weeks ago, we criticised the blemishes of form in an otherwise excellent report by Mr. ASHBURNER, of the Pennsylvania Survey. This was in pursuance of our established rule, which expresses what we regard as our mission and chief purpose, namely, to impress upon the authors and publishers of scientific books the supreme importance of careful editing. In this particular case, the publisher happened to be the Commonwealth ; and we suppose it is useless to hammer at a commonwealth on matters of style and punctuation. Yet it was not, perhaps, wholly fair to the author to ignore the fact that, if prevented by other duties from the careful revision of proofs, etc., he was necessarily left to the mercies of the State Printer. Nevertheless this is only saying that the report lacked the final care in matters of form which it might have received and should have received from somebody ; and the author's head being the only responsible head on the horizon at the time, had to take the full weight of the critical shillalah. Mr. ASHBURNER being a man of sense as well as talent, has evidently taken in good part the wholesome correction of a friend, and has laid us under obligations by his communication, published in another column, on the recent discovery of a curious carbonaceous deposit near Scranton. *

THE COST OF PROSPECTING ON THE COMSTOCK

As every one knows, the Comstock mines at the present time are all in "borrasca" or poor ground, and not one of them is to-day paying a dollar in dividends. On the contrary, they are all levying assessments, and are spending enormous sums in prospecting and driving after that will-with-the-wisp bonanza that is forever being predicted as just a little beyond the levels of every mine on the lode.

The Yellow Jacket, that at one time had a famous bonanza which paid in dividends $2,184,000 previous to 1871, and which has been a steady assessor for the greater part of the past ten years, has prospected the lode to a depth exceeding 3000 feet, by a shaft which, on the 1st of July last, had cost, without interest, $1,674,203.53, and is yet without ore. The assessments of this company have already amounted to $4,098,000, and during the year ending June 30th, 1881, the expenditures at the mines were $549,740, of which $27,230 were on account of and for driving 743 feet of the Sutro Tunnel. During the year, 1055 feet of drifts were run, and 980 feet of diamond-drill prospect-holes, which was all the effective prospecting done for over half a million dollars. The greater part of the outlay was for pumping and repairs. The superintendent says : "From April 16th, when connection was made with the Sutro Tunnel, to June 20th, or in a little more than one month, we pumped and hoisted 86,000,000 gallons, or 360,000 tons of water. We have had since that time a steady flow of 60 miners' inches, or 720 gallons per minute." This amount, 2·7 tons per minute, or about 3900 tons a day, is raised from the 3000-foot level to the Sutro Tunnel, nearly 1500 feet, and involves an expense greater than that required to work some of the largest and most profitable mines in this country. Yet at the present time the Yellow Jacket is simply a prospect, and all these expenditures are merely prospecting expenses incurred in the hope of finding something. And this is but one out of a score of mines prospecting the Comstock, none of which pays expenses. Never before in the history of the world have such enormous sums been expended for prospecting as we see to-day on the Comstock The same amount prudently invested in less expensive and more promising districts would no doubt produce vastly better results.

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

The following statement has been furnished by Mr. JOHN H. JONES, accountant :

	July, 1881.	July, 1880.	Difference. Increase.	For year 1881.	For year 1880.	Difference. Increase.
Phila. & Reading RR.	639,578 15	392,428 05	247,150 10	3,564,665 08	3,024,659 03	540,0 6 05
Lehigh Valley RR.	492,033 10	329,715 15	162,317 15	2,960,436 18	2,250,616 19	739,819 19
Central RR. of N. J.	378,635 07	228,798 07	149,837 00	2,210,045 04	1,743,023 18	467,021 06
Del., Lack & W. RR.	381,508 14	235,184 11	146,324 03	2,33 ,356 15	1,838,480 16	691,875 19
Del. & Hud. Canal Co.	285,804 09	164,323 01	121,481 08	1,702,042 19	1,425,259 08	276,783 11
Pennsylvania RR.	2 6,517 07	173,188 04	33,329 03	1,24 ,441 13	895,085 14	345,355 19
Penn'a Coal Co.	149,289 11	75,852 00	64,437 11	731,867 17	549,543 15	182,324 02
N. Y., L. E. & W. RR.	47,732 00	97,305 10	10,426 10	269,739 15	222,246 10	47,493 05
Total	2,572,099 13	1,636,795 13	935,304 00	15,089,596 09	11,948,913 03	3,090,680 06

The stock of coal on hand at tide-water shipping points, July 31st, 1881, was 674,716 tons ; on June 30th, 1881, 598,565 tons ; increase, 76,151 tons.

The above statement shows that even during July, when the trade was more active than it is at present, the production was a little too great, the stocks having increased 76,151 tons, making a total accumulation of 674,716 tons—a large stock, but not a troublesome one.

The increase of production for the first seven months of this year as compared with the same period in 1880 was 3,090,680 tons. If this rate of increase can be maintained for the remaining months of the year, the production will exceed that of any previous year.

The companies which are getting the greatest advantages of the increased business are the Lehigh Valley, Central Railroad of New Jersey, Delaware, Lackawanna & Western, and the Pennsylvania Railroad.

THE DECLINE IN THE YIELD OF ENGLISH IRON ORES.

The appearance in England of the Inspectors of Mines reports for 1880, in conjunction with the proceedings of the parliamentary committee on railroad rates, has called the attention of the technical press, and particularly of iron manufacturers, to some curious and even startling facts. It appears not only that the English people are paying higher rates of freight on coal and ores than any of their continental neighbors and rivals, but that while in the last ten years vast improvements have been introduced in the manufacture of iron all over the world, the British iron-master is to-day getting, on an average, less metal per ton of ore used than he was ten years ago. His foreign competitors have increased their yield per ton more than 20 per cent in the same time, and to-day every ton of ore treated in France and Germany yields 15 per cent more iron than in England. For the year 1880, the actual yield from the blast-furnace of the ore supplies of the chief iron countries of Europe was :

England	37 per cent.
France	42 " "
Germany	42 " "
Belgium	58 " "

Last year seems to have been abnormal not only in England, but everywhere except in Belgium ; this may perhaps be attributed to the fact that, owing to the enormous and rapid advance in prices in the early part of the year, and the probably small stock of ores on hand, a vast amount of every available kind was put into requisition, and quantities of low-grade ores, which had been thrown aside during the long depression preceding that year, were used up until the depleted ore market could be supplied from foreign sources. Still, making every allowance on that score possible or probable, we are confronted with the fact that year by year for the last decade it has taken more and more ore to make a ton of iron in England, whereas in the remainder of Europe the opposite has been the case. The following table taken from *Iron* will show the retrograde movement in England, and the advance in the other European countries :

TONS OF ORE REQUIRED TO MAKE A TON OF IRON.

England.

	Tons.		Tons.
1867	2·10	1877	2·69
1868	2·07	1878	2·65
1869	2·14	1879	2·56
	1880	2·70.	

France.

	Tons.		Tons.
1867	3·89	1877	2·16
1868	3·61	1878	2·23
1869	3·74	1879	2·19
	1880	2·38.	

Germany.

	Tons.		Tons.
1867	3·25	1877	2·25
1868	3·10	1878	2·27
1869	2·81	1879	2·12
	1880	2·38.	

Belgium.

	Tons.		Tons.
1867	1·83	1877	1·70
1868	1·78	1878	1·69
1869	1·91	1879	1·78
	1880	1·73.	

From this table it would appear that both the average richness of the ores and the practice of the French and German iron-masters were nearly identical. The great difference between the Belgian figures and those of other countries leads us to believe that some errors must have crept in somewhere in their calculations, especially when we remember that the ores of the provinces of Namur and Hainault are identical in appearance, chemical composition, and geological formation with those of the Cleveland District in England, and do not average over 53 to 55 per cent, by analysis.

However, leaving Belgium out of the question altogether, there is no denying the fact that the iron-masters of Europe generally are making very rapid strides toward increased economy in treating their ores, whereas the English iron-master is not even standing still, but is retrograding. If the statistics of 1859 may be taken as correct, the yield for that year was 47 per cent, and it is remarkable that for 1869 the average was identically the same, whereas for 1879 the yield had fallen off nearly 18 per cent, and in 1880 it was only 37 per cent.

As long as a large foreign demand existed, and high prices were attainable, these facts did not come so prominently to the front; but now that competition is close, our English friends will find that, instead of protection in other countries being the cause of their inability to compete, the real cause lies in the fact that they remain about where they were a decade ago, whereas their neighbors utilize every new improvement, and practice every known economy to lessen the cost of their productions. In this country, some progress has been made in this direction by concentrating iron ores in jigs, and thus greatly increasing their average yield. We are glad to see that already the English press is calling the attention of its readers to these facts, and trust that the lesson taught by these figures may also be impressed fully on the minds of our own iron-masters, so that they may realize the fact that the reign of the "rule of thumb" is at an end, and that the only successful manufacturer to-day is he who knows what he is doing, why he is doing it, and what the result will be; and this can only be attained by constantly making use of all the light which science affords.

NEW THEORY OF THE FORMATION OF COAL.

Editor Engineering and Mining Journal :

Sir : In the Engineering and Mining Journal of last week, I notice an article headed, "New Theory of the Formation of Coal," in which your correspondent briefly describes a formation of "peat and carbonized jelly" found in the excavations for the court-house at Scranton, Pa. Specimens of the peat and carbonaceous clay were sent me for examination. The latter, upon being analyzed, showed :

Water at 212° Fahr.	66·758
Volatile matter	9·826
Fixed carbon	4·012
Ash	19·404
Color of ash, light brown.	100·000

With the specimens, I received a description of the occurrence of the peat and carbonaceous clay, and subsequently made a personal examination of the locality. I hesitate to accept the theory advanced by your correspondent, as to the formation of coal, based upon facts obtained from the Scranton peat-bed. There are several practical difficulties in the way of even explaining the mode of occurrence of the carbonaceous clay itself; and until this is accomplished it seems premature to base upon such facts a "New Theory of the Formation of Coal."

The clay has been carefully examined in the Survey laboratory, and the subject of its occurrence investigated. The small amount of carbon found in the clay I *believe* to be due to infiltration from the overlying peat-bed, rather than to chemical action as suggested.

Respectfully yours, Charles A. Ashburner,
Assist. Geologist Anthracite Coal-Fields.

No. 907 Walnut Street, Philadelphia, Aug. 17, 1881.

THE HYDROMETALLURGY OF COPPER, AND ITS SEPARATION FROM THE PRECIOUS METALS.*

By T. Sterry Hunt, LL.D., F.R.S., Montreal, Canada.

(*Concluded from page* 105.)

In applying this new process of copper extraction to a roasted sulphureted ore or matte, which we will suppose to contain a portion of silver, we begin by dissolving therefrom by water the sulphate, which, with proper care in roasting, should contain not less than one third of the copper of the ore; taking care to add to the water enough of some soluble chloride to chloridize and render insoluble any sulphate of silver which may be present. From the clear lixivium thus obtained, after adding the requisite amount of chloride of sodium, the copper is precipitated, as already described, by the action of sulphurous acid gas. The resulting acid liquid, freed from the excess of sulphurous acid by the addition of a reserved portion of the original solution containing copper chloride, and still retaining more or less copper, is now used to dissolve the oxide of copper from a portion of the lixiviated ore; the process being aided by heat, and, if the formation of dichloride of copper is to be feared, by the injection of a current of air, which may be made the means of heating and agitating the mixture. If the ore contains silver, either in the form of metal or unoxidized sulphide, we have in the chloride of copper which is formed the best agent for bringing it to the condition of chloride of silver. This will be found in the residue after the extraction of the copper, together with any gold which may be present, lead as sulphate, oxides of antimony and iron, and earthy matters. Cobalt, nickel, and zinc, if present, will, however, be dissolved, and, not being precipitated by sulphurous acid, will, by successive operations, accumulate in the solution, and may afterward be extracted.‡ From the residues thus deprived of copper we have found the silver to be readily dissolved by brine,† after which, if gold be present, it may be removed by chlorination, or the two precious metals may be extracted together from the residues by amalgamation. When, as in the case of certain mattes from Utah, for example, the residues contain a large amount of lead as sulphate, this may be recovered by smelting, and a base bullion got containing the precious metals. The same result may also be attained by smelting the residues with an admixture of a lead ore.

Chloride of silver is soluble to some extent in solution of cupric chloride, and is then in part carried down with the cuprous chloride in the precipitation of the latter. The formation of cupric chloride may be avoided by adding to the solution of sulphate of copper little more than the amount of chloride of sodium necessary for the conversion of the copper into dichloride. In this case, as we have seen, the acid liquid after precipitation by sulphurous acid will contain chiefly sulphuric acid, though still holding sufficient cupric chloride to effect the chloridizing of any silver which may be present in the ore.

The dichlorice of copper, as obtained by precipitation, is a white, coarsely crystalline powder, having a specific gravity of 3·376 (Playfair and Joule), and, as we have seen (second note, second column, of page 104, Engineering and Mining Journal, August 13th), is nearly insoluble in cold water. After being washed from the acid liquid, it may be readily reduced by placing metallic iron in the moist dichloride, which should be covered with water to exclude the air. The action spreads rapidly through the precipitate, so that a single mass of iron will, in a few hours, change a considerable volume of dichloride around it into pure spongy metallic copper. The reduction of copper from solutions obtained in those wet processes where the copper exists as protochloride, often accompanied by salts of iron, entails a considerable loss of metallic iron, and gives a copper which is impure from the presence of basic iron salts. The reduction of the solid dichloride, however, presents none of these disadvantages. Forty-five parts of iron suffice to reduce one hun-

* A paper read before the American Institute of Mining Engineers, at the Meeting at Staunton, Va., June 1881. From the Transactions of the Institute.

† For observations on the association of nickel and cobalt with certain copper ores, see Appendix I.

‡ For notes on the solubility of chloride of silver in solutions of common salt and other chlorides, see Appendix II.

dred parts of copper; the precise ratio being as 28·0 : 63·4. The ferrous chloride which remains in solution may with advantage be used instead of chloride of sodium for chloridizing subsequent solutions of sulphate of copper, ferrous sulphate being formed, which, as it accumulates, may be separated by crystallization from the acid liquid. The ferrous dichloride required to chloridize twenty parts of copper would equal about sixty-one parts of hydrated ferrous sulphate.

Another mode of treating the dichloride, which may in some cases be resorted to, consists in decomposing it, best at a boiling heat, with a slight excess of milk of lime. The dichloride is by this means converted into a dense orange-red suboxide of copper, which, after being washed from chloride of calcium, in a filter-press or otherwise, and dried, may be readily reduced to metallic copper in a reverberatory furnace. For this reaction, 28 parts of pure quicklime are required for 63·4 parts of copper, and the resulting chloride of calcium may be used instead of chloride of sodium or chloride of iron for chloridizing solutions of sulphate of copper. In this case, there will be formed an insoluble sulphate of lime or gypsum, while the free sulphuric acid of the solution is replaced by chlorhydric acid. The use of the chloride of calcium would, however, require an additional operation, since, to avoid the presence of the precipitated gypsum either with the dichloride or the undissolved residue of the copper ore, it would be necessary to add the chloride of calcium to the clear copper solution, and, after allowing time for the gypsum to subside, to transfer the liquid to the vats in which the copper is to be precipitated by sulphurous acid. There may, however, be localities in which the cost both of metallic iron and of common salt is such as to render advantageous the decomposition of the dichloride of copper by lime, provided there is no silver to be extracted.

We have heretofore considered only the case in which the acid liquor got by precipitating the copper from neutral solutions in the form of dichloride is used to dissolve successive portions of oxide of copper alone. This can be done in the case of pure ores free from other strongly basic oxides, if without loss, yet without any gain of acid save what comes incidentally from the portion of sulphuric anhydride which is given off in the calcination of pyrites, or from the reaction between sulphurous acid and oxygen in the presence of chloride of copper, as already explained. If, however, as is more often the case, we are treating artificially oxidized sulphureted ores or mattes, which yield by roasting a mixture of oxide and sulphate of copper, it will be apparent that by the repeated use of the present process there must result a constantly augmenting proportion of free acid in the liquid.

This may be made clearer by examples. Let us suppose a solution holding in a cubic foot (equal 1000 ounces of water) 63·4 ounces or two equivalents of copper in the form of sulphate. To convert this into protochloride would require two equivalents, or 117 ounces of chloride of sodium, but for the production of the dichloride, as we have seen, one equivalent, or a little more, will suffice, or, in place thereof, a corresponding amount of ferrous or calcic chloride. When, by the action of sulphurous acid, the whole of the copper is reduced to the cuprous condition, and in a great part thrown down as dichloride, the previously neutral solution will contain two equivalents or 98 ounces of sulphuric acid* (oil of vitriol), which, if a larger amount of chloride had been added, would be in part replaced by chlorhydric acid. These two equivalents of acid are capable of taking up two equivalents, or 79·4 ounces of oxide of copper, after which the solution will contain, as at first, 63·4 ounces of copper. If, however, we add to this acid solution, instead of simple oxide of copper, a calcined ore or matte in which one third of the copper is present as soluble sulphate, and two thirds as oxide, it is clear that when the acid is saturated we shall have in the liquid, besides the 63·4 ounces of copper from the oxide, one half as much more, or 31·7 ounces of copper which were already present as sulphate in the roasted ore; making in all three equivalents, or 95·1 ounces of dissolved copper, which are, in their turn, to be converted into dichloride. Now, as the amount of acid set free in this reaction is equal to that originally combined with the copper, it follows that the liquid after the precipitation of the dichloride will contain three equivalents of acid, instead of two as before. If to this we add, a second time, enough of the mixture of two thirds oxide and one third sulphate of copper to neutralize these three equivalents, we shall have four and a half equivalents of dissolved copper, from which, by a third repetition of the process of precipitation by sulphurous acid, four and a half equivalents of sulphuric acid would be set free; so that in place of 98 ounces we should have 220½ ounces in the solution—an amount which a fourth repetition of the process of saturation and precipitation would raise to six and three quarter equivalents, or 330 ounces of oil of vitriol.

If, instead of a mixture containing one third of its copper as sulphate, we have one in which only one fourth is sulphate and three fourths are oxide, we should get, by saturating with this a solution containing two equivalents of acid, and subsequent precipitation with sulphurous acid, a liquid holding 2·66 equivalents of free acid, which, by a third repetition of the process, would yield 3·55, and by a fourth 4·73 equivalents of free acid, in place of the two equivalents which were present after the first precipitation.

The above calculations are founded on the supposition that the roasted ore or matte contains, besides the oxide of copper, no base that would be attacked by dilute acids. In fact, however, oxides of leads, zinc, and, more rarely, nickel and cobalt, may accompany the copper oxide, and give rise, the first to an insoluble and the others to soluble sulphates, consuming more or less acid. Ores containing more or less carbonate of lime (often with carbonate of magnesia) are also of frequent occurrence, and here is seen a great advantage which this mode of copper extraction possesses over all the other wet processes; for since lime and magnesia, and their carbonates, not only neutralize free acids, but throw down copper from its solutions, the treatment, by these processes, of ores containing any considerable proportion of calcareous matter, is impracticable. With the process here proposed, which generates an abundance of free acid, the extraction of copper from ores which do not contain an excessive amount of calcareous matter presents no difficulty except such as arises from the mechanical obstacle created by the formation of gypsum in the solutions. The accumulation of acid in the bath is, indeed, so rapid in many cases, that it will become unnecessarily strong, and may be diluted with water; while that portion not needed, after being deprived of the last portions of copper by the action of metallic iron, may be rejected unless it retains in solution other metals of value.

It will be seen from the foregoing description that the new process here described resembles those which, at the beginning of this paper, we have placed in Class II., inasmuch as the oxidized copper is separated from foreign metals by dissolving it in sulphuric and chlorhydric acids; with the difference, however, that the acids for this purpose are generated in the process itself, by the action of sulphurous acid, while the copper is separated from its solutions in the form of dichloride; the reduction of which to pure copper is readily effected by the consumption of a minimum amount of metallic iron. At the same time, any silver or gold which may be present in the ore is left undissolved, and in the best condition for subsequent extraction by well-known methods, while the saving of cobalt and nickel, of lead, or of antimony, should these be present in quantities of economic importance, may be subsequently effected by very simple processes.

The apparatus for this new general method of copper extraction is simple and inexpensive. The chlorine required in the precipitation of the copper being recovered for further use, the only reagent consumed, except the sulphurous acid—which is a waste product from the roasting of sulphurous ores—is an amount of iron which is equal to less than one half the weight of the copper, and may be recovered in the form of sulphate of iron, or, instead thereof, the same quantity of caustic lime.*

APPENDIX I.

The presence of small portions of cobalt and nickel in cupriferous pyrites is not uncommon, and mixed earthy oxides of copper, nickel, and cobalt have been found in considerable quantities in Missouri. A greenish, translucent, amorphous mineral, with black stains, resembling chrysocolla in appearance, from some place in Western Nevada, where it was said to be abundant, and to have been mined for the manufacture of sulphate of copper, was brought to me in 1876, and found to contain considerable quantities of both cobalt and nickel. One of two closely agreeing analyses by my former pupil, Mr. Hardman, made at the Massachusetts Institute of Technology in 1877, gave for this mineral as follows: Oxide of copper, 9·63; oxide of nickel, 3·23; oxide of cobalt, 3·88; peroxide of iron, 3·08; peroxide of manganese, 2·40; lime, 1·04; magnesia, 0·10; alumina, 13·01; silica, 42·97; water, 18·38 = 97·72. The cobalt and nickel were separated by Rose's method. Another analysis, in which these metals were separated by the method of Fischer, with nitrite of potassium, gave of oxide of cobalt, 4·11. Such an ore, if abundant, would be a valuable source of both nickel and cobalt.

This aluminous mineral, like chrysocolla, (see second note, first column, page 104, ENGINEERING AND MINING JOURNAL, August 13th) is attacked by a solution of ferrous chloride and common salt, by which the oxides of cobalt and nickel are indirectly dissolved; since, although they have not the power of decomposing ferrous chloride, they decompose the cupric chloride which is formed by its reaction with cupric oxide.

APPENDIX II.

As regards the solubility of chloride of silver in solutions of chloride of sodium, Vogel found that one liter of a saturated solution, at ordinary temperatures, held dissolved 0·950 grams of chloride of silver, while, according to Hahn, a liter at 19·6° C. holds 1·269 grams. Becquerel found at ordinary temperatures for a similar solution 0·800 grams to the liter. 100 parts of water, saturated at 100° C., holds 26·61 parts, and at 15·6° C., 26·34 parts of chloride of sodium, the densities of the solutions being respectively 1206·93 and 1204·03. Hence, one liter of a saturated solution at 15·6° holds 316 grams of common salt, 1000 parts of which solution under these conditions dissolve, according to Hahn, at 15·6° C., 3·0 parts of chloride of silver; while, according to the observations of Vogel and of Becquerel, at "ordinary temperatures," not defined, 1000 parts, in saturated solution, dissolve respectively 4 parts and 2·53 parts of chloride of silver. The latter figure approximates to that given by Pelouze and Frémy, according to whom 1000 parts of salt at 18° C. hold dissolved 2·40 parts of chloride of silver. The solvent power, according to these chemists, varies greatly with the temperature, the amount dissolved being equal to 1·70 parts at 10° C., and not less than 6·80 at 100° C., while at 0° C. but traces of chloride of silver are dissolved. Differences of temperature may suffice to explain the discrepancies between the results of Vogel, Hahn, and Becquerel, but not those of Pelouze and Frémy at 18·0° C., a temperature above that mentioned by Hahn. It is possible that these chemists may not have employed solutions saturated with chloride of sodium, to which the observations of the others refer. Fresenius, speaking of the solubility of chloride of silver in hot concentrated solutions of the chlorides of sodium, potassium, ammonium, calcium, zinc, etc., says: "On sufficient dilution with cold water, the dissolved portion separates so completely that the filtrate is not colored by sulphureted hydrogen."†

As to the solubility of chloride of silver in some other chlorides, Hahn found that a liter holding 30·70 per cent of ferrous chloride, and having a specific gravity of 1·419, dissolves, at 20° C., 2·385 grams of chloride of silver; while a solution holding 44·48 per cent of cupric chloride, and having a specific gravity of 1·5726, dissolves at 30° C., for 1 liter, 0·836 grams of chloride of silver. For further observations on the solubility of chloride of silver in other chlorides, see Percy, *Metallurgy of Silver and Gold*, Part I., p. 58, and also Hahn, *Transactions American Institute Mining Engineers*, Vol. II., p. 99.

