ENGINEERING and MINING JOURNAL.

VOL. XXXII. No. 11.

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THE SCIENTIFIC PUBLISHING CO., Publishers,
P.O. Box 4404. 27 Park Place, New York.

CONTENTS.

DR. T. STERRY HUNT sails for Liverpool on the 10th of September, on his way to Italy, where he will attend the International Geological Congress, which opens at Bologna, on the 26th inst. He will afterward visit Germany, and return home about the end of November.

WE regret to announce the death, on the 29th of August last, of Mr. JOHN JAMES, who four years ago came to this city from Edinburgh. Mr. JAMES was an engineer and mathematician of much ability, and is known as the inventor who designed the machinery used for the propulsion of cars by compressed air, a system which was experimented with on the Second Avenue Railroad, in this city.

PROF. RAPHAEL PUMPELLY has resigned his position under the U. S. Geological Survey, to take charge of a thorough scientific and economical examination of the region in the Northwest, tributary to the lines of the Oregon Railway and Navigation Company. A better man for this work could not have been selected ; and a more congenial and worthy labor could not have been found for such a man. We are sure that Professor PUMPELLY will not only confer great benefit upon his employers, but will also make valuable contributions to scientific literature, and will add new laurels to those with which his professional career has already been deservedly crowned. *

THE struggle between iron and steel, or weld-iron *versus* ingot-iron, is apparently growing bitter in England. It is now raging in a trade in which Americans are not strongly interested directly, although the issue of the controversy will be important to them in many ways. Hardly a meeting of the great engineering societies of Great Britain passes without some discussion, technical and commercial, of the question whether steel or iron is a better material for ships. Some very important work has been done in this direction, but many points are still open to doubt, and the evidence brought forward on either side is not as yet calculated to be convincing to those who occupy an independent position in the matter.

FOLLOWING the example of England and France, the Prussian government has appointed a commission to examine methods of guarding against explosions of fire-damp in collieries. The plan as laid out is very comprehensive, embracing the gathering of statistical data, the presentation of scientific and technical matter, and the proposal of measures of precaution. Twenty-four officials of the government service, among them many whose standing is very high, have been appointed as members, and a valuable report may be looked for. Whether the result of this investigation will prove productive of better results than earlier similar efforts to deal with this perplexing question, remains to be seen.

A LARGE amount of French capital is being invested in Canada through the *Crédit Foncier*. We regret to hear that in some parts of the country at least the amounts loaned on farms far exceed the actual value of the property, though nominally only one half the estimated value is loaned. The agents in some places are said to so greatly overvalue the property that the amount loaned often exceeds its actual market price. Canadians have every interest in encouraging the introduction of foreign capital, and the only way in which they can continue to command it is by making it profitable.

It would be well for the managers of the *Crédit Foncier* to have this matter investigated.

"FAIR TRADE" is a cry which appears to be serving the ends of the Conservatives in Great Britain quite well, as they have succeeded in wresting two seats in Parliament from their political opponents within the last few weeks. The movement is a much stronger one than it was thought likely to become only a short time since ; but it is doubtful whether, even if it should be accepted by the leaders and the rank and file of the party, it would carry it into power. Free-trade is as popular in England as moderate and judicious protection is in this country. The clamor of a portion of the agricultural and landed interests, and some manufacturing industries, will not probably cause a speedy revulsion of popular feeling in England. But even if it should, there is no ground for the alarm which those in this country who are in sympathy with England's present system profess to feel. Our people will not be swerved by threats from a course which they have pursued with encouraging success until now, nor will they be influenced by them in the pending revision of our tariff laws.

THE Lexington mine, of Butte, Montana, has been purchased by the French "Bingham" Company, that bought the Old Telegraph mine in Utah a few years ago. The purchase price of the Lexington was $1,000,000—a sum greater than Americans would have paid for it; but still, when compared with their purchase of the Old Telegraph, this is comparatively a good bargain. Probably the net value of the ore in sight does not represent one half the price paid for the property, yet the mine is a valuable one, and promises, under prudent management, to earn fair dividends on its cost.

The Old Telegraph mine has been abandoned as worthless, and the $3,000,000 paid for it were consequently sunk. It became absolutely necessary for the company, or rather those who floated it, to get another mine, and they certainly could have done much worse than they have in buying the Lexington, even at $1,000,000. It is to be hoped that the new company will not be capitalized so high (rumor says 30,000,000 francs) as to make it impossible for even a good mine to pay dividends.

WE find in our exchanges intimations of the "failure of the jetties at the South Pass of the Mississippi." It is asserted that the channel is filling to a dangerous extent, and that it is now kept partially open to the necessary depth by continual dredging. Whether these reports are true or not, we do not know. We wish they might prove exaggerated or unfounded. As our readers are aware, we have expressed our views freely as to Captain EADS's theories, and have condemned what we deemed the premature exultation of his friends ; but we have no desire to see the commerce of New Orleans sacrificed, merely that we might have the pleasure of saying, "We told you so." The process asserted to be now going on in the jetty channel is, so far as we can judge from the meager reports, not the one most positively expected by Captain EADS's opponents. But it is one of the possible elements going to make up the general opinion that a jetty channel is, under such circumstances, not permanent. We repeat, that we would much rather, now that the work has been done, see the jetty plan succeed than see it fail ; and we shall not announce such a failure, or moralize over it, until it has been made as evident as we formerly insisted the success was *not*. *

SINCE the Rocky Mountains have become the scene upon which Indian warfare is conducted, no industry suffers more severely than mining from the conflicts between our government and those whom it professes to take charge of. The frequent recurrence of these troubles checks enterprise and legitimate development in a field to which that

portion of our country must chiefly look for its future prosperity. Fortunately, the news concerning the massacre of a detachment of United States troops in Cibicu Creek has proved to be exaggerated; but the accounts that reach us from all sources indicate clearly that the situation is grave enough to call for the most earnest efforts of the government. It is estimated by good authority that there are in Arizona 10,000 Apaches, a small part of whom are capable of doing an incalculable amount of mischief. The time has passed when it was profitable to discuss whether or not the system followed was or was not the best that could be devised. Strong and energetic measures alone can now bring about what is urgently and justly demanded, and the protection of the imperiled young industries of the territory must be speedy and absolute. The government can not afford to dawdle with this matter, however difficult its settlement may be. The Indians must be subjugated, their spirit broken, and measures must be taken to prevent their escape into Mexico or their return, should they be driven across the frontier.

THE indications are multiplying, that magnets will in the future occupy a more prominent position in the dressing of ores, and it seems that some of the most troublesome ore-mixtures that have hitherto baffled the skill of the mining engineer will become tractable with their aid. There is nothing new in the proposition to take advantage of the fact that one mineral is attracted by the magnet, while another that is associated with it is not, to separate them. At Traversella, the method was used at an early date, and it has since been tried at Przibram and other places. But it is really only since the perfection of dynamo-electric machines that this promising field has been fairly opened. The use of light though powerful electro-magnets in the place of ponderous permanent magnets has increased the capacity of such machines, and made them practicable. It would of course be idle to expect any magnetic dressing apparatus to do what EDISON at one time claimed it to be able to accomplish in working tailings; and a study of the plans recently brought forward by SIEMENS, and the apparatus now used at the Friedrichsegen mine, Prussia, will be sufficient to convince an engineer that the "great wizard," late of Menlo Park, New Jersey, has not kept abreast of the time. The SIEMENS separator consists of a series of rings, made magnetic by the current from a dynamo-electric machine, and so arranged that one end of the drum, where the ore is first delivered, has less power, which increases as the material is carried toward the delivery. The Friedrichsegen apparatus, which is now used for separating blende and spathic iron ore after it has been roasted, has a number of fixed electro-magnets massed near the point where the ore is fed. The material falls upon a rotating copper drum, within which these electro-magnets are, and the adhering particles of iron ore are carried along by the drum, while the blende glides by the magnets. A judicious system of roasting, if necessary, and separation by magnetism, will probably prove a valuable aid in the treatment of such ores like intimate mixtures of blende and pyrites, or some of our New Jersey zinc ores.

WE have referred briefly in recent issues to the excitement caused in financial circles in Germany by the prevailing oil fever, and called attention to the fact that, whatever intrinsic value the discoveries in Hanover might have, they were being used as the basis of pretty extensive stock-jobbing. The latest sensation has been caused by a broker of this city, Mr. JOHN GREIVES, now a resident of Bremen, who appears to have opinions of his own, and has astonished the good Germans by his peculiar energy in backing them. He has deposited 30,000 marks in a Bremen bank, and has sent a letter to the *Frankfurter Zeitung*, in which he states that he has visited Oelheim, and has found that many of the published accounts are grossly exaggerated and false. It having been given out that the production of MOHR'S No. 3 well was much impaired by the scarcity of barrels, he offers to pay 1000 marks if he does not succeed in proving that a responsible firm was and is still willing and able to deliver for a moderate price several thousands of empty barrels at Peine within twenty-four hours after the receipt of the order. It has been stated that the quality of the petroleum found was so good that 50 per cent of it is first-class illuminating oil and 45 per cent good lubricating oil. He offers to pay 1000 marks if this or any other oil produced in Oelheim is better than ten per cent of those figures as regards yield or commercial quality. It has been asserted that the product of No. 3 well is superior to any oil produced in America. Again Mr. GREIVES stakes 1000 marks that it will not bear comparison with Franklin oil for lubricating purposes or Bradford oil for refining, and he adds that both are considered the poorest quality in their field, refined Parker and West Virginia representing the best. It has been stated that the yield of No. 3 well—the great one of the new field—had fallen off in production from 320 to 120 per day. Mr. GREIVES puts down 1000 marks to back his assertion that that well has not yielded an average of 100 barrels per day since the date of its completion, July 21st. He requests that the paper to which he has sent his communication appoint an impartial man to act as judge, and suggests that the Berlin and Bremen stock exchanges appoint each a person to accompany him. The defendants, as they may be termed, may choose their own representatives upon paying down sums equal to those deposited by Mr. GREIVES; and of the moneys thus placed in the hands of the judges, 10 per cent is to go to them for traveling expenses, one half of the remainder is to be devoted to any charitable object named by them, and the other half is to be paid over to the party declared by them to be in the right.

We have not as yet heard that these propositions have been accepted by any body, nor do we know of the motives that led to their being made. Their character is so unusual to our German friends that, after their staggering effect has once passed away, it will leave but little impression upon them. For the benefit of the multitude who are about to be shorn by stock sharpers, it is to be hoped that the truth will be elicited at an early date.

THE PRODUCTION AND CONSUMPTION OF RAILS.

The high value of statistics as an adjunct in regulating commerce has been so fully recognized that there is hardly an important industry for which data are not gathered at regular intervals, and given to the public with promptitude. As yet, however, this embraces only the figures for production, and in almost all the trades no efforts are made, or at least none has been successful, to obtain some early and reliable data on consumption. It is known in a general way that business is sluggish or the demand is brisk, whatever the case may be; but we possess no specific figures. The difficulties of gathering them would be great, even if all concerned were to tender their aid freely; they are practically insurmountable in the face of the opposition which such attempts now meet at the hands of those who distribute the goods. In some trades, however, by specially favorable circumstances, we are in a position at least to give approximations, and among these the rail trade is prominent.

We possess, on the one hand, very full and accurate statistics of the make of iron and steel rails in this country, compiled by Mr. JAMES M. SWANK, Secretary of the American Iron and Steel Association. We know the quantities imported, and can, by adding these two series of figures, arrive at a fairly approximate estimate of the apparent consumption, although we have no knowledge of the stocks in makers', importers,' and consumers' hands. On the whole, the fact that they have to be neglected will make the fluctuations in the consumption appear more violent than they have in reality been. The main difficulty presented in trying to arrive at a fair estimate of the consumption in former years, with the purpose of drawing conclusions for the future, lies in the apportionment of the apparent consumption between the demand for renewals and for new construction. Both, of course, are subject to variations dependent upon the prosperity of the railroads and the business interests of the country in general. This is particularly the case with the demand created by the building of new lines, while the supplies for repairs of track are less irregular in quantity. The former might be closely estimated, if we possessed some reliable information on the mileage of sidings, second tracks, etc.; but as the *Railroad Gazette* points out in a recent issue, the statistics on this subject, gathered by the Messrs. POOR for their Manual, show some remarkable and unaccountable variations from year to year. From present statistics, the accessory tracks add as much as 23 per cent to the length of road on an average in the United States, and therefore at least 20 per cent must be added to the number of miles of new road built every year to get at the actual mileage of track laid.

The quantity of rails required per mile of track varies within very wide limits, it being, according to the *Railroad Gazette*, 61½ short tons for narrow gauge to 99 tons for standard roads; 95 tons may be accepted as a fair average, and we therefore find the consumption for new roads by adding 20 per cent to the annual increase of mileage reported, and multiplying it by ninety-five. The figures thus obtained, deducted from the total apparent consumption, will yield the quantities absorbed by renewals and repairs:

Year.	Increase of mileage.	Total consumption.	New roads.	Renewals.
1867	2,449	627,157	279,200	347,957
1868	2,979	756,795	339,600	417,195
1869	4,615	906,749	526,100	380,649
1870	6,070	1,019,153	692,000	327,153
1871	7,379	1,341,434	841,200	500,234
1872	5,878	1,530,850	670,100	860,750
1873	4,107	1,148,849	468,200	680,649
1874	2,105	837,724	240,000	597,724
1875	1,712	810,770	197,900	612,870
1876	2,712	879,916	309,100	570,816
1877	2,281	764,744	260,000	504,744
1878	2,687	882,695	306,300	576,395
1879	4,721	1,157,420	538,200	619,220
1880	7,174	1,674,235	817,900	856,335
1881	8,000	1,900,000	1,000,000	900,000

It will be noted that in general the fluctuations in the demand for rails for renewal are much less than those for the building of new lines of traffic. From the manner in which they are computed, the absence of any data on the quantities of stocks in the country and the irregularity of the total consumption resulting therefrom, has the effect of rendering the changes from year to year more abrupt than they have in reality been. This is particularly evident in the case of the period from 1870 to 1873. The demand from this source is one of exceptional interest, because

it is the one upon which our mills must rely as furnishing the annual minimum for which the railroads of the country must call upon them. As already noted, bad times will of course affect it, but in a much less degree than the inquiry for material for new construction, which experience has shown varies within very wide limits. A question which seriously affects the problem is, how rapidly this demand will be affected by the longer life of steel rails. We know that this must soon be seriously felt, because, according to Mr. POOR'S estimates, there are now in the United States 33,680 miles of steel track, over which, according to the *Railroad Gazette*, at least two thirds of the traffic of the country passes. That journal estimates that of the 11,264,000 net tons of rails now in use on the railroads of the United States 4,000,000 tons are steel and the rest, 7,264,000 tons, are iron. These figures do not quite agree with those based upon POOR'S collected data, according to which there would be about 7,896,000 tons of iron rails.

With a falling off in the demand for steel rails which must come as soon as the present exceptional activity in railroad building ceases, the price of steel rails must, in view of our enormous capacity, fall to a point which will force the production of iron rails, temporarily stimulated, to shrink into insignificance. Then the better material will take a more commanding position in the supply for renewals. The small roads will, however, come into the market gradually, and the demand from this source will naturally be distributed over a number of years.

We have, in the above table, made an estimate for the consumption during the current year, basing it upon the assumption that 8000 miles of road will be built. This will not be far out of the way, because the weekly record of the *Railroad Gazette* already shows an increase of mileage over last year of 769 miles. Even assuming that, during the next four months, the rate remains the same, we should have almost exactly 8000 miles. This would require for construction 1,000,000 tons, and placing the requirements for renewals at 900,000 tons, we reach a total consumption of 1,900,000 tons. To meet the demand, we have a probable production of steel rails, according to Mr. SWANK, of 1,250,000 tons, a figure which the enlargement and increased production of our steel mills justifies. In the case of one works, for instance, we know that with the same plant the output will be expanded by at least 20 per cent. The iron-rail mills, which made nearly 500,000 tons, will at least add to that 475,000 tons, thus running the total of our own rail works up to 1,725,000 tons. This leaves a deficiency of 175,000 tons to be covered by importations. By withdrawals from warehouse and imports for the first six months of the year, 85,000 tons have already been accounted for, and the remainder is forthcoming. From all indications, the climax in the consumption has been reached.

IMPORTS AND EXPORTS OF METALS.