FATAL GAS EXPLOSION, POTTSVILLE, PA., Aug. 16.—David Daveson, fire boss at Ellangowan Colliery, in making his customary examination before the men went to work this morning, encountered a heavy body of gas which exploded from some unknown cause, and he was instantly killed.

* While we recognize the dyad nature of copper, oxygen, and sulphur, and the bibasicity of sulphuric acid, it is simpler and more convenient for the calculations of the manufacturing chemist and the metallurgist to use, as we have done in the present paper, the older notation, and to speak of 31·7 parts of copper, 8 parts of oxygen, 40 parts of sulphuric oxide, 49 parts of oil of vitriol, 36·5 parts of chlorhydric acid, and 58·5 parts of chloride of sodium as equivalents.

* United States letters-patent, No. 227,902, for this method of copper extraction were granted to Thomas Sterry Hunt and James Douglas, Jr., May 25th, 1880.

† Fresenius, Quantitative Analysis, Amer. Ed., 1879, p. 124.

COAL IN COLORADO.

The Coal and Coke Deposits at Gunnison, Colo.—The Leadville *Chronicle* of August 6th says: The recent enormous discoveries of coal in the Gunnison country have not as yet cut any figure in the coal markets of the world, but it can not be long before they do so. The Denver & Rio Grande Railroad has purchased some of the most extensive tracts of coal lands in the vicinity of Crested Butte, and as soon as the railroad reaches that point, will undoubtedly begin to ship. Ovens are erecting for coking, and next summer a fair supply of coke may be expected from there. It is just about a year since the two railroads—the Denver & Rio Grande and the South Park—began to supply Leadville with coal for domestic and manufacturing purposes. All last winter, coal was mainly used in residences in lieu of wood. It has been estimated that four hundred tons of coal were used per day. At first, the Denver & Rio Grande had the lion's share of the trade, but pretty soon the superior merits of the Como coal began to be realized. It was easier kindled, it retained its heat longer, and it did not clinker. People began to give it the preference over the coal of El Moro and Trinidad. Since the beginning of summer, a change has taken place. The South Park coal, which is now coming here, is full of dirt and stone. No care is taken at the mines to separate the coal from the waste, and the consequence is, that no South Park coal is now coming here, and the Denver & Rio Grande coal again monopolizes the market. We can hardly expect to begin to receive Gunnison coke before next summer. It should then be abundant and cheap. A company has lately been organized in St. Louis and Chicago which has a new patent process by which it is expected that coke can be made out of any kind of coal with less than half the loss of carbon incurred by the present process. It is expected that this company will commence operations on the Gunnison coal.

The *Chronicle* of the 13th says that Mr. S. F. Maltby, of the South Park Railroad Company, gives the following explanation: It was, last spring, the intention of the company to ship no more coal from the South Park mines to Leadville. In the first place, the supply from that source was needed for the wants of the railroad. The mines were just at the end of the division, and conveniently placed for shipment either way. They did not yield much more than the railroad required. The South Park officials, therefore, resolved to supply Leadville and other markets from their new mines eighteen miles from Gunnison City, from which they expected to be able to ship some time in September. This coal is said by Mr. Maltby to be even better than the South Park coal, being, like that, a sort of cross between bituminous and lignite, but lying in the vein in such a position that it can be got out in large lumps. Unfortunately for this calculation, the progress of the railroad has been slower than was expected. The South Park managers confidently believed that the cars would be running through the tunnel by the first of this month. The hole was pierced through by that time, but it will yet take some days before the timbering will be completed and the track laid through to the Western slope. More than this: the Gunnison mines of the South Park Company are eighteen miles from Gunnison, and it is now feared that should snow fall early, the construction of this branch may be delayed too long for it to be available for business this fall. Should this occur, the company will supply Leadville this winter as heretofore from the Como mines. Mr. Maltby expects to be able to supply orders for coal in about ten days, and he guarantees that the coal will be equal in quality to the best of that which was supplied last spring. The price will be $3 per ton. Mr. Hopkins, the superintendent of the coal department of the Union Pacific, is now in Gunnison, but will be here in a few days to perfect the details of the business for the coming season. Mr. Hopkins will probably be able to give the people of Leadville their choice next year between an excellent semi-bituminous coal from Gunnison, and a very good anthracite from the new coal-beds lately discovered near Crested Butte.

Coal and Plumbago near Rico.—The Dolores *News* says that a new coal-bank has been located up the river eight miles. The coal-vein is eight feet wide. The most peculiar thing about it is the numerous prints of fern-leaves imbedded in the vein. The outline of the delicate plant is as distinct as a photograph, and very beautiful. We have a small specimen at this office. On one of the pieces of coal is the print of a cottonwood twig with three leaves. There was recently located a claim near the Fish lakes having a six-foot vein between solid lime walls. Of this vein three feet is plumbago. The quartz in the vein assayed 26½ ounces of silver, and the plumbago ran 1½ ounces in the same metal. A lode was found on Dolores Mountain some time since containing petrified clams and sea-snails.

The Raton Coal Mines.—The *Leadville Republican* of the 3d inst. says: The Atchison, Topeka & Santa Fe Railroad Company is now engaged in opening up extensive coal mines along its road between Raton and the tunnel; also in Dillon Cañon, some five or six miles from the road. To the latter mines the company is constructing a coal road, which leaves the main line three miles below Raton. The coal in these mines varies from four to six feet deep, is easily mined, and is said to be superior to any yet discovered along this road, either in Colorado or New Mexico. It will cost some $60,000 to develop these mines; but as soon as they are opened, they will give employment to at least 500 miners.

IMPROVEMENTS IN THE BASIC BESSEMER PROCESS.

The following *résumé* is from London *Iron* of July 22d: Steel-making from phosphoriferous pig-iron seems to make rapid strides on the continent; for we hear that new Bessemer works are under construction at Ars-on-the-Moselle, in Lorraine, and at Völklingen, near Saarbrücken, both of which are intended to make steel from the cheap "minette" iron ore, a description of ore resembling much the Cleveland oolitic ironstone, and which is found in enormous deposits in Luxemburg and Lorraine. When the basic process with a converter lining of dolomitic bricks was first introduced, the Rheinische Stahlwerke at Ruhrort, and the Hörder Berg- und Hüttenverein, were not slow in appreciating its value, and in securing the patent-rights for the German empire. Though the validity of the patents was energetically contested by a combination of German iron-masters, the patentees succeeded, nevertheless, in overriding all opposition in the various law courts where the matter was to be decided. The first step was the introduction of basic bricks for converter linings, instead of the usual ganister or fire-brick lining; the second, that of the addition of basic fluxes in combination with a prolonged after-blow, after the elimination of silicon, carbon, and manganese from the metallic bath. It was then considered essential that the basic cinder should contain from 36 to 40 per cent of lime and magnesia, and only from 8 to 20 per cent of silica, and that the fluxes added to the metal should be, first, a mixture of about nine parts lime and magnesia, with one part red oxide of iron; and secondly, after a blow of from six to ten minutes, a mixture of two to three parts of lime with one part of oxide of iron, such as red hematite. The admixture of oxide of iron proved the more necessary the less the quantity of manganese in the pig-iron, and, whenever the same was very large, it could be left out altogether.

It is now well understood that the phosphide of iron only begins to be decomposed after all the silicon and carbon have disappeared; that is, after the characteristic carbon lines have completely disappeared in the spectroscope; and that its decomposition requires after-blowing for several minutes, when only the oxidized phosphorus will combine with the bases of the flux, chiefly with its lime and oxide of iron, which combination is accompanied with a voluminous emission of brown smoke, caused by burning iron. After the removal of the phosphoriferous cinder, spiegeleisen was then added, in order to reduce any oxide of iron which was dissolved in the fluid metal, and besides to dose it with sufficient carbon for becoming ingot iron, mild steel, or hard steel, as required. This mode of procedure was the usual one with gray phosphoriferous pig-iron; the after-blow has, however, some inconveniences, which consist in the loss of metal and the greater amount of time. The Rheinische Stahlwerke have therefore tried to replace the after-blow by another oxidizing reaction, and to employ combined oxygen instead of free atmospheric oxygen for the elimination of phosphorus. The bearers of combined oxygen are the oxides of iron and manganese, which are introduced either in the solid or in the molten state, and intimately mixed with the metallic bath. The quantity of oxides is determined from that of phosphorus, and their oxygen ought to contain as much as 25 per cent more than the free atmospheric oxygen, which would have to be blown in the metal, if it were to be finished by the usual after-blow.

The basic process has been in successful operation at Ruhrort since September 22d, 1879, as well as at Hörde. Licenses to use the patents, which were partly acquired from Mr. S. G. Thomas, partly taken out independently, have been granted in Germany and Luxemburg to the following iron and steel-works, namely, Gebrüder Stumm, of Neunkirchen; the Dillingen Iron-Works, near Saarbrücken; Gebrüder Gienanth, of Kaiserslautern; Messrs. Les Petits fils de Fois de Wendel & Co., of Hayange; Messrs. De Dietrich & Co., of Niederbronn; the Burbach Iron Company, the Rothe Erde Iron-Works, of Aachen; the Lothringen Iron-Works, of Ars-on-the-Moselle, the Maximilianshütte of Regensburg, and the Bochum Steel-Works. It appears that, besides the Bessemer converter, the dephosphorizing process makes favorable progress in the open-hearth furnaces as well, when basic fluxes, such as lime, dolomite, oxides of iron and manganese are employed. Among their number reappears the fluoride of lime, fluorspar, or "cand" of the Cornish miners, which was patented some fifteen years ago by the late Professor Theodor Scheerer, of the Bergakademie of Freiberg, Saxony, for the purpose of dephosphorizing iron in the puddling-furnace. When fluoride of lime was tried at the Hörde Works, at the instance of Professor Scheerer, it was found that other combinations of lime, when in a fluid state, would react on the phosphorus as well; for instance, chloride of lime and also chloride of magnesia, though they are more liable to be decomposed into chlorine and lime or magnesia by heat alone, while for the decomposition of fluoride of lime the presence of silica is essential. All these fluxes will, of course, act as well in the Bessemer converter; and as fluoride and chloride of lime form a very thin and fluid cinder, they seem to be far better suited for the washing out of phosphorus from the metallic bath, than caustic lime or magnesia, or a mixture of both, which do not melt, and therefore come very much less in contact with the particles of phosphide of iron which are to be decomposed, than a more fluid substance.

SUCCESS OF THE THOMAS-GILCHRIST PROCESS AT TEPLITZ AND WITKOWITZ, BOHEMIA.*

The pig treated at these works is generally the white iron from Ilsede, Fürstenberg, Kladno, Harrington, and Kalau, the proportion used of the highly phosphoretic iron from Ilsede being nearly four times that of any other kind.

The average analyses of these white irons is as follows:

Iron	92·31	Carbon	3·12
Phosphorus	2·10	Silicon	0·30
Manganese	2·27	Sulphur	trace.
			100·10

The average analysis of the resulting ingots shows:

Iron	99·02
Phosphorus	0·04
Manganese	0·40
Carbon	0·40
	99·86

The process is carried on in an ordinary Bessemer converter, furnished with basic lining. First, a charge of 1800 pounds of quicklime heated to a bright red is introduced, then 12,000 pounds of phosphoretic pig previously melted in Siemens furnaces, which are arranged conveniently around the converter. When, after the burning of the silicon and carbon, most of the phosphorus has disappeared, scrap-steel and rail crop-ends, etc., are introduced, thus utilizing them by their reconversion into ingots. At the end of about twenty-five minutes, the blowing ceases, and the molten metal is run into the ladle, where 300 pounds of spiegel containing eight per cent of manganese are added. This spiegel is not melted, but only heated to a red heat, its reduction taking place in the liquid

* Abstract of a paper by G. Moreau, in *La Génie Civil* for August, 1881.

bath. The resulting cinder, which is very refractory, is skimmed off by an ingenious arrangement, which it is unnecessary to describe here.

The steel resulting from this process is rolled into rails at the same works. Part of the product of these establishments is a very soft steel, or cast wrought-iron (*fer fondu*); but in producing this latter, for every charge of six tons of pig, only from fifty to sixty pounds of rich spiegel, containing from 15 to 18 per cent manganese, are used.

The basic lining is made of bricks manufactured at Duisburg or at Witkowitz. These bricks are previously dipped in tar, to prevent the absorption of moisture during exposure to the air. The composition of these bricks is as follows:

	Duisburg bricks.	Witkowitz bricks.
Lime	55·27	84·001
Magnesia	35·12	5·192
Silica	5·58	4·390
Peroxide of iron	2·84	
Magnetic oxide of iron		6·030
Alumina	1·34	0·941
Phosphoric acid	0·05	0·088
Protoxide of manganese		0.517
	100 20	101·159

In conjunction with the above, it may be well to give the composition of the perforated bottoms manufactured at Dux, in Bohemia.

Magnesia	81·621
Lime	7·621
Silica	5·859
Iron peroxide, alumina, and phosphate of manganese	5·503
	100·604

The spiegel-iron used has the following average analysis:

Combined carbon	4·272
Graphitic	0·163
Silicon	0·463
Sulphur	0·007
Phosphorus	0·069
Copper	0·237
Manganese	10·297
Iron	84·012
	99·520

The resulting slags or cinders have an average composition of

Silica	2·49
Peroxide of iron	8·19
Protoxide of iron	1·23
Phosphoric acid	27·35
Lime and magnesia	61·02
	100·28

The consumption of stock at these works for the fortnight ending July 10th, 1881, was as follows:

Pig-iron of various brands	749·500 kilogs.
Scrap from ingots	15·300 "
Rail crop-ends	7·800 "
Ferro-manganese	97 "
Spiegel-iron	37·695 "

The price of materials incident to the dephosphorizing process at these works is about as follows:

Ordinary fire-brick	2·90 fl.	per	100 kilogs.,	65c.	per 100 lbs.
Lime for the converter	1·00 "	"	"	23c.	"
Charcoal for heating converter	3·00 "	"	"	68c.	"
Price of the Duisburg basic bricks	5·06 "	"	"	$1.15	"
Price of the Witkowitz basic bricks	6·00 "	"	"	1.36	"

CHICAGO COAL RECEIPTS AND SHIPMENTS—MAY 1 TO AUGUST 1, 1881.

	Tons.
Receipts by rail of anthracite coal from May 1st to August 1st, 1881	77,897
Corresponding period, 1880	37,690
Increase, 1881	40,207
Receipts by rail of bituminous coal from May 1st to August 1st, 1881	512,866
Corresponding period, 1880	349,668
Increase, 1881	163,198
Receipts by lake of anthracite coal from May 1st to August 1st, 1881	227,099
Corresponding period, 1880	177,795
Increase, 1881	49,304
Receipts by lake of bituminous coal from May 1st to August 1st, 1881	108,003
Corresponding period, 1880	109,102
Decrease, 1881	1,099
Total receipts of all kinds of coal, including coke, from May 1st to August 1st, 1881	925,865
Corresponding period, 1880	674,255
Increase, 1881	251,610
Total shipments of coal by lake and rail from May 1st to August 1st, 1881	123,248
Corresponding period, 1880	98,570
Increase, 1881	24,678

The receipts of coke are included in the receipts of bituminous coal.

NOTE.—40,456 tons of anthracite (water shipment) were received in April, 1880; none in April, 1881.

NOTE 2.—The above statement shows an increase in receipts of anthracite (May 1st to August 1st) over those of the same period last year of 89,511 tons. From this amount, however, should be deducted the above-mentioned receipts for April, 1880, 40,456 tons, leaving the actual increase in receipts 49,055 tons. We have no means of ascertaining exactly the quantity of coal on hand May 1st, 1880; it is variously estimated at from 100,000 to 200,000 tons. Supposing it to have been 150,000 tons, the present stock falls short of that of one year ago by about 100,000 tons.

RECEIPTS BY MONTHS.—May, 201,338 tons bituminous; 67,247 tons anthracite. June, 237,776 tons bituminous; 116,290 tons anthracite. July, 181,755 tons bituminous; 77,897 tons anthracite.

SHIPMENTS BY MONTHS.—May, 28,949 tons. June, 41,832 tons. July, 52,467 tons.

H. PRATT, Secretary Chicago Coal Exchange.

HINDERANCES IN GAS FURNACE WORKING.

Written for the Engineering and Mining Journal by P. Barnes, Springfield, Ill.

The introduction of the regenerative gas furnace into the general line of metallurgical apparatus, as employed on a large or commercial scale, has given rise to some special difficulties of manipulation, which were not known before in the working of ordinary furnaces, or were but little thought of. It is true that the relief afforded by the use of the gas furnace from troublesome and stubborn difficulties has been so great, and the resultant widening out of the field of profitable metallurgical operations has been so important, that in one sense few difficulties of manipulation remain that are worth mentioning. A brief discussion may, nevertheless, be found useful in promoting relief from these which do remain. Part of these troublesome conditions were inherited, or transferred directly, from the older type of coal-fired furnace, although the greater and by far the more important part of these hinderances to perfect working were swept away at one stroke by the complete development of the gas apparatus. Some of the objections to the use of the gas furnaces are peculiar to it, having no counterpart in the older furnaces, such as the need of renewal of the checker-work in the regenerators, and the occasional warping of the reversing-valves by the escape through them of the hot waste gas to the chimney. There are some other difficulties which have not always shown so clear an indication of the reasons which have given rise to them; but they have been very clear in making their presence known, and sometimes in a very persistent way, too. One of these latter hinderances is the effect of increased heat in the gas upon its passage through the flues and valves. Another is the presence in the gas in the furnace of a percentage of vapor of water, either brought out with the gas from the producer itself, or absorbed by it from some source in its way to the furnace. While it can not be claimed that the finding of trouble and delay in the working of the furnace is a new thing as thus caused, yet it is more than likely that the precise effect, either in kind or degree, of these elements of slow working has not been fully studied or guarded against.

So long as moderate heats only were aimed at in the earlier forms of the gas furnace, these apparently trifling causes of delay had little weight in any discussion of the perfect working of the furnace; but as soon as the very high heats needed in open-hearth melting, or even with crucible steel, were so imperatively called for, these obscure sources of loss of heat very speedily came to the front, and not only made themselves felt, but, as it were, they clamored loudly for their own suppression. There existed, too, this important motive for the attainment of the highest degree of perfect working of the furnace, that from the earliest conception, almost, of the regenerative idea, the thought had been a leading one with Mr. Siemens that it would ultimately prove the means of effecting the long-studied purpose of melting steel in large masses.

To do this upon a commercial or paying scale had been wholly impracticable before the more recent improvements had been effected in the regenerative system of melting; for the troubles which were either wholly unknown in lower heats, or were little cared for, proved the absolute barrier to success with the higher heats. It is a common saying among steel melters that a steel furnace would freeze up at the heat of an ordinary welding furnace; but even if this be not strictly true, it nevertheless expresses clearly the fact that an important difference exists. It is a rare thing in ordinary working of steel furnaces that any pretense is made of measuring temperatures; but the comparisons which are made by the melters, in the usual conditions of working, are ample for the detection of any lack of heat in the furnace, or of any loss during the progress of the work itself. Some of the hinderances thus found were, as already stated, quite new and the more troublesome in that they were so obscure, and so certain to prevent the attainment of the last limit of heat which is the absolute essential requirement for success.

The common means employed by melters, or managers of steel furnaces, though they may amply suffice to detect the existence of a drawback, do not always locate the exact spot at which the trouble may begin. For this purpose, a careful search may be sufficient, through the flues and around the walls of the furnace, if there appear to be signs of the presence of vapor of water or steam. Even if the flues appear dry throughout upon a brief examination, it may yet be found that water is taken up from the paving or side walls to a serious extent. The only method of determining the real amount of steam present in the gas is the quite common one of passing a measured volume of the suspected vapor-charged gas through a tube containing chloride of calcium, which will absorb the water and thus show by a difference in weight the exact amount present at any point in the gas-flue, or even in the heated gas after it has passed the hot regenerator and is on the point of entering the melting-chamber itself. It is certain that, under all ordinary conditions of working at least, a small amount of steam is always present in the gas as discharged into the furnace. An obvious question of interest is, what amount of steam can be permitted to be present without causing actual delay or loss, but the effort most commonly made is to suppress wholly the flow of steam, from whatever source it may come. Probably, too, the amount of steam contained in the gas or in the air supply will differ materially during the working of any given day.

So far as the gas itself is concerned, the first point where water can be taken up by the gaseous current is in the producer itself. Here the coal is distilled and finally converted entirely into a gas, which is more or less combustible, according as the working or firing of the producers for the moment is good, bad, or indifferent. The water which may be contained in the coal itself is set free above the mass of incandescent fuel, so that there can be no possibility of any decomposition of this resultant steam into its constituent gases, although both of these would form useful elements in the gaseous fuel supply. So, too, the water or steam rising beneath the fire from the damp ash-pit may not be wholly decomposed in passing through the fire, either because of the low heat of the fire itself at the moment, or because there may be holes or openings in the mass of burning fuel through which the steam can pass into the gas-flue, without the intimate

contact with the hot carbon which is needful to insure its decomposition. If the gas is led part way toward the furnaces, or is distributed to them, through an underground flue, as is often done, an important fraction of steam may be absorbed there by the gaseous current if the flue is at all wet or damp, as it may be when the pavement rests upon a water-bearing stratum of sand or clay. Even the solid bottom of the furnace regenerators may be so damp, when at a high temperature, as partially to saturate the gas and air, even while passing so rapidly along in contact with it, with a very hurtful proportion of steam. When this mischievous element, then, is known to be present, and delaying the working of the furnace, even the most unlikely places in the whole apparatus must sometimes be searched to discover the gate or the trifling crevice through which it may have found its way into the interior of the flues.

The purpose of the cooling-tube, through which, in the large majority of cases, the gas passes on the way from the producer to the underground flue, is in part to condense out of the gaseous current all the watery vapor which may be present, whether it may be derived from the coal, from the combustion in the producer, or from the ash-pit. This condensation would be quite complete if the whole mass of gas could be brought into contact with the cool external surface of the tube, at ordinary temperatures of the atmosphere. If the diameter of the tube be considerable, as with large batteries of producers it must be, then this cooling effect is less than when the gas passes through smaller branch tubes. In some cases in which gas is made from very wet fuel, it has been found absolutely needful to pass it through a condenser of some kind. For this purpose, a mass of iron bars piled loosely within the flue, and kept constantly wet, and thus cooled by water showered upon them, has sometimes been used. In some such way as this, it has been found entirely practicable to use such fuel as green timber or peat; and when thus cooled, the results obtained with the use of gas from very wet fuel have been very good. In some climates, the heat of the sun in summer, during the middle hours of the day, is found to be amply sufficient to cause a loss of effectiveness in the gas supplied for a steel furnace, from the actual rise in temperature. This is due to an increase of volume which prevents the flow through the furnace valves of the same amount of combustible matter, which would pass in a given time if the gas were cooler. This loss is also due in part, no doubt, to the continuance in suspension in the gas, because of the greater heat of the sun, of some additional part of the vapor which, during the night, is more fully condensed. One obvious remedy for this condition of things is to sprinkle the outside of the cooling-tube with water as perfectly as possible. It is quite likely, too, that the difference in this respect in real effectiveness between one very large tube and a number of smaller ones has not been as fully recognized and weighed as it should be, although it might be difficult, under the changing conditions of ordinary work, or even if these conditions were constant, to say what this difference really might be.

It is doubtful whether any effective remedy can be found for the injury to the quality of the gas, caused by a permanently damp underground gas-flue, except to rebuild it, or to drain it perfectly, so that it shall be strictly tight and dry. It is probable that the temperature of the walls of an underground flue varies very little from day to day, and certainly but very slowly from hour to hour, so that if a flue once becomes damp, it is likely to remain so for a considerable time, and thus the gas, even if largely dried out by the action of the cooling-tube, is quite certain to take up an important fraction of moisture in passing through the flue. For the subsequent removal or condensation of this vapor little opportunity is offered in most cases, the usual connection of the brick flue, with the reversing-valve of the furnace being made by a very short sheet-iron box, although this box, when exposed at all freely to the air, will serve, so far as its area may permit, as a condenser or secondary cooling-tube. In some cases, where this gas-box has been unusually long and well exposed, it has been found to drip freely with water nearly all the time, showing that watery vapor may follow over quite an unexpected distance, and that every practicable means should be used to detect and to intercept it.

Some instances have been recorded in which furnaces have been found persistently damp in the bottoms of the regenerators, although it was fully believed that the firm, comparatively dry clay on which the 12-inch brick paving had been laid was amply dry. Actual trial showed, however, that this so-called dry clay really contained 21 per cent of water, and that the paving, which had been grouted solid, was undoubtedly proportionately damp. Actual tests showed also that some of the fine dust which had become packed into one corner of the side flue, almost directly beneath the checker-work filling of the regenerator, contained more than 5 per cent of moisture, even though it had been long exposed to the flow over it of the outgoing waste gas toward the furnace chimney.

It is certain that this important effect of the condensation of the steam suspended in the gas is more complete in the ordinary cooling-tube in the colder seasons of the year, and, as already remarked, the difference in a summer season between a noonday heat of the sun upon the cooling-tube of 145° and a night temperature of 65° is very great, or at least very plainly perceptible in the quicker and better working of the furnaces when the gas is used for steel melting. It is also reasonably certain that little or no steam will be condensed out of the gas after it has entered the underground flue, if one be used; for the walls after a time acquire the temperature due to that of the gas as it passes through it; and as no heat can be radiated from the flue-walls, no cooling can occur in the walls which could give rise to any condensation upon them from the gas. This fact serves to show the great importance of a cooling-tube, and the difficulties likely or quite certain to be encountered with furnaces into which the gas is discharged directly from the producer, with no attempt to condense and thus to remove the steam which may be present.

Not only is there a loss in the furnace by reason of the lack or the irregularity of the heat, but also from the greater oxidation of the metal while softening and melting. An excess of oxidation above a reasonable normal limit may be due to one or more of several causes or conditions in the working of the furnace; but this presence of steam is one of the more common sources of difficulty in this respect. The fact that this may be active to an unknown extent should serve as a stimulant to ferret out and to remove them all by every practicable means.

PROGRESS IN SCIENCE AND THE ARTS.

Direct German Cable to America.—By an arrangement recently concluded between the German Telegraph Company of Berlin and the German Union Telegraphic Trust Company, an independent cable is to be laid from Germany to Valencia, in Ireland, and thence to the United States. When the cable is laid, Germany will have direct telegraphic communication with the United States, a privilege now enjoyed only by Eng and and France. The cost of laying the cable will be about $825,000. The capital is to be raised by the issue of preference shares bearing 5½ per cent interest.

International Geological Congress.—The first session was held in Paris in 1878. On the 26th of September next, the congress will meet at Bologna, Italy, Signor Sella being the honorary president. The King of Italy has made considerable efforts to assure its success. During the sessions a geological exposition will be held, and excursions will be made to points of interest. The reports of the international committee appointed in 1878, on the unification of geological nomenclature and the conventional signs (figures and colors) used for charts, will soon be mailed to subscribers to the congress. This question has been made a subject for competitive essays, for which prizes given by King Humbert are to be distributed by a jury.

Letters and Telegrams.—It is estimated, from statistics recently published, that in 1877 the postal correspondence was 4020 millions, an average of 11,000,000 letters a day, or 127 each second. Europe contributed to this enormous mass 3036 million letters; America, about 760 millions; Asia, 150 millions; Africa, 25 millions; and Australia, about 50 millions. If we assume the population of the globe to be between 1300 and 1400 millions, we have an average of three letters per head for the human race. Comparing 1877 with 1865, we find an increase of 1720 millions, the number for 1865 being estimated at 2300 millions. Our authority for these figures, London *Iron*, says that the length of telegraph lines, both by sea and land, must be at least 437,500 miles, excluding the double, treble, and other lines. There were 38,000 telegraph stations, and the number of messages may be set down for the year at between 110 and 111 millions, an average of over 305,000 messages each day, 12,671 an hour, and nearly 212 a minute; and these quantities are daily increasing.

The Electric Light in Bombardments by Night.—The *Photographic News*, on the authority of a letter from Sfax, states that before the French landed, they carried on the bombardment at night, aided by the electric light, and using guns of a large caliber. The French have for a long time past occupied themselves in devising an effective plan of night bombardment, and they seem to have succeeded. Napoleon the Third encouraged the late M. Chevalier in experiments in this direction, at Vincennes, in which both the camera and the theodolite were brought into requisition. At the time of his death, M. Chevalier was working at two military problems, which he felt sure of solving with the aid of photography. First, by employing two photographic proofs obtained with the instruments to regulate in the most certain manner, during the night-time, the direction of fire against an enemy's works, and also the angle of reflection of the electric light to be used for illuminating the same. Secondly, in the same way to regulate the convergent fire of either one or more batteries, either by night or by day. It is not stated what plan was followed in the night bombardment at Sfax.

The Route through the St. Gothard Tunnel.—The *St. James's Gazette* says that the railroad is so rapidly approaching completion that a table of the fares to be charged on it is printed in the last edition of Meyer's Guide-Book to Switzerland, in anticipation of the line being very shortly, in part at all events, open for traffic. Starting from Rotkreuz, eleven miles from Lucerne, the St. Gothard line runs along the western shore of Lake Zug, around the base of the Righi and by Lake Lowerz, striking the Lake of Lucerne at Brunnen. From Fluelen the line begins to ascend the valley of the Reuss, attaining an altitude of 1558 feet above the level of the sea at the village of Erstfeld, five miles from Fluelen. Up to this point, the gradient of the line nowhere exceeds 10 in 1000; but from Erstfeld to the next station, Amsteg, it rises 26 feet in every 1000. From Amsteg the line runs through a number of short tunnels and over a number of bridges to Gurtnellen, eight miles from Fluelen, where it attains an altitude of 2427 feet. From Gurtnellen the line ascends the mountain side in a series of bold spirals, crossing the Reuss several times, and passing through the Pfaffensprung Tunnel, 1487 meters in length; and then, running through the Wattingen Tunnel, reaches the station of Wasen, 3008 feet above the sea-level. Leaving Wasen, the line runs back again in the direction of Fluelen; then turning, passes through the Naxberg Tunnel, 1570 meters in length, and reaches the station of Göschenen. Here the St. Gothard Tunnel, nine and a half miles long, begins.

The Arlberg Tunnel.—The work of boring this tunnel, which is to connect Switzerland with Austria, is proceeding very satisfactorily, and at a speed which affords a striking illustration of the improvements that have lately been effected in the art of mountain tunneling. The Mont Cenis tunnel was bored at the rate of 1112 meters a year, the St. Gothard at the rate of 1670 meters, and the Arlberg is expected to be pierced at the rate of 2160 meters. The Arlberg engineers are also profiting by the experiences of their predecessors in the matter of cost; for while the outlay on the Mont Cenis tunnel was £400 per running meter, and has been hitherto on the St. Gothard £250, the expense of making the Arlberg will not exceed £150 the meter. In this matter, however, the tunnel last named benefits by its shortness, since the longer the tunnel, other things being equal, the greater is its relative cost. An interesting experiment is making in the Arlberg tunnel, with a new sort of perforator. As is well known, the perforators used in the Mont Cenis and St. Gothard tunnels consisted of a series of chisels (not diamond-pointed, as has sometimes been stated) driven with a quick, hammer-like action by compressed air, the machines for the production of which were actuated by turbines at the two ends of the galleries. This system is the one in use on the eastern or Austrian side of the Arlberg. The chisels cover a space of seven square meters, and make 20 to 25 holes at one time, each from 1½ to 2 meters deep. These are

then filled with dynamite and the mine exploded. Every blast lengthens the drift by about 1¼ meters. The perforators move forward on wheels, and the air, compressed to a pressure of five atmospheres, is supplied through flexible tubes. On the west side, drills are employed, of a diameter of 70 millimeters, to which, by means of a water pressure of from 60 to 100 atmospheres, a rotary movement is communicated. Six or eight of these drills are as effective as 20 to 25 of the atmospheric perforator, and the holes they make are so much wider that equal results are produced with lighter charges of dynamite. But the greatest difficulty in Alpine tunneling, says the London *Times*, consists less in quarrying out a passage than in getting rid of rubbish. After every blast, the outcome of it, in the shape of loose material, must be removed before boring operations can be resumed; and when an atmosphere already close and impure is still further fouled by the smoke of an explosion, the labor of removal becomes dangerous as well as difficult. Fatal accidents sometimes happen. The leading miners in the Arlberg tunnel, when engaged in this work, cover their mouths and nostrils with sponges which have been steeped in vinegar, an expedient which has been found singularly efficacious in neutralizing the bad effects of the poisonous air they are often compelled to breathe. The important part which the removal of rubbish plays in these undertakings is shown in the fact that of the five years required for the making of the Arlberg tunnel two and a half will be occupied in actual boring and excavating, and two and a half in carrying away loose material. Since June, 1880, when the work first began, the gallery on the east side has been driven 1010 meters, that on the west 710.

NEW BANK AT GUNNISON, COLO.—The Miners' Exchange Bank has just been organized, with a capital of $300,000, and is run, not by a stock company, but by a copartnership under the firm name of Coppinger, Cheney & Co. The bank was to open about August 15th.

THE TANITE COMPANY.—A beautiful bronze medal has been issued to this company by the Sydney International Exhibition, New South Wales, Australia. The Tanite emery wheels are sent from the little borough of Stroudsburg, Pa., to England, the continent, Russia, Japan, and Australia. The medal was forwarded to Mr. T. Dunkin Paret, the president of the company, by the Commissioners for the United States, appointed by the government of South Wales. Not long since, a similar award was forwarded to the company from the International Exposition of Geneva, Switzerland.

FATAL GLYCERINE EXPLOSION.—DENVER, COLO., Aug. 16.—Advices from Gunnison City report that last Thursday, at Caraco & Fay's mining camp, twenty-eight miles from Gunnison, two men were instantly killed and two others fatally mangled, by an explosion of nitro-glycerine. Five men were preparing a blast, when the charge, glycerine, prematurely exploded. One was thrown into a stream, and his body has not been recovered. It is supposed to be buried under the rocks thrown by the explosion. Another was badly mangled and instantly killed. Two others, names unknown, were terribly mutilated, and will die. The other man escaped unhurt.

FIRST SHIPMENT OF PHOSPHATES FROM CANADA TO FRANCE.—The first shipment, of five hundred tons, of phosphates from the Buckingham Mines, Province of Quebec, the property of La Compagnie Française des Phosphates du Canada, to Bordeaux, France, will take place before the end of the month. Mr. Perrault, French Consul, representing the interests of the company in Canada, is looking for a sailing vessel to carry the phosphate. It is stated that a new use for Canadian apatite, which is a mineral phosphate of lime, has been discovered; namely, for purifying coal-gas in the process of manufacture. If this be true, it will materially improve the demand for this article, the mining of which has of late become a considerable industry in the Province of Quebec.

ILLUMINATING NIAGARA FALLS.—A press dispatch, dated Prospect House, Niagara Falls, August 11th, says that the electric lights that evening, furnished through the efforts of Mr. Benjamin Rhodes, Superintendent of the new Suspension Bridge, combined with those of the Prospect Park Company, added materially to the illumination of the falls at night. Ten of the new lights were put in motion, two on the American side, one on each tower of the new Suspension Bridge, and six distributed along the Canadian bank up to the museum. The wires have been extended to the Table Rock House. To-morrow, two lights will be in position at the Prospect House, and four between it and the Table Rock. The Brush machine which furnishes the light is in the Oneida Community building on the American side, and is at present run by steam-power, but will in a few days be supplied with water-power. The lights have been arranged to distribute their rays on the Canadian and American Falls, but not yet with perfect effect, owing to the new machinery; but as soon as it is properly geared, and the remaining six lights are in position, the effect will be wonderfully grand.

NEWFOUNDLAND'S FIRST RAILROAD, AND A DISCOVERY OF GOLD ON THE LINE.—A dispatch to the New York *Herald*, dated St. John's, August 16th, says that the New York & Newfoundland Railroad Company formally commenced the work of railroad construction in this island to-day. Shortly before noon, the first sod was turned under the management of Mr. Bolland, an engineer of European reputation, and several squads of navvies are now busily engaged in grading those sections of the road that had been previously located. The two termini of the railroad are St. John's on the south and the north shore of Notre Dame Bay on the northerly end. Concurrently with the inauguration of railroad work in St. John's, there is reported from undoubted sources a gold find of extraordinary promise at Ming's Bight, close to the very spot where the New York company, at least for the present, purposes terminating its line. The vein ranges from ten and a half to twelve inches in breadth on the surface, and widens considerably as it descends. Selected specimens have yielded by assay eighteen ounces of pure gold to the ton of ore, and, so far as explorers have ascertained, the vein preserves an unbroken continuity for several miles. The proposed 400 miles of railroad now actually begun run through the whole of the principal metalliferous belts of the island, and the capitalists of New York who have secured this golden contract with the Newfoundland government will daily discover to their extreme satisfaction, as the work progresses, that in their eight-mile alternate blocks along the whole line of railroad they have secured mines of rich, rare, and undoubted wealth, from which the means of building a half-dozen Newfoundland railroads such as the one contemplated can be obtained. The Premier of Newfoundland and Mr. Blackman, the manager of the New York company, are now in London, and will leave for St. John's by the next Allan steamer. Mr. Blackman will then proceed without delay to New York, and there organize and dispatch to St. John's several corps of engineers for the immediate location of the whole line. It is expected that the work of construction will be brought to completion within two years.

GENERAL MINING NEWS.

ARIZONA.

Our latest Arizona exchanges contain the following:

GLOBE DISTRICT.

COPPER QUEEN.—The superintendent reports, August 5th: The large cut still shows an immense body of ore, which at present supplies four fifths of the ore that is smelted. We shall have no difficulty in keeping both furnaces constantly at work, as the mine is in shape to yield 100 tons daily if needed.

EL CAPITAN.—The main shaft is down 69 feet and the tunnel is in 262 feet Two winzes have been sunk; one is down 26 feet and the other 36 feet. The latter will be driven down 60 feet, at which depth it is expected to strike the main body of ore.

OLD DOMINION.—The superintendent reports, August 6th: In cutting through from tunnel to shaft on the New York, we struck some of the best ore yet found in the mine, assaying 40 to 50 per cent copper. On the Old Dominion, we find the ore-vein steadily improving, and the width of vein increasing as we advance into the hill and gain depth. Every thing now goes to prove that the deeper we sink, the larger and richer we shall find the ore-vein.

TOMBSTONE DISTRICT.

ANCHOR.—Work goes ahead rapidly in the tunnel. From the face of the tunnel to the bottom of the incline, the distance is 150 feet. At the rate the tunnel is now driven, it will not be long before connection is made. This connection will give good ventilation and greatly facilitate the working of the mine, as the ore from the incline instead of being hoisted to the surface (a distance of 177 feet) will be taken out through the tunnel, dumping it where it will be easily accessible to wagons.

FLORA MORRISON.—The drift to connect with the sulphuret at a depth of 347 feet is nearly through.

GRAND CENTRAL.—The new works will start up shortly. It is stated that the works embody every improvement known in hoisting-works. The stopes look as well as heretofore. Owing to the condition of the roads, only 70 tons of ore are now shipped to the mill. The ledge on the 400-foot level is large and well defined, but not of the same uniform grade as that from the upper levels.

STONEWALL.—Work has been resumed in the drift between shafts Nos. 1 and 2, about 30 feet having to be run to make connection, when a natural flow of air will ventilate the mine. A cross-cut of 50 feet, sinking between the shafts, has opened a good body of ore.

SULPHURET.—Work on the pump-chamber is pushed ahead as rapidly as possible. Nothing more than this can be done until the pump is in place, when sinking the main shaft will be pushed down into the water belt as rapidly as possible.

TOMBSTONE.—All the ore-bodies continue to look well and yield in excess of the capacity of the mills to reduce. It is stated that there is now an accumulation of 800 tons at the mills besides full ore-bins at the mines. During the suspension of ore-hauling to the Contention and Head Center mills, an extra amount was shipped daily to the Tombstone Company's mills, which accounts for the large accumulation. During the days the mills were shut down, the superintendent had the Corbin mill thoroughly overhauled and all lined up, so that now it is in perfect shape for another year's run.

VIZINA CONSOLIDATED.—An official report from this company, dated August 16th, states that the main shaft is now down 336 feet. No stopes or winzes have been started for the purpose of extracting ore; all that is taken out comes from the faces of the drifts. About 120 tons of ore are sent to the mill each week; sixty men are employed at the mine. In July, 566 tons of ore were extracted and milled, the bullion value of which was $53,000; in June, 420 tons, yielding $37,500; and previous to June, 1915 tons, yielding $124,000, making the total amount of ore extracted and milled 2900 tons, yielding $214,500.

WESTERN.—The secretary reports officially that the bullion shipments received for the month of July amounted to $102,403.42. The mill closed down part of the month, caused by floods and break of dam.

CALIFORNIA.

HITE.—The superintendent telegraphs that the 200-foot level has been advanced 7 feet within the last week, all in good pay-ore; the vein now stands 58 feet.

BODIE DISTRICT.

The telegraph announces that the Fortuna Ledge in Bodie Consolidated, from which the last series of dividends were paid, has been struck at a greater depth. The usual amount of work is doing on the Standard Consolidated; the bullion shipped for the week ending the 6th, amounted to only $20,676.07. The Bulwer Consolidated report states that the west cross-cut, from the south drift of the 500-foot level of the Standard was advanced 12 feet during the week, and is now in 94 feet; the ground works well. In the Noonday, a west cross-cut from vein No. 1 has been started from a point 612 feet south of the combination shaft, and is now in 15 feet; the face of the cross-cut shows benches of quartz. The cross-cut in the North Noonday, from No. 2 vein, has been run a total distance of 69 feet; progress for the week, 11 feet. The Syndicate mill is running steadily on ore from the Colcord vein. The product of the mine for July was $12,077.57. Official reports for week ending August 6th, are as follows:

BECHTEL.—The stopes on all the levels are looking well, and the ore-bodies in places have shown an improvement during the week, especially in the 150 and 300 stopes north of the shaft. The north drift on the west vein, 400-foot level, continues to show three feet of ore, assaying well. The mill is kept fully supplied with ore.

BODIE CONSOLIDATED.—The ledge (No. 21) in the stopes continues to improve in width and quality, especially as progress is made north, the stopes in that direction showing high-grade ore. The uprise from the winze, south drift, to the tunnel level has been completed, and work on the main winze will be at once resumed. The ore is of the finest character throughout the winze level workings. Commenced operations upon ledge No. 21 on the 1st instant. There are five feet of clean ore between the walls, and there is an improvement in quality as the drift is extended south. The mill is working from 10 to 11 tons of ore daily. The foundation for the new mill will be completed by next Wednesday.

STANDARD CONSOLIDATED.—Extracted and shipped to the mills during the week 1180 tons of ore from the 300, 385, 500, and 550-foot levels. The average pulp-assay for the week was $31.16. Crude bullion received, 4085 ounces; amount shipped to the company $20,676.07. Since last report, the east cross-cut, 1000-foot level, has been advanced 8 feet; total length, 368 feet, with no change to note in the character of the rock passed through. The south drift from the west cross-cut is in 45 feet, and looks very favorable. The south drift from the east cross-cut, 700-foot level, has been extended during the past week 14 feet;

total length, 108 feet. Since last report, the work of running the east cross-cut, 700-foot level, was resumed. The rock in the face is very hard. The west cross-cut from the south drift, 500-foot level, is in 74 feet; progress, 12 feet, in good blasting rock. Uprise No. 2 from the south drift has reached a hight of 34 feet, showing the vein 5 feet wide. The uprise on the Bruce vein, 450-foot level (incline), has been extended 14 feet; total hight, 174 feet. The vein at this point is about 6 feet wide. The different stopes show no important change. The vein above the 385-foot level holds its usual width of about 20 feet, and in the stopes, 550-foot level, it is about 15 to 25 feet wide.

THE GREENVILLE DISTRICT.

CHEROKEE.—The superintendent reports that the main shaft is cutting through the hanging-wall of main ledge at a depth of 200 feet. The water of the old mine is draining along the wall to the main shaft, and is raised by pump. The ledge will be opened, to give the full width of the ore.

RISING SUN.—Superintendent reports the new shaft sinking through country, showing fine ledge formation carrying vein as strong as in third level of old shaft. This new part of the mine is showing a development of ore that adds largely to the value of the property. The Nos. 4 and 5 levels west from old shaft are pushed ahead to intersect the new shaft; these drifts both carry pay in the face. There are two new sources of ore, one at each end of the mine. The ore in face of No. 5 shows the gold coarse and well distributed through the quartz. The hoisting-works over the new shaft are completed, and machinery works well. The new mill is running regularly, and the silver plates show the ore to be of good quality.

CANADA.

PROVINCE OF ONTARIO.

CANADA CONSOLIDATED GOLD MINING COMPANY.—The superintendent of the company's mines, under date of August 13th, writes: Underground, three drifts are running, all in good ore. The deep shaft is sinking, also in good ore. The Tuttle shaft has been straightened, and is now sinking. The ore still holds out very good, and the vein seems to be getting still wider. The breaking of two air-drills causes some delay. On the surface, work goes slowly, owing largely to the scarcity of labor. The foundations for the engine and boilers are constructing. The preparatory work for the same was very tedious, as a great deal of blasting was necessary; still this work will be ready before the machinery arrives. All machinery contractors are behind with their work. All the framing for the mill is now completed, and on Monday, August 15th, we shall begin raising the building. All of the five blocks, of two each, of workmen's houses are under roof, and will soon be completed. The office (brick) is up to the second story.

THUNDER BAY.