During the fiscal years ended respectively on June 30th, 1880 and 1881, the following quantities of metals were imported into and exported from this country:

	Imports.		Exports.	
	1880.	1881.	1880.	1881.
Tin, cwts.	220,844	162,225	.....	.....
Copper, lbs.	5,202,086	718,616	4,206,258	4,865,407
Lead, lbs.	8,711,243	3,357,557	.....	.....
Zinc, lbs.	8,514,223	1,813,615	1,368,302	1,491,786

The quantities of imported merchandise remaining in warehouse were as follows:

	In Warehouse June 30.	
	1880.	1881.
Copper, lbs.	904,491	75,625
Lead, lbs.	1,800,270	346,900
Zinc, lbs.	618,586	95,303

OUR IMPORTS OF SALT AND SODA PRODUCTS.

The statement of the imports and exports recently issued by the Bureau of Statistics, which cover the entire fiscal year ended June 30th, furnish some interesting figures on a trade which is closely allied with the mining industries. We refer to what is generally called, in a narrow interpretation of the word, the chemical trade. How largely we are dependent upon foreign countries for the products, and also the raw materials of the soda industry, will be shown by the following figures. During the fiscal years 1880 and 1881, we imported:

	1880.	1881.
Chloride of lime, net tons.	38,085	37,213
Crude sulphur, " "	83,236	105,438
Salt, " "	486,985	554,729
Bicarbonate of soda, " "	4,184	940
Carbonate of soda, including sal soda and soda ash, net tons	161,096	149,066
Caustic soda, " "	22,396	23,615
All other salts of soda, net tons.	809	212

From this must be deducted the following quantities of foreign merchandise exported from this country:

	1880.	1881.
Salt, net tons.	3,315	1,509
Bicarbonate of soda, net tons.	4	7
Carbonate " " "	48	8
Caustic " " "	461	627

These figures, it will be seen, do not to any considerable extent affect the statistics given above.

A DISPATCH to the *N. Y. Herald*, dated London, September 9th, says: The exports from Sheffield to America of cutlery, rails, and steel for the month of August show an aggregate increase in value of £33,000 as compared with the same month last year; but under the head of steel alone there is a decrease of £15,000 in the value of exports for the same period.

STAMPING LIGHT-WEIGHT GOLD COINS.

We are indebted to Mr. B. G. UNDERWOOD for advance-sheets of *Underwood's Counterfeit Detector* for September, 1881. The following editorial, with the correspondence embodied, is of special interest to our readers. The position would seem to be somewhat peculiar.

Have United States officers a right to stamp genuine gold coins of the United States, to indicate that they are below standard weight? And are not gold coins a legal tender, even if below the weight and tolerance allowed by law?

An officer of the United States informs us that, in making deposits with the Assistant-Treasurer of the United States in New York, it is the practice of the Assistant-Treasurer to stamp all gold coins of the United States that are reduced below the standard weight and tolerance allowed by law with the letter "L," and that the Assistant-Treasurer refuses to receive these coins on deposit at a valuation in proportion to their weight.

It seems to us that the Assistant-Treasurer in stamping these coins, and in refusing to receive them, violates two plain provisions of the Revised Statutes.

Section 5459 of the Revised Statutes of the United States says: "Every person who fraudulently, by any art, way, or means, defaces, mutilates, impairs, diminishes, falsifies, scales, or lightens the gold and silver coins which have been, or which may hereafter be coined at the mints of the United States, or any foreign gold or silver coins which are by law made current, or are in actual use and circulation as money within the United States, shall be imprisoned not more than two years and fined not more than two thousand dollars."

Section 3585 provides that "the gold coins of the United States shall be a legal tender in all payments at their nominal value when not below the standard weight and limit of tolerance provided by law for the single piece; and when reduced in weight below such standard and tolerance, shall be a legal tender at valuation in proportion to their actual weight."

We fail to see how the two sections could be made stronger. The one weak point in section 5459 is, that the mutilation must be *fraudulent*. If the Assistant-Treasurer can stamp light-weight gold coins because they are light, when section 3585 makes them a legal tender at a valuation in proportion to their *actual weight*, even if they are light, then any one can stamp them for any reason, so long as it is not done *fraudulently*.

We wrote the Assistant-Treasurer to find what authority he had in this matter, and received the following reply:

"OFFICE OF ASSISTANT-TREASURER UNITED STATES,
"NEW YORK, Aug. 27, 1881.

"I am in receipt of yours of the 25th instant, regarding the stamping at this office with the letter 'L' of light gold coin, and asking to be informed as to the authority for it.

"In answer, permit me to refer you to Document No. 122, published by the Treasury Department, containing decisions made during the month of February, 1881, in which will be found printed a letter of the department, dated the 18th of that month, on the subject of which you make inquiry. That letter, together with one from the Secretary of the Treasury to this office giving his approval of it, contains the authority under which the stamping is done. Your suggestions as to the obligations imposed by section 3585 of the Revised Statutes in the receiving of light coin, as it involves a legal question, should properly be addressed to the department. Very respectfully, THOMAS HILLHOUSE,
"Assistant-Treasurer United States."

The following is the letter of the Department referred to:

"TREASURY DEPARTMENT, Feb. 18, 1881.

"SIR: Your letter of the 10th instant, stating that it is the practice at the Custom-House in your city, when a light-weight gold coin is presented for payment of public dues, to stamp across its face the word 'light,' and return it, thus mutilated and rendered unfit for circulation, to the person who presented it, and asking, if this action is in accordance with instructions of the department, to be furnished with authority for such regulation, has been received.

"In reply, I have to inform you that it has been the practice for years for public officers who receive gold coins to place a distinguishing mark upon any which may have been found below the standard weight and limit of tolerance, and such practice has the approval of the department. This is done to avoid the necessity of testing the same coin more than once, as experience has shown that, when they are simply handed back to the depositor without any precaution of this kind, a cashier may, in in the course of business, handle and reweigh the same coin several times in a single day. This course can work no injury to the holder of gold coins which fall below the legal weight and tolerance, as they are not a legal tender at their nominal value, and have a value as bullion only. Very respectfully,
"J. K. UPTON, Assistant-Secretary.
"CASHIER MARKET NATIONAL BANK, BOSTON, MASS."

As Assistant-Secretary Upton states in this letter that "gold coins which fall below the legal weight and tolerance" "are not a legal tender at their nominal value, and have a value as bullion only," we did not know but section 3585 had been repealed.

The following letter, from the Director of the Mint, shows that the section referred to has *not* been "modified or repealed:"

"TREASURY DEPARTMENT, BUREAU OF THE MINT,
"WASHINGTON, D. C., Aug. 27, 1881.

"In reply to your letter of the 25th inst., I have to state that the section No. 3585 of the Revised Statutes referred to has never been modified or repealed. Very respectfully,
"R. E. PRESTON, Acting-Director."

Now that mutilated gold coins are becoming so common, this question interests a large number of business men; and if there is any escape from selling the coins at a large discount to a bullion dealer, it will be gladly welcomed.

Section 3585 would seem intended to afford relief in such cases, and we have no doubt, now that attention has been called to the existence of this provision of law, a change will be made in the existing treasury regulations in accordance therewith.

A HOISTING-ENGINE WITHOUT DRUMS.

A simple and effective hoisting plant has been put into an underground shaft of the Maria Colliery, near Hoengen, in the Wurm District. The endless wire rope reaching down to the lowest part of the shaft, 886·5 feet deep, lies on a sheave placed directly over the shaft. The diameter of the sheave is made to correspond to the distance between the centers of the two hoisting compartments. The sheave has a very deep groove, so that the rope can not slip. The cages, for two mine cars of 1000 pounds capacity, are placed side by side, so that there is room for a wrought-iron tube, through which the rope passes. The cages are fastened to the rope by strong screws. The two-cylinder hoisting-engine is placed on a level with the center of the sheave and runs it through the medium of gearing, which acts upon cog-wheels wedged on to each side of the rim of the sheave. Drums are thus entirely dispensed with. The engine, which is run by compressed air, has 13·4 inch cylinders and 31·5 inch stroke, with a Farcot expansion gear. It is running with 60 pounds pressure, and can easily manage 200 tons per shift of 12 hours. It is noted that the machine occupies little room, because there are no drums, and the sheave need not be placed as high. The wear of the rope is less, because it is only bent once, and the position of the hoisting-cages may be readily changed. The *Zeitschrift für Berg-, Huetten- und Salinen-Wesen*, from which we gather the details given above, calls attention to the fact, however, that in case of breakage, the cages and the rope would be a total loss.

THE EGGERTZ COLOR TEST FOR CARBON IN STEEL.

The analysis of iron and steel has become so important a problem in metallurgy that every method for the determination of their constituents which gives promise of accuracy combined with rapid results is received with attention. Among the methods for the determination of carbon in steel which has long been used by analysts is the Eggertz color test, which has, however, of late been repeatedly attacked. When, nearly twenty years since, Prof. V. Eggertz, of the Royal School of Mines of Stockholm, first described and introduced it, it was believed that, in estimating the percentage of carbon in iron and steel, 0·1 per cent was the practical limit of accuracy required. Since then, results as near as 0·01 per cent are demanded, notably for the milder grades of steel ranging from 0·10 to 0·25 carbon. He has now printed in the *Jern-Kontorets Annaler* details of recent investigations which prove that his method is well adapted to meet altered circumstances. Briefly, it consists in dissolving in nitric acid a small weighed portion of the material to be examined, diluting it, and comparing its color with that of standard solutions. If pure oxide of iron, containing 0·1 gram of that metal, and free from carbon, is dissolved in 2·5 c.cm. of nitric acid of 1·2 density, a yellowish-green solution is obtained, which loses somewhat in color when 1·5 c.cm. of nitric acid is added, and more so when diluted with water instead. If in either case 4 c.cm. of water are added, so that the volume of the solution is 8 c.cm., the color of the iron has disappeared. It is a rule, therefore, for such colorimetric tests that at least as much water must be used as nitric acid was employed in dissolving. The quantity of nitric acid—which must be free from chlorine—is chosen in proportion to the probable percentage of carbon. Thus only 2·5 c.cm. are used for iron or steel, containing less than 0·25 of carbon, 3 c.cm. for 0·3 per cent, 3·5 c.cm. for 0·5 per cent, and 4 c.cm. for as much as 0·8 per cent. For high steel or white pig, 0·05 gram of substance and 5 c.cm. of acid are used. When the percentage of carbon is not even approximately known, a beginning is made with 2·5 c.cm.; 0·1 gram of the substance is dissolved in small tubes in a water bath kept at 80 degrees C., which takes from 1½ to 2 hours. The temperature noted is applied because experience has shown that with 100 degrees C. a reddish-yellow deposit is sometimes formed, which injuriously affects the accuracy of the test. As soon as the formation of gas-bubbles has ceased, the tube containing the solution is placed in a beaker filled with cold water; and in order to prevent its discoloring by the action of light, it is covered over. The burette used must have a capacity of 30 c.cm., graduated by tenths. As soon as the solution is transferred into it, after being filtered, if necessary, water is added, and its volume must be made at least 8 c.cm. before it can be compared with a standard solution. The latter is so prepared that every c.cm. corresponds with 0·1 per cent of carbon in 0·1 gram of substance, and as such it is employed for substance holding 0·8 per cent or more of carbon. For other grades, the following standard solutions are used, respectively:

			Per cent.
0·050	standard	for	0·40 to 0·80
0·020	"	"	0·16 " 0·50
0·010	"	"	0·08 " 0·25
0·005	"	"	0·04 " 0·08

For burettes 12 mm. in diameter, standard solutions more diluted than the last can not be used; but if wider ones are employed, a limit of 0·02 per cent of carbon in steel could be reached. Professor Eggertz has latterly commenced to employ a camera for observing the color of the solutions.

An important point in connection with the color test is, that the presence of various modifications of carbon, called by Rinman and Akerman the "cement carbon" and "hardening carbon," seriously affect the result, as the latter colors the solution less than the former, so that steel holding 0·8 per cent of carbon, after being hardened, was found by the color test to hold only 0·55 per cent. After heating the hardened steel, the original amount was again found, thus showing that the conversion of a part of the combined carbon into "hardening" carbon rendered its detection by the color test impossible.

As for the influence of various impurities on the color of the solutions, experiments have been made which establish the following facts: Manganese does not appear to affect the result, and the method is applicable even for the analysis of ferro-manganese. Phosphorus and sulphur, singly and in presence of manganese, have no effect, nor did copper yield any objectionable color. Silicon is less troublesome than might be expected, and tungsten remains behind in an insoluble state. Chromium imparts a grayish-blue tinge to the solution, which disappears only after much dilution, and cobalt acts in a similar manner. Nickel and vanadium are without effect.

Instead of using the standard solutions prepared by dissolving sugar in alcohol, which lose their color rapidly, Professor Eggertz has made efforts to employ chlorides of iron, cobalt, and nickel, for the preparation of standard solutions, in accordance with a suggestion by Prof. F. L. Ekman. The results have been very good, as red, green, or brown tints may be obtained at will. By using the neutral chlorides and adding water containing 1·5 per cent of hydrochloric acid in the case of chloride of iron, and 0·5 per cent in the case of the two others, solutions have been made which hold 0·01 grain of metal per cubic centimeter. Of the solutions so prepared, 8 c.cm. of the iron, 6 c.cm. of the cobalt, and 3 c.cm. of the copper solution were mixed with about 5 c.cm. of water, holding 0·5 per cent of hydrochloric acid, and thus an artificial standard solution is obtained, the color of which agrees with that of iron containing 0·1 per cent of carbon per cubic centimeter. Prof. Eggertz believes that, with a series of such artificial unchangeable standard solutions, Britton's method of comparing the solution of the substance with the series may be profitably employed.

THE MANUFACTURE OF RUSSIA SHEET-IRON.

Although since Percy's description of the manufacture of Russia sheet-iron, that industry is no longer a mystery to metallurgists, and the article is made of the best quality in this country, an account recently given in the *Engineer* by Mr. H. B. Froom is full of interest. He watched the process at the Demidoff works in the Ural. The ore, after being roasted in open heaps with charcoal, is smelted with limestone in warm-blast charcoal furnaces of the Raschette type. Mr. Froom gives the following analysis of the ore, and strangely adds that it scarcely contains a trace of phosphorus:

	Per cent.
Silica	7·871
Alumina	3·572
Peroxide of iron	80·047
Sesquioxide of manganese	0·571
Lime	0·970
Phosphorus	0·250
Sulphur	.....

The pig produced is puddled in the ordinary way, made into blooms of 100 to 200 lbs. weight, well hammered. These are rolled into bars which show a fine granular, somewhat steely fracture, and a pile from them is heated and rolled into slabs. In lots of three they are returned to the furnace, when they are again drawn out in the rolls, a boy throwing prepared powdered charcoal between the plates. The rolls are screwed down to the same point as before, the thickness of the three being reduced to the same as each was previously. Of these sheets bundles are made containing three of the thicker, four of medium, and five of thinner sheets. When at a cherry red, charcoal is powdered all over them, and they are again rolled down to the standard of the original one slab. Sheared to 5-foot length, they are ready for the finishing process. Each sheet, after being allowed to cool, is dipped in water kept at a blood heat and then is powdered all over with charcoal, and with seventy or eighty in a bundle, is placed in a furnace fired with wood, in which a smoky flame is kept up, and heated for seven hours and a half. Every sheet is brushed with a wet fir broom, and when the bundle has reached a dark red, it is placed under a tilt-hammer and given about 200 blows. After examination of each sheet, the bundle is again reheated and hammered; and this process is repeated a third, fourth, fifth, and sixth time, generally an aggregate of 2500 to 3000 blows having been given. Between each of the hot sheets a sheet of finished iron is placed, and without any reheating the bundle receives 60 to 80 blows from a cast-iron hammer on a cast-iron anvil. The "half-finished" sheets are allowed to cool. After cutting to exact size, every cold sheet is placed between two old hot sheets, and the bundles of 150 thus made are given about 150 blows, which finishes them, all but a considerable percentage of imperfect ones having a good polish. Formerly, it was thought that the polish was produced by the blow of the tilt-hammer giving a gliding motion to the sheets, and it was held that after every reheating powdered charcoal must be used. This is not the case, and Mr. Froom states that he saw sheets done without the charcoal and without the dipping.

PNEUMATIC SEPARATION OF COAL.