SILVER ISLET.—The *North Shore Miner* says that work at the bottom of the shaft is pushed forward as rapidly as possible. More men are required to help in the crib-work and mining. We learned indirectly that a shipment consisting of 27 barrels of concentrations, shipped a short time since, was valued at about $20,000 at the Islet. The stamp-mill is not yet working, but will commence again as soon as stoping can be carried on to advantage. The new skip-cars lately introduced in the mine are said to work admirably.

COLORADO.

CLEAR CREEK COUNTY.

DUNDERBERG.—The superintendent writes, under date of August 6th: Our drifts looking splendidly. In the fourth level drifts, there is a streak of ore two inches wide, of high grade, an ore chunk assaying 800 ounces to a ton. A streak in the first level drift is five inches wide, but not solid. The July product about the same as June.

CUSTER COUNTY.

The Silver Cliff *Gazette* approximates the daily output of the Silver Cliff Company at 120 tons, and the Bassick at 70 tons.

BULL-DOMINGO.—The superintendent reports heading of cross-cut at the 350 level, 180 feet distant from shaft, and within a few feet of where the main ore-body is or should be. Innumerable stringers and feeders of ore appear in the workings, and their presence indicates proximity to the ore-chute at that level.

SILVER CLIFF.—The *Gazette* says: The output of ore at the mine and of bullion at the mill does not vary perceptibly from day to day or week to week. From the appearance of the mine, the leanest streak ever encountered has been passed through, and the mass of that now exposed is uniformly good, while exceptionally rich pockets are frequently opened.

GILPIN COUNTY.

We extract the following notes from the *Register-Call* of August 11th:

CALIFORNIA.—The California lode is down to a depth of 1300 feet, the deepest mine in Colorado. The 1300-foot station has been established, from which levels are driving both ways—east and west. The mill-dirt from this depth is yielding 5½ ounces gold per cord. This practically demonstrates the fact that deep mining will pay. The smelting ore from the 1300-foot levels is fully up to the former standard of that ore mined in the upper workings of the vein.

HIDDEN TREASURE.—A depth of 1150 feet has been attained in the main shaft, sinking still being prosecuted. The 1100 foot east level has been driven up to the boundary-line dividing the Hidden Treasure from the California property, a length of 173 feet. The west level has been driven 200 feet. Both levels give a good showing of mill-dirt in the backs of them. The Hidden Treasure Company is working in the 1000-foot levels, back-stoping and driving the levels, as also in the 900-foot levels, where a large amount of mill-dirt is back-stoped. The company crushes its own ore at its 50-stamp water mill in Black Hawk. The present output of ore from the mine is 50 tons of mill-dirt per day, and about 25 tons of smelting ore per month.

ROLLINS.—The crevice in the back-stope of the Perigo tunnel on that vein has widened to seven feet, five inches of which is smelting iron. The mill-dirt is running over six ounces gold per cord, and the smelting ore brings the usual prices—from $50 to $80 per ton.

GUNNISON COUNTY.

IRON BONNET.—The Tin Cup *Record* says: The Iron Bonnet Company has some very flattering mines on Gold Hill, and we predict for the company a brilliant and remunerative career.

LAKE COUNTY.

BREECE.—The Leadville *Democrat* says that the Breece iron mine is shipping 30 to 40 tons of iron ore per day, all of which goes to smelters in this camp and Robinson and one or two other towns. The mine is looking extremely well, showing an abundance of fine iron ore in nearly all the workings. The force employed is not very large, the working of the mine being carried on in the most practical manner, and the cost of mining the ore reduced to a minimum by air-drills and other modern appliances.

CHRYSOLITE.—The *Democrat* says: A tour through the Chrysolite shows four as fine stopes of ore as can be found in any mine in the camp. The first of them is a trifle east of north of the Roberts shaft. The next one is a little farther west, bringing it northwest of the shaft. A body of fine ore has been developed, showing by numerous drifts for nearly fifty feet. Quite a distance directly west of the shaft is the third large block of ore, showing in some places a face of high-grade sand ten feet in thickness. The fourth body of ore is southeast of the shaft, in the ground bordering on the burnt district. Enough ore is developed here to almost insure the next dividend. A three hours' visit in the mine will readily convince one that there are now about a quarter of a million dollars' worth of ore in sight, and that the Chrysolite should have no difficulty in repeating its $100,000 dividend of this month, during September, October, and November, without drawing on the $300,000 reserve fund. In fact, the company has already $77,000 in cash, and nearly $25,000 at the smelters, which will be settled for to-morrow. The directors will then have another dividend earned at the time of their August payment, and will or should declare one. The main west lower level has attained a length of over 600 feet, connecting with Vulture No. 2 shaft. Prospecting in the vicinity of this shaft will soon be commenced, and it is hoped that more of the rich horn-silver ore, which was found in the early history of the mine, will be discovered.

DENVER CITY.—The new machinery at the discovery-shaft of the Denver City Consolidation has been started up and is running well. The shipments of ore last week were 20 tons.

HIGHLAND CHIEF.—Small shipments are reported from this mine.

IRON.—It is reported that this company will sink a 1000-foot shaft in the vicinity of the Dome mine. The net output for the last week in July was 993 tons, and for the month 4485 tons. Money received during the last week, $94; for the month, $101,210. Ore delivered and unpaid for, 1626 tons.

LA PLATA.—The company is receiving so much ore from the mines with which it has contracts that the product of the Oro La Plata mine is only nominal, and a great deal of prospect-work is now in progress, and the resources of the mine are being largely increased.

LITTLE PITTSBURG.—The ore is said to be improving in grade. The output for the week ending August 8th was 185 tons, and there have been shipped and unsettled for, 311 tons.

MINER BOY.—A strike is reported on the south level from the No. 2 shaft, of a large vein of carbonates, ten feet in thickness.

DAILY ORE PRODUCT.—The following table, from the Leadville *Circular* of the 13th, gives the approximate daily output of the leading mines of the camp at that time:

Mines.	Tons.	Mines.	Tons.
Miner Boy	15	Carbonate Hill	0
Florence	2	Henriette	50
Little Sliver	0	Evening Star	40
Colorado Prince	0	Dunkin	55
Little Pittsburg	15	Robert E. Lee	75
Chrysolite	90	Long & Derry	10
Little Chief	15	Brian Boru	5
Iron Mine	225	Crescent	8
Silver Cord-Wave	70	Highland Chief	0
Catalpa	17	Comstock	3
Little Ella	14	Matchless	40
Amie	5	Hibernia	12
Oro La Plata	33	Climax	10
Glass-Pendery	30	Big Pittsburg	0
Morning Star	70	Dyer	2
Columbia	0	Others, say altogether	30
Argentine	30	Etna	15
Little Prince	5	Agassiz	15
Half Way House	20	Leadville	10
Robert Emmet	5		
Shields	8	Total tons	1049

SMELTERS—JULY PRODUCT.—The same paper gives the following as the report of the smelters' work for July:

Smelters.	Tons of Bullion.	Assay per ton.	Total ounces silver.	Total am't silver and lead.
Grant Smelting Company	*803	177	142,328	$235,217.00
Billing & Eilers	435	167	72,645	122,759.17
La Plata	696	146	101,616	180,117.84
California				
American Smelting Company	110	160	17,600	30,184.00
Cummings & Finn	613	200	122,600	195,547.00
Ohio & Missouri				
Total	2,657		456,808	$753,825.35

* Estimated.

Average price for silver during July, $1.11½.
Average price for lead during June, $96 per ton.

This report shows a falling off from the month of June as follows:

Month.	Tons bullion.	Value.
June	3,507	$1,180,170
July	2,577	753,825
Decrease	930	$426,345

Adding $150,000 as the estimated value of the bullion produced by the mills and the ore shipped out of the camp to smelters elsewhere, the total production of the camp for the month of July would be $903,825.

SAN JUAN COUNTRY.

BEAR CREEK.—The Ouray *Times* says: The work of the mines on Bear Creek is vigorously pushed and with very excellent results. The Belle of Ouray, Toledo, Oneida, Sivyer, and the mines of the Bear Creek Mining Company are among the noted properties worked this season, and none are doing more to open up this wonderfully rich section than the Bear Creek Mining Company. The mines consist now of five, three having been acquired this season. Day and night shifts are running tunnels on two of the mines, and one or two more levels will be opened very soon. The levels will be connected with shafts which will open up a large extent of ore, which will soon after be ready for stoping. It is the intention of the company to push work vigorously during the fall and coming winter with a view to the production of ore. The mines now worked have improved very much. The quantity of ore has increased, and the quality is much better than it was before this season's work commenced.

PALMETTO.—The superintendent telegraphs that during the week ended August 13th, 44 tons of ore were extracted, 60 tons milled, and shipped 2871 ounces of silver.

ROBINSON CONSOLIDATION.—The output of the Robinson for July was 2224 tons, worth roughly, net, $200,000. The cost of mining and hauling is given as $4.50 per ton. The recent new discovery 450 feet south of the main ore-body is beginning to yield quite largely of rich ore. A chute has been placed here, connected with the tunnel, and during the past week fifty tons were shipped from this point alone. As development progresses, the mineral body improves.

MISCELLANEOUS.

The Denver & Rio Grande Railroad is now completed to Gunnison City.

Eight days' clean-up from the 100-stamp mill of the Bobtail mine, Gilpin County, yielded $8762.

It is reported that the finest body of ore ever found in the mine is now uncovered in the east drift of the Native Silver at Caribou. Chunks of solid metallic silver, two inches thick, are taken out.

The money has been raised for a new smelter at Idaho Springs, Clear Creek County, upon which work is to be commenced immediately.

Messrs. Mather & Geist are adding a refinery to their smelting-works at Pueblo.

The August R. Meyer Sampling and Ore Buying Company is shipping ore to Golden, Pueblo and Kansas City.

The fourth furnace at Billing & Eilers's smelter was blown in August 12th.

The Greer smelter has been running successfully since the 5th instant. The ore comes principally from the Aftermath, with occasional shipments from the Wheel of Fortune.

The ore shipped from the Moose is running $200 to the ton, and there is a large dump of low-grade ore.

A tramway is building to move the ore of the London mine from the mine to the road.

DAKOTA.

The excitement over the carbonate discoveries nine miles from here continues. A new town has sprung up called West Virginia, which is well represented in all branches of trade, and supports a daily newspaper, the Carbonate *Reporter*, from which we take the following: In the short space of one week, this mining camp has made marvelous strides toward development, probably without a parallel in the history of the world. One week ago, the mining locations in this district could be counted on your fingers. To-day, it is estimated by those who have taken pains to ascertain that at least five hundred *bona-fide* claims have been taken, and some little work done by the prospector. The rush commenced when the samples to be assayed came to Deadwood.

FATHER DE SMET.—A letter from the superintendent of this mine dated August 8th, says: Ore extracted from first level, 1400 tons; second level, 400 tons; and third level, 68 tons. The total was 1868 tons; ore milled, 1868 tons. The work on the mine for the same period was as follows: On sill-floor, McGinty chamber was advanced three sets; north end tunnel advanced seven feet.

IDAHO.

COLUMBIA AND BEAVER.—The *Wood River Miner* says that the road from Galena to Sawtooth is completed. The heavy machinery that has been ordered will be taken in at once. Development on both mines progresses actively. The Beaver Tunnel face is in a country showing promising proximity of ledge, and the No. 1 and No. 3 tunnels of Columbia are cutting into ore of surprising richness. The No. 2 tunnel is also running through excellent ore, all of which is stacked upon the dumps. A large force of men is at work, and the improvements make rapid headway.

VARKUFF.—The agent of this company at South Mountain reports, August 6th, that work is advancing favorably at the mines. The concentrators were expected to arrive the following week. There is sufficient ore on the dumps to keep the concentrators busy for several months. The smelter is now repairing. Several rich strikes were made during the previous week.

YANKEE FORK.—The superintendent of the Consolidated Yankee Fork Gravel Company telegraphs: Have just struck a large channel of pay gravel. Particulars by mail.

MONTANA.

We condense the following from our Montana exchanges:

ACQUISITION.—The new main shaft is down and timbered to a depth of 175 feet. Within the past week, the shaft has been sunk about ten feet. No indications of striking the ore-vein are met in the shaft. The rock is hard, black granite, and the head of water coming in is strong at times, but under easy control. Fifteen men are employed on eight-hour shifts in sinking the shaft.

ALTA-MONTANA.—The amalgamating furnace and smelting buildings are erected, and the placing of the machinery is rapidly progressing. The total output of ore for July has been 409 tons; average, 103 ounces of silver and 37½ per cent lead. The total yield was 42,154 ounces of silver and 304,120 pounds of lead.

LEXINGTON.—The main shaft is down 195 feet, and is timbered 190 feet deep. At the old incline, shaft-work continues as usual, with nothing notable to record about the quantity hoisted daily, or its value. Plenty of free-milling ore to supply the Davis 10-stamp mill is taken from the mine daily.

MOULTON.—The main three-compartment shaft has reached a depth of 450 feet. The air-shaft on the Moulton—600 feet west of the main shaft—is down 57 feet on a vein of fair-looking ore. This shaft is to be sunk 300 feet deep. The level to the west from the 300-foot level in the main shaft will be run to connect with this air-shaft, for the purpose of affording good ventilation.

STEVENS.—The work is now confined to sinking the main shaft. Sinking is accomplished slowly, as the rock is decidedly hard. The volume of water is heavy, but under the control of the pump.

NEVADA.

COLUMBUS DISTRICT.

We are indebted to the *True Fissure* of the 6th inst. for the following reports:

MOUNT DIABLO.—A two months' run upon ore from this mine was finished yesterday at the mill of the Northern Belle Company. The reason assigned for ceasing milling is that the Northern Belle charges $20 per ton for reducing ore and $3.25 for hauling. This the company thinks is too great a price to pay. No ore is extracting now, except such as is necessary in the work of prospecting. The winze at the bottom of the mine looks well. A winze has been started directly north of the shaft on the third level, and also one from the east drift on the same level. These will be sunk to some considerable depth to open that part of the mine. The face of the east drift shows a favorable formation, and the length of the same has advanced twelve feet since last report. Bullion amounting to $8601.78 was shipped on July 29th and $10,032.66 on August 2d.

NORTHERN BELLE.—The shaft-levels are looking well throughout, particularly the intermediate, between the first and second levels. In running a cross-cut in new ground on the first level, a body of ore has been opened which is twenty inches in width and looks quite promising. The tenth and eleventh levels are showing very well; the ore-vein on the latter widened on Sunday, and the outlook there is quite enouraging. All the levels above the ones mentioned present about the same appearance and are yielding as usual. There are extracted and sent to the mills about 85 tons of ore per day. The shipment of bullion for the week ending August 3d was $20,896.79, and the total on August account was $97,964.88.

THE COMSTOCK LODE.

The summary of the Gold Hill *News* for the week ending August 10th is as follows:

Operations for the past week developed but little in the mines that is of much encouragement to stockholders. Cross-cutting has been commenced on the 400 level of the Utah, and some interest is manifested in that direction. There is no good reason why the anticipations of finding ore at that depth, which are indulged in by the management, should not be realized. Almost in every other mine on the lode ore-bodies have been found near the surface, and why not in Utah? The wisdom of Superintendent Patton's method of handling the water in the north end is every day becoming more manifest. The drill-holes run from the face of the drift on the 2700 level of the Union shaft have been driven into the water-belt. In these holes have been inserted iron pipes with cocks, which are so arranged that the flow of water can be regulated to the capacity of the pumps. There can be no danger of flooding the mine; for should a portion of the pumping machinery give way, the flow can be cut off entirely. The body of water on the 2500 level has already decreased to a considerable extent, but no attempt will be made to run drifts from the station (which will be completed some time this week) at the 2700 level of the Sierra Nevada Union winze until the water is entirely drained off. Until such time, sinking of the winze will be continue upon the completion of the station Work in the other north end mines progresses as usual. There has been a slight increase of water in the bottom of the Gould & Curry and Best & Belcher shaft, but not enough to interfere with sinking. Both sections of the C. N. S. hydraulic pumps were placed in motion again this afternoon. The impression prevails upon the streets that the pumps will be run this time for what they are worth; that they will be proved either useless or available; and that there will be no more waiting after this trial to see what the hydraulic pumps will do; that the test will demonstrate their utility or lack of it. The usual work goes on in Yellow Jacket. The development made in Jacket ground by the Sutro Tunnel has not yet been prospected. Mining men who have examined it pronounce it an excellent prospect. At the Consolidated Imperial, the drift on the 2800 level, connecting with the Yellow Jacket, has been reopened and the atmosphere cooled thereby. The sump at the Alta shaft will probably be completed to-morrow, when drifting will be commenced for the ledge. The ore reported extracted on the Comstock per day the past week is as follows: California, 10 tons; Kentuck, 10 tons; Belcher, average about 43 tons; Crown Point, 40 tons.

ESMERALDA COUNTY.

THE CENTENNIAL SAPPHIRE MINES.—We get the following information from a correspondent: These properties are in Lida Valley Mining District, near the town of Lida, Esmeralda County, and consist of four full-sized claims, embracing about 80 acres, with 20 acres salt marsh and ample wood and water privileges. The main ledge is inclosed by limestone on the hanging-wall, and slatestone with clay seam on the foot-wall, and is opened by a half-dozen or more prospect-holes on and along the outcropping, which is large and well defined, and by two shafts, one 90 and the other 50 feet deep, the deeper shaft being at or near the center of the property (which is situated on a side hill), and its bottom some hundreds of feet below the level of the upper end of the "great ledge." From these shafts, levels have been run in opposite directions 50 feet or more each way, all in ore. Recently a cross-cut has been made on the 80-foot level of the deeper shaft, and as far as completed, shows the vein to be 15 feet 7 inches wide. A short tunnel had formerly been run on the vein farther down the slope, and a considerable space understoped, in which the foot-wall only was exposed, notwithstanding the stoped space is more than 10 feet wide. Every opening, all the shafts, cross-cuts, etc., are in good milling ore, which will yield at the very least $40 to $60 per ton silver, average, from wall to wall. One hundred tons or more of the ores from these mines have been selected and milled, and yielded very handsome returns; one lot of 15 tons, milled in the presence of Dr. Griswold, of Benton, Cal., gave a result of $200 per ton, average. A number of tons of selected ore are to be milled shortly for the present operators, a New York company. The advantages of plenty of wood and water, aside from their other merits, render these properties rather more desirable than some others we know of in that section of Nevada.

NEW MEXICO.

CIMARRON.—The *News and Press* says: Mr. I. W. England, Chauncey Kilmer, and Professor Austin, who visited the Rebel Chief in Ute Creek District, the property of the Cimarron Mining Company, last week, have not yet decided as to their future course in regard to machinery. The Howland pulverizer was wrecked by a pick-point which had been fed with the ore. Messrs. England and Kilmer have returned to New York, but Professor Austin remains to try five tons of ore in the Rhode Island stamp-mill, to determine if a stamp-mill shall be substituted for the Howland pulverizer.

UTAH.

Utah exchanges say:

BARBEE & WALKER.—It is stated that new ore-bodies have been opened in several places in the north portion of the mine, notably on the fourth level, where a body of ore has been struck of unknown extent, but which will be determined by two winzes, which are now sinking—100 feet apart—from the third level north. What is known as the back ledge has been cut at this depth, after cross-cutting about 20 feet to the east on this level, and is now drifted upon to the north, producing high-grade ore. The work of further development is carried on by contractors in that part of the mine, and good-grade ore shows in the face of all the works. The ground is preparing to stope at any time required, but will be held for the present as reserve. The mill is running to its full capacity.

CHRISTY.—The new hoisting-works at the California are rapidly nearing completion. Little or no delay will occur at the mine in consequence of the placing of the new machinery. The machinery from the California will be put in place at once at the Maggie.

NORTH HORN-SILVER.—The deep tunnel on the extreme north end is in about 60 feet, with a good showing of ore. The shaft on the Republic is down 60 feet; it is sinking near the hanging-wall of the vein, a distance of 140 feet from the foot-wall. Adjoining this property is the Massachusetts, with a shaft down 60 feet and some drifting done. The ore is said to be high-grade copper, and carries silver.

SILVER REEF.—The Salt Lake *Tribune* says: Silver Reef's bullion shipments are gradually increasing, and we may soon expect to see dividends resumed in many of the properties which suspended early in the spring by reason of the striking miners. There is no reason why the Reef should not again occupy the position it held a year ago as one of the leading bullion-producing camps on the Pacific coast.

STORMONT.—The Buckeye and the Savage shaft are at present producing the principal ore-supply sent to the mill. The preparatory work necessary to increase the output of the mine largely is nearly completed; stoping has already commenced at several points on the third south level. This level is pushed south at the rate of four feet per day, and developing hitherto unexplored ground, and shows uniform grade ore in face. A winze 180 feet deep will connect the third and fourth levels, a contract for the first 50 feet of which is let and work begun. The fourth level is pushed both north and south from the bottom of the Savage shaft. Arrangements have been completed to start up the Stormont mine at an early day. The mill is running without interruption.