In a recent number of the *Revue Universelle des Mines*, MM. Basiaux and Léonard of the Hazard Colliery, Belgium, give some details of the Hochstrate apparatus for the pneumatic cleaning of coal, introduced at the Rheinpreussen Colliery, near Homberg, Germany. The run of the mine is dumped on a Briart grate, the bars of which are nearly four inches apart. A conveyor takes the smalls to a classifying drum, where they are divided into five classes, varying from dust to 0·28 inch, 0·28 to 0·48 inch, 0·48 to 0·68 inch, 0·68 to 0·88 inch, and 1 to 2 inches. The latter class is washed in an apparatus designed by Herr H. Hochstrate. The other ones go to four pneumatic separators. A conveyor and distributor scatters the material along the rectangular horizontal orifice of a chamber, one end of which communicates with a fan and the other with a dust-chamber. The separating-chamber is divided into two compartments by a perforated sheet. In the lower one is an endless band moving on rollers in a direction opposite that of the current of blast. The heavier particles of slate, etc., are carried off by it, while the purified coal slides along on the perforated sheet until it drops into a bin below it. The dust is blown into the dust-chambers; 2298 tons of the run of the mine produced the following:

	Tons.		Per cent.
1. Lumps	608·7	=	26·5
2. Smalls from classifying drums	492·9	=	21·4
3. Slate	37·4	=	1·6
Total not submitted to pneumatic separation	1139·0	=	49·5
4. Clean coal	504·6	=	22·0
5. Dust	514·1	=	22·4
6. Slate	140·3	=	6·1
Total from pneumatic separation	1159·0	=	50·5

The cleaned coal was found to contain 6·5 per cent of ash, against 11 per cent which it had held before separation. It yielded good, hard coke.

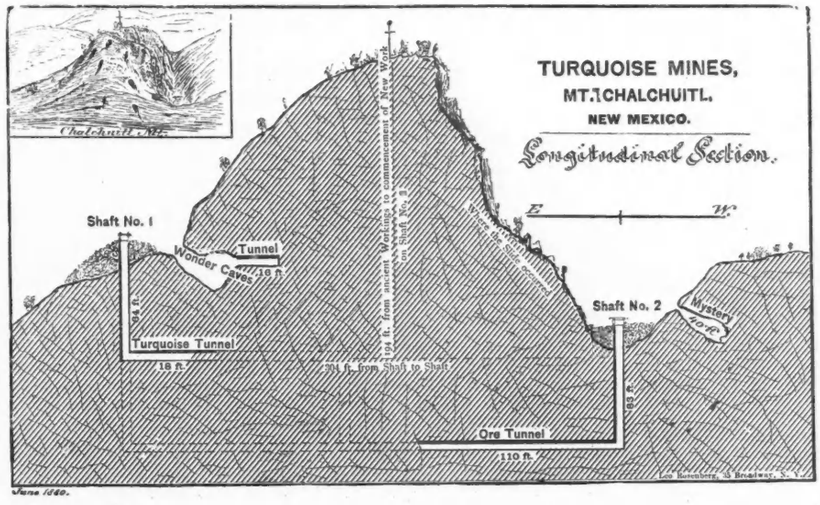
TURQUOIS OF NEW MEXICO.*

By Prof. Benjamin Silliman.

The existence of turquois, a comparatively rare gem, in New Mexico, is a fact long known. The chief locality is at Mount Chalchuitl, in Los Cerillos, about twenty-two miles southwest of the ancient town of Santa Fé, the capital of that territory. We are indebted to Professor William P. Blake for our first detailed notice of this ancient mine, in an article published in the *American Journal of Science*† in 1857.

It was subsequently visited by Dr. Newberry, who mentioned it in one of his reports, and also by others. I have lately had an opportunity of examining this very interesting locality, since it has been laid open in the old workings, and thus rendered accessible to observation, by the recent explorations of Mr. D. C. Hyde.

The Cerillos Mountains have recently come into notice from the partial, and as yet superficial, exploration of very numerous mineral veins which are found to intersect them, and which carry chiefly argentiferous galena, with some gray copper rich in silver, giving promise of mines of value when opened in depth. I have elsewhere spoken more particularly of these veins and of the rocks that contain them. These rocks are all eruptive rocks of the family of the augite trachytes, the kind which, the world over, carries the richest and most permanent ores of silver, with some gold. In the center of this district, which is not more than about six miles by four in extent, rises the dome of Mount Chalchuitl (whose name the old Mexicans gave to the turquois, its much valued mineral), the summit of which is about 7000 feet above tide, and is therefore almost exactly on a level with the Plaza of Santa Fé, across the valley of the river of that name, to the northeast. In the other direction, this mountain has its drainage into the valley of the Galisteo, which forms the southern boundary of the Cerillos District. The age of eruption of these volcanic rocks is probably Tertiary. The rocks which form Mount Chalchuitl are at once distinguished from those of the surrounding and associated ranges of the Cerillos by their white color and decomposed appearance, closely resembling tuff and kaolin, and giving evidence to the observer familiar with such phenomena of extensive and profound alteration; due, probably, to the escape through them, at this point, of heated vapor of water and perhaps of other vapors or gases, by the action of which the original crystalline structure of the mass has been completely decomposed or metamorphosed, with the production of new chemical compounds. Among these, the turquois is the most conspicuous and important. In this yellowish-white and kaolin-like tufaceous rock, the turquois is found in thin veinlets and little balls or concretions called "nuggets," covered with a crust of the nearly white tuff, which within consist generally, as seen on a cross fracture, of the less valued varieties of this gem, but occasionally afford fine sky-blue stones of higher value for ornamental purposes. Blue-green stains are seen in every direction among these decomposed rocks; but the turquois in masses of any commercial value is extremely rare, and many tons of the rock may be broken without finding a single stone which a jeweler or virtuoso would value as a gem.



The observer is deeply impressed, on inspecting this locality, with the enormous amount of labor which in ancient times has been expended here. The waste or *débris* excavated in the former workings covers an area which the local surveyor assured me extends by his measurement over at least twenty acres. On the slopes and sides of the great piles of rubbish are growing large cedars and pines, the age of which—judging from their size and slowness of growth in this very dry region—must be reckoned by centuries. It is well known that in 1680 a large section of the mountain suddenly fell in, from the undermining of the mass by the Indian miners, killing a considerable number, and that this accident was the immediate cause of the uprising of the Pueblos and the expulsion of the Spaniards in that year, just two centuries since.

The accompanying vertical section of the mountain from east to west will give a good idea of the old workings, and of the shafts and tunnels projected and partly carried out by Mr. Hyde. The irregular openings, named by Mr. Hyde "Wonder Caves" and the "Mystery," are the work of the old miners, and the whole hill-side from the flag-staff to the "Mystery" was worked out by them also. It was this sharp slope of the mountain which fell. In these chambers, which have some extent of ramification, were found abundantly the fragments of their ancient pottery, with a few entire vessels, some of them of curious workmanship, ornamented in the style of color so familiar in the Mexican pottery. Associated with these were numerous stone hammers, some to be held in the hand and others swung as sledges, fashioned with wedge-shaped edges and a groove for a handle. A hammer weighing over twenty pounds was found while I was at the Cerillos, to which the withe was still attached, with its oak handle—the same scrub-oak which is found growing abundantly on the hillsides—now quite well preserved after at least two centuries of entombment in this perfectly dry rock. The stone used for these hammers is the hard and tough hornblende andesite, or propylite, which forms the Cerro d'Oro and other Cerillos hills. With these rude tools and without iron and steel, using fire in place of explosives, these patient old workers managed to break down and remove the incredible masses of these tufaceous rocks which form the mounds already described.

That considerable quantities of the turquois were obtained can hardly be questioned. We know that the ancient Mexicans attached great value to this ornamental stone, as the Indians do to this day. The familiar tale of the gift of large and costly turquois by Montezuma to Cortez for the Spanish crown, as narrated by Clavigero in his History of Mexico, is evidence of this high estimation. It is not known that any other locality in America has furnished turquois in any quantity—the only other place thus far reported outside of Los Cerillos being that near Columbus District in Nevada, discovered by Mr. J. E. Clayton; and this is not yet worked.

The origin of the turquois of Los Cerillos, in view of late observations, is not doubtful. Chemically it is a hydrous aluminium phosphate. Its blue color is due to a variable quantity of copper oxide derived from associated rocks. I find that the Cerillos turquois contains 3·81 per cent of this metal. Neglecting this constituent, the formula for turquois requires: Phosphoric acid, 32·6; alumina, 47·0; water, 20·5 = 100·?

Evidently the decomposition of the feldspar of the trachyte furnishes the alumina; while the apatite, or phosphate of lime, which the microscope detects in thin sections of the Cerillos rock, furnished the phosphoric acid. A little copper ore is diffused as a constituent of the veins of this region, and hence the color which that metal imparts.

The inspection of thin sections of the turquois by the microscope with a high power, detects that the seemingly homogeneous mass of this compact and non-crystalline mineral consists of very minute scales, nearly colorless, having an aggregate polarization, and showing a few particles of iron oxide.

The rocks in which the turquois occurs are seen, by the aid of the microscope and polarized light, in thin sections, to be plainly only the ruins, as it were, of crystalline trachytes; they show fragments of feldspar crystals, decomposed in part into a white kaolin-like substance, with mica, slag, and glassy grains, and quartz with large fluidal inclosures, looking like a secondary product. There is considerable diversity in aspect; but they may all be classed as trachyte-tuffs, and are doubtless merely the result of decomposition, as already indicated, of the crystalline rocks of the district along the line of volcanic fissures. In fact, there are, in a northerly direction, other places, one of them at Bonanza City, probably two or three miles distant, where the same evidence of decomposition is found, and in the rocks at this place I found also the turquois in forms not to be distinguished from those of the old mine. Mr. Hyde has shown me lately in New York a large number of the Cerillos turquois polished, one of huge size; and among them a few of good color and worthy of consideration as gems some of them an inch in length, and quite thick, but they are not of faultless beauty.

*A paper read before the American Association for the Advancement of Science, Boston, August, 1880. From the *American Journal of Science* for July, 1881.

† Second Series, xxv., 27.

CONSUMPTION OF COAL IN FRANCE.

In a series of articles published by *La Houille*, we find an interesting estimate of the consumption of mineral fuel in various industries. The total consumption in 1879 was 25,332,000 metric tons, and counting one ton of coke equal to one ton and a half of coal, 68·7 per cent of the demand is accounted for as follows:

FOR THE GENERATION OF STEAM.			
Railroads	2,422,000	tons or	9·6 p. c.
Ocean navigation	459,000	"	1·8 "
Inland navigation	112,000	"	0·4 "
Mines	1,112,000	"	4·4 "
Other industries	3,819,000	"	15·1 "
Total	7,924,000		31·3
OTHER FURNACES AND FIRE-PLACES.			
Manufacture of iron	4,546,000	tons or	17·9 p. c.
Other metallurgical industries	141,000	"	0·6 "
Salt works	115,000	"	0·5 "
Furnaces and fire-places in other industrial establishments, dwellings, etc	12,606,000	"	49·7 "
Total	17,408,000	"	68·7 "
Grand total	25,332,000	"	100·0 "

It will be noticed that about 31 per cent of the whole quantity of fue used is employed for the generation of steam, about 19 per cent for metallurgical purposes, and 50 per cent for other purposes, chiefly lighting and heating.

THE FIRST CALIFORNIA GOLD.

J. J. Warner writes as follows to the San Francisco *Bulletin*:

"Although the truth has, I believe, been repeatedly published respecting the first commerce in and discovery of gold in California, yet, as the truth in this matter is, like the farms in the Sacramento Valley, being continuously covered over by the constant flowing stream of romantic slickens, I presume to give you for publication what I know, as well as what I believe to be the facts respecting the first remittances of gold from and of its first discovery in California. The fact that gold in considerable quantity was exported from and before its discovery in California, may account for some of the historical blunders which have occurred.

"In the latter part of 1833, or the beginning of 1834, J. P. L. Leese came to Los Angeles from Taos, New Mexico, bringing with him a considerable quantity of grain gold, the product of the New Mexican gold placers. About the same time, a Spaniard by the name of Palacios arrived in Los Angeles from Guaymas, State of Sonora, who also brought with him a considerable amount of bullion, which was in large bars or bricks of silver and in grain-gold from the gold-fields of Sonora. These two lots of grain gold, amounting to about $10,000 in value, went into the hands of a few merchants, and were mostly exported from the country prior to the discovery of any gold in California. A considerable portion, and probably the larger part of it, was taken hence by the ships trading on this coast from Boston. This will account for the testimony of Boston merchants in this matter. Some considerable quantity of this gold was worked into various articles of use and ornament in Los Angeles and some other places by silversmiths and other artisans. Some of it was also wasted in the manufacture of counterfeit Columbian doubloons.

"No record, tradition, or even legend of the promulgation by any person of the belief or suspicion that any part of Alta California was of an auriferous character prior to 1841 can, in the judgment of the writer, be produced. In the early part of that year, Don Andres Castilleres, a native of Mexico, a man of education and of considerable scientific attainments and mineralogical knowledge, traveling from Los Angeles to Santa Barbara, saw and gathered up near the rancho of Las Virgenes some mineral specimens, which he exhibited in Santa Barbara, and said that generally, if not invariably, placer gold existed wherever this class of pebbles was found.

"In the month of June, 1841, two vaqueros (herdsmen) of a neighboring ranch, while riding over the lands of the ranch of San Francisquito, dismounted from their horses by the side of a rivulet, to give them a breathing-spell, and, seeing a bed of wild onions, they engaged in gathering some of them. While so doing, one of them, who had been present and saw the pebble which Castilleres had said was an indication of gold placers, noticed one of these pebbles, and said to his companion, 'Look at this! there is gold here; for I heard Don Andres Castilleres say that there was gold to be found wherever these little stones exist;' and immediately scooping up a handful of the sand and gravel which had been loosened by pulling up the onions, he rubbed it with his other hand, and, sure enough, he found in his handful of sand a grain of gold.

"On their return to Santa Barbara, they took with them a few dollars' worth of gold which they had obtained from the ground. The news of the discovery of gold soon spread from Santa Barbara, and people from San Diego to San Luis Obispo hurried to the discovered placers. Although few or none of the native Californians had any practical knowledge of the gold-washing process, there were, at the time of this discovery, quite a number of natives of Sonora and other parts of Mexico scattered over California, and especially in the southern part of it, who had seen and worked in placers. A large part of the extensive country drained by the Santa Clara River (Ventura County) was prospected, and gold obtained in many places. During the first two rainy seasons following the discovery, some hundreds of people were profitably engaged in mining, and gold was brought into Los Angeles by miners and sold there, every year, from 1841 to the discovery of the rich and broader gold-fields of Central California in 1848, which caused the abandonment of the less productive placers of this part of the country.

"The late Abel Stearns, then a resident merchant of this place, bought a good deal of this gold. He sent a small part of it to the Mint at Philadelphia. The original receipt or certificate of its deposit was some years ago donated to (I believe) the California Pioneers' Society, at whose rooms, I presume, it can be seen."

DRESSING ZINC-BLENDE AND IRON PYRITES.

Much difficulty has been experienced in attempting to separate by ordinary methods of dressing such a mixture as zinc-blende and iron pyrites, because their density is so nearly equal. The *Berggeist* reports the results of some experiments recently made by Herr Franz Büttgenbach at Lintorf, Germany. His method is based upon the fact that blende is more readily crushed than iron pyrites. He charged a lot of Lintorf 0·4 to 0·25 inch blende pyrites stuff into a Vapart centrifugal disintegrator, running at various rates of speed. He found that by passing the stuff through once when the disintegrator was making 300 revolutions, he could get out 80 per cent of the blende, and that the balance was taken out by passing it through once more, with the Vapart machine running at 325 revolutions. The fine blende is simply obtained by screening the crushed material, the coarser particles of pyrites remaining behind. He thus got blende holding from 50 to 55 per cent of zinc, while the pyrites was almost free from it. The original mixture held under 35 per cent of zinc, and was unfit either for zinc smelting or the manufacture of sulphuric acid. It was found during the trials that quite a range in the size of the ore is admissible, and that a Vapart disintegrator can handle from 2½ to 3 tons per hour of the mixture. The *Berggeist* considers the method quite an important improvement in the dressing of this class of ores, and it is probable that under special circumstances it will prove valuable in this country also.

English Railroads.—A return just presented to the British Parliament states that the total length of railroads in the United Kingdom at the end of 1880 was 17,933 miles, being an increase of 237 miles during the year 1880.

PROGRESS IN SCIENCE AND THE ARTS.

The Creusot Hammer.—The famous steam hammer built for the Creusot Steel Company, France, has been increased in power. As originally built, the tup weighed 80 tons; a 20-ton weight has been recently placed above the tup, thus bringing its weight to 100 tons. The stroke, 16 feet, of course remains the same.

Production of Lead in Germany in 1880.—The production of lead in Germany footed up to 85,305 metric tons in 1880. Among the large producers were: Mechernich, 20,275 tons; Stolberg, 19,375 tons; Hartz, 10,159 tons; Freiberg, 6107 tons; Tarnowitz, 7436 tons; Ems, 6395 tons; and Rheinisch-Nassauische Actien-Gesellschaft, 8612 tons.

The Production of Dynamite.—It is stated by Herr Gantert, in a paper recently read before the Verein Deutscher Ingenieure, that the annual production of the fifteen dynamite manufactories now under Nobel's control is between 4500 and 5000 metric tons. In 1867, it was only 11 tons; in 1870, 424; and in 1874, 3120 tons. According to a rough estimate, the make of dynamite and other explosives containing nitro-glycerine, in Europe and America, is placed between 7000 and 8000 metric tons, equal to at least from 40,000 to 50,000 tons of ordinary powder.

Hauling by Electricity.—In the Senftenberg mine, Germany, an attempt to haul from a tunnel by electricity has been abandoned because the center rail for conducting the current could not be kept clear of ice in winter. It was supplanted by a rail running along the top of the adit, along which a conducting piece attached to the electric locomotive dragged. This, too, proved a failure. The power of the engine for running the dynamo-electric machines was 15-horse power, that actually developed in hauling a train of 15 cars was 7·08 horse-power, thus showing a useful effect of 47 per cent.

Mineral Statistics of Victoria.—From the report of the Mineral Statistics of Victoria for 1880, it appears that the quantity of gold raised during the year was 829,121 ounces, the estimated yield of the alluvial mines being 299,926 ounces, and of the quartz mines 529,195 ounces, obtained from 849,326 tons of rock, 29,140 tons of tailings, and 8038 of sulphurets: 38,568 miners, among whom 8486 were Chinese. Besides the gold, 23,248 ounces of silver were obtained by parting, and among other minerals produced were 103 tons of tin ore; 3031 tons of copper ore, yielding 294 tons of regulus; and 334 tons of antimony ore. The total quantity of gold exported and minted since the first discovery has been 49,500,000 ounces.

Nobel's Blasting Gelatine.—In the Mansfeld copper district, Germany, extended trials have proved the efficiency of Nobel's new explosive, blasting gelatine. It proved less dangerous than dynamite, freezes less easily, and remains unchanged under water. According to the *Zeitschrift für Berg-, Huetten- und Salinen-Wesen*, a heading advanced as far by firing nine shots with the new explosive as it did with twelve with dynamite. It must be remarked, however, that the explosion of supplies of gelatine at the Rheinpreussen Colliery and at Leimbach, Germany, apparently brought about by decomposition of blasting gelatine, prove that it is not as safe as it has been represented to be.

The Genesis of Oolithic Iron Ores.—Herr Tecklenburg, of Darmstadt, Germany, contributes to the *Zeitschrift für Berg-, Huetten- und Salinen-Wesen* an interesting paper on the genesis of the oolithic iron of Hesse, in which he puts forth views differing widely from those generally held by geologists on the origin of such deposits. They have been generally regarded either as deposits from hot springs or the product of the decomposition of iron pyrites. While he does not claim that his theory is generally applicable to all beds of this class of ores, he states it as his conviction that those of the district he refers to are the residues of the decomposition of Tertiary limestones, and that their formation is dependent upon the concentration and velocity of the water sickering through the limestone. In support of his theory, he points to specimens showing all the intermediate stages of the process, and calls attention to the fact that the particles of ore have not the shape resulting from a movement in water-courses, but possess the form of the cavities in the Tertiary limestone. The iron was obtained from limestone strata lying above those thus altered.

The Siemens Burner.—The most important improvement brought out in consequence of an endeavor to place gas in a position to compete with electric light in the illumination of large spaces, has been the Siemens regenerative burner. It has been tested with much success in Paris, the experiments there made having shown high intensity of flame, with a reduced consumption of gas. The *Revue Industrielle* gives the results of these trials and illustrates the burner itself, from which it is seen that that some alterations have been made in the details of its construction since it was first made, a little over a year since. The principle is the same that has wrought such momentous changes in metallurgy, where it is known as the regenerative system. The air for burning the gas is preheated by the waste heat of the gases of combustion. The burner proper, as now constructed, consists of a ring of narrow copper tubes from which the gas issues after being heated to some extent. The air for combustion ascends within and without the ring of burners, and its temperature is increased by contact with a central flue through which the waste gases leave the apparatus. Mr. Frederick Siemens, who is the inventor of this new burner, has designed various forms, with and without chimneys.

An Improved Method of Carrying Underground Telegraph and Telephone Lines.—The National Underground Electric Company does not propose to lay and operate telegraph or telephone lines of its own, but simply to furnish the existing telegraph and telephone companies with its underground pipe-line, capable of accommodating any desired number of wires, and to keep and maintain the same in good working condition, for a term of years, under properly executed leases or contracts, the company expecting to derive its revenues from a system of rental based upon a certain schedule of charges.

The method of constructing the pipe-line is as follows: Cylindrical pipes of terra-cotta are made, perforated lengthwise with numerous small holes, forming continuous tubes, covered with a vitrified glazing on the outer and inner surfaces. The pipes are designed to be laid end to end underground, and firmly cemented together (this being easily ac-

complished, the pipes having a bell or socket on one end of each), thus making a continuous line of terra-cotta pipes, through which the wires or cables are run. These are laid in sections, and at convenient distances excavations are made in the ground and carefully bricked and cemented up, thus making an underground water-proof chamber between each section, by which system of underground chambers, in connection with the conduits, the wires can be withdrawn and replaced at will and the number decreased or increased as required for any purpose, without digging up the streets. As the pipes are laid, small wires are placed in the holes, all the wires in each section ending in the sunken chambers. The design of this is to enable the workmen in the chambers to draw the cable or bundle of wires through the perforated blocks, by means of a reel, as fast as needed.

When a section is laid and ready for use, a rubber pipe or hose is drawn through the holes in the pipes, and in this the insulated cable is placed, thus incasing it in a vitrified terra-cotta pipe, lined with rubber—a threefold protection against the dampness of the earth. The different kinds of wires may be completely separated, while a small pipe may carry a thousand wires without inconvenience. Branch lines will be laid to offices and buildings, by pipes laid under the pavements, from the chambers at the ends of the sections. These chambers are designed to be covered when not in use, and will not interfere with street traffic. By this system, there is no danger of our telegraph, telephone, and other wires being broken down and communication interrupted, as was the case during the last winter on several occasions.

The company claims for its pipe-line system a number of advantages, of which the more prominent are named below: Efficient protection against ground moisture, which would affect the insulation of the line wires; the great facility which it affords for handling the wires or cables, either for introducing new ones or withdrawing or repairing the old ones; the avoidance of the objection of disturbing and tearing up streets and pavements to meet the demands for additional wires after the line is once laid; the fact that they propose to accommodate all comers with facilities of an underground conduit for all kinds of wires and cables; and the provision of separate chambers for wires of different lines.

The efficiency of the system has been tested on a limited scale in Camden, N. J., where a line of these terra-cotta pipes was laid in Arch street, in September, 1880, in one chamber of which a telephone cable of forty wires was drawn, to which connection was made with the wires of the South Jersey Telephone Company. To test the possibility of withdrawing and inserting the wires without disturbing the street, the telephone cable was withdrawn and a bunch of telegraph wires inserted. The latter were subsequently subjected to careful electrical tests, and their insulation found to be excellently preserved.

The company has lately been granted the privilege of laying its pipeline in Philadelphia, and branch companies are forming, or have already been formed, in Chicago, Boston, Baltimore, and other cities.

GENERAL MINING NEWS.

ARIZONA.

Our Arizona exchanges do not as yet contain any information from which we can form an estimate of the effect which the recent rising of the Apache tribes has had upon the work of prospecting and mining going on in the various districts. The press dispatches which reach us are conflicting, and it is difficult to form a clear idea of the extent and possible growth of the movement. That the situation is grave, and there is danger of its growing worse, is, however, evident to even a casual observer. The recent heavy rains have somewhat interfered with mining work in and the transportation of machinery and materials to the Globe and Mineral Creek districts; although, on the other hand, it is reported that the washing away of ground in some localities has led to the finding of some new veins of promise. From the Globe *Chronicle* and the Arizona *Silver Belt* we take the following data on the operations in the

GLOBE DISTRICT.

Work is progressing satisfactorily, without any special features to note, on the Emeline, Old Dominion Copper, Missouri, Sherman, Mineral Creek, Washington, and Silver Nugget.

The Mineral Creek mill has commenced operations. The Mack Morris mine is reported to be turning out so much ore, by means of the new hoisting-works, that Mr. Baldwin, the superintendent, has recommended the erection either of large reduction-works at Stanton or the increase of the present mill capacity to 40 or 50 stamps. The hoisting and smelting machinery of the Old Dominion Copper mines is delayed on the road from the railroad by the impassable condition of the Gila River. The Gila County Mining Company, owners of the Emeline mine, have purchased the Miami mill and have made the first payment.

PETALUMA.—The Arizona *Silver Belt* gives the following history and issue of the litigation on this property:

Mr. Arnett and others located the property several years ago, but it became re-locatable, so their opponents claim, through failure to do the necessary work, and also to make necessary record. Vail & Pascoe, who relocated it, have done a good deal of development-work on the claim. Arnett & Co. sue them for a relinquishment of the property, and ultimately withdraw the suit by notifying the principals and district court clerk. At the time that this notice was served, the Arnett people took possession of the property, and camped on the dump. They expressed their determination to "hold it anyhow," when spoken to by Pasco. Pascoe & Vail swore out warrants for the arrest of the parties for forcible entry, which were duly served. The jury could not agree, and were discharged. The right to another jury was waived by defendants, and by mutual agreement of the parties the case was submitted to the court upon the testimony already in. The court found defendants guilty and adjudged restitution of premises. Defendants appealed.

RED ROBIN.—According to the *Globe Chronicle*, this property, a western extension of the Julius, was sold recently by Messrs. Heineman & Soyer to Eastern parties through Mr. J. L. Clark.

In the Mineral Hill District, no particular developments are reported, and we would note only the statement that the ledge has been struck in good ore in the Leroy mine, and that the vein was struck at a depth of 50 feet in the Cottonwood mine, located about four miles from the Gila River and 18 miles from Florence.

Beyond the report of extensive floods, there is nothing new in the San Pedro District.

TOMBSTONE DISTRICT.

As in other parts of Arizona, long-continued and heavy rains are telling on the production of the mines and mills of the Tombstone District, and are beginning to cause a stoppage of work. The shutting down of the Grand Central mill, at Contention, is announced. Work is going on steadily in the Alta, Grand Central, Vizina, Contention, and the Tombstone Company's group, while the Flora Morrison, Tranquillity, Sulphurets, Contentment, Girard, and Cincinnati mines are temporarily suspended. It is reported among the recent projects that a mill is to be erected on the hill-side between the Sulphurets and Girard mines. By telegraph, it is announced, under date of September 5th, that New York capitalists have begun the construction of the works of the Huachuca Water Company. It is added that this project will lead to the removal of the mills to the mines and to a large increase in milling facilities. The correspondent of the Arizona *Journal*, writing under date of August 25th, states that the most important events of recent date have been the developments in the following two mines:

GRAND CENTRAL SOUTH EXTENSION.—This property has two shafts. The main two-compartment shaft is sunk about in the middle of the claim to a depth of 100 feet, and the other on the north end 300 feet. On the southeast of the claim, two ledges have been lately discovered, and sinking on both of them has been started, the shaft on the west ledge being down about 55 feet and that in the east about 20 feet. These ledges are both well defined and regular, showing a westerly dip and assaying from $20 to $100 per ton.

EMERALD.—Work having been lately resumed on this property, a mass of horn-silver and rich yellow chloride ore was struck in the bottom of the shaft, now 160 feet deep.

CALIFORNIA.

THE BODIE DISTRICT.

In general, it may be stated that no developments of importance have been made in this district during the week for which we have last advices. Work is doing at the usual rate in most of the principal mines. From the *Free Press* of August 30th we take the following details:

BODIE CONSOLIDATED.—During the week ending the 27th, 86·625 tons of ore were extracted from the mine, as follows: Eight and twenty-five hundredths tons from the stopes above the 432-foot level, 19·037 tons from the 5th, and 58·438 tons from the 6th incline level. There were 112·635 tons of ore hauled to the mill. The mill crushed 107·535 tons of ore. The average assay value of the pulp was $67.44 per ton, and of the tailings $9.26. The shipment was $7609.94.

BODIE TUNNEL.—The mill is crushing about 10 tons per day.

BOSTON CONSOLIDATED.—The 3½-foot vein in the face of the 300-foot level drift, now 387 feet in, is reported to have yielded by assay from an average sample $22.51 gold, and $4.27 silver.

CONSOLIDATED PACIFIC.—The west cross-cut on the 600-foot level is cutting through a hard bar of porphyry. A small vein was cut during the week that gave the following assay from an average sample: Gold, $10.04; silver, $7.85; total, $17.89. The width of the vein-matter is about 15 inches, mostly decomposed and mixed with clay.

RED CLOUD.—The station pumps at the 600-foot level were connected with the upper pumps, and all are now at work.

STANDARD CONSOLIDATED.—The usual amount of drifting was done during the week. The company extracted and shipped to the mills 1282 tons of ore. The average pulp-assay for the week was $21.77. The amount of bullion shipped to San Francisco was $45,190.80.

TIOGA CONSOLIDATED.—The superintendent's report, dated August 27th, contains the following: The north drift has shown considerable improvement during the week, carrying a number of seams of fine-looking quartz in the face from one half to two inches in width. An assay of sample taken yesterday gives: gold, $80.35; silver, $9.43; total, $89.78.

DARDANELLES CONSOLIDATED.—Under date of August 20th, the superintendent writes from Forest Hill, Placer County, that the bottom of the channel was struck in the Brown drift, and that breasting will soon be begun. The gravel taken out has paid over $5 per car-load.

CANADA.

NOVA SCOTIA.

The New Glasgow *Chronicle* reports that during the month of July 676·5 tons of ore, chiefly consisting of earth mixed with broken quartz and slate, yielded 263 ounces 5 dwt. of gold on 2340 days' labor. A number of finds on various properties are also noted.

COLORADO.

CUSTER COUNTY.

There is nothing new in the leading mines of the Silver Cliff District; both the Silver Cliff and the Bassick maintain their weekly output of 120 and 70 tons respectively, and no changes are reported in the character of these mines. The surface equipments on Shaft No. 3 of the Valley City Company's California lode, embracing a 20 horse-power engine and a 25 horse-power boiler, are completed. On the Denver, work has been temporarily suspended until hoisting-machinery can be supplied, as operations with a whim are slow and expensive.

GEM.—The Silver Cliff *Gazette* has the following on this mine, which was visited to verify the report that the ore-body in the mine had been followed down into unchanged rock. From the mouth of the tunnel to the discovery-shaft is 120 feet, and, misled by a fault in the vein near the point of intersection, the tunnel had been driven some distance beyond the shaft, on a spur of the vein. Recently, however, a cross-cut had been started from the tunnel eastward, near the shaft, and such indications were found as induced Mr. Lowden to sink at that point, and within six feet of the tunnel level he found the vein in solid formation. At this point, there are more than two feet of solid mineral.

LAKE COUNTY.