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 the Schuylkill River; J. N. Macomb, Col. of Engineers, U. S. Engineer's Office, 1125 Girard Street, Philadelphia, Pa.	Aug. 13, 1881
Furnishing Cotton Duck and Materials for the Manufacture of Tents; Depot Quartermaster's Office, Philadelphia, Pa	" 24, "
Construction of Works at the Mouth of River Nicolet, Quebec; Department of Public Works, Ottawa, Can.	" 25, "
Dredging in Flushing Bay, N. Y.; John Newton, Colonel of Engineers, U. S. Engineer's Office, Room 31, Army Building, Cor. Houston and Greene Streets, New York City	" 27, "
Removing the Wreck of the Schooner John E. Hurst, now lying on Bulkhead Shoals, Delaware River; J. N. Macomb, Colonel of Engineers, U. S. Engineer's Office, 1125 Girard Street, Philadelphia, Pa.	Sept. 1, "
Erection of an Engine and Pumps in the Pumping-House of the Water-Works of the City of Lafayette; Board of Trustees of Water-Works of the City of Lafayette, O	" 1, "
Furnishing 125 Tons of Cast-Iron and about Ten Tons of Wrought-Iron for Finishing the Street Bridges of the Brooklyn Approach; Trustees of the New York and Brooklyn Bridge, 21 Water Street, Brooklyn, N. Y.	" 3, "

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. Date and amt. per share.			HIGHEST AND LOWEST PRICES PER SHARE AT WHICH SALES WERE MADE. Aug. 13. H.	Aug. 13. L.	Aug. 15. H.	Aug. 15. L.	Aug. 16. H.	Aug. 16. L.	Aug. 17. H.	Aug. 17. L.	Aug. 18. H.	Aug. 18. L.	Aug. 19. H.	Aug. 19. L.	SALES.
Alice, s. c.	Mon	3,000	10,000,000	400,000	25	.....	.....	.....	.....	200,000	July.	1881	10	.....	.....	7.00	6.75	6.88	6.50	7.00	6.88	7.00	6.88	6.88	.....	2,900
Amie Con. s. L.	Col.	.....	5,000,000	500,000	10	*	.....	.....	.....	305,000	May.	1880	10	.44	.42	.44	.40	.43	.40	.49	.39	.43	.39	.38	.37	25,000
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	.....	50
Belle Isle, s.	Nev.	1,500	10,000,000	100,000	100	45,000	June	1881	15	300,000	Dec.	1879	25	.....	.....	.....	.....	.25	.....	.....	.....	.23	.....	.....	.....	400
Belcher, G. S.	Nev.	1,040	10,400,000	104,000	100	2,328,000	Apr.	1881	75	15,397,200	Apr.	1876	75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bodie Cons., G	Cal.	.....	10,000,000	100,000	100	75,000	May.	1879	1 00	1,200,000	Mar.	1880	25	10.13	8.50	10.63	9.75	9.00	.....	9.00	.....	.....	.....	9 50	8.75	2,375
Breece	Col.	.....	5,000,000	200,000	25	*	.....	.....	.....	2,000	Feb..	1880	01	.75	.....	.75	.....	.75	.74	.77	.76	.70	.....	.76	.....	3,000
California, G. S.	Nev.	600	54,000,000	540,000	100	162,000	June	1881	30	31,320,000	Dec..	1879	50	.96	.95	.96	.94	.75	.95	1.05	1.00	1.10	1.00	1.10	1.00	6,500
Calumet & Hecla, C.	Mch	.....	2,500,000	100,000	25	.....	.....	.....	.....	19,850,000	Aug.	1881	5 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Caribou Con., S.	Col.	1,400	1,600,000	100,000	10	*	.....	.....	.....	50,000	Mar	1880	10	.....	.....	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	100
Catalpa, S. L.	Col.	.....	3,000,000	300,000	10	.....	.....	.....	.....	180,000	May.	1881	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chrysolite. S. L.	Col.	.....	10,000,000	200,000	50	*	.....	.....	.....	1,200,000	Aug.	1881	50	6.13	5.88	6.75	5.88	6.63	6.50	6.63	6.50	6.63	6.00	6.38	6.25	9,640
Climax, S. L.	Col.	.....	2,000,000	200,000	10	*	.....	.....	.....	180,000	Aug.	1880	30	.54	.....	.....	.....	.53	.....	.51	.....	.....	.....	.50	.....	1,000
Cons. Virginia, G. S.	Nev.	710	54,000,000	540,000	100	411,200	June	1873	3 00	42,930,300	Aug.	1880	50	2.00	1.90	2.10	1.90	2.25	2.00	2.20	2.05	2.45	2.00	2.50	2.30	33,745
Copper Knob, C.	N. C.	.....	1,000,000	1,000,000	1	*	.....	.....	.....	15,000	Nov.	1880	02	11.00	.09	.10	.09	.10	.09	.10	.....	.10	.09	.10	.09	52,600
Copper Queen	Ariz	.....	2,500,000	250,000	10	.....	.....	.....	.....	75,000	Sept.	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	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Deadwood-Terra G.	Dak	.....	5,000,000	200,000	25	.....	.....	.....	.....	†420,000	Aug.	1881	20	.....	.....	8.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	100
Dunkin, S. L.	Col.	.....	5,000,000	200,000	25	*	.....	.....	.....	200,212	June	1881	7½	.40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100
Eureka Cons., G. S. L.	Nev.	.....	5,000,000	50,000	100	100,000	May.	1876	1 00	4,680,000	July.	1881	50	23.00	.....	.....	.....	.....	.....	.....	.....	29.00	.....	29 00	.....	300
Excelsior W't'r & M. Co	Cal.	525 acres	10,000,000	100,000	100	100,000	June	1881	1 00	850,000	Sept.	1880	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Exchange, S.	Nev	.....	1,000,000	100,000	10	.....	.....	.....	.....	750,000	Aug.	1881	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Evening Star, S. L.	Col.	.....	500,000	50,000	10	.....	.....	.....	.....	35,000	July.	1881	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Father de Smet, G.	Dak	.....	10,000,000	100,000	100	.....	.....	.....	.....	340,000	July.	1881	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Findley, G	Geo.	.....	200,000	200,000	1	*	.....	.....	.....	8,000	May.	1879	1c	.38	.35	.36	.25	.40	.35	.40	.35	.40	.29	.35	.34	17,300
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	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gold Stripe, G.	Cal.	.....	1,500,000	150,000	10	.....	.....	.....	.....	95,000	July.	1881	15	1.00	.....	.....	.....	.....	.....	1.00	.....	.....	.....	.....	.....	1,000
Gould & Curry, G. S.	Nev.	612	10,800,000	108,000	100	3,314,000	July.	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	.15	.....	.15	.....	.20	.....	.....	.....	.18	.....	.....	.....	725
Great Eastern, G.	Dak	1,200	300,000	300,000	1	*	.....	.....	.....	16,000	July.	1880	01	.21	.....	.....	.....	.22	.21	.22	.20	.20	.19	.20	.19	18,700
Green Mountain, G.	Cal.	4,350	1,250,000	125,000	10	*	.....	.....	.....	183,375	Aug.	1881	7½	.....	.....	.....	.....	5.25	4.85	5.25	5.00	5.25	.....	5.13	.....	5,700
Gulf & Norcross, G. S.	Nev.	400	11,200,000	112,000	100	3,698,000	July.	1881	50	1,598,000	Apr.	1871	5 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.75	.....	10
Hibernia, S. L.	Col.	.....	7,500,000	300,000	25	*	.....	.....	.....	180,000	July.	1881	10	.50	.47	.50	.47	.51	.48	.51	.50	.51	.48	.53	.50	39,450
Homestake, G.	Dak	.....	10,000,000	100,000	100	200,000	Apr.	1878	1 00	1,080,000	Aug.	1881	30	.....	.....	.....	.....	18.50	.....	.....	.....	18.50	.....	.....	.....	195
Horn-Silver, S. L.	Uth.	.....	10,000,000	400,000	25	*	.....	.....	.....	200,000	Jan..	1880	25	15.00	.....	.....	.....	14.50	14.00	.....	.....	.....	.....	13 25	.....	650
Hukill, G. S.	Col.	3,288	1,000,000	200,000	5	*	.....	.....	.....	210,000	Dec..	1878	10	.85	.80	.85	.....	.82	.....	.83	.82	.....	.....	.83	.....	2,400
Independence, S.	Nev.	1,500	10,000,000	100,000	100	155,000	Apr..	1881	0 20	225,000	Sept.	1879	25	.....	.....	.....	.....	.....	.....	.18	.....	.18	.....	.22	.20	900
Indian Queen, S.	Nev.	.....	250,000	125,000	2	.....	Feb..	1880	15	275,000	July.	1881	05	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Iron Silver, S. L.	Col.	.....	10,000,000	500,000	20	.....	.....	.....	.....	300,000	Aug.	1881	30	.....	.....	2.15	2.05	2 10	.....	2.05	.....	2.10	2.05	2.15	2.10	4,200
La Plata, S. L.	Col.	.....	2,000,000	200,000	10	*	.....	.....	.....	335,000	Aug.	1881	7½	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Leadville Cons., S. L.	Col.	.....	4,000,000	400,000	10	*	.....	.....	.....	150,000	Jan.	1880	15	.....	.....	.....	.....	.....	.....	.....	.....	1.45	.....	1.45	.....	700
Leeds, S.	Uth.	3,000	6,000,000	60,000	100	51,000	June	1881	25	78,000	Oct.	1878	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Little Chief, S. L.	Col.	.....	10,000,000	200,000	50	*	.....	.....	.....	700,000	Aug.	1880	50	.....	.....	.....	.....	1.50	.....	.....	.....	.....	.....	1 45	.....	1,200
Little Pittsburg, S. L.	Col.	30 acres.	20,000,000	200,000	100	*	.....	.....	.....	1,350,000	Mar..	1880	50	.....	.....	.....	.....	.....	.....	.....	.....	2.50	2.45	2.50	2.45	720
Martin White, S.	Nev.	22,900	10,000,000	100,000	100	875,000	June	1881	25	90,000	July.	1879	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Moose, S.	Col.	39,000	2,000,000	200,000	10	*	.....	.....	.....	560,000	Mar.	1878	25	.....	.....	.....	.....	.95	.....	.94	.92	.93	.82	.92	.....	1,700
Navajo, S.	Nev.	500	10,000,000	100,000	100	175,000	Dec.	1880	0 20	25,000	Mar.	1881	25	.....	.....	.70	.....	.....	.....	.67	.....	.70	.68	.....	.....	2,000
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	.....	.....	.....	.....	1,950,000	Aug.	1881	75	15.75	.....	15.75	15.50	.....	.....	.....	.....	.....	.....	16.25	.....	300
North Belle Isle, S.	Nev.	1,500	10,000,000	100,000	100	25,000	Feb..	1880	15	15.000	Sept.	1880	15	.49	.....	.57	.35	.....	.....	.....	.....	.48	.....	.40	.....	2,160
Ontario, S	Uth.	3,000	10,000,000	150,000	100	.....	.....	.....	.....	3,650,000	Aug.	1881	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ophir, G. S.	Nev.	675	10,080,000	100,800	100	3,092,630	Mar.	1881	1 00	1,603,200	Jan..	1880	1 00	.....	.....	.....	.....	.....	.....	6.50	6 00	6.75	.....	.....	.....	870
Plumas, G.	Cal.	.....	1,000,000	100,000	10	.....	.....	.....	.....	151,000	July	1879	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Quicksilver, Pref	Cal	.....	4,291,300	42,913	100	.....	.....	.....	.....	396,945	Aug.	1881	.09¼	.....	.....	.....	.....	.....	.....	60.00	.....	.....	.....	.....	.....	100
Quicksilver, Com	Cal	.....	5,708,700	57,087	100	.....	.....	.....	.....	128,146	Aug.	1881	.02¼	.....	.....	16.25	.....	15.50	15.38	.....	.....	.....	.....	.....	.....	900
Rising Sun, S	Cal	.....	750,000	150,000	5	*	.....	.....	.....	101,250	May.	1881	7½	.....	.....	.....	.....	.....	.....	2.50	2.40	.....	.....	.....	.....	800
Robinson Cons, S. L.	Col.	.....	10,000,000	200,000	50	*	.....	.....	.....	325,000	Aug.	1881	25	.....	.....	11.50	11.25	11.50	10.50	11.50	.....	11.25	.....	12.75	12.00	4,795
Savage	Nev	.....	11,200,000	112,000	100	5,328,000	Apr..	1881	50	4,480,000	June	1869	3 00	.....	.....	.....	.....	.....	.....	.....	.....	3.50	.....	4.25	.....	310
Seaton, G. S.	Col.	.....	500,000	50,000	10	.....	.....	.....	.....	10,000	May.	1877	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sierra Nevada, G. S.	Nev.	.....	10,000,000	100,000	100	4,650,000	July.	1881	1 00	102,000	Jan.	1871	1 00	10.00	.....	.....	.....	11.25	.....	10.25	.....	14.00	12.50	14.50	.....	510
Silver King, S.	Ariz	3,650	10,000,000	100,000	100	.....	.....	.....	.....	725,000	Aug.	1881	25	.....	.....	20.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	100
Spring Valley, G.	Cal.	1,500	200,000	200,000	1	*	.....	.....	.....	50,000	Jan.	1881	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Standard, S. G.	Cal.	.....	10,000,000	100,000	100	50,000	July	1878	1 00	2,925,000	Aug.	1881	75	.....	.....	22.25	21.75	21.00	.....	22.25	21.50	.....	.....	.....	.....	320
Starr-Grove, S.	Nev.	.....	2,000,000	200,000	10	.....	.....	.....	.....	16,000	June	1881	10	.....	.....	.....	.....	.....	.....	.....	.....	4.25	3.75	4.00	3.65	1,600
Stormont, S	Uth.	.....	200,000	200,000	1	.....	.....	.....	.....	135,000	Nov.	1880	30	3.25	3.15	3.35	3.25	3.35	3.30	3.35	3.30	3.35	3 30	3 40	3.25	25,500
St. Joseph, L.	Mo.	7000 ac's	1,000,000	100,000	10	.....	.....	.....	.....	270,000	June	1881	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tip Top	Ariz	.....	10,000,000	100,000	100	120,000	Mar.	1880	.....	40,000	Aug.	1881	20	5.38	.....	5.63	.....	6.00	5.75	.....	.....	.....	.....	5.63	.....	650
Tombstone, S.	Ariz	.....	12,500,000	500,000	25	*	.....	.....	.....	850,000	Aug.	1881	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yellow Jacket, G. S.	Nev.	1,200	12,000,000	120,000	100	4,094,000	May.	1881	1 00	2,184,000	Aug.	1871	2 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.88	.....	20

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, 274,495.

FINANCIAL.

Gold and Silver Stocks.

NEW YORK, Friday Evening, Aug. 19.

The week under review has brought about a larger business, much more interest, and prospects of a coming active market. The sales aggregate 853,500 shares.

The Tuscarora shares have been quiet and without feature.

The Comstock shares have been very active and advancing. Reports come from the mines of a character to show that a deal is impending. This, coupled with the points distributed, very generally adds life to these stocks. California has had a moderate amount of business, advancing from 95c@$1.10, on sales of 6500 shares Consolidated Virginia did much better, the sales aggregating 33,745 shares at $1.90@$2.50. Without exception, the remainder of these stocks show considerable advances.

The attention in the Bodies is centered on Bodie, which, however, has been a little weak, declining from $10⅝@$8¾. William M. Lent is reported to have gone to Bodie, and it is more than probable that he contemplates a "deal." There are a great many people who will remember the last points which they received on this mine, the advance to over $24 per share and the collapse afterward. We advise the public to let the stock alone, regardless of its merits, and to put no value on the reports that will probably soon be started. The other Bodie stocks have acted in sympathy with this one.

Amie has been active, but a little weak. Chrysolite has been quite active and strong, selling up to $6⅝. The fact is, that this mine keeps up a large production, whereas the public thought it could not, and the management has been agreeably surprised with the rich developments which have been made. Green Mountain has been unusually active, and although weak at one time, it has since strengthened some. Hibernia has had a large business at about steady prices. Horn-Silver, on small sales, declined from $15@$13¼. Iron Silver has been quiet but very strong at $2.05@$2.15. There have been some very important developments in this mine during the past month, which have not become known to the public, and which add greatly to the ore resources. Robinson Consolidated has been very active and strong, advancing to $12¾ to-day. Stormont has been more active and stronger, advancing to $3.40, with sales of 25,500 shares. Bradshaw has been active and weak, declining from $1.35 to $1. Bull-Domingo declined to $1.75 on Wednesday, since when there have been no transactions. Central Arizona has had but a moderate business at steady prices. Globe Copper has been moderately active, taking a spurt up to $2.75, but dropping off again to $1.75. Silver Cliff has been quiet and weak. Miner Boy has been active and strong at 41@65c.

The main features in the market were developed to-day, in the break in the State Line and Oriental & Miller stocks. Oriental & Miller were held steady at $1.30@$1.40, then broke to $1.05; the sales for the week amounting to 98,600 shares. State Lines, Nos. 1 and 4, sold at $1.45 on Monday, and $1.05 to-day; the dealings amounting to 36,300 shares. Nos. 2 and 3 ranged up to to-day at $5¾@$6⅛, when it broke to $4½, the sales amounting to 45,600 shares.

The following telegram is but one of the sensational reports that are circulated freely, apparently to put up this stock to a figure still higher than the present one—$12.50 per share—at which the property is valued at $2,500,000. No doubt this is a valuable property; but the "ore in sight" does not justify such a price:

ROBINSON, COLO., Aug. 18.—A large body of ore, assaying high, has been struck on the 700 level of the Robinson mine. This discovery insures ore in the east shaft, and more than doubles the value of the mine. It will add at least 10,000 tons of ore to the reserves, and will, it is believed, make the Robinson the greatest mine in the West.

The strike reported as of such great importance in this last associated press dispatch is, as we have excellent authority for believing, simply the finding of the regular ore-body where it was expected, and is not a discovery of a new chimney or deposit; it was included in the estimates of value of the property heretofore made, and though extremely satisfactory and encouraging, it is far from having the importance here attached to it.

It will be remembered that in June last we called attention to the Captain Jacque claim against the company; it was made light of by the company, though it has since cost $160,000 to settle. And it is very well known that the company has had a great deal of trouble smelting its refractory ores, which contain from 7 to 15 per cent of zinc, some 30 per cent silica, about 18 per cent of iron, and 8 to 25 per cent lead, and arsenic in variable quantities, though the secretary of the company claims this not to be refractory. Some of the difficulties have been overcome by the skillful metallurgists in charge of their works, but we believe they are still obliged at times to buy bullion and add it to the charge.

We believe the property a good one and a good investment at a fair price; but the indications are, that it will bring disappointment to those who buy at figures which seem to be based on wild reports, such as that we have just quoted.

At a meeting of the Canada Consolidated Gold Min-

NON-DIVIDEND PAYING MINES.

NAME AND LOCATION OF COMPANY.		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. Aug. 13. H.	Aug. 13. L.	Aug. 15. H.	Aug. 15. L.	Aug. 16. H.	Aug. 16. L.	Aug. 17. H.	Aug. 17. L.	Aug. 18. H.	Aug. 18. L.	Aug. 19. H.	Aug. 19. L.	SALES.
Albion, s. L.	Nev.	150,000	15	.....	May, 81 35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alta-Montana, G	Mon.	500,000	10	*	.....	1.95	.....	.....	.....	1.95	1.90	1.95	.....	1.95	1.90	1.95	1.90	3,800
Am. Flag, s	Colo	12,000	10	*	.....	13c	11c	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,500
Bald Mountain, G...	Colo	1,000,000	10	*	.....	.....	.....	.....	.....	6c	.....	5c	.....	6c	5c	6c	5c	13,500
Barcelona, G	Nev	200,000	25	*	.....	1.15	1.10	1.15	1.10	1.15	1.10	1.10	1.05	1.10	1.00	1.05	1.00	9,800
Battle Creek	Dak.	200,000	25	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bear Creek	Colo	300,000	1	.....	.....	75c	73c	75c	73c	75c	74c	76c	74c	75c	73c	76c	74c	17,500
Bechtel Con., G.	Cal.	100,000	100	162,750	Dec. 81 15	.....	.....	1.60	1.40	.....	.....	1.30	.....	.....	.....	.....	.....	400
Best & Belcher, G. S.	Nev.	100,000	100	1,043,330	Jly. 81 50	.....	.....	.....	.....	.....	.....	11.50	10.50	13.00	.....	15.63	13.50	570
Big Pittsburg, S. L.	Colo	200,000	100	*	.....	.....	.....	2.65	.....	.....	.....	.....	.....	2.25	.....	2.65	2.15	1,100
Black Jack, G.	Cal.	100,000	2½	.....	.....	.....	.....	80c	.....	85c	.....	85c	80c	80c	.....	80c	.....	3,800
Bonanza Chief	Mon	1,000,000	1	*	.....	.....	.....	.....	.....	15c	.....	16c	12c	15c	13c	.....	.....	4,500
Bondholder	Colo	200,000	2½	.....	.....	75c	74c	75c	73c	74c	73c	74c	73c	75c	74c	76c	75c	12,200
Boston Con, G.	Cal.	100,000	100	30,000	Apr. 81 30	20c	17c	.....	.....	18c	.....	22c	20c	19c	.....	20c	.....	4,700
Boulder Con, s.	Colo	200,000	10	.....	.....	40c	30c	30c	.....	30c	25c	28c	23c	26c	25c	.....	.....	14,900
Bradshaw, s.	Ariz	225,000	10	.....	.....	1.35	1.30	1.35	1.15	1.20	1.10	1.05	1.00	1.10	1.05	.....	.....	8,900
Buckeye	Colo	100,000	5	*	.....	.....	.....	.....	.....	.....	.....	8c	.....	.....	.....	.....	.....	500
Bull-Domingo, s L	Colo	200,000	50	*	.....	1.90	1.85	1.85	1.75	1.80	.....	1.75	.....	.....	.....	.....	.....	1,500
Bullion, G. S.	Nev.	100,000	100	475,000	May 81 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bulwer G	Cal.	100,000	100	30,000	Dec. 77 50	2.50	.....	3.00	.....	2.80	.....	2.75	2.70	.....	.....	2.85	.....	1,200
Bye and Bye	Ariz	100,000	10	*	.....	22c	21c	22c	21c	21c	.....	24c	21c	22c	21c	27c	22c	21,600
Calaveras, G	Cal..	500,000	1	*	.....	15c	.....	16c	12c	14c	.....	14c	13c	15c	13c	15c	13c	21,700
Cal., B. H., G	Dak.	100,000	100	400,000	Mar. 81 25	1.60	.....	1.50	.....	.....	.....	1.50	.....	1.40	.....	1.40	.....	450
Carbonate Hill, S L	Colo	400,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Catskill, s	Nev.	300,000	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Central Arizona, s	Ariz	100,000	100	.....	.....	2.25	2.13	2.25	.....	2.20	2.00	2.15	2.00	2.12	2.00	.....	.....	6,600
Cherokee, G	Cal.	150,000	10	.....	.....	.....	.....	.....	.....	1.25	.....	1.25	.....	.....	.....	.....	.....	300
Cheyenne Cons, G	Dak.	300,000	1	.....	.....	15c	.....	.....	.....	.....	.....	19c	.....	.....	.....	.....	.....	900
Colorado Central, s	Colo	300,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	71c	70c	400
Columbia Con., G. S.	Nev.	100,000	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cons. Imperial, G. S.	Nev.	500,000	100	1,375,000	Apr. 81 10	15c	.....	24c	18c	20c	18c	.....	.....	22c	20c	.....	.....	9,600
Con. Pacific, G	Cal.	60,000	100	114,000	Jly 81 40	63c	55c	73c	65c	.....	.....	62c	61c	70c	.....	.....	.....	2,125
Con. Pay Rock, S.	Colo	250,000	1	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	75c	.....	100
Crescent, S L	Colo	300,000	10	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Crowell, G	N. C.	50,000	1	.....	.....	.....	.....	32c	31c	.....	.....	26c	.....	.....	.....	21c	.....	2,400
Dahlonega, G	Ga.	250,000	1	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dardanelles, G	Cal.	100,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dunderberg, S	Colo	150,000	10	*	.....	.....	.....	.....	.....	70c	.....	.....	.....	.....	.....	.....	.....	200
Durango, G	Dak.	500,000	1	*	.....	.....	.....	.....	.....	14c	13c	16c	.....	14c	.....	14c	.....	2,600
Empire, S	Ut'h	100,000	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Enterprise	Colo	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Exchequer	Nev.	10000000	100	580,000	Oct. 80 50	45c	42c	44c	42c	43c	42c	43c	42c	45c	43c	46c	44c	12,900
Globe Copper		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glyan Dale Con. G	Cal.	100,000	100	75,000	Jan. 81 25	2.00	1.75	2.65	2.45	2.75	2.60	2.65	2.50	2.00	.....	1.75	.....	5,100
Gold Placer, G	Colo	200,000	25	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	39c	.....	.....	.....	100
Goodshaw, G.	Cal.	100,000	100	145,000	Feb. 81 15	49c	45c	65c	53c	75c	67c	55c	.....	.....	.....	63c	58c	6,100
Granville, G	N. C.	800,000	1	*	.....	.....	.....	.....	.....	5c	.....	5c	.....	.....	.....	.....	.....	3,000
Harshaw, S.	Ariz	100,000	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Head Center, S	Ariz	100,000	10	55,000	May 81 30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hortense, S	Colo	20,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Julia, G S	Nev.	110,000	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kossuth, G S	Nev.	108,000	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lacrosse, G	Colo	100,000	10	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Legal Tender, S L	Colo	200,000	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.00	.....	.....	.....	300
Leviathan, S	Nev	100,000	100	350,000	Mar. 81 25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lucerne, S	Colo	500,000	10	*	.....	.....	.....	11c	10c	.....	.....	.....	.....	.....	.....	.....	.....	1,100
Malachite	Nev.	200,000	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.20	1.10	.....	.....	300
Mariposa preferred, G	Cal.	50,000	100	1,425,000	Dec. 80	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
" common, G	Cal.	100,000	100	1,425,000	Dec. 80	.....	.....	.....	.....	.....	.....	2.50	.....	2.35	.....	.....	.....	100
May Belle, G	Cal.	100,000	100	83,000	Jne 81 20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mayflower, S	Colo	100,000	100	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mexican, G. S.	Nev	100,800	100	1,509,000	Jne 81 $1	.....	.....	9.00	8.75	.....	.....	9.50	.....	11.25	10.25	11.63	11.00	2,050
Michoacan Syndicate	Mex.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mineral Creek, S	Ariz	200,000	10	*	.....	42c	.....	.....	.....	.....	.....	49c	47c	48c	47c	.....	.....	1,000
Miner Boy, G S L	Colo	1,000,000	5	*	.....	50c	39c	48c	41c	55c	49c	54c	53c	62c	56c	65c	60c	122,700
Mono, G	Cal..	50,000	100	325,000	May 81 50	3.55	.....	.....	.....	3.25	.....	.....	.....	2.75	.....	.....	.....	210
Moose Silver, S.	Colo	300,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nevada Syndicate		.....	.....	.....	.....	99c	98c	1.00	99c	99c	98c	1.00	98c	99c	98c	99c	98c	3,000
North Standard, G	Cal.	100,000	100	.....	.....	.....	.....	20c	17c	.....	.....	.....	.....	.....	.....	.....	.....	2,100
North Horn Silver, S L	Utah	400,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Noonday	Cal.	60,000	100	.....	Jne 81 50	.....	.....	1.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	200
Old Dominion C	Ariz	200,000	10	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oriental and Miller, S	Nev.	400,000	25	.....	.....	1.40	1.30	1.40	1.30	1.40	1.30	1.40	1.30	1.40	1.35	1.40	1.05	98,600
Overman, G S	Nev.	115,200	100	3,460,700	July 81 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rappahannock, G	Va..	250,000	1	*	.....	23c	.	20c	.....	22c	21c	22c	21c	24c	22c	23c	.....	10,400
Red Elephant, S	Colo	500,000	10	*	.....	20c	.....	.....	.....	.....	.....	.....	.....	18c	.....	.....	.....	1,300
San Pedro, G S L	N. M	400,000	25	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Silver Cliff, S	Colo	200,000	50	*	.....	4.80	4.75	4.95	.....	4.90	4.60	4.50	4.35	4.40	.....	.....	.....	2,700
Silver Islet		.....	.....	.....	.....	45.25	45.00	46.88	46.00	.....	.....	.....	.....	.....	.....	.....	.....	900
Silver Nugget, S	Ariz	200,000	10	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Silver N, new stock, S	Ariz	250,000	10	.....	.....	59c	54c	58c	.....	60c	54c	57c	.....	57c	56c	57c	54c	7,600
South Bodie, G	Cal.	100,000	100	85,000	Nov. 80 25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
South Bulwer, G	Cal.	100,000	100	195,000	May 81 25	27c	.....	30c	27c	30c	.....	.....	.....	32c	30c	30c	28c	2,900
South Hite	Cal..	100,000	25	.....	.....	50c	47c	.....	.....	.....	.....	40c	35c	30c	25c	30c	26c	11,100
State Line No. 1, S	Nev.	200,000	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.00	.....	1.10	.....	200
" No. 2, S	Nev.	200,000	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
" No. 3, S	Nev.	200,000	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
" No. 4, S	Nev.	200,000	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.25	.....	1.25	.....	300
" Nos. 1 and 4, S	Nev.	.....	.....	.....	.....	1.40	1.30	1.45	1.20	1.25	1.10	1.25	1.10	1.25	1.10	1.25	1.05	36,300
" Nos. 2 and 3, S	Nev.	.....	.....	.....	.....	6.00	5.63	6.13	5.88	6.00	5.75	5.88	5.75	6.00	5.75	6.00	4.50	45,600
Sutro Tunnel	Nev.	2,000,000	10	*	.....	1.85	1.63	1.75	1.70	1.75	1.65	1.75	1.45	1.60	1.50	1.05	.....	10,500
Tabor Mine Co	Colo	250,000	20	.....	.....	91c	90c	92c	91c	91c	9 c	91c	90c	92c	91c	.....	.....	2,900
Tioga, G	Cal.	100,000	100	240,000	May 81 15	45c	.....	90c	72c	75c	70c	62c	.....	50c	40c	48c	45c	3,900
Tuscarora, S	Nev.	100,000	100	95,000	Apr. 81 15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Unadilla, S	Colo	500,000	1	*	.....	.....	.....	.....	.....	9c	8c	.....	.....	10c	9c	10c	.....	1,400
Union Cons, G. S.	Nev.	100,000	100	1,160,000	Jly 81 $1	9.50	.....	9.50	.....	.....	.....	10.25	.....	13.50	13.00	13.00	.....	1,400
Vandewater, S	Nev.	200,000	10	*	.....	43c	.....	46c	42c	46c	43c	50c	45c	51c	48c	46c	45c	9,900
Washington, S	Ariz.	200,000	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Willshire, G	Cal.	50,000	1	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