LEADVILLE'S LEAD PRODUCT.—The *Democrat*, in an article in a recent issue, makes some interesting remarks on the Leadville lead product. During 1880, that district produced 33,546 tons of base bullion, the output of the first six months of that year being, according to carefully-collected statistics, 15,172 tons. Compared with this, the base bullion shipments of 1881 show an export of 18,193 tons, an increase of 3020 tons, or not quite twenty per cent. The *Democrat* adds that it is not expected that this gain will be maintained during the year. One favorable manner of estimating the lead product of the Leadville District is, by calculating that the ore will all average twenty-five per cent in lead. How erroneous such a calculation, made from the published output of the mines, must be, will be apparent to any one at a moment's figuring. The output of the mines has been incorrectly reported for some time at over one thousand tons a day, or say, and with more correctness, 900 tons. This gives a total output for the first half of 1881 of 164,700 tons. Eleven per cent of this production will give the actual lead yield of the smelter, or about 18,100 tons. Out of the daily product of 900 tons of ore, from 100 to 150 tons are dry ores, containing little or no lead, and are treated at the stamp-mills, which brings the average of the smelting ores up to, or about, 15 per cent in lead; but the average of the entire product of mines, if taken at 900 tons a day, is less than 11 per cent. It should not be forgotten, in this connection, that in estimating the lead product an allowance must be made for the silver the base bullion contains, and for the loss of metal in desilverizing and refining. We do not possess accurate data on this point; but can state that American desilverizing establishments place it at five per cent, even under the most favorable circumstances. The Leadville mines are, according to the reports of the local journals, doing their usual amount of work. The *Democrat* states that Fryer Hill at the present time gives indications of quite an important revival in its mining interest at an early day. The Little Pittsburg is about to resume work in the New Discovery; the Little Chief will probably soon begin the sinking of the Daly shaft. The Amie is employing a considerable force, and the lessees of the Dunkin expect next week to increase their force from 18 to 40 or 50 men. The Matchless will put a large force to work in the old north workings, and when the Lee resumes, it will probably increase its force to threefold the present number. It is therefore evident that in from 30 to 60 days

the mines of this hill will be employing several hundred more miners than are engaged there at present.

The following table gives the approximate daily output of the leading mines producing ten tons or more at the present time :

Mines.	Tons.	Mines.	Tons.
Miner Boy	15	Evening Star	45
Little Pittsburg	15	Robert E. Lee	30
Chrysolite	90	Long & Derry	10
Little Chief	15	Big Chief	40
Iron Mine	225	Matchless	40
Silver Cord-Wave	70	Hibernia	12
Catalpa	17	Etna	15
Little Ella	20	Agassiz	15
Oro La Plata	33	Leadville	10
Glass-Pendery	15	A. Y.	10
Morning Star	30	Others, say altogether	92
Argentine	30		
Brian Boru	10	Total tons	951
Henriette	50		

Among the improvements in machinery and plant we would note the use of a diamond drill for prospecting on the Hard Cash lode, on Yankee Hill, and the contemplated building of concentrating-works for working the siliceous ores of the Virginius mine on the Big Evans side of Little Ellen Hill. Three of the furnaces of the Harrison Works will be blown in at an early date. In the Little Amie, arrangements are to be made for a drill in order to prosecute exploration-work in No. 2 shaft, in which the pumps can not at present handle the water. Cornish pumps are being put into the new south shaft of the Dunkin mine. The progress in some of the more important mines is given below in detail :

CHRYSOLITE.—The Chrysolite is keeping up its large shipments of high-grade ore, and continues making regular remittances to the East. A large sorting platform has been erected on the west side of the ore-house, and the large quantities of iron which are broken down in extracting the lead carbonates are run out to this place, where the whole mass is sorted over, and the waste thrown out over the dump and the mineral returned to the ore-bins.

DUNKIN.—The old workings about the main shaft of the Dunkin mine have been leased to some of the miners formerly employed in the property, for six months. The terms are reported to be $2500 a month. Work was begun by the lessees on the 23d instant, and since that time they have already taken out considerable second-class ore.

HIBERNIA.—Apparently, says the *Tribune*, the stockholders have decided that the less said about the company the better, as, at the meeting held at the company's office yesterday, only 71,800 shares were represented, whereas 200,000 shares were necessary to constitute a quorum for the transaction of business, and consequently the meeting adjourned without considering the subject of bonding the mine, for which purpose it was called It is said that $2000 must be forthcoming immediately for the purpose of paying employés, otherwise the mine will be closed at once. In order to devise a plan for raising this amount, a committee was appointed, which is to report at a meeting to be called by Charles G. Williams, chairman of the committee. From another source it is stated that the indebtedness is $16,000; of this, $15,000 was borrowed for 90 days at one per cent per month, to pay the last dividend.

IRON SILVER.—During the week ending August 24th, the Iron Silver Mining Company produced 908 tons of ore, making 3398 tons since August 1st. Up to the 24th, it had received during August $75,573, leaving 918 tons unsettled for.

LITTLE PITTSBURG.—Acting Manager E. C. Gillman has placed a force of miners in the New Discovery workings, clearing the rubbish and accumulation of *débris* from the main levels. The intention is to resume the extraction of ore with a large force. The bulkheads between the New Discovery and Chrysolite workings have been taken out. The air coming from the stopes back of these was quite hot, owing doubtless to the steam which had been forced down all the old shafts; but there was little or no gas or smell of smoke, and it is believed that the fire is effectually extinguished. During the week ended August 31st, Little Pittsburg shipped 146 tons, making 520 for the month. The receipts were $13,949 from 556 tons settled for ; average yield per gross ton, $25.05.

MATCHLESS.—A 12-pound lump of ore, consisting chiefly of horn-silver and native silver, was found within about 12 feet north of the Robert E. Lee line. A silver brick, finely engraved, has been made from a similer smaller lump. The stopes of the mine are reported to be in very high-grade ore, and preparations are making to work also the lower grade for milling ores near the old north shaft.

MORNING STAR.—The *Tribune* reports that the trustees of this company held a meeting recently at their office in this city, and the old directors, with the exception of S. V. White, resigned, and the following gentlemen were elected in their stead : Watson B. Dickerman, George B. Grear, Justin A. Edwards, William Adams, George T. Dominick, and Charles H. Harney. Watson B. Dickerman was elected President, and William S. Ward, of the Evening Star mine, was elected manager of the mine. The mine thus passes out of the hands of ex-Governor Routt, Joseph W. Watson, and associates, and, it is understood, will be consolidated with the property of the Evening Star Company, and both properties managed and controlled by a new corporation now in process of organization. The price paid for the Morning Star property was $1,300,000. From Leadville comes the report that four feet of fine sand carbonates, through which there are rich seams of chloride ore, were opened to the eastward from the head of the incline level.

PARK COUNTY.

The Fairplay *Flume* has the following data on the mining interests of that district :

BERLIN MINING COMPANY.—The tunnels on Pennsylvania Mountain are to have a complete equipment of mining machinery, including pumping and hoisting-engines, and Ingersoll drills.

CONCORD.—On this fractional claim, located between the Dauntless and Badger Boy, the same vein of lead ore has been opened that is exposed on the Dauntless.

NEW HAVEN MINING COMPANY.—This company, operating the Bullion and other mines on Mount Lincoln, is taking out ore from a strong vein on the Bullion that runs about 180 ounces of silver per ton.

The reports of big tellurium strikes on North Star Mountain are not well authenticated. The so-called tellurides are pronounced by experts to be bismuth.

A smelter is erecting at Alma by Dr. Harding ; it will have two furnaces, and will cost $200,000. It is to be located on the site of the Gross concentrating mill in Buckskin.

SAN JUAN COUNTRY.

The Big San Juan Mining and Milling Company has commenced work on the Silver Seal, Pagosa, Gold Note, and Golconda lodes on the south side of Silver Mountain near Ophir, Ouray County.

SUMMIT COUNTY.

ROBINSON CONSOLIDATED.—The ore-product of this mine for August was 2257 tons ; gross yield, $200,000 ; cost of mining, $4.25 per ton; ore in sight in the reserve, 40,000 tons. A reporter of the Leadville *Herald* has visited the mine recently, and from his account of what he saw we take the following data: The present developments are the old incline, which followed down the ore-body for 500 feet, and a tunnel started from Ten Mile Gulch to intersect it, called the No. 5 level. It cuts a body of ore for a distance of 105 feet, the vein being from 8 to 20 feet in thickness. A new south incline has been started from the level of this tunnel, and is now 200 feet down. Two levels have been driven from it at depths of 100 feet. The sixth, which is in 100 feet, shows 95 feet in ore, which is reported to have a minimum thickness of eight feet. Above and below this level, half-way to the face, a winze and uprise have developed 26 feet of ground reported to be in ore, the average thickness being not less than 12 feet. The seventh level from the south incline reached ore in about 10 feet from the incline, and is now in 25 feet. The ore is stated to be fully 11 feet in thickness in the breast, top and foot-wall not being exposed. All the stoping done has been carried on above the fifth or tunnel level on the south side of the old incline. In one of the old stopings, a seam in a layer of lime stone, supposed to be the foot-wall, has been followed, and has led to the finding of 12 feet of ore below the former workings. The ore-body crosses above to the upper side of the old incline. A two-compartment shaft is sinking from the surface at a point 400 feet beyond where the seventh level extends. It is now down 100 feet, and is expected to reach the ore-body in 200 feet.

DAKOTA.

A special dispatch to the Chicago *Times*, under date of September 2d, reports the discovery of a very rich four-foot vein, situated 30 miles from Deadwood. The mine, it is reported, was formerly under bond to the Homestake Company.

IDAHO.

WOOD RIVER REGION.

Besides considerable quantities of ore shipped because the local smelting-works could not handle it, the Wood River Smelting Company sent off 150 tons of base bullion and high-grade ore during the week ending August 24th.

It is officially reported that work on the Columbia and Beaver mines is energetically pushed. Double shifts of miners are working in the three tunnels of the former, and the mill foundation has been laid.

MAINE.

The Maine *Mining Journal* reports that a Westman gas roasting-kiln, which has been so largely adopted in Sweden for roasting iron ores, and has been working satisfactorily for some time at the Katahdin Iron-Works, is to be built for roasting Blue Hill copper ores at the mines of the Douglass Copper Mining Company.

MICHIGAN.

A diamond drill is to be used for prospecting-work on the Huron mine, in the Lake Superior copper district.

Among the improvements contemplated and in course of execution in the Lake Superior copper district, are a water supply for the Quincy mine and for the Pewabic ; an air-compressor plant ; an engine for running the man-engine ; a Duplex Worthington, pump and two heads of Ball's stamps, with 12-inch cylinders and 7½-inch stamp shafts, an addition which will give the Pewabic mill a capacity for crushing 550 to 600 tons of rock per 24 hours.

The lake shipments of iron ore from the Marquette and Menominee districts up to date have been as follows, according to the *Mining Journal* :

	1880.	1881.
Marquette District	847,701	927,045
Menominee Range	378,579	455,248
Total	1,226,280	1,382,293

The latest find reported is that made by the David Mining and Exploring Company, on the northeast quarter of Section 3, 47, 28. The diamond drill, at last reports, had penetrated 18 feet of very fine-looking red ore, in which it was still boring. The land is owned by C. F. Conrad and others, though the discovery is of almost equal value to the East Saginaw Iron Company, which owns lands in the immediate vicinity and on the same range.

The agitation for stoppage of work in the middle of the afternoon on Saturdays has spread to the Marquette iron mining region, and a strike has been caused by the refusal of the owners of the Cleveland mine to grant the reduction of time asked.

MONTANA.

The *Inter-Mountain* gives some details of the work done in the mills and smelting-works of the Butte District, from which we take the following data : The Parrot smelter is putting through daily twelve tons of Parrot ore, producing three tons of copper matte. The Colorado Smelting-Works are running on higher grade ores from various mines, among which are the Gagnon, Mountain Boy, and Star West. A fifty-ton concentrating-works is to be added. The Montana smelter is in full blast on Colusa ores, and two new furnaces are rapidly approaching completion, which will increase the capacity of the works to a daily output of 25 tons of matte. No shipments are now made on account of excessive freight rates, and a large quantity of matte is on hand. Ninety tons, Alice ore almost exclusively, are worked by the two Alice mills. The Lexington mill will work a large quantity of tailings. The Silver Bow mill, which is soon to be increased in capacity by the addition of ten stamps, is running on Anselmo quartz, Belle of Butte, and custom ore. The Dexter mill is working up ore from old dumps, and the Clipper mill is running on rather low-grade quartz from the High Ore. The Gagnon and Burlington mills are idle. Among the works now in course of construction, planned, and in contemplation, are the 40-stamp Moulton mill, nearly finished, the first 40-stamp Lexington mill, on which work is beginning, and the Belle smelter, about to be built. A second 40-stamp mill is projected, and it is believed that within the course of another year the Stephens, Anselmo, Morning Star, Acquisition, and Clear Grit will each erect a mill.

NEVADA.

CATSKILL MINING COMPANY.—At a stockholders' meeting of this company, whose property is situated in Tuscarora, Nev., the following trustees were elected for the ensuing year : G. H. Twichell, J. E. Coleman, A. V. Barringer, Floyd Clarkson, and George Wilson. The officers elected are : J. E. Coleman, President ; A. V. Barringer, Vice-President ; G. H. Twichell, Treasurer ; L. O. Robertson, Secretary ; W. C. Price, Superintendent of the mine. The treasurer's report states the amount of funds on hand is $63,295.55, and that the company is out of debt.

THE COMSTOCK LODE.

The summary of the Gold Hills *News* for the week ending August 31st is as follows :

There is some encouragement to be found in the condition of the north-end mines to-day. Not that there has been a change in the formation encountered in the cross-cuts, nor that a strike has been reported in any of the mines, but as regards the flow of water. It has long been a serious question in that direction as well as in the middle mines. It would now seem that the trouble from that source has been in a great measure overcome. The pipes inserted in the drill-holes and provided with stop-cocks to regulate the flow, do not need regulating now, and the pumps are handling all that comes in. This, too, with the cocks turned wide open. The flow is noticeably decreasing. Work was resumed Monday in the drift west on the 2700 level of the Sierra Nevada, where a month or two ago they were flooded out. The cross-cuts are driven forward as usual. There is nothing new in the middle group of mines. At the Savage, the water is 40 feet below the 2200. The main line of pumps will soon be connected (possibly by to-night) at that point, when getting rid of the water will be but a question of time. At the Chollar-Norcross-Savage shaft, the hydraulic pumps continue to work satisfactorily and to handle all the water coming in. The Alta will commence the work of putting in its pump at the bottom of the shaft day after to-morrow. The ore-shipments from Kentuck and California each average about ten tons daily.