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

Total shares of Non-Dividend Paying Stocks sold during the week, 579,005. Total shares sold at all the Exchanges during the week, 853,500.

Boston.

Quotations and Sales of Mining Stocks for week ending Aug. 17th.

NAME OF COMPANY.	Opening.	Highest during the week.	Lowest during the week.	Closing.	Total shares sold.
Allouez	2⅜	2⅜	2⅛	2⅛	200
Ariz. Queen	.61	.61	.61	.60	450
Atlantic	11¼	11¼	11¼	.....	100
Bon. Delv'mt	5⅛	5⅜	5⅛	5⅛	1,625
Bruns. At'y	10⅝	10⅝	10⅝	10⅝	10
Cal. & Hec. c.	219	220	217	220	16
Canalpt	1.37½	1.37½	1.31	1.31	5,375
Cedar Spring	.52	.57	.52	.54	1,650
Copper Knob	.10	.10	.10	.10	600
Copperopol's	1.95	1.95	1.92	1.92	2,600
Crescent	1.00	1.00	.93¾	.93¾	2,125
Deer Isle	1.25	1.25	.75	.75	3,050
Douglass	2.50	2.62½	2.51	2.62½	500
Dunkin	.55	.57	.55	.56	1,300
Duncan	.87½	.87½	.81¼	.81¼	200
Empire	.42	.45	.42	.44	6,300
Franklin	11	11	11	11	50
Harshaw	7.00	7⅛	6¾	6¾	280
Huron	3¼	3¼	3¼	3¼	50
Mass. & N. M.	.55	.55	.51	.52	16,050
Mendocino	6.25	6.25	6.00	6.25	2,000
Milton	1.00	1.15	.77	.85	54,900
Napa	7¼	7¼	7	7	700
Osceola, C	30	30	30	30	156
Pine Tree	2.25	2.25	2.25	2.25	400
Pride of Alps	.18	.18	.18	.12	2,000
Quincy, C	33	33¼	32½	33	543
San Pedro	3⅝	3⅝	3¾	3½	450
Simpson Gld	.05	.07	.05	.07	2,000
Silver Islet, S	37	47½	37	.47	1,455
Sullivan	3¼	3¾	3¼	3¾	200
Tremont Silv	.45	.52	.45	.52	700
Twin Lead	1.25	1.25	1.00	1.12½	37,800
War Eagle	1.85	1.85	1.53	1.70	3,100
Yn'g Hecla	.53	.54	.45	.49	9,000

Total shares sold.....157,335

c. Copper. s. Silver.

Philadelphia.

Quotations and Sales of Mining Stocks for week ending Aug. 17th.

NAME OF COMPANY.	Opening	Highest during the week.	Lowest during the week.	Closing.	Total shares sold.
Etna	.10	.15	.09	.09	1,100
Alonzo	1.20	1.20	1.20	1.20	200
Am'ric'n Con	.15	.15	.15	.15	1,000
Argent	.55	.55	.24	.33	9,100
Ariz. & N. M.	1.17½	1.25	1.17½	1.25	1,700
Atlas	.50	.50	.37	.50	525
Atlanta	.05	.10	.05	.07	1,000
Battle Mt.	.26	.26	.26	.26	500
Bullion King	.10	.12	.10	.12	1,500
Buena	.21	.24	.21	.21	4,700
Cincinnati	.42	.43	.38	.38	7,100
Compromise	.21	.21	.19	.19	200
Copper Knob	.10	.10	.10	.10	700
Crown	.04	.04	.03	.04	15,100
Dauntless	.08	.09	.07	.07	1,600
Del Monte	.12	.13	.10	.10	8,200
Den. C'y Con	1.30	1.37½	1.25	1.25	37,700
Fairv'w Con	.05	.05	.05	.05	3,700
Girard	1.65	1.75	1.60	1.60	5,700
Gov. Group	.70	.70	.54	.57	23,600
Grand Union	.10	.11	.08	.10	20,100
Gun. Imp. Co	.83	1.02½	.83	.90	7,900
Hancock	.05	.05	.04	.04	7,600
Homestake	.05	.05	.04	.04	90,400
Iowa Gulch	.46	.48	.41	.43	18,500
Lit. Diamond	.25	.28	.24	.26	10,800
Little Maud	.24	.30	.24	.30	47,600
Lng. & Derry	.13	.15	.10	.11	45,700
Miner Boy	.55	.55	.55	.55	500
Monitor	.13	.14	.13	.13	8,900
Mt. Sheridan	.21	.22	.16	.17	39,058
Mt. Lincoln	.14	.14	.12	.12	5,100
National	.05	.06	.05	.06	22,400
Orion	1.10	1.10	1.00	1.00	1,600
Penn Breck.	.09	.09	.08	.08	3,500
Permanent	.13	.13	.13	.13	700
Pizarro	.07	.08	.06	.06	67,200
Pizarro Extn	.05	.08	.05	.07	27,700
Rara Avis	1.75	1.80	1.75	1.80	200
San Ped. Con	.21	.22	.19	.22	2,400
Silver Cord	1.17½	1.17½	1.15	1.17½	2,200
Standard	.05	.06	.05	.06	17,400
Tombstone	5.40	5.50	5.25	5.30	1,120
Victor	.07	.07	.05	.06	9,600

Total shares sold.....500,953

ing Company, held in this city yesterday, the resignation of Mr. Walter Shanly was accepted and Col. William Rhodes, of Quebec, was selected in his stead. A pressure of other business made it impossible for Mr. Shanly to give attention to the business of the company. Arrangements will be made to list the stock at as early a day as possible.

UNLISTED QUOTATIONS.

Mr. L. V. Deforeest, No. 70 Broadway, under date of August 19th, 3 P.M., reports the current quotations of unlisted stocks as follows:

	Bid.	Offer'd		Bid.	Offer'd
Barcelona	$1.00	....	Sacramento	....	$0 25
Breece	.70	$0.90	Santa Cruz	....	.50
Bald Mountain	.05	.06	Silver Nugget (New)	$0.55	.56
Highland Chief	1.50	2.00	Van De Water Gold	.45	....
May Flower	....	.40	Copper Knob	.09	.10
Hite	....	4.50	Glass-Pendery	1.50	2.00
Globe Copper	....	2.50			
Starr-Grove	4.00	4.50			

DIVIDENDS.

The Eureka Consolidated Company has declared a dividend (No. 70) of 50 cents per share, payable August 27th. Eastern stockholders of record will be paid at the office of Laidlaw & Co., No. 14 Wall street, New York.

The Copper Queen Mining Company has declared a monthly dividend (No. 3) of 10 cents per share, payable September 1st. Transfer-books close August 29th, and reopen September 2d.

The Green Mountain Mining Company has just declared its twenty-sixth regular monthly dividend for July, being 7½ cents per share on the capital stock, payable August 26th.

The Beaver Run Coal Company announces a dividend of 2 per cent.

The Fall River Iron-Works announces a dividend of $10 per share, the first declared since July, 1878.

The Delaware Division Canal Company has declared a dividend of $1 per share.

The Evening Star Mining Company, of Leadville, announces its sixteenth dividend of five per cent.

The Chrysolite Silver Mining Company announces a dividend of one per cent, equal to 50c. per share, or $100,000 on its capital stock, payable September 10th.

The Dividend Record of the Bodie District.—The *Free Press* says: On August 2d, the Standard Consolidated Mining Company declared its forty-sixth consecutive monthly dividend. Of these, the first thirty-one were of $50,000 each, and the last fifteen of $75,000 each, and one was an extra dividend of $75,000. This makes a total of $2,925,000 disbursed among the stockholders. The Bodie Consolidated Company has declared dividends amounting to $1,250,000, making a total dividend record for Bodie District of $4,175,000. The total bullion production of Bodie District in the last four years has been in round numbers, which are nearly exact, $10,500,000. The total amount of assessments levied on Bodie District mines has been something less than $4,000,000.

REVIEW OF THE SAN FRANCISCO MARKET.

At last an apparent "boom" has been brought about in the Comstocks, the whole list showing a decided advance, the principal stocks being quoted fully 33 per cent above the prices recorded a week ago. Sierra Nevada, for example, is marked up above a half a million of dollars in the aggregate value of the stock, yesterday's closing quotations of $14.75 showing an advance of $5.87 per share for the week. Union Consolidated has advanced some $300,000 altogether, and in seven of the principal stocks which we quote $9,000,000 have been added to the prices quoted in our

issue of the 13th inst. A dispatch dated San Francisco, Aug. 17th, says :

Work on the vein discovered by the Sutro Tunnel, east of the Yellow Jacket mine, shows good prospects. Drillings from the Yellow Jacket, 2800 level, supposed to be from the same vein, give encouraging assays. The Challar-Savage combination pump is running six strokes per minute, and is taking all the water from the 2400 level of the middle mines. Operators are elated over the prospect for great activity in the Comstock market.

Another dispatch reads :

The ledge cut by the south header of the Sutro Tunnel, at a depth of 1600 feet, is getting wider and richer. It is considered by competent miners to be the most important prospect and the great bonanza discovery. Yellow Jacket claims the ledge as its own; but as it is a blind ledge, the Sutro Tunnel, which is in possession of it, will keep it. No trace whatsoever of this ledge was found in the new Yellow Jacket shaft at a depth of 3000 feet. Besides, the original location of the Yellow Jacket is over one mile distant from this new discovery.

The San Francisco *Exchange* of August 2d gives the following financial statements of Comstock mines :

Alta—Cash on hand, $8601.37. Best & Belcher—Indebtedness, $14,598.33. Benton—Cash on hand, $17,610.58. Bullion—Cash on hand, $7987.44. Caledonia—Indebtedness, $7274.36. Crown Point—Cash on hand, $32,441.74. Chollar—Receipts, none ; disbursements, $5521.33 ; cash on hand, $10,010.35. Challenge—Receipts, $137.50 ; disbursements, $50.74 ; cash on hand, $530.78. California—Receipts, $33 200 ; disbursements, $28,534.03 ; bullion on hand, $20,367.62 ; indebtedness, $97,379.44. Exchequer—Cash on hand, $2902.98. Hale & Norcross—Receipts, $28,545.72 ; disbursements, 28,274.88 ; cash on hand, $270.84 ; indebtedness, $13,542.57. Gould & Curry—Receipts, $1238.72 ; disbursements, $15,808.21 ; indebtedness, $14,569.49. Imperial—Receipts, none ; disbursements, $6179.55 ; cash on hand, $6394.37. Lady Washington—Cash on hand, $2686.70 ; Overman—$13,007.45 indebtedness. Occidental—Cash on haud, $8223. Potosi — Receipts, none ; disbursements, $5527.14 ; cash on hand, $3145.74. Silver Hill—Receipts, $256.50 ; disbursements, $1819.95 ; cash on hand, $2426.21. The Sierra Nevada Company has $27,558.04 unsold bullion at the bank to be accounted for. The California Company has also $2367.62 unsold bullion. The Bullion Company has still an indebtedness of $149,162.62, but is collecting an assessment of $60,000. The liabilities of the other companies are mainly the July expenses of the mines, returns of which have not yet been received.

SAN FRANCISCO MINING STOCK QUOTATIONS.

Daily Range of Prices for the Week.

Name of Company	Closing Quotations. Aug. 12.	Aug. 13.	Aug. 15.	Aug. 16.	Aug. 17.	Aug. 18.	Opening. Aug. 19.
Alpha	.....	3⅞	4.30	4¼	4¼	4¼	.....
Alta	4⅛	4⅛	4¼	4¼	4¼	4⅛	.....
Bechtel	1¼	1¼	1.20	.....	1⅛	1⅛	.....
Belcher	2⅞	3	3¼	3⅛	3⅛	3⅜	.....
Belvidere	.....	⅛	.....	.....	.....	.....	.....
Best & Bel	10⅝	10⅜	11⅝	11¾	12⅞	13½	.....
Bodie	9¾	9¾	9.50	8¼	7¾	8¾	.....
Bullion	⅛	9-16	.....	21-32	.....	¾	.....
Bulwer	.....	.....	3¼	3	3	.....	.....
California	29-32	29-32	95	1	1	1	.....
Chollar	2¼	2¼	2.40	2½	2½	2¾	.....
Con. Va	1⅞	1⅞	2.65	2⅛	2¼	2½	.....
Crown P'int	2	2	2.45	2⅛	2¾	2¼	.....
Eureka Con	28	28½	28¼	.....	29	.....	.....
Exchequer	1⅛	1⅛	1.30	1⅛	1¼	1¼	.....
Goodshaw	.....	.....	1	.....	.....	.....	.....
Gould & Cur	5	4⅞	5⅞	6⅝	7¼	7⅝	.....
Grand Prize	.....	5-32	10	.....	.....	.....	.....
Hale & Nor.	3⅜	2⅜	3¼	3⅞	4	4⅜	.....
Manhattan	.....	.....	.....	2	.....	.....	.....
Mar. White	.....	.....	.....	.....	.....	.....	.....
Mexican	8⅜	8¼	9⅝	9¼	10	10⅞	.....
Mono	3⅞	4⅛	3.40	3¼	3¼	3⅜	.....
Mt. Diablo	6½	7	.....	.....	6¼	.....	.....
Navajo	.....	.....	.....	.....	.....	.....	.....
North. Belle	14¾	14⅞	15	15¾	15½	15⅞	.....
Noonday	1¼	1⅜	.....	1⅛	.....	1	.....
Ophir	5¼	5¼	6.25	6⅛	6⅝	6⅞	.....
Oro	9-16	¾	.....	½	½	7-16	.....
Overman	1⅛	1	1.35	1¼	1⅜	1⅜	.....
Potosi	2½	2½	.....	3	3	3½	.....
Savage	2½	2⅜	2.80	3	3	3⅛	.....
Scorpion	1⅜	.....	1.40	.....	1½	1¾	.....
Sierra Nev.	8½	8¼	10¼	10⅜	13⅝	14¾	.....
Silver King	20	.....	20	20⅜	20	20½	.....
So. Bodie	.....	1⅜	.....	1½	.....	.....	.....
So. Bulwer	.....	.....	.....	¼	.....	.....	.....
Tioga	.....	.....	.....	.....	.....	.....	.....
Tip Top	5⅝	5¾	.....	.....	5¾	5¾	.....
Tuscarora	.....	.....	.....	.....	.....	.....	.....
Union Con	9½	9⅝	10½	10	12	12¾	.....
Wales Con	⅛	.....	.....	13-16	.....	¾	.....
Yel. Jacket	4⅞	5	6⅝	6⅜	6⅛	6⅜	.....

The Philadelphia Mining Stock Market.

The advance in the prices of a number of the stocks of Philadelphia companies has been followed by a corresponding depression, and the result is shown in the limited amount of sales. However, bottom prices seem to have been reached, and we may confidently expect a further advance before our next report. There is a complaint among some of the managers of local corporations of the "bear" influence exerted by some of the board of brokers. The moment a stock is on the rise, efforts are made by them to break the market, in order to fulfill contracts received at a lower figure than the market prices.

Gas Stocks.

NEW YORK, Friday Evening, Aug. 19.

Gas stocks are higher and firmer. We hear of sales of 528 shares of Manhattan at $210¼@$210¾, 263 shares of Metropolitan at $150¼@$150, and $7000 Metropolitan new 6 per cent coupon bonds due 1901 at $113½.

COAL STOCKS.

Name of Company.	Capital Stock.	Shares. No.	Shares. Par Val.	Last Dividend. Mo.	Last Dividend. Y.	Last Dividend. R't.	Rate per Ann.	Aug. 13. H.	Aug. 13. L.	Aug. 15. H.	Aug. 15. L.	Aug. 16. H.	Aug. 16. L.	Aug. 17. H.	Aug. 17. L.	Aug. 18. H.	Aug. 18. L.	Aug. 19. H.	Aug. 19. L.	Sales from June 30th to June 19th inclusive.
	$		$				Per c'nt													
Am. Coal Co.	1,500,000	60,000	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cameron C'l.	2,500,000	50,000	50	.....	.....	.....	.....	43¼	.....	43½	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,800
Col. C. & I.	10,000,000	100,000	10	.....	.....	.....	.....	54	53¾	53⅝	53	52	50⅝	50¾	48¼	48	46	.....	.....	8,700
Ches. & O. RR	15,000,000	150,000	100	.....	.....	.....	.....	28¼	.....	28	27⅛	28	26	26½	.....	25	.....	28	.....	1,405
Consol. Coal.	10,250,000	102,500	100	Jan.	77	2½	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumb. C. & I.	500,000	5,000	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Del. & R. C.	20,000,000	200,000	100	May	81	1½	9	†	.....	109¾	110	109	109⅛	108⅝	108¾	108⅜	109	107¼	109¼	108⅝	9,625
D., L. & W. RR	26,000,000	524,000	50	Mar.	81	1½	6	‡	.....	124⅜	124⅞	123⅝	123½	122⅜	123¼	122½	122⅝	120½	122⅜	121¼	104,500
Lehigh C. & N	10,448,550	208,971	50	Sept	.....	1½	5½	45	.....	45	44⅜	.....	.....	44⅜	44½	44½	44⅜	.....	.....	.....	3,452
Leh. V'y R. R	27,042,900	540,858	50	Jan.	76	.....	4	62	.....	62	61¾	.....	.....	61⅞	61¾	.....	.....	.....	.....	.....	2,052
Mary'd Coal	4,400,000	44,000	100	.....	76	1½	1½	..	.....	26¼	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	30
Montauk C'l.	2,500,000	25,000	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morris & Es'x	15,000,000	300 000	50	Dec.	.....	7	7	125	.....	125	124¼	123⅜	.....	123⅛	.....	.....	.....	.....	123¾	123	1,334
New Cen. C'l	5,000,000	50,000	100	Apr	80	2	.....	.....	.....	.....	.....	27½	27	.....	.....	.....	.....	.....	.....	.....	300
N. J. C. RR.	20,000,000	206,000	100	Oct.	76	2½	2½	96¾	95⅝	95⅝	9 5/8	95¼	9 2½	94½	93¼	93⅝	9 1½	93	91¼	82,109
Penn. Coal	5,000,000	100,000	50	May	79	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Penn. R. R.	68,870,200	1,337,404	50	Jan	81	4	.....	64¾	.....	64⅜	64⅛	64¼	63¾	64	.....	63½	63⅝	63⅜	.....	.....	50,476
Ph. & R. RR.	34,278,150	685,563	50	.....	76	2½	10	64	63¾	63⅜	62¾	62	60¾	62½	61½	62⅛	61¼	63	62½	74,127
Spring Mt. C'l	1,500,000	30,000	50	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

† 110¼. ‡ 125¼.