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. Sept. 3. H.	Sept. 3. L.	Sept. 5. H.	Sept. 5. L.	Sept. 6. H.	Sept. 6. L.	Sept. 7. H.	Sept. 7. L.	Sept. 8. H.	Sept. 8. L.	Sept. 9. H.	Sept. 9. L.	SALES.
Alice, s. c.	Mon	3,000	10,000,000	400,000	25	.....	.....	.....	.....	200,000	July.	1881	10	.....	.....	.....	.....	6.50	.....	.....	.....	.....	.....	.....	.....	100
Amie Con. s. L.	Col.	.....	5,000,000	500,000	10	*	.....	.....	.....	305,000	May.	1880	10	.37	.33	.34	.33	.33	....	.36	.33	.....	.....	.35	.34	9,500
Argenta, s.	Nev.	1,500	10,000,000	100,000	100	130,000	Mar..	1881	20	40,000	Feb.	1880	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Barbee & Walker, s.	Uth	.....	1,000,000	100,000	10	*	.....	.....	.....	60,000	Nov.	1880	10	2.90	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100
Bassick, G. s.	Col.	.....	10,000,000	100,000	100	*	.....	.....	.....	25,000	Feb.	1880	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Belle Isle, s.	Nev.	1,500	10,000,000	100,000	100	45,000	June	1881	15	300,000	Dec.	1879	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
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	9.75	9.38	.....	.....	.....	.....	.....	.....	.....	.....	8.25	.....	305
Breece	Col.	.....	5,000,000	200,000	25	*	.....	.....	.....	2,000	Feb..	1880	01	.74	.....	.....	.....	.75	.....	.73	.....	.....	.....	.75	.....	600
California, G. s.	Nev.	600	54,000,000	540,000	100	162,000	June	1881	30	31,320,000	Dec..	1876	50	1.05	1.00	1.00	.95	.99	.95	.90	.....	.....	.....	1.00	.93	3,640
Calumet & Hecla, c.	Mch	.....	2,500,000	100,000	25	.....	.....	.....	.....	19,850,000	Aug.	1881	5 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Caribou Con., s.	Col.	1,400	1,000,000	100,000	10	*	.....	.....	.....	50,000	Mar	1880	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
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	*	.....	.....	.....	1,400,000	Sept.	1881	50	6.25	6.13	6.50	6.00	6.50	6.13	6.38	6.00	.....	.....	6.88	6.25	1,400
Climax, s. L.	Col.	.....	2,000,000	200,000	10	*	.....	.....	.....	180,000	Aug.	1880	30	.42	.....	.....	.....	.....	.....	.40	.....	.....	.....	.....	.....	3,540
Cons. Virginia, G. s.	Nev.	710	54,000,000	540,000	100	627,200	Aug.	1881	40	42,930,300	Aug.	1880	50	2.05	1.90	2.05	1.85	1.95	1.85	1.95	1.85	.....	.....	2.20	1.75	17,665
Copper Knob, C.	N.C.	.....	1,000,000	1,000,000	1	*	.....	.....	.....	15,000	Nov.	1880	02	.69	.....	.69	.68	.69	.....	.69	.....	.....	.....	.69	.....	33,200
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	.....	.....	.....	.....	†460,000	Sept.	1881	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dunkin, s. L.	Col.	.....	5,000,000	200,000	25	*	.....	.....	.....	200,212	June	1881	7½	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eureka Cons., G. s. L.	Nev.	.....	5,000,000	50,000	100	100,000	May.	1876	1 00	4,705,000	Aug.	1881	50	29.00	28.75	28.00	.....	27.25	.....	27.00	.....	.....	.....	30.00	.....	820
Excelsior W'k'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	.....	.....	.....	.....	350,000	Aug.	1881	03	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Evening Star, s.	Col.	.....	500,000	50,000	10	.....	.....	.....	.....	375,000	Aug.	1881	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Father de Smet, G.	Dak	.....	10,000,000	100,000	100	.....	.....	.....	.....	340,000	July.	1881	50	.....	.....	.....	.....	.....	.....	7.00	.....	.....	.....	.....	.....	10
Findley, G.	Geo.	.....	200,000	200,000	1	*	.....	.....	.....	8,000	May.	1879	1c	.....	.....	.30	.....	.....	.....	.30	.....	.....	.....	.....	.....	900
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	.....	.....	.....	.....	90,000	July.	1881	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
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	.....	.....	.....	.....	.....	.....	7.00	.....	.....	.....	.....	.....	100
Grand Prize, s.	Nev.	1,500	10,000,000	100,000	100	315,000	July.	1881	25	450,000	Sept.	1880	0 25	.....	.....	.45	.40	.45	.....	.50	.....	.....	.....	.....	.....	700
Great Eastern, G.	Dak	1,200	300,000	300,000	1	*	.....	.....	.....	16,000	July.	1880	01	.....	.....	.19	.17	.....	.....	.17	.....	.....	.....	.17	.....	6,500
Green Mountain, G.	Cal.	4,350	1,250,000	125,000	10	*	.....	.....	.....	183,375	Aug.	1881	7⅛	.....	.....	5.00	.....	.....	.....	.....	.....	.....	.....	5.00	.....	400
Hale & Norcross, G. s.	Nev.	400	11,200,000	112,000	100	3,698,000	July.	1881	50	1,598,000	Apr.	1871	5 00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hibernia, s. L.	Col.	.....	7,500,000	300,000	25	*	.....	.....	.....	180,000	July.	1881	10	.49	.47	.49	.47	.49	.45	.47	.45	.....	.....	.47	.45	26,500
Homestake, G.	Dak	.....	10,000,000	100,000	100	200,000	Apr.	1878	1 00	1,080,000	Aug.	1881	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Horn-Silver, s. L.	Uth.	.....	10,000,000	400,000	25	*	.....	.....	.....	200,000	Jan..	1880	25	.....	.....	.....	.....	.....	.....	15.00	.....	.....	.....	.....	.....	200
Hukill, G. s.	Col.	3,288	1,000,000	200,000	5	*	.....	.....	.....	210,000	Dec..	1878	10	.....	.....	.....	.....	.....	.....	.67	.....	.....	.....	.....	.....	300
Independence, s.	Nev.	1,500	10,000,000	100,000	100	155,000	Apr..	1881	0 20	225,000	Sept.	1879	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Indian Queen, s.	Nev.	.....	250,000	125,000	2	.....	Feb..	1880	15	275,000	July.	1881	05	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Inyo	Cal.	.....	500,000	100,000	5	.....	.....	.....	.....	10,000	Aug.	1881	05	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Iron Silver, s. L.	Col.	.....	10,000,000	500,000	20	.....	.....	.....	.....	300,000	Aug.	1881	20	2.30	.....	2.50	2.35	2.50	2.35	2.40	2.35	.....	.....	2.40	2.35	7,800
La Plata, s. L.	Col	.....	2,000,000	200,000	10	*	.....	.....	.....	355,000	Aug.	1881	7⅛	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Leadville Cons., s. L.	Col.	.....	4,000,000	400,000	10	*	.....	.....	.....	150,000	Jan.	1880	15	1.15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	188
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	1.35	1.15	1.35	.....	1.40	1.35	1.25	.....	.....	.....	1.30	.....	4,510
Little Pittsburg, s. L.	Col.	30 acres.	20,000,000	200,000	100	*	.....	.....	.....	1,350,000	Mar..	1880	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
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	*	.....	.....	.....	550,000	Mar.	1878	25	.....	.....	.....	.....	.75	.....	.....	.....	.....	.....	.....	.....	500
Navajo, s.	Nev.	500	10,000,000	100,000	100	200,000	Aug.	1881	0 25	25,000	Mar.	1881	25	.43	.....	.45	.43	.43	.40	.40	.....	.....	.....	.....	.....	1,425
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	.....	.....	.....	.....	18.00	.....	.....	.....	.....	.....	.....	.....	175
North Belle Isle, s.	Nev.	1,500	10,000,000	100,000	100	25,000	Feb..	1880	15	15,000	Sept.	1880	15	.....	.....	.30	.....	.30	.....	.30	.25	.....	.....	.30	.....	1,000
Ontario, s	Uth.	3,000	10,000,000	150,000	100	.....	.....	.....	.....	3,650,000	Aug.	1881	50	.....	.....	36.38	.....	37.00	.....	.....	.....	.....	.....	36.50	.....	285
Ophir, G. s.	Nev.	675	10,080,000	100,800	100	3,092,600	Mar.	1881	1 00	1,603,200	Jan..	1880	1 00	.....	.....	.....	.....	6.38	.....	.....	.....	.....	.....	6.38	.....	150
Plumas, G.	Cal.	.....	1,000,000	100,000	10	.....	.....	.....	.....	151,000	July	1879	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Quicksilver, Pref.	Cal	.....	4,291,300	42,913	100	.....	.....	.....	.....	396,954	Aug.	1881	.09¼	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	60.00	59.00	200
Quicksilver, Com.	Cal	.....	5,708,700	57,087	100	.....	.....	.....	.....	128,446	Aug.	1881	.02¼	13.00	.....	.....	.....	12.75	.....	12.50	.....	.....	.....	.....	.....	400
Rising Sun, s	Cal.	.....	750,000	150,000	5	*	.....	.....	.....	101,250	May.	1881	7½	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Robinson Cons, s. L.	Col.	.....	10,000,000	200,000	50	*	.....	.....	.....	325,000	Aug.	1881	25	12.75	.....	13.00	12.75	13.00	.....	13.00	.....	.....	.....	13.00	.....	1,785
Savage	Nev.	.....	11,200,000	112,000	100	5,328,000	Apr..	1881	50	4,460,000	June	1869	3 00	3.65	3.50	3.50	.....	.....	.....	3.20	3.15	.....	.....	.....	.....	1,000
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	17.50	16.25	17.25	.....	16.25	15.25	15.00	14.50	.....	.....	16.50	.....	1,135
Silver King, s.	Ariz	3,650	10,000,000	100,000	100	.....	.....	.....	.....	725,000	Aug.	1881	25	.....	.....	.....	.....	.....	.....	17.88	.....	.....	.....	.....	.....	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	21.50	.....	.....	.....	22.00	21.00	22.00	.....	.....	.....	.....	.....	480
Starr-Grove, s.	Nev.	.....	2,000,000	200,000	10	.....	.....	.....	.....	160,000	June	1881	10	.....	.....	5.00	.....	5.00	.....	.....	.....	.....	.....	.....	.....	400
Stormont, s.	Uth.	.....	200,000	200,000	1	*	.....	.....	.....	135,000	Nov.	1880	30	3.05	.....	3.05	.....	3.10	3.00	3.00	.....	.....	.....	3.00	.....	1,750
St. Joseph, L.	Mo.	7000 ac's	1,000,000	100,000	10	.....	.....	.....	.....	290,000	Sept.	1881	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tip Top	Ariz	.....	10,000,000	100,000	100	120,000	Mar.	1880	.....	40,000	Aug.	1881	20	5.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100
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	4,098,000	May.	1881	1 00	2,184,000	Aug.	1871	2 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

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, 129,863.

FINANCIAL.

Gold and Silver Stocks.

NEW YORK, Friday Evening, Sept. 9.

Yesterday having been observed as a day of fasting and prayer in behalf of the President of the United States, the transactions only included five days, amounting to 506,548, as against 725,263 shares last week. The warm weather and sundry causes have operated to produce quietness; but there is a healthy tone to the dealings, and the outlook is very encouraging for an active fall business. Those who now purchase mining stocks do so on other grounds than those upon which they purchased a year or two past. They now carefully examine into the merits when investing, and when speculating they realize that they are gambling and if they lose, they do not blame mining more than they blame horse-racing when they bet on the wrong horse. In fact, mine speculation is reduced to fully as safe a basis as the speculation in railroads.

The Tuscarora stocks have been very quiet and without feature.

The Comstock shares have had a very liberal but declining business. The old Bonanza stocks have had a fair business at declining prices. California records sales of 3640 shares at $1.05@90c.@$1. California sold at $2.05 down to $1.75, assessment unpaid, and up to $2.20, assessment paid. Sierra Nevada ranged between $17¼@$14½, with the last sale at $16½. The remainder of these stocks has been without special feature.

The promised deal in the Bodies lags as much as the one promised in the Comstocks. The Bodie mine, which was to be the lever to move the list, has been almost neglected, the sales amounting to but 305 shares, selling from $9¾ down to $8¼. Standard holds its own on small transactions. The rest of the list of Bodie stocks has been quiet and without feature worthy of note.

Amie has had a moderate business at 37@33c. Chrysolite has been very quiet, but quite strong; the sales amount to 1400 shares at $6@$6⅞, the latter price being at 30 days. Eureka has been moderately active and strong, advancing to $30. Green Mountain has been quiet at $5. Hibernia has had a fair business at weak prices. Iron Silver has been moderately active and very strong; the sales amounting to 7800 shares, selling up to $2.50 and closing at $2.40. It is learned that at the time Mr. Leiter sold out, the workings ran out of ore, and that, after he had done so, the ore was discovered again just where it ought to be. In addition to this a new orebody has been found, all of which being made known, has given greater strength to the stock. Little Chief has been irregular and weak. Robinson Consolidated, under a moderate business, has been very strong, selling at the close at $13. Stormont has been quiet and steady at $3.10@3. Bull-Domingo has been active. After declining to $1.40, it sold up to $2.15. Central Arizona has been active, but under declining figures. The sales amount to 10,890 shares at $2@1.50.

Oriental & Miller has been active and fairly strong, the sales amounting to 80,100 shares at 77@90c. State Lines Nos. 1 and 4 record sales of 35,050 shares at 98@90@96c. Nos. 2 and 3 have been more active, the sales amounting to 50,900 shares at $4.05@$3.40 @$3.85.

It is rumored that Standard is to go on the London Stock Exchange.

The *Real Estate Record* says:

Some time since, Prince & Whitely opened subscription books at their offices, for the sale of the stocks of the Bradshaw and Washington mines, located in the Tombstone District in Arizona. Three dollars were charged for each share of Bradshaw, and one dollar a share for Washington. It is said certain representations were made by either Prince & Whitely themselves, or their partners or agents; for the subscription lists were promptly filled and the shares distributed among a great many mining men as well as regular customers of Prince & Whitely. But it soon appeared that the whole affair was a swindle of the most outrageous character. Immediately upon the closing of the books, thousands of the shares of the stock were offered at less than subscription price. Instead of going up to $7 and $10 a share, as the subscribers were promised, Bradshaw is now selling at less than $1, while Washington can scarcely be quoted. It is said that a suit has been commenced against Prince & Whitely for money received by them for which they have given no equivalent. Of course, it is reasonable to presume that they themselves were the victims of some California mining sharps; but as they were the agents selected to swindle the mining public, it would be a good thing if the courts would hold them responsible. If it would not put a stop to such deals in the future, it would prevent respectable houses like Prince & Whitely's from allowing themselves to be made the cat's-paws of California mining sharps. If the suit has been commenced, it is to be hoped that it will be vigorously pushed to a successful issue.

DIVIDENDS.

A dividend, the seventy first, of $75,000, for August, has been declared by the Ontario Silver Mining Company, payable at the office of Wells, Fargo & Co. on September 15th. This makes the total dividends declared by the company $3,725,000. The product of the Ontario mine for the past eight months was $1,668,315.00 assay value.

The Robinson Consolidated Mining Company has declared a regular dividend of $50,000, or 25 cents per share, and an extra dividend of like amount, both payable on September 15th. Transfer-books closed on the 9th, and will reopen on the 16th. The August remittances from the mine amounted to nearly $150,000.

The Alice Gold and Silver Mining Company has declared dividend No. 7 of $40,000, payable September 15th, to stockholders of record September 10th.

The Standard Consolidated Mining Company has declared its regular monthly dividend of 75 cents per