Total Sales..... 340,480.

Of the sales of this stock 42,937 shares were in Philadelphia and 31,200 in New York.

Gas Stocks.

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.	Dividends. Am. of last.	Dividends. Date of last.	Quotations. Bid.	Quotations. As'd.
	$		P. ct.				
Mutual, N. Y.	5,000,000	$100	6	1½	July '81	69	70
" Bonds	900,000	1,000	6	3½	July '81	100	105
N. York "	4 000,000	.....	8	4	May, '81	105	106
Metrop. "	2,500,000	100	10	6	Feb., '81	150	155
" Bonds	700,000	.....	3	.....	.....	.....	.....
Harlem "	1,850,000	50	.....	3	Feb., '81	88	90
Manhat. "	4,000,000	50	.....	7	July, '81	210	215
Brooklyn, Bkln.	2,000,000	50	.....	5	April, '81	125	127
Nassau	1,000,000	25	.....	2½	Jan., '81	60	62½
" Certfs	700,000	1,000	7	3½	May, '81	98⅜	100
People's	1,000,000	10	.....	3½	Jan., '76	33	37
" 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	July' '81	6	63
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	50	52
" 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	June '81	185	190
" Bonds	750,000	100	7	3½	May, '81	105	110
Fult'n M'nicipal	1,500,000	100	.....	.....	.....	68	72

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, Aug. 18.

There has been only a moderate business transacted at the Mining Exchange this week, and that confined principally to two or three of the leading specialties. Prices continue to decline, and there seems to be no support given to the market by the parties who have of late been the most prominent buyers. Milton has been one of the most active stocks, and has declined from 90@75c. regular, although sales are made from 10@15c. higher on buyers' option. The lowest price was reached this afternoon, one of the leading operators selling the stock freely at 75c., about 28,000 shares changing hands for the week. Twin Lead also participated in the decline, selling from $1 down to 92c. regular, while $1.10@$1.12½ is paid on buyer 60 day contracts. The movement in this stock last week was rather premature, and more stock came out than was anticipated ; hence the decline.

Empire has been quiet but firm, at 42@45c., only about 6000 shares having been sold for the week.

Massachusetts & New Mexico is held quite strongly at 51@53c.

Mendocino firm at $6@$6¼.

Copperopolis dull, with a decline from $2@$1.92.

Dunkin, at one time a very active stock at the Board, is now almost neglected, a few sales being made at 55@56c.

Other stocks dealt in require no special comment, transactions being very light.

At the Stock Exchange, the week has been marked with an unusual dullness in copper stocks, the tendency being to lower prices. Calumet & Hecla at one time touched $220, but fell off again to $217, which was the bidding price at the close.

Quincy declined from $33½@$32½, but was a little firmer to-day, with sales at $33, closing $32 bid, $33 asked.

Franklin dull; a single sale of 50 shares for the week at $11.

Osceola steady, with all the sales at $30.

Atlantic sold at $11¼, a decline of $¾ since last sale (June 29th).

Allouez sold at $2½.

Brunswick Antimony sold to-day at $10, a decline of $1½ since last sale, the rest of the list entirely neglected, and there seems to be no disposition to operate in copper stocks on speculation. At same time, there is no pressure to sell stocks, holders generally believing that an advance in ingot copper is imminent in the near future, and that better prices will prevail during the ensuing fall.

In silver stocks, there was more activity. Silver Islet being the feature, showing an advance from $37@$47½ on the very favorable accounts received from the mine within the past ten days. Report has it that ore has been struck which will assay as high as 2000 ounces to the ton. The stock was a little heavy to-day, and declined to $46, which was bid at the close.

Catalpa declined from $1⅝@$1 3-16, the latter price being touched this afternoon. There is a rumor that the quarterly dividend will be passed.

Bonanza Development declined from $5¼@$4⅞.

Harshaw heavy, and sold down to $6¾, a decline of $⅝.

3 P.M.—The market for mining stocks this afternoon showed no improvement, but rather a lower tendency. The following are some of the closing prices :

Allouez, $2½ bid.
Atlantic, $10 bid.
Blue Hill, $3 asked.
Brunswick Antimony, $9½ bid, $10 asked.
Calumet & Hecla, $217 bid, $218 asked.
Copper Falls, $4 bid.
Douglass, $2 bid.
Franklin, $10¼ bid $11 asked.
Harshaw, $6 bid, $6½ asked.
Quincy, $32 bid, $33 asked.
Silver Islet, $46 bid, $47 asked.
Sullivan, $3⅜ bid.
Napa Quicksilver, $6½ bid, $7 asked.
San Pedro, $3¼ bid, $3⅜ asked.
Milton, 72c. bid, 75c. asked.
Twin Lead, 92c bid, $1 asked.
Empire, 43c. bid, 45c. asked.
Deer Isle, 82c. bid, 85c. asked.

Coal Stocks.

NEW YORK, Friday Evening, Aug. 19.

In sympathy with the general market, these stocks have been weak and irregular, and the transactions devoid of interest. Delaware, Lackawanna & Western, on sales of 104,500 shares, has declined to $120¼ as against $125½ on Saturday. Delaware & Hudson records sales of but 9625 shares at $109¼@$108⅝. New Jersey Central has been active and weak; the sales amount to 82,109 shares at $96⅝@$90½. Reading has been fairly active ; the sales in this market amounting to 31,200 shares at $64@$61¼.

The bituminous coal stocks have been quiet, and prices rule lower.

BULLION MARKET.

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

Date.	London. Pence.	N. Y. Cents.	Date.	London Pence.	N. Y. Cents.
Aug. 13	51½	111¾	Aug. 17.	51 9-16	111¾
Aug. 15	51 9-16	111¾	Aug. 18.	51 9-16	111¾
Aug. 16	51 9-16	111¾	Aug. 19.	*	†

* 51 9-16@½ † 111¾@⅝

AUSTRALIA.

A summary of the last annual report on the mining statistics of Victoria for 1880, published in the *Pall Mall Gazette*, shows that unusual good fortune has attended the mining operations in that colony during the past year. The total yield of gold for 1880 was 829,121 ounces, being upward of 70,000 more than in 1879, and the highest yield of any year since 1876. During recent years, there has been a rapid decrease in the yield from alluvial mining. In 1870, for example, the alluvial mines of Victoria produced 718,729 ounces of gold, while last year the yield was only 299,926 ounces. But this is a considerable increase over 1879, and this is considered to be due to the opening up of new gold-producing areas in which the rich deposits have been hitherto hidden beneath deep flows of volcanic rocks. The great increase in the yield of gold during 1880 has been obtained from quartz mines. The greatest improvement is visible in the returns relating to the Ballarat District, in which the yields from quartz, both in respect of the quantity crushed and the average yield per ton, are shown to be far in excess of those of any previous year. The total number of miners employed in 1880 was 38,568, being an increase of 1000 over 1879. Of these, 8486 were Chinese, whose number had diminished by 624 since 1879. The average earnings per man were about £82 in 1880. The total area over which mining operations extended was 1235 square miles, and the total area held as claims, or under leases from the crown, was 59,557 acres. The number of companies registered during the year was 390, more than double that of 1879, and the nominal capital £3,496,731, about treble that of the previous year.

UTAH.

Salt Lake City.—For the week ending August 11th, the bullion shipments aggregated $89,664.98.

Silver Reef.—The aggregate bullion shipments for the week ending August 6th amounted to $23,676.77.

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. If the price of silver be counted at $1.12 per ounce, which has for some months been about its average value, the following figures, where they relate to silver bullion, should be diminished to about 13½ per cent to arrive at actual value.

MINES.	States.	For the week.	Month of August.	Year from Jan. 1st, 1881.
Alice, G. S.	Mont.			$521,672
Barbee & Walker, S.	Utah.	$6,682	$12,510	103,266
*Belle Isle, G. S.	Nev.			12,060
*†Big Pittsburg, S.	Colo.			57,949
Bodie, G.	Cal.	7,570	15,770	232,888
*California, G. S.	Nev.			110,664
Caribou, S.	Colo.			99,728
*Castle Dome	Ariz.			197,259
Christy, S.	Utah.	1,643	9,161	233,119
*Chrysolite, S.	Colo.			304,118
Concordia, G.	Cal.			2,234
Connor, S.	Utah.		8,060	54,635
Con. Virginia, G. S.	Nev.			148,960
*Copper Queen, C.	Ariz.			299,531
Crismon-Mammoth, G.	Utah.			41,198
*Custer, G. S.	Idaho.			484,887
*Deadwood-Terra, S.	Dak.			458,854
*Derbec, Blue Grav., G	Cal.			53,022
*Eureka Con., G. S. L.	Nev.			852,022
Exchange Silver	"			44,400
Fresno Enterprise, G.	Cal.			9,600
*Frisco M. and S. Co.	Utah.	12,235	12,235	249,894
Germania Smelt. Wks.	"	13,450	25,700	229,213
Grand Central Mill	Ariz.			375,854
*Grand Prize, S.	Nev.			51,658
Hale & Norcross, G. S.	"			33,090
Harshaw, S.	Ariz.			267,836
*Head Center	"			80,231
*Homestake, G.	Dak.			635,316
Horn-Silver, S. L.	Utah.		7,500	623,368
Idaho, G.	Cal.			213,000
*Independence, S.	Nev.			17,108
*Indian Queen, S.	"			109,389
Iron Silver	Colo.			327,600
Jocuista, S.	Mex.			156,888
*†Little Chief, S. L.	Colo.			131,602
Mack Morris	Ariz.			135,174
Mingo Smelt. Wks	Utah.			4,554
*Modoc	Cal.			34,704
Morgan Smelt'g Wks.	Utah.			24,179
Morning Star	Colo.			15,200
*Mount Potosi, G. S.	Nev.			74,319
*Navajo	"			128,124
Noonday, G.	Cal.			197,343
Northern Belle, S.	Nev.	19,739	41,600	796,628
*Oneida, G.	Cal.			46,045
*Ontario, S.	Utah.	37,892	58,920	1,497,414
*Ophir, G. S.	Nev.			5,170
Pascoe, S.	Utah.			29,950
Rebellion	"			10,512
Richmond, S. L.	Nev.			602,333
Robinson Con., S.	Colo.			129,000
*Sierra Nevada, G. S.	Nev.			179,001
*Silver Bow	Mont.			325,155
Silver Cliff	Colo.			26,925
Silver King, S.	Ariz.			387,358
*Sullivan, S. L.	Maine.			5,340
Standard, G.	Cal.	47,579	68,199	1,247,392
Star, S.	Nev.	3,500	3,500	96,684
Stormont, S.	Utah.	8,504	17,687	125,936
Syndicate, G.	Cal.	12,070	12,070	61,187
Tintic M. and M. Co.	Utah.			66,472
*Tip Top, S.	Ariz.			255,029
*Tombstone	"			870,704
*Union Con., G. S.	Nev.			43,100
Vandewater	"			1,700
*Vizina	Ariz.			214,500
*Western	"			866,726

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

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 $223,097.77, as against $424,033.03, reported in our last.

WASHINGTON, Aug. 12.—The Treasury Department today ordered a transfer of $4,516,896 in gold bullion from the New York Assay Office to the Philadelphia Mint, for coinage into eagles and half-eagles.

Exports of Gold and Silver from New York.

Week ending August 13th	$130,000
Corresponding week last year	70,211
Since January 1st	7,094,455
Corresponding period last year	5,290,947

The *Commercial Bulletin* says: The importations of specie and bullion at this port during the week ending August 12th were $222,629, consisting of $190,458 in gold and $32,171 in silver, as against a total of $1,841,740 for week ending August 14th last year. The importations since the 1st of January and since the 1st of August compare as follows with the movement during the corresponding periods last year:

	Since January 1st.		Since August 1st.	
	1881.	1880.	1881.	1880.
Gold	$29,029,208	$4,511,591	$404,949	$2,537,224
Silver	1,817,970	3,384,985	64,041	190,479
Total	$30,847,178	$7,896,576	$468,990	$2,727,703

LONDON, Aug. 14.—The correspondent of the *Economist* at Paris, reviewing the return of the Bank of France says: The balance of bullion in Paris has again increased 8,500,000 francs, for the same reason that caused the increase last week, namely, the deposit of gold from Russia, which was bought for America, but which is not yet required for export.

LONDON, Aug. 17.—*The Standard*, in its financial article, says £80,000 was purchased for New York account yesterday from private sources.

The Bank of England has lost £122,000 bullion during the week, and its directors have fixed the minimum rate of discount at 3 per cent. The statement of the Imperial Bank of Germany shows a decrease in specie of 6,100,000 marks.

The *Economist*, speaking of the decrease in the European stocks of gold, prints the following comparison of the amounts held by the banks of England and France, now and at this time last year:

	1881.	1880.	Decrease.
Bank of England	£26,256,550	£29,002,887	£2,746,377
Bank of France	25,357,753	30,669,994	5,312,241
	£51,614,303	£59,672,881	

In addition to the above, it is stated that the Bank of Germany holds specie in stock at present as under, in equivalent of U. S. coin:

	Aug. 4, 1881.	Aug. 5, 1880.
Gold (estimate)	$48,125,000	$48,022,000
Silver (estimate)	96,247,500	96,043,000
Specie	$144,372,500	$144,065,000

It is stated that there is now $2,000,000 of foreign bullion afloat consigned to this country.

The receipts of bullion from the Pacific coast during the first six months of 1881 are reported at $19,540,100 against $19,220,500 during the same time in 1880; $27,636,400 in 1879; and $37,390,700 in 1878. The production for the past six months consisted of $7,163,300 in bar silver, $4,319,600 in gold bullion, and $8,154,200 in coin.

METALS.

NEW YORK, Friday Evening, Aug. 19.

There is a very large consumption of metals going on, which is at present supplied without causing any excitement. Prices are all firm, with an upward rather than a declining tendency.

Copper.—The sales have been liberal, amounting probably to 500,000 lbs., at 16⅝@16⅝c., closing at the latter figure. The demand is very good, while there is a scarcity of spot copper. The mining companies are practically out of the market.

Our London advices include August 9th, from which we take the following:

Aug. 2d. The sales amount to about 300 tons at £59 for g. o. bs., £59 1/16@£59⅛ for picked brands cash, and £59⅞ for a best brand short arrival.

Aug. 3d. There was a fair demand at about 5s. under holders' views. Sales 50 tons best brands to arrive at £59¾ net.

Aug. 4th. Business very small at £58⅞ without brokerage, and £59 less a small commission.

Aug. 8th. G. o. bs. £59@£59¼ cash; best brands £60½.

Aug. 9th. Chili bars, g. o. bs., £59; Wallaroo, £68 nominal; Burra, £65@£65½; English Tough, £63@£64; and Select, £65@£66.

STATISTICS OF COPPER—LONDON, LIVERPOOL, SWANSEA, AND FRANCE.

		July 1 to 31. Imports. Tons.	Deliveries. Tons.	
Fine foreign, chiefly Australian		726	1,115	London.
Chili	Bars and Ingots	3,402	2,650	Liverpool & Swansea.
	In Ores and Regulus	641	226	
Precipitate and Sundries		2,161	2,777	
Totals, England		6,960	6,768	
Fine foreign, chiefly American		675	575	France.
Chili Bars, Ingots, and Barilla		491	668	
		8,126	8,011	

		Stocks. July 31. Tons.	June 30. Tons.	
Fine foreign, chiefly Australian		8,903	9,292	London.
Chili	Bars and Ingots	29,862	29,080	Liverpool & Swansea.
	In Ores and Regulus	1,810	1,395	
Precipitate and Sundries		1,505	2,121	
Totals, England		42,080	41,888	
Fine foreign, chiefly American		1,082	982	France.
Chili Bars, Ingots, and Barilla		4,341	4,518	
		47,503	47,388	
Chili charter-ed and afloat	Mail and Telegram	8,732	10,222	
Australian chartered and afloat	Mail and Telegram	2,500	1,800	
		58,735	59,410	

		Jan. 1 to July 31. 1881. Tons.	1880. Tons.	1879. Tons.
Imports	Chili	21,901	26,290	28,820
	Other foreign	21,812	21,838	25,697
		43,713	48,137	54,517
Deliveries	Chili	24,867	26,352	24,924
	Other foreign	19,335	18,434	25,111
		44,202	44,786	50,035

Tin.—The sales have amounted to 100 tons on spot, at 21@21¼c., and to arrive 100 tons at 21c. The closing price is 21¼@21½c. L. & F. is quoted at 21⅝@21¾c. The jobbing demand for tin is very good. Straits in London is quoted at £91 15s.; in Singapore, $29¼; in Penang, $28¾, with exchange at 3s. 9d. The shipments from the Straits for the first half of this month were 400 tons by steam and 30 tons by sail to the United States, and nothing to England.

Our London advices include August 9th, from which we take the following:

Aug. 2d. Good deliveries and small shipments from the Straits and Australia have caused some excitement. Sales of sharp cash metal have been made up to 91¼s., and usual 14 days prompt to 91½s.

Aug. 3d. Sales of about 100 tons at 91@91⅛s. sharp cash, 91¼@91½s. 14 days, and 91½@92¼s. forward delivery.

Aug. 4th. Sales of about 140 tons at 91½s. immediate cash, and 91¾s. usual 14 days. For forward delivery, 92½s. was paid for three months, 92¼s. for middle of September, and 91⅝s. for one month prompt.

Aug. 8th. Sales about 300 tons at 91¼s. sharp, and 91⅜s. early cash, and 91½s. usual 14 days, with a moderate trade at 92@92⅛s. three months.

Aug. 9th. Small sales at 91¼@91⅜s. cash, and 92⅛@92s. three months.

STATISTICS OF FOREIGN TIN—LONDON AND HOLLAND.

		July 1 to 31. Imports. Tons.	Deliveries. Tons.	
Australian and Straits		458	1,320	London.
Banca (ex sale)		739	342	Holland.
Billiton		133	455	
		1,330	2,117	

		Stocks. July 31. Tons.	June 30. Tons.	
Australian and Straits		7,550	8,412	London.
Banca (ex sale)		1,264	867	Holland.
Billiton		1,531	1,853	
		10,345	11,132	
Approximate quantity afloat	Australian	1,700	1,350	
	Straits	500	600	
	Billiton	1,400	1,550	
Tons		13,945	14,632	
Australian and Straits			£90⅛	£89

	Jan. 1 to July 31. 1881.	1880.	1879.
Sales of Banca by Trading Co.	2,777	2,354	2,799
Imports—Billiton	2,037	2,004	2,135
" Straits	3,517	1,087	3,393
" Australian	5,102	5,434	5,191
Total brought to market	13,433	10,879	13,518
Actual deliveries of foreign	13,167	11,814	12,296
In transit—Straits and Australian	2,788	4,561	2,278

	July. Imports.	Approximate shipments.
Australian	273	650
Straits	185	100
Tons	458	750

STOCKS.

1880.	England.	Holland.	Total, England and Holland.	Afloat for Europe.	Total, England and Holland, and Afloat for Europe.
July 31	7,103	3,518	10,621	3,175	13,796
August 31	7,408	3,629	11,037	3,300	14,337
September 30	7,013	4,126	11,139	2,850	13,989
October 31	7,065	3,264	10,329	3,250	13,579
November 30	6,657	3,275	9,932	3,475	13,407
December 31	6,995	3,084	10,079	4,025	14,104
1881.					
January 31	7,013	3,412	10,425	5,700	15,525
February 28	7,988	2,887	10,875	4,400	15,275
March 31	8,878	3,189	12,067	3,150	15,217
April 30	8,421	2,806	11,227	3,400	14,327
May 31	8,684	3,129	11,813	2,550	14,363
June 30	8,412	2,720	11,132	3,500	14,632

Tin Plates.—There is a stronger market for coke tins and charcoal ternes. All the cheap lots of the latter have been picked up during the week. Coke tins are 6@12d. higher in England. There is a fair jobbing business. We quote per box, as follows: Charcoal tins, Melyn grade, ⅛ cross, $6⅛@$6¼; Allaway grade, $5¾@5.80. Charcoal Roofing, Dean grade, $5.37½ for 14×20, and $11¼ for 20 × 28; Allaway grade, $5¼ for 14 × 20, and $10¾@$11 for 20 × 28. Coke Roofing, B. V. grade, $5 for 14 × 20, and $10⅝ for 20 × 28. Coke tins, B. V. grade, IC, $5½, and ICW $4.55@$4.60.

Messrs. Robert Crooks & Co., of Liverpool, under date of Aug. 4th, say that tin and terne plates, in spite of the large trade doing, and the hole made in stocks, do not show as much improvement as was anticipated. Coke tins and favorite brands of charcoal terne are the stronger descriptions, charcoal tin and the better grades generally being in quite small demand. As a

whole, we would say the market is barely holding position given last week.

Lead.—The sales for the week amount to from 300 to 400 tons at 4·90@4·95c. The market is strong at 4·95@5c. at the close.

The shipments of lead over the St. Louis & San Francisco Railroad for the week ended Aug. 7th amounted to 196 tons.

Spelter and Zinc.—Both are quiet, the former at 5⅛c., and the latter at 6⅞@7c.

Antimony.—This article is quiet at 14¼@14¾c. for Cookson's and 14c. for Hallett's.

Quicksilver.—The San Francisco *Commercial Herald* of August 11th says:

The spot market lacks animation at 37½c.
The exports for the week, by sea, were as follows:

	Flasks.	Value.
To Hiogo, per City of New York, hence 6th inst.:		
The Anglo-Californian Bank	25	$731
To Guaymas, per Newbern, hence 6th inst.:		
Thannhauser & Co.	15	436
Totals	40	$1,167
Previously since January 1st, 1881	24,024	695,985
Totals	24,064	$697,152
Totals, same period 1880	21,578	653,223
Increase in 1881	2,486	$43,929

Receipts since January 1st, 1881, 33,826 flasks.
Overland shipments from January 1st to July 1st, 1881, 4894 flasks.

IRON MARKET REVIEW.

NEW YORK, Friday Evening, Aug. 19.

There is a very large business doing without causing any excitement. Prices are very strong and all inclined to advance.

American Pig.—Outside of 1200 tons of Thomas No. 2 Foundry from second hands at a shade under $22, there has been no business reported. The scarcity of leading brands is an evidence that a great deal more business has been and is doing than comes to the public's notice. We quote No. 1 Foundry at $24 @$25; No. 2, $22@$23; and Forge, $20½@$21.

Scotch Pig.—The sales on spot and to arrive aggregate fully 1500 tons. The Glasgow market is weak. Freights are unchanged, and vessel room is engaged for six weeks ahead. We quote Eglinton at $21; Coltness, $23½@$24; Glengarnock, $22@$22½; Gartsherrie, in yard, $23; and Summerlee, $23½. Good English iron is quoted at $19. Sales of 14,000 tons of Bessemer iron at $24@$25 are reported. The stocks, which at the beginning of the year at five of the leading markets amounted to 450,000 tons of foreign iron, are now reduced to about 150,000.

Rails.—There have been some sales of iron rails at Western mills at $50. The quotations at the Eastern mills are $47@$48, and at Western mills $49@$50, and but few offering. Foreign iron rails are quoted at $48@$50. Bessemer rails are quiet, with an inclination to advance. We quote at $56@$60, for next year, according to location of the mill. English rails for delivery in next three months are quoted at $62@$63.