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. Sept. 3. H.	Sept. 3. L.	Sept. 5. H.	Sept. 5. L.	Sept. 6. H.	Sept. 6. L.	Sept. 7. H.	Sept. 7. L.	Sept. 8. H.	Sept. 8. L.	Sept. 9. H.	Sept. 9. L.	SALES.
Albion, S L	Nev.	150,000	100	.....	Aug. 81 40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alta Montana, G	Mon.	500,000	10	*	.....	.....	.....	1.90	.....	.....	.....	.....	.....	.....	.....	1.95	.....	500
Am Flag, S	Colo	125,000	10	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bald Mountain, G	Colo	1,000,000	10	*	.....	5c	.....	5c	.....	.....	.....	5c	.....	.....	.....	.....	.....	6,000
Barcelona, G	Nev	200,000	25	*	.....	1.05	1.00	1.10	1.05	1.10	1.00	1.20	1.15	.....	.....	1.15	1.10	4,500
Battle Creek	Dak.	200,000	25	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bear Creek	Colo	300,000	1	.....	.....	75c	74c	76c	75c	77c	75c	76c	75c	.....	.....	76c	75c	8,700
Bechtel Con., G	Cal.,	100,000	100	162,750	Dec. 81 15	.....	.....	.....	.....	.....	.....	1.05	1.00	.....	.....	1.00	.....	1,000
Best & Belcher, G. S	Nev.	100,800	100	1,043,390	Jly. 81 50	12.75	.....	12.63	.....	12.13	.....	.....	.....	.....	.....	12.25	.....	500
Big Pittsburg, S L	Colo	200,000	100	*	.....	.....	.....	2.05	.....	2.00	1.85	2.00	.....	.....	.....	.....	.....	500
Black Jack, G	Cal.	1 0, 00	2½	.....	.....	75c	.....	75c	.....	75c	.....	74c	.....	.....	.....	75c	.....	1,300
Bonanza Chief	Mon	1,000,000	1	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bondholder	Colo	200,000	2½	.....	.....	75c	.....	76c	74c	76c	74c	75c	.....	.....	.....	74c	.....	4,300
Boston Con, G	Cal.,	100,000	100	30,000	Apr. 81 30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boulder Con, S	Colo	200,000	10	.....	.....	20c	.....	24c	22c	25c	21c	.....	.....	.....	.....	24c	23c	3,000
Bradshaw, S	Ariz	225,000	10	.....	.....	1.05	.....	1.05	.....	1.05	1.00	1.00	.....	.....	.....	1.00	.....	2,500
Buckeye	Colo	100,000	5	*	.....	.....	.....	.....	.....	8c	.....	.....	.....	.....	.....	.....	.....	500
Bull-Domingo, S L	Colo	200,000	50	*	.....	1.55	1.50	1.50	1.40	1.35	1.25	1.75	1.40	.....	.....	2.15	1.75	6,600
Bullion, G. S	Nev.	100,000	100	3,762,000	July 81 60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bulwer	Cal.	100,000	100	30,000	Dec. 77 50	.....	.....	2.30	.....	2.35	.....	.....	.....	.....	.....	.....	.....	105
Bye and Bye	Ariz	100,000	10	*	.....	20c	18c	20c	18c	20c	19c	19c	18c	.....	.....	20c	18c	5,900
Calaveras, G	Cal.,	500,000	1	*	.....	.....	.....	14c	13c	14c	.....	14c	.....	.....	.....	14c	.....	5,200
Cal., B. H., G	Dak.	100,000	100	400,000	Mar. 81 25	.....	.....	.....	.....	.....	.....	1.25	.....	.....	.....	.....	.....	100
Carbonate Hill, S L	Colo	400,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Catskill, S	Nev.	300,000	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Central Arizona, S	Ariz	100,000	100	.....	.....	2.00	.....	2.00	1.95	2.00	1.75	1.90	1.63	.....	.....	1.85	1.80	10,800
Cherokee, G	Cal.	150,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cheyenne Cons, G	Dak.	300,000	1	.....	.....	20c	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100
Colorado Central, S	Colo	300,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Columbia Con., G. S	Nev.	100,000	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cons. Imperial, G. S	Nev.	500,000	100	1,375,000	Apr. 81 10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Con. Pacific, G	Cal.	60,000	100	114,000	Jly 81 40	75c	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	200
Con. Pay Rock, S	Colo	250,000	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Crescent, S L	Colo	300,000	10	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Crowell, G	N. C.	50,000	1	.....	.....	.....	.....	30c	.....	.....	.....	.....	.....	.....	.....	.....	.....	500
Dahlonega, G	Ga.	250,000	1	*	.....	.....	9c	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,000
Dardanelles, G	Cal	100,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dunderberg, S	Colo	150,000	10	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Durango, G	Dak.	500,000	1	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Empire, S	Utah	100,000	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Enterprise	Colo	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Exchequer	Nev.	100,000	100	580,000	Oct. 80 50	.....	46c	44c	47c	45c	46c	45c	47c	45c	.....	.....	46c	45c	8,100
Globe Copper						.....	1.85	1.80	1.85	1.75	1.80	.....	1.80	.....	.....	.....	.....	.....	800
Glynn Dale Con. G	Cal.,	100,000	100	75,000	Jan. 81 25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gold Placer, G	Colo	200,000	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Goodshaw, G	Cal.	100,000	100	145,000	Feb. 81 15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	44c	.....	600
Granville, G	N. C.	300,000	1	*	.....	.....	.....	5c	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,200
Harshaw, S	Ariz	100,000	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Head Center, S	Ariz	100,000	100	55,000	May 81 30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hortense, S	Colo	200,000	10	.....	.....	.....	.....	30c	.....	.....	.....	.....	.....	.....	.....	37c	.....	300
Julia, G S	Nev.	110,000	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kossuth, G S	Nev.	108,000	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
La Crosse, G	Colo	100,000	10	*	.....	.....	.....	.....	.....	25c	.....	.....	.....	.....	.....	25c	.....	600
Legal Tender, S L	Colo	200,000	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Leviathan, S	Nev	100,000	100	350,000	Mar. 81 25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lucerne, S	Colo	500,000	10	*	.....	.....	.....	9c	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,000
Malachite	Nev.	200,000	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mariposa preferred, G	Cal.	50,000	100	1,425,000	Dec. 80	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
" common, G	Cal.	100,000	100	1,425,000	Dec. 80	.....	2.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	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	11.50	10.00	.....	.....	.....	.....	.....	.....	.....	.....	10.13	.....	240
Michoacan Syndicate	Mex	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mineral Creek, S	Ariz	200,000	10	*	.....	.....	23c	20c	24c	20c	20c	18c	19c	18c	.....	18c	17c	13,000
Miner Boy, G S L	Colo	1,000,000	5	*	.....	.....	50c	49c	49c	47c	49c	47c	48c	47c	.....	49c	45c	59,800
Miller	Nev.	200,000	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mono, G	Cal.,	50,000	100	375,000	Aug. 81 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Moose Silver, S	Colo	300,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nevada Syndicate		.....	.....	.....	.....	.....	.....	1.05	.....	1.00	99c	99c	.....	.....	.....	99c	98c	1,500
North Standard, G	Cal.,	100,000	100	.....	.....	.....	20c	.....	18c	13c	18c	.....	19c	17c	.....	.....	.....	1,500
North Horn Silver, S L	Utah	400,000	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Noonday	Cal.,	60,000	100	.....	Jne 81	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.00	.....	100
Old Dominion, C	Ariz	200,000	10	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oriental	Nev.	200,000	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oriental and Miller, S	Nev.	400,000	25	.....	.....	.....	87c	81c	92c	82c	83c	77c	83c	78c	.....	93c	84c	80,100
Overman, G S	Nev.	115,200	100	3,460,700	July 81	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rappanannock, G	Va.,	250,000	1	*	.....	.....	21c	.....	22c	.....	21c	.....	21c	20c	.....	.....	.....	2,200
Red Elephant, S	Colo	500,000	10	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18c	.....	1,600
San Pedro, G S L	N. M	400,000	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Silver Cliff, S	Colo	200,000	50	*	.....	.....	4.00	3.85	3.80	3.60	3.70	3.50	3.55	3.15	.....	3.40	3.35	12,600
Silver Islet						.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Silver Nugget, S	Ariz	200,000	10	*	.....	.....	.....	.....	.....	27c	.....	.....	.....	.....	.....	.....	.....	100
Silver N. new stock, S	Ariz	250,000	10	.....	.....	.....	50c	.....	52c	50c	49c	.....	44c	.....	.....	51c	41c	2,500
South Bodie, G	Cal.	100,000	100	85,000	Nov. 80	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
South Bulwer, G	Cal.	100,000	100	195,000	May 81	25	23c	20c	22c	.....	24c	.....	.....	.....	.....	.....	.....	500
South Hite	Cal.,	100,000	25	.....	.....	.....	29c	28c	.....	.....	26c	25c	.....	.....	.....	.....	.....	4,700
State Line No 1, S	Nev.	200,000	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	80c	.....	.....	.....	.....	200
" No. 2, S	Nev.	200,000	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
" No. 3, S	Nev.	200,000	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
" No. 4, S	Nev.	200,000	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
" Nos. 1 and 4, S	Nev.	.....	.....	.....	.....	.....	98c	93c	97c	92c	95c	90c	93c	87c	.....	96c	92c	35,050
" Nos. 2 and 3, S	Nev.	.....	.....	.....	.....	.....	4.05	4.00	4.00	3.85	3.85	3.70	3.75	3.40	.....	3.85	3.55	50,900
Sutro Tunnel	Nev.	2,000,000	10	*	.....	.....	1.50	.....	.....	.....	1.50	.....	1.55	1.45	.....	1.63	1.40	3,400
Tabor Mine Co	Colo	250,000	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tioga, G	Cal.	100,000	100	260,000	Aug. 81	20	35c	.....	33c	.....	.....	.....	.....	.....	.....	.....	.....	400
Tuscarora, S	Nev.	100,000	100	95,000	Apr. 81	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Unadilla, S	Colo	500,000	1	*	.....	.....	10c	.....	9c	8c	9c	.....	.....	.....	.....	9c	.....	3,700
Union Cons, G. S	Nev.	100,000	100	1,160,000	Jly 81	$1	14.00	.....	.....	.....	.....	.....	.....	.....	.....	14.38	13.88	700
Vandewater, S	Nev.	200,000	10	*	.....	.....	38c	36c	39c	37c	40c	37c	40c	37c	.....	39c	35c	11,700
Washington, S	Ariz.	200,000	5	*	.....	.....	.....	.....	52c	47c	48c	40c	43c	40c	.....	35c	.....	12,800
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, 376,645. Total shares sold at all the Exchanges during the week, 556,548

Boston.

Quotations and Sales of Mining Stocks for week ending Sept. 7th.

NAME OF COMPANY.	Opening Sept. 1.	Highest during the week.	Lowest during the week.	Closing Sept. 7.	Total shares sold.
Allouez	2.75	2.87½	2.75	2.87½	300
Atlantic	13½	14.00	13½	14.00	265
Blue Hill	3¾	3¾	.....	3¾	50
Bon. Delv'mt	5 3-16	5 3-16	5⅛	5⅛	225
Bruns. At'y	8.00	8.00	.....	8.00	50
Cal. & Hec. c	216	219⅛	216	219⅛	55
Caralpa	1 5-16	1 5-16	1¼	1 5-16	1,985
Cedar Spring	.65	.65	.57	.58	67,900
Columbus G	1.03	1.12½	1.01	1.12	10,100
Copper Falls	3.00	3.00	2.50	2.50	350
Copperopol's	2.00	2.05	1.93	1.95	4,100
Crescent	.93¾	.93¾	.87½	.93¾	6,050
Dana	12½	.15	12⅛	.15	2,200
Deer Isle	.63	.70	.54	.65	8,000
Douglass	2.00	2.00	.....	2.00	400
Empire	.43	.43	.25	.30	2,800
Franklin	11.25	12.75	11.25	12.50	95
Golden De't	2.10	2.20	2.10	2.15	2,100
Harshaw	6.00	6.00	.....	6.00	120
Hop'well Ma.	.62	.67	.59	.62	7,400
Huron	3⅛	3⅛	.....	3⅛	10
Mascot	3.00	3.25	3.00	3.25	300
Mass. & N. M.	.45	.46	.37	.45	38,000
Mendocino	6.50	6.50	.....	6.50	2,000
Milton	.82	.93	.82	.92	32,600
Napa	7.00	7.00	.....	7.00	400
Osceola, C	30.00	30	28.50	28.50	56
Peabody	.50	.51	.50	.50	700
Pewabic	15.50	15.50	15.00	15.00	100
Pine Tree	1.50	1.50	.....	1.50	1,000
Quincy, C	33⅛	34¼	33	33¾	262
Ridge	3.75	3.75	.....	3.75	25
San Pedro	3.00	3.00	2.75	2.88	350
Silver Islet, S	40.00	41.00	35.00	35.00	527
Simpson Gld	.05	.05	.....	.05	1,000
Sycamore	1.10	1.12½	1.00	1.00	485
Twin Lead	.50	.75	.50	.60	9,100
Yng. Hecla	.40	.40	.....	.40	500

c. Copper. s. Silver.

Philadelphia.

Quotations and Sales of Mining Stocks for week ending Sept. 7th.

NAME OF COMPANY.	Opening Sept. 1.	Highest during the week.	Lowest during the week.	Closing Sept. 7.	Total shares sold.
Alonzo	1.40	1.40	.....	1.40	600
Am'ric'n Con	.21	.21	.16	.16	200
Argent	.34	.34	.33	.34	1,900
Ariz. & N. M.	1.02½	1.07½	1.02½	1.07½	1,000
Arizona So	.26	.31	.26	.30	1,500
Aztec	.03	.06	.03	.05	42,700
Battle Mt.	.04	.04	.03	.04	11,500
Buena	.21	.22	.20	.20	8,450
Cincinnati	.32	.40	.31	.35	7,500
Crown	.03	.05	.03	.04	11,700
Dauntless	.10	.14	.10	.12	*
Den. C'y Con	1.29	1.37½	1.20	1.30	14,220
Fairv'w Con	.05	.07	.05	.05	31,200
Girard	1.50	1.85	1.50	1.85	3,950
Golconda	.05	.05	.03	.03	11,900
Gov. Group	.47	.48	.40	.40	11,800
Grand Union	.11	.12	.09	.10	50,300
Gun. Imp. Co	.80	2.10	.80	1.70	25,600
Hancock	.05	.07	.04	.05	87,150
Homestake	.04	.07	.04	.05	72,000
Iowa Gulch	.43	.43	.40	.42	10,350
King Bullion	.04	.05	.04	.04	13,100
Little Maud	.68	.75	.52	.52	11,800
Lng. & Derry	.11	.13	.11	.11	42,800
Monitor	.12	.12	.....	.12	1,000
Mt. Lincoln	.11	.15	.11	.13	33,200
Mt. Sheridan	.28	.33	.19	.19	74,700
National	.10	.13	.08	.12	92,800
Orion	.85	1.00	.85	1.00	3,100
Pembina	.55	.55	.....	.55	300
Penn Breck.	.09	.10	.09	.10	7,200
Pizarro	.06	.08	.05	.05	41,740
Pizarro Extn	.08	.15	.07	.08	61,400
Rara Avis	1.25	1.25	1.15	1.15	400
San Pedro	.20	.20	.....	.20	1,000
Silver Cord	1.15	1.15	.....	1.15	400
Standard	.07	.08	.06	.07	41,800
Tombstone	5.50	5.50	5.40	5.45	2,150
Victor	.06	.14	.06	.08	73,000
W. Ontario	.24	.30	.24	.30	1,700

*117,850

share, payable September 12th, to stockholders of record September 5th.

The Barclay Coal Company announces a quarterly dividend of two per cent, payable September 15th.

UNLISTED QUOTATIONS.

Mr. L. V. Deforeest, No. 70 Broadway, under date of September 9th, 3 P.M., reports the current quotations of unlisted stocks as follows:

	Bid.	Off'd.		Bid.	Off'd.
Columbia & Beaver	$1.70	$1.75	May Flower	....	$0.40
Highland Chief	....	2 00	Sacramento	....	.25
Hite	....	4.00	Santa Cruz	....	.50

REVIEW OF THE SAN FRANCISCO MARKET.

The San Francisco quotations are somewhat improved, particularly the north-end stocks, Sierra Nevada, Ophir, etc. It is extensively circulated that Senator Fair insists upon the existence of two new bonanzas in the Comstock lode, but he declines to name the mines. Those who credit these reports place one of the bonanzas in the north-end mines—Sierra Nevada, Mexican, or Union Consolidated—and the other in the central part of the lode. Mr. Fair is said to assert that by the first of October these bonanzas will be known to the public. This gentleman, we are informed, has undertaken personally to supervise the work and development on the lower levels of the Sierra Nevada and Union Consolidated mines. It is said that a drift now going west from the Sierra Nevada and Union Consolidated joint winze station at the 2700 level is expected to tap the pay-vein in that direction, which was found on the 2300 level and from which high-grade ore was extracted to the 2500 level. Water has not yet interfered with the work, indicating that the 2700 level is about drained, and that drifts may shortly be run in other directions. The following dispatch to the *Tribune* is not encouraging:

It is reported that the Nevada Bank will immediately reduce the rate of interest on mining stock advances to seven per cent, and loan to fifty per cent of their market values.

The reported recent ore-developments in Yellow Jacket are not reflected in the prices, the stock closing yesterday at a decline of $1 per share.

The total progress of the south lateral drift, Sutro Tunnel, for August was 293 feet, bringing the face of the drift within 275 feet of the north line of the Belcher. The ore-vein in the south lateral drift has been drifted on 33 feet north and 21 feet south. Two cross-cuts, run near the north line, show the vein 14 feet wide, 4 feet being fair-looking quartz.

Philadelphia Mining Stock Market.

The market has been exceedingly active, and in the greater number of stocks a slight advance has been made. Last Saturday witnessed the busiest day yet chronicled. Although there were but two calls, yet the transactions for the day aggregated 257,000 shares. When the fact is stated that a large number of the best mining companies organized in this city are not listed upon the local board, this is regarded by some as a proof of the interest that the public mani-

fests in the mining industry. Up to the present date, nothing worthy of special mention has been received from any of the properties of the local companies. Denver City is watched with eager interest by capitalists who have an eye to make a profitable turn. The Arizona companies, Tombstone, Grand, Orion, and Cincinnati, are all doing well. The Arizona & New Mexico Prospecting, Developing, and Mining Company is placing a large Mexican property, the Nuestra Señora, comprising more than 8000 acres of mineral land.

SAN FRANCISCO MINING STOCK QUOTATIONS.

Daily Range of Prices for the Week.

NAME OF COMPANY	CLOSING QUOTATIONS. Sept. 2.	Sept. 3.	Sept. 5.	Sept. 6.	Sept. 7.	Sept. 8.	Opening. Sept. 9.
Alpha	3¾	3¾	.....	.....	.....	.....	.....
Alta	4½	4¾	3½	4½	4½	4⅝	.....
Bechtel	1	1	1⅛	1	13-16	15-16	.....
Belcher	3	3	2⅞	2¾	2⅝	2¾	.....
Belvidere	.....	.....	.....	.....	.....	.....	.....
Best & Bel.	12¾	12⅝	12½	11¾	11½	12⅝	.....
Bodie	10⅛	9¾	9¾	9¼	9⅜	8½	.....
Bullion	1⅛	1⅛	1	1	29-32	27-32	.....
Bulwer	.....	.....	.....	.....	.....	.....	.....
California	1	1	15-16	15-16	29-32	29-32	.....
Challar	2⅜	2½	2¼	2¼	2¼	2½	.....
Con. Va	2	1⅞	1⅞	1¾	1⅞	1⅞	.....
Crown P'int	2	2⅛	2	1⅞	1⅝	1¾	.....
Eureka Con	28	27	.....	.....	.....	27¾	.....
Exchequer	.....	1¼	1⅛	1⅛	1⅛	1	.....
Goodshaw	.....	.....	.....	.....	.....	.....	.....
Gould &Cur	7⅝	7⅝	7⅛	6¾	6¾	7⅜	.....
Grand Prize	7-16	7-16	7-16	13-32	11-32	11-32	.....
Hale & Nor.	4	4	3⅞	3¾	3¾	3¾	.....
Manhattan	.....	1¾	.....	.....	.....	.....	.....
Mar. White	.....	½	.....	.....	9-16	19-32	.....
Mexican	10⅝	10⅝	10¼	9¾	9⅜	10⅝	.....
Mono	3¼	3¼	3¼	4	3⅞	3⅝	.....
Mt. Diablo	.....	6½	.....	.....	.....	6½	.....
Navajo	.....	.....	.....	.....	.....	½	.....
North. Belle	17¾	17¾	17	17	16⅞	16¼	.....
Noonday	.....	29-32	13-16	.....	.....	¾	.....
Ophir	6⅜	6½	6⅜	6⅛	6⅛	6½	.....
Oro	7-16	7-16	13-32	7-16	7-16	7-16	.....
Overman	.....	2	1⅞	1⅞	1¾	1⅞	.....
Potosi	3⅛	3¼	3⅛	3	3	3¼	.....
Savage	3¼	3¼	3	2⅞	2¾	3	.....
Scorpion	.....	.....	1⅝	.....	.....	1¾	.....
Sierra Nev.	16⅜	16⅝	15¼	14⅝	14⅝	16⅞	.....
Silver King	10½	.....	18	17½	16	17	.....
So. Bodie	.....	.....	.....	.....	.....	.....	.....
So. Bulwer	.....	.....	.....	.....	.....	.....	.....
Tioga	.....	.....	.....	.....	.....	.....	.....
Tip Top	.....	.....	5¾	5⅝	5¾	5¾	.....
Tuscarora	.....	.....	.....	.....	.....	.....	.....
Union Con.	13¼	13⅝	13	12¼	12⅝	14½	.....
Wales Con.	13-16	.....	.....	13-16	13-16	.....	.....
Yel. Jacket.	5⅝	5⅝	5¼	5	4¾	4⅞	.....

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, Sept. 8.

The market for copper stocks the past week has been a rising one, owing to the advance and firmness of ingot copper; and the prospect now is that we are to have a lively market during the next two or three months. The first stocks to feel the influence are, of course, those which are copper producers, as will be seen by the rise in such stocks as Calumet & Hecla, Quincy, Franklin, Pewabic, etc.; but already there is more inquiry for the low-priced speculative shares. The silver stocks at the regular Board have ruled very dull, and without special feature. At the Boston Mining and Stock Exchange, there has been a fair amount of business transacted in the leading specialties, but prices generally are lower. There have been no sessions of either Board to-day, in deference to the proclamation of Governor Long for a day of prayer for the recovery of President Garfield, and our quotations are the closing sales of yesterday.

Our review of the market shows an advance in Calumet & Hecla from $218@$219½, which was bid for it at the close.

Quincy advanced from $33@$34¼, and is in demand at $34 bid.

Franklin, which last week closed dull at $11, has advanced to $12¾ on sales of less than 1000 shares, and closed $12½ bid, $13 asked.

Pewabic, the last sale of which was August 9th, at $13, sold to-day at $15 and closed $14¾ bid, $15 asked. This stock is very firmly held.

Atlantic advanced from $11 (August 22d) to $14 to-day, and closed $13¾ bid.

Osceola advanced from $29@$30, selling later at 328½ ex dividend, $1½ per share.

Copper Falls declined from $3@$2½, which was bid for it. There are rumors of another assessment, which tends to depress the price.

We note sales of Allouez at $2¾@$2⅞; Blue Hill at $3¼; Huron at $3½; Ridge, $3¾; Douglass, $2; and brunswick Antimony, $8, a decline of $¾ from last week. The market at the close was quite firm for all the copper stocks.

In silver stocks, Bonanza is dull but steady at $5½; Catalpa firm at $1¼; Crescent, at $15-16. San Pedro declined from $3@$2¾, closing at $2⅞. Silver Islet has had a bad week, and shows a decline from $40@$35, and closed offered at the lowest figure.

Harshaw is dull at $6. Napa Quicksilver sold at $7, which is the par value of the stock.

At the Mining Exchange, Milton continues in active demand; and although the sales are lighter this week, it does not arise from any want of bidding, but rather a scarcity of sellers; 92c., buyer 60, is bid all round for it, while regular stock is sold at 82@84c.

Massachusetts & New Mexico has been active this week, and, under the persistent hammering of the "bears," has been forced down from 45@37c., seller 30, and 33c. regular, while sales have been made at 43@46c. buyer 60. At the close yesterday, it was rather firmer, with sales at 39@40c., about 35,000 shares changing hands during the week.

Cedar Springs, of California, has been largely dealt in, regular stock selling at 57@60c., and buyer's options, 60 days, at 65c. Sales aggregate about 60,000 shares.

Copperopolis has shown signs of weakness, with a decline from $2.05@$1.93, closing, however, a little firmer at $1.95.

Columbus Gold, of Black Hills, has been listed the past week, and sales recorded at $1.01@$1.05 regular and $1.12 buyer's option, 60 days.

Empire, formerly the favorite, has settled down to extreme inactivity, and has declined during the past week from 43@32c., one persistent bear even selling it at 25c., seller 30.

Mendocino keeps on the even tenor of its way, with sales at $6½, buyer 60, which continues to be bid for it for any amount.

Twin Lead is in better demand, with sales at 60c. regular, and 75c., buyer 60. The rest of the list is without any special feature calling for comment.

COAL STOCKS.

Quotations of New York stocks are based on the equivalent of $100. Philadelphia prices are quoted so much per share.

NAME OF COMPANY.	Capital Stock.	SHARES. No.	Par Val.	Last Dividend. Mo.	Y.	R't.	Rate per Ann.	Sept. 3. H.	L.	Sept. 5. H.	L.	Sept. 6. H.	L.	Sept. 7. H.	L.	Sept. 8. H.	L.	Sept. 9. H.	L.	Sales from June 16th to June 16th inclusive.
	$		$				Per c'nt													
Am. Coal Co.	1,500,000	60,000	25	....	..	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cameron C'l.	2,500,000	50,000	50	....	..	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Col. C. & I.	10,000,000	100,000	10	....	..	....	....	52	50	51½	.....	52¼	51¾	54	52	.....	.....	57⅝	54	4,300
Ches. & O. RR	15,000,000	150,000	100	.....	..	....	...	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100
Consol. Coal.	10,250,000	102,500	100	Jan.	77	2½	....	..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cumb. C. & I.	500,000	5,000	100	....	..	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Del. & H. C.	20,000,000	200,000	100	May	81	1½	3	+	+	107¾	108	107⅜	108¾	108	109	107⅜	.....	.....	107⅜	107⅛	6,100
D., L. & W. RR.	26 900 000	524,000	50	Mar.	81	1½	6	‡	.....	123⅜	124¼	123⅛	124⅜	123⅞	124⅛	123⅜	.....	.....	124⅜	123⅜	97,200
Lehigh C. & N	10,448,550	208,971	50	Sept	..	1½	5½	44⅛	.....	.....	44	.....	44½	44	.....	.....	.....	44	43⅞	.....	2,800
Leh. V y R. R	27,042,900	540,858	50	Jan.	76	....	4	62	.....	.....	.....	.....	61⅞	.....	.....	.....	.....	61¾	.....	.....	200
Maryl'd Coal	4,400,000	44,000	100	.....	76	1½	1½	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Montauk C'l.	2,500 000	25,000	100	.....	..	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Morris & Es'x	15,000,000	300 000	50	Dec.	..	....	7	.....	.....	.....	.....	123	.....	.....	.....	.....	.....	.....	.....	.....	25
New Cen. C'l	5,000,000	50,000	100	Apr	80	2	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
N. J. C. RR.	20,600,000	206,000	100	Oct.	76	2½	2½	93¾	92⅝	93	92½	93⅜	92¾	94	92¼	.. ..	....	94½	93⅝	48,390
Penn. Coal	5.000,000	100,000	50	May	79	3	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Penn. R. R.	68.870,200	1,337,404	50	Jan	›1	4	....	64¼	64	64¼	63⅞	64⅜	64½	.....	.....	64½	64½	.....	.....	18,564
Ph. & R. RR.	34,378,150	685,563	50	.....	76	2¼	10	60⅜	60	60¾	59½	60⅝	60	60⅝	60½	.....	.....	61½	60½	28,827
Spring Mt. C'l	1,500,000	30,000	50	.....	..	....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	

† 108⅜. ‡ 124¾.

Total Sales..... 207,604.

Of the sales of this stock 19,127 shares were in Philadelphia and 10,700 in New York.

A dispatch from London to-day says that Mr. Gowen has issued a circular to the shareholders of the Philadelphia & Reading Railroad offering himself for re-election as president of the company at the annual meeting of the 9th of January next, and giving directions in regard to registration so that the votes shall be valid.

A dispatch to the *American Exchange* from Scranton dated yesterday says:

Mr. John Jermyn, one of the leading individual coal operators here, has been appointed general manager to look after the interests of the New York, Susquehanna & Western Railroad in this region, and executed his contract with the company for the construction of forty miles of the new railroad from Hollisterville to the Lackawanna Valley. The cost of this portion of the work is estimated at $2,000,000. Mr. Jermyn has been supplied with ample funds to push the work forward to a speedy completion, and says it will be finished inside of ten months, and that at the end of that time the new company will be shipping coal from Scranton to New York. Its present contracts give the New York, Susquehanna & Western Co. facilities for mining 1,500,000 tons of coal annually, and Mr. Jermyn has been authorized to make other contracts. In addition to coal business, the company will also compete for a share of the passenger and freight traffic of this region. Rails, engines, and cars are already contracted for, and the work of building will go on briskly. The new road will be laid with steel rails and double-tracked. The company has supplied a number of individual operators with sufficient capital to develop their works, and several new breakers are going up at various points along the valley, so as to be ready to mine coal as soon as it can be shipped over the new road.

The following is the comparative statement of the Philadelphia & Reading Railroad Company and the Philadelphia & Reading Coal and Iron Company for the month of July, 1881 and 1882:

	1881. Profit for month.	Year to date.
Gross Receipts:		
Railroad traffic	$833,311.22	$4,935,634.07
Canal traffic	72,873.42	174,700.17
Steam colliers	19,892.13	138,923.36
Richmond coal barges	1592.71	11,260.45
Total Railroad Co.	$925,404.06	$5,247,997.05
Reading Coal & Iron Co.	165,576.80	531,595.44
Total of all	$1,091,096.86	$5,779,592.49

Tonnage and Passengers:	Month.	Year to date.
Tons of coal on railroad	747,728·05	4,828,190·04
Tons of merchandise	584,857·15	4,124,626·19
Passengers carried	999,085	6,582,088.00
Coal transported by steam colliers	51,705·00	354,065·00
Tons of coal mined:		
By Coal and Iron Co.	392,375·10	2,244,997·06
By tenants	127,219·10	908,995·07
Total mined from lands owned and controlled by company, and from leasehold estates	519,595·00	3,153,992·13

Gross receipts:	1880. Profit for month.	Year to date.
Railroad traffic	$524,094.86	$4,507,465.66
Canal traffic	34,411.71	124,446.00
Steam colliers	9,806.93	124,798.12
Richmond coal barges	11,654.26	2,068,18
Total Railroad Co.	$566,659.24	$4,759,679.05
Reading Coal & Iron Co.	33,954.85	159,076.32
Total of all	$600,614.09	$4,600,602.73

Tonnage and passengers:	Month.	Year to date.
Tons of coal on railroad	460,411·14	4,228,145·16
Tons of merchandise	463,137·06	3,919,789·13
Passengers carried	908,049·00	6,225,409·00
Coal transported by steam colliers	50,406·00	353,940·00
Tons of coal mined:		
By Coal & Iron Co.	211,634·04	2,021,452·09
By tenants	79,214.16	694,352·10
Total mined from lands owned and controlled by company, and from leasehold estates	290,849·00	2,715,804·19

Total of both companies for month of July, 1881: Gross receipts, $3,129,316.88; gross expenses, $2,038,256.02; profit, $1,091,060.86.

BULLION MARKET.

NEW YORK, Friday Evening, Sept. 9.

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

DATE.	London. Pence.	N. Y. Cents.	DATE.	London Pence.	N. Y. Cents.
Sept. 3	51⅜	111⅛	Sept. 7.	51⅝	112
Sept. 5	51⅝	112	Sept. 8.	51⅝	Holiday
Sept. 6	51⅛	112	Sept. 9.	51⅝	112⅛

ARIZONA.

Tombstone M. and M. Company.—The secretary reports officially that the August yield of bullion was $175,905.00 gross.

The secretary writes, under date of September 8th:

Previous to last month (August) the bullion yield of this company, according to the almost universal custom, was always reported at the old mint rate of $1.29·29 per oz. With the month of August our superintendent commenced to stamp the bars with their *net* value to the company in San Francisco. In order to reach this, he discounts the silver in the bars (about 97 per cent of their value) from 14 to 15 per cent. This mode of reporting monthly bullion yield will be pursued in the future, and would, therefore, make the net bullion yield for August $151,795.

MONTANA.

Butte District.—The Pacific Express Company, of Butte City, has shipped for the past eight months silver bullion, valued respectively as follows:

January	147,998
February	232,864
March	176,645
April	269,534
May	167,966
June	214,391
July	206,064
August	245,516
Total for eight months	$1,664,822

MEXICO.

A report states that the mines of Pachuca, Mexico, have produced $100,000,000 in thirty years, mostly by Cornish miners. The Santa Gertrudio produced $2,800,000 from June, 1877, to March, 1881.

UTAH.

Salt Lake City.—For the week ending September 2d, the bullion shipments aggregated $148,817.09.

MISCELLANEOUS.

WASHINGTON, Sept. 8.—The Treasury Department to-day

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.	$16,088	$16,088	$538,300
Barbee & Walker, S.	Utah.	6,149	28,121	118,877
*Belle Isle, G. S.	Nev.			12,000
*†Big Pittsburg, S.	Colo.			57,949
Bodie, G.	Cal.		38,539	255,657
*California, G. S.	Nev.			110,964
Caribou, S.	Colo.		4,700	104,428
*Castle Dome	Ariz.			107,259
*Christy, S.	Utah.	3,819	16,266	186,853
*Chrysolite, S.	Colo.			426,773
Concordia, G.	Cal.			2,234
Connor, S.	Utah.		18,330	64,905
Con. Virginia, G. S.	Nev.			148,960
*Copper Queen, C.	Ariz.			356,023
Crismon-Mammoth, G.	Utah.		5,178	46,376
*Custer, G. S.	Idaho.			497,040
*Deadwood-Terra, S.	Dak.		50,884	509,334
*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.	3,606	62,331	290,990
Germania Smelt. Wks.	"	8,180	59,470	262,983
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.		123,544	759,099
Horn-Silver, S. L.	Utah.	12,500	97,500	718,368
Idaho, G.	Cal.			213,000
*Independence, S.	Nev.			17,108
*Indian Queen, S.	"			125,721
Iron Silver	Colo.			327,600
Jocuista, S.	Mex.			239,388
*†Little Chief, S. L.	Colo.			131,602
Mack Morris	Ariz.	6,707	6,707	141,881
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
New York & Arizona.	Ariz.			2,755
Noonday, G.	Cal.			197,343
Northern Belle, S.	Nev.	23,180	118,860	873,888
*Oneida, G.	Cal.			46,045
*Ontario, S.	Utah.	26,587	110,969	1,570,922
*Ophir, G. S.	Nev.			5,170
Pascoe, S.	Utah.			29,950
Rebellion	"			10,512
Richmond, S. L.	Nev.		25,296	652,251
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.		23,000	410,358
Sonora Con. M. & M. Co	"			3,000
Standard, G.	Cal.	45,300	182,989	1,362,182
*Star, S.	Nev.		7,200	233,755
Stormont, S.	Utah.	12,598	40,291	148,540
*Sullivan