Old Rails.—There have been sales of 7000 to 8000 tons of Ts. at $27½, and a small business at $28, which is the quotation at the close. We learn of sales of 1300 tons of D.Hs. at $30, and quote the same at the close; 3000 tons for shipment brought 90s., c. f. i.

Wrought Scrap is in fair demand at $27@$30 from ship and yard.

We publish the following letters from our regular correspondents:

Baltimore. Aug. 16.

[Specially reported by R. C. HOFFMAN & Co.]

There is an active demand for all grades of pig-iron, and prices are tending upward. We quote present rates as follows:

Balt. Char.	$36.00@$38.00	Mot. and Wh.	$19.00@$21.00
Va. "	36.00@ 38.00	Cl. C. B. Bl'om	65.00@ 70.00
Anth. No. 1	24.00@ 26.00	" " Billets	....@ .....
" " 2	23.00@ 24.00	Refined Bl'm	55.00@ 60.00
" " 3	21.00@ 22.00		

Cincinnati. Aug. 16.

[Specially reported by JACOB TRABER & Co.]

The demand for pig-iron has been brisk all during past week, and it continues with an advance in prices. We quote:

	Four mos.
No. 1 Hanging Rock Charcoal Pig-Iron	$27.00@$27.50
No. 2 " " " "	26.00@ 26.50
No. 1 Tennessee " "	26.00@ 26.50
No. 2 " " " "	25.00@ 25.50
No. 1 Hanging Rock Coke "	23.00@ 24.00
No. 2 " " " "	22.50@ 23.00
No. 1 Jackson Co. Stone Coal "	21.00@ 22.00
H. R. C. B. Car-Wheels, all Nos	39 00@ 40.00
Southern C. B. Car-Wheels, all Nos	37.00@ 38.00
Virginia " " "	38.00@ 39.00

Louisville. Aug. 16.

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

Most of the large buyers have purchased what they need for the immediate future, and the demand is not large. Prices, however, are very firm, and furnaces are asking an advance. The last sales of standard brands of No. 1 Mill Iron were at $19 for cold short, and $20 for neutral. Our quotations are for cash.

FOUNDRY IRONS.

	No. 1.	No. 2.
Hanging Rock Charcoal	$27.00@$29.00	$25.00@$27.00
Southern Charcoal	23.50@ 24.00	22.50@ 23.00
H'n g Rock, Stc'l & Coke	23.00@ 24.00	21.50@ 22.00
Southern Stonecoal & Coke	23.00@ 23.50	21 50@ 22.00

"Amer. Scotch" $21 @$22 | Silver Gray. $20.00@$21.00
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	19.50@ 20.50
No. 2 Stc'l & Coke, cold-short and neutral	18.50@ 19.50
No. 1 Missouri and Indiana, red-short	25.00@ 27.00
White & Mottled, cold-short and neutral	17.00@ 18.00

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	29.00@ 33.00

Richmond. Aug. 16.

[Specially reported by ASA SNYDER.]

The upward tendency in the prices of pig-iron still prevails.

The following are market quotations of this date:

Scotch Pig-Iron		$23.00@$25.00
Anthracite Pig-Iron	No. 1	23.00@ 25.00
" "	No. 2	21.50@ 23.50
" "	No. 3	19.50@ 22 00
Virginia Coke Pig-Iron,	No. 1	23.00@ 24.00
" "	No. 2	22.00@ 23.00
" "	No. 3	20.00@ 22.00
Va. Charcoal C. B. Wheel Iron		....@ .....
Old Rails		26.00@ 27.00
Wrought Scrap No. 1		22 50@ 24.00
Cast Machinery Scrap		20.00@ 21.00
Richmond Refined Bar Iron		....@ .....
Horseshoes (Tredegar)		....@ .....
Mule-shoes		....@

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

St. Louis. Aug. 13.

[Specially reported by HOFFER, PLUMB & Co.]

The intensely hot weather of the past week has had a tendency to quiet matters here. The market, however, is without quotable change. We quote to-day as follows:

HOT BLAST CHARCOAL.

Missouri	$26.00@$27.00
Southern	25.00@ 26.00
Ohio	28.00@ 29.00

COKE AND COAL.

Missouri	$26.00@$27.00
Southern	23.00@ 24.00
Ohio	23.50@ 24.50

MILL IRONS.

Cold short	$21.00@$22.00
Red short	24.00@ 25.00

CAR-WHEEL AND MALLEABLE IRONS.

Missouri	$28.00@$30.00
Southern	35.00@ 38 00
Ohio	31.00@ 42 00

San Francisco. Aug. 11.

Imports for the week embrace per Pendragon, from Liverpool, 5229 boxes of tin plate, and from Sydney, per Zealandia, 2413 ingots pig-tin. In regard to pig-iron, we remark that with fully a year's stock on hand, and that in the hands of several anxious sellers, the chances of any advance are not encouraging. The owners of the Clipper Gap furnaces propose utilizing their own productions as manufactured iron. We quote as follows:

	To arrive.	Spot lots.
Eglinton	$24.00	$24.50
Glengarnock	25.00	25.50
Clay Lane	27.00	27.00
American Soft	30.00	30.00
American Hard	25.00	26.00
Oregon	26.00	26.00
Shotts, No. 1	27.50	27.50
Clipper Gap	25.00	27.00

—*Commercial Herald.*

Philadelphia. Aug. 18.

A large and steady demand exists for iron of all kinds, at the following quotations: Pig-iron, $24@$25; XX, $21.50@$22. Forge irons at furnace, $19@$21; English, $18@$20; Scotch, $21@$23; Bessemer, $25. By reference to former quotations, it will be seen there has been but very little variation in quotations, and from present indications the fluctuations for the next 90 days will be within narrow limits, because of two repressing influences, namely, idle home furnaces and foreign surplus stocks, awaiting a favorable American market. The leading companies have sold to the heavy buyers the bulk of their requirements for the rest of the year at fixed prices, and some companies have refused contracts running through the half of 1882, at present prices. Foundrymen are buying in monthly lots generally. Foreign stocks sell moderately. Lower domestic grades are improving, while higher grades are at a stand-still. Large Bessemer orders are going abroad to cover heavy steel rail contracts. Domestic furnaces are sold far ahead. Merchant bar manufacturers advanced card to 2½c. on Monday, where it has been for two weeks. A further advance will create a margin for foreign iron. Demand is strong. Mills are farther behind; 2·4c contracts are nearly all out. Prospects are good for six months at present rates. Tank is the highest on the list. Good orders were booked at 3¼c. Sheets are active at 4¾@4¼c. All kinds of construction iron are in very active demand, and some Western orders have found acceptance here; but as a rule winter deliveries are the best that can be given. Bridge iron is unusually active. Angles are firm at 2·7@2·8c. The demand is still in excess of capacity, but quotations do not advance with demand, nor with willingness of buyers to pay, because of inability of manufacturers to deliver as promptly as required. All branches of the iron trade are unprecedentedly active. Prices are higher and firmer than for years. Requirements are greater and prospective demand larger. Railroad material is in as active demand as last week at $56@$60 for steel rails, $47@$52 for iron, $28 for old rails, $30 for Doubles. Stocks are practically exhausted and negotiations have just been closed for large winter deliveries. Scrap is active and firm at $28@$30 for best; $20@$21 for cast. Nails have been advanced to $3.15, 10 per cent off, and inquiries indicate the opening in a few days of a brisk and steady demand.

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

LONDON, E. C., Aug. 4.

STEEL RAILS.—The position of our market remains the same. There is a good inquiry for prompt shipments, and 35-pound sections much sought after, for September forward.

IRON RAILS.—£5 7s. 6d @£5 12s. 6s. per ton, 35-pound Sandbergs being again in request for August-September shipments.

BAR IRON.—£5 5s. per ton for common qualities.

OLD RAILS.—Continue very firm. D. Hs. are in request, but the prices paid to and demanded by our railroad companies render it impossible to ship c. i. f. U. S. ports under about 85s. per ton. Flanges are quoted 77s. per ton c. i. f.

HEAVY WROUGHT SCRAP-IRON.—Not much doing, but nominally 70@75s. per ton c. i. f.

OLD RAILROAD LEAF SPRING STEEL.—Is scarce; no business reported.

CROP ENDS OF RAILS.—65@67s. 6d. per ton, f. o. b. English ports.

OLD CAST-IRON RAILROAD CHAIRS.—42@44s. per ton, for home consumption.

STEEL BLOOMS 7" × 7" AND UPWARD.—In strong demand for August-September shipment, but makers appear quite filled up for those months. October, November, and December deliveries are quoted £5 12s. 6d.@£5 15s. per ton.

BESSEMER PIG-IRON, Nos. 1, 2, AND 3.—55@57s. 6d per ton for choice brands.

SCOTCH PIG-IRON.—46s. 9d.@47s. per ton cash.

MIDDLESBROUGH PIG-IRON, No. 3.—37s. per ton.

COAL TRADE REVIEW.

NEW YORK, Friday Evening, Aug. 19.

Anthracite.

The situation shows but very little change from last week. The production continues large, and but an inconsiderable amount of coal appears to be accumulating at the shipping ports. Prices are not lower, and are much better maintained than was generally expected would be the case. Vessels have been much more abundant, but are not yet in sufficient supply to meet the requirements or reduce rates. The Philadelphia *Ledger* of August 15th says:

There has been some difficulty reported about water transportation, which is causing an accumulation of coal at the shipping ports; but if this did not exist, there is no doubt that the companies would dispose of all their production at the present rate of output for an indefinite period. It is complained at Port Richmond that, while orders are plentiful, the stock on the wharves accumulates from the scarcity of vessels to carry it away. Last week, the cars landed 5500 tons more than there was shipped, although the week's shipments reached the large figure of 43,500 tons. On Saturday the stock on the Port Richmond wharves was 134,400 tons. This coal is awaiting delivery mostly to the eastward. The steam colliers are carrying away about 50,000 tons a month, but the sailing vessels usually transport three times as much, and they are scarce just now at Port Richmond. The Southern lumber and phosphate trades and ice-carrying from Maine are occupying a part of the fleet ordinarily relied upon for coal transportation; but this scarcity of vessels, probably, will be only temporary, as the prevailing freight of $1.75 per ton to Boston, with quick loading, will quickly induce the skippers to bring their schooners this way. If the sailing vessels can get good freights for coal-carrying, they will soon come into the Delaware in sufficient numbers to take all the coal away that there is wharf-room to land. Despite the prevailing idea among people who do not know much about the shipping interests of the country, there are plenty of schooners afloat, and their managers are always on the lookout for the best freights.

There is an uneasiness said to exist among the miners in the Wyoming region.

No indications of an arrangement for a curtailment of production are evident, although it is generally thought advisable that the production should be reduced. There is a very good Western and line demand, while it is impossible to get vessels to supply the requirements of New England.

The production of anthracite coal last week was 628,718 tons, as compared with 546,177 tons the previous week, and 419,256 tons the corresponding week of 1880. The total production from January

FREIGHTS.

Coastwise Freights.

Per ton of 2240 lbs.

Representing the latest actual charters to Aug. 19th, 1881.

Ports.	From Philadelphia.	From Baltimore.	From Elizabethport, Port Johnston, South Amboy, Hoboken, and Weehawken.
Alexandria		.80	
Annapolis			
Albany		1.75	
Baltimore	.60		
Bangor			1.40
Bath, Me		1.90	1.50
Beverly			1.40
Boston, Mass	1.75@1.85‡	2.00	1.40
Bristol			
Bridgeport, Conn.		1.50	.60
Brooklyn			
Cambridge, Mass.			
Camoridgeport			
Charleston	1.00		1.25
Charlestown			1.40
Chelsea			
City Point			
Com. Pt, Mass.			
E. Boston			1.40
East Cambridge			
E.Gr'nwich, R. I.			
Fall River		1.00	.95
Galveston			
Georgetown, D.C.			
Gloucester			
Hartford		1.60	
Hackensack			1.00
Hudson		1.60	
Lynn			
Marblehead			
Medford			
Millville			
Milton			
Newark, N. J.		.50	
New Bedford	1.50	1.65	1.05
Newburyport		2.00	1.50
New Haven		1.50	.65
New London		1.75	.80
Newbern			.75
Newport			.95
New York		1.35	
Norfolk, Va	.85	.60	
Norwich			
Norwalk, Conn		1.60	.60
Pawtucket		1.75	
Philadelphia		*.60	
Portland	1.75		1.30
Portsmouth, Va.			1.10
Portsmouth, N.H.	1.85@1.90	2.00	1.50
Providence	1.30@1.50		1.00
Quincy Point			1.50
Richmond, Va	1.25@1.10		
Rockland			
Rockport			
Roxbury			
Saco	†1.65		
Sag Harbor			
Salem, Mass.		2.00	1.50
Saugus			
Savannah			
Somerset			1.00
Staten Island			
Trenton		1.00	
Troy		1.75	
Wareham		1.75	
Washington	.95@$1.00	.80	
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.

1st to August 13th was 16,194,885 tons, as against 12,766,801 tons for the like period of last year, showing an increase this year of 3,428,084 tons.

Bituminous.

There is a little more business than there was, but the competition is so great that the prices, which are exceedingly low, do not improve. The shipments continue to be large, and made mostly on contracts secured early in the season. The miners in the Clearfield region, although very much better recompensed for their labor than the miners in the anthracite districts, are showing some uneasiness. We do not, however, look for any serious trouble soon.

San Francisco. Aug. 11.

Imports from January 1st to August 1st:

Anthracite, tons	7,508	Departure Bay, tons	73,771
Australian, tons	50,273	Cumberland, tons	4,779
Coos Bay, tons	15,634	English, tons	68,295
Mount Diablo, tons	92,000	Seattle, tons	86,639
Scotch & Welsh, tons	34,786	Vancouver Isl'd, tons	24,168
Carbon Hill, tons	8,902		

Imports during the week include the following: Belvedere, from Nanaimo, 2100 tons; Victoria, from same, 1785 tons; Two Brothers, from Seattle, 2275 tons; Dunbritton, 1986 tons from Newcastle, N. S. W.; Empire, from Tacoma, W. T., 836 tons Carbon Hill. Foreign coals are arriving in large quanties, and some cargoes, unsold prior to arrival, now seeking buyers have aided in further demoralizing prices. No advance can be looked for during the next six months at least, as, in the absence of other freight, coal will be shipped, regardless of what the price may net the vessel for freight. It is hopeless for our coast colliers to attempt to compete at present prices; they will be money in pocket by remaining idle. Egg coal is scarce—barely sufficient for immediate wants. During the month of July, as previously noted, the arrivals were very numerous, and prices on the spot declined very much. During the early part of July, West Hartley and Scotch Splint were sold at $6.75 and $6.50, while during the past fortnight even less than $6 per ton has been accepted for both descriptions. There is scarcely any demand for cargoes to arrive or for shipment, the large consumers and dealers having heavy stocks here and on the way. The British steamer Hylton Castle, brought 1528 tons Wellington, and the brig North Star, 611 tons Carbon Hill. We submit the following schedule of rates:

	Prices to arrive.	Spot rates.
Australian	$6.00@$6.25	$6.50
Liverpool Steam	5.75@ 6.00	6.00
West Hartley	6.00@ 6.25	6.50
Scotch Splint	6.00@ 6.25	6.50
Lehigh Lump	12.50@13.00	16.00
Cumberland bulk	10.00@	10.50
do cask	12.00@	12.00
Egg, hard	11 50@	15.00
Welsh Hartley	5.75@	6.00
Cardiff	6.25@ 6.50	6.50

The local wants of the community are largely supplied by Wellington and Carbon Hill at $8@$8.50; Seattle, $7@$7.50. To these rates $2.50 per ton added to consumers for cartage. Ship Challenger, from Cardiff, has 2018 tons; Iron Duke, from Newport, Wales, 2000 tons; steamer Willamette, from Seattle, 3000 tons; Childwall, from Cardiff, 1361 tons coal and 417 tons coke.—*Commercial Herald.*

STATISTICS OF COAL PRODUCTION.

Comparative statement of the production of anthracite coal for the week ending Aug 13th, and years from January 1st:

Tons of 2240 lbs.	1881.		1880.	
	Week.	Year.	Week.	Year.
Wyoming Region.				
D. & H. Canal Co.	78,249	2,093,656	46,743	1,722,309
D. L. & W. RR. Co.	92,515	2,493,730	60,106	1,954,513
Penn. Coal Co.	34,754	746,553	21,642	596,436
L. V. RR. Co.	33,448	695,335	15,729	592,242
P. & N. Y. RR. Co.	*	51,732	881	19,931
C. RR. of N. J.	48,186	1,393,151	25,776	890,448
Penna. Canal Co.	6,706	231,475	16,049	237,773
	293,858	7,735,632	186,926	6,013,652
Lehigh Region.				
L. V. RR. Co.	94,480	2,588,675	64,868	1,848,957
C. RR. of N. J.	51,960	1,253,343	39,116	1,153,383
S. H. & W. B. RR.		6,676		6,831
	146,440	3,848,694	103,984	3,009,171
Schuylkill Region.				
P. & R. RR. Co.	164,512	3,957,935	102,964	3,258,629
Shamokin & Lykens Val.	23 908	615,818	24,356	459,651
	188,420	4,573,753	127,320	3,718,280
Sullivan Region.				
Sullivan RR. Co.	*	36,806	1,026	25,698
Total	628,718	16,194,885	419,256	12,766,801
Increase	209,462	3,428,084		
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 ..... 9,349,490 tons.
" " " " 1877 ..... 11,941,868 "
" " " " 1878 ..... 9,674,392 "
" " " " 1879 ..... 15,374,328 "

* These reports were not received this week.

The Production of Bituminous Coal for the week ending Aug. 6th was as follows:

Tons of 2000 lbs., unless otherwise designated.

	Week. Tons.	Year Tons.
Cumberland Region, Md.		
*Tons of 2240 lbs	45,967	1,235,096
Barclay Region, Pa.		
Barclay RR., tons of 2240 lbs	8,316	250,020
Broad Top Region, Pa.		
*Huntingdon & Broad Top RR.	3,658	131,225
East Broad Top	1,701	44,642
Clearfield Region, Pa.		
Snow Shoe	2,490	61,183
Tyrone and Clearfield	51,547	1,414,993
Alleghany Region, Pa.		
Pennsylvania RR.	4,544	160,673
Pittsburg Region Pa.		
West Penn RR.	4,856	181,905
Southwest Penn. RR.	746	17,249
Penn & Westmoreland gas-coal, Pa. RR.	19,109	515,235
Pennsylvania RR.	13,314	363,445

* For the week ending Aug. 13th.

The decrease in shipments of Cumberland Coal, over the Cumberland Branch and Cumberland & Pennsylvania railroads, amounts to 108,322 tons, as compared with the corresponding period in 1880.

The shipments of Cumberland Coal, over the George's Creek & Cumberland RR., by the Maryland and the American Coal companies, for the week ending Aug. 13th, amounted to 10,013 tons, making a total of 67,004 tons since the beginning of transportation.

The Production of Coke for the week ending Aug. 6th, and year from Jan. 1st:

Tons of 2000 lbs.	Week.	Year.
Penn. RR. (Allegheny Region)	1,749	59,655
West Penn RR.	1,737	70,479
Southwest Penn. RR.	33,129	850,701
Penn. & Westmoreland Region, Pa. RR.	3,881	113,885
Pittsburg, Penn. RR.	12,485	368,943
Snow Shoe (Clearfield Region)	274	5,495
Total	53,253	1,469,158

SPECIAL NOTICES.

DIVIDENDS.

DIVIDEND NO. 24.—LA PLATA MINING AND SMELTING COMPANY.

OFFICE OF LA PLATA MINING AND SMELTING CO., of Leadville, Colo., 58 Broadway, Rooms 12 and 13. NEW YORK, Aug. 18, 1881.

DIVIDEND NO. 24.

The Board of Trustees have this day declared a dividend of seven and one half cents per share (par value $10) on the capital stock, payable on Monday, September 1st, prox., at the office of the company. Transfer-books will close on Thursday, August 25th, and reopen Friday, September 2d, 1881.

STATEMENT OF THE FINANCIAL CONDITION OF THE COMPANY.

Working capital	$100,000.00
July 1, 1881—Balance surplus account	56,826.41
Aug. 1, 1881—Net earnings month of July	16,543.23
	$173,369.64
Dividend 7½ cents per share, 200,000 shares	15,000.00
Balance Aug. 1, 1881	$158,369.64

D. OLYPHANT TALBOT, Assistant Secretary.

OFFICE OF THE CHRYSOLITE SILVER MINING COMPANY, 18 Wall Street.

NEW YORK, Aug. 20, 1881.

A dividend (No. 8) of one per cent on ten million dollars capital stock of this company, amounting to one hundred thousand dollars, or fifty cents per share, has been declared, payable on the 10th day of September prox. The transfer-books to close at 3 P.M. on the 31st day of August, and reopen on the 11th day of September.

HENRY C. COOPER, Secretary.

SAN FRANCISCO, AUG. 15, 1881.—THE EUREKA CONSOLIDATED MINING COMPANY has declared a dividend (No. 70) of fifty cents per share, payable on the 27th inst. Eastern stockholders of record will be paid at the office of Laidlaw & Co., 14 Wall street, New York.

Transfer-books close in San Francisco and New York 15th inst.

W. W. TRAYLOR, Secretary.

OFFICE OF THE STARK-GROVE SILVER MINING COMPANY, No. 2 Nassau st., cor. Wall st.

NEW YORK, June 15, 1881.

DIVIDEND NO. 8.

The Board of Trustees have this day declared the regular monthly dividend of ten cents a share, being one per cent on the capital stock of the company, payable on the 30th inst., at this office.

The transfer-books will be closed from the 21st to the 30th inclusive.

WM. S. CLARK, President.
JOHN R. BOTHWELL, Secretary.

OFFICE OF COPPER QUEEN MINING COMPANY, 34 and 36 Thomas Street.

NEW YORK, Aug. 15, 1881.

The Board of Directors of this company have this day declared a monthly dividend (No. 3) of Twenty-five Thousand Dollars, being 10 cents on each share of the capital stock of the company, payable on and after Sept. 1st, 1881, to stockholders of record, at the office of the company.

Transfer-books close Aug. 29th, and reopen Sept. 2d.

A. A. HAYES, JR., President.
L. ZECKENDORF, Secretary and Treasurer.

ROBINSON

CONSOLIDATED MINING COMP'Y.

DIVIDEND NO. 5.

NEW YORK, Aug. 2, 1881.

The Board of Directors have this day declared a monthly dividend of Fifty Thousand Dollars, payable on and after August 15th, at the office of the company, 18 Wall Street.

The transfer-books will be closed from 3 o'clock P.M. of the 9th until 10 o'clock A.M. of the 16th inst.

FINANCIAL STATEMENT FOR JULY, 1881.

Surplus on hand as per statement for June		$75,959.50
Sales, ore and bullion		40,454.22
Cash and bullion at mines		50,000.00
Bullion at refining works and in transit		65,000.00
		$231,413.72
Deduct bullion at works, as per last statement	$45,000.00	
Disbursements, purchases of land, mining and office expenses	30,050.00	
Dividend No. 5, payable August 15th	50,000.00	
		125,050.00
Surplus on hand August 1st, 1881		$106,363.72

JAMES. K. SELLECK, Secretary.

NEW YORK, Aug. 1, 1881.

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

SEVENTY-FIVE CENTS PER SHARE,

payable August 12th, 1881, at the Farmers' Loan and Trust Co., 26 Exchange Place, New York.

Transfer-books close August 4th, and open on 13th inst.

M. R. COOK, Vice-President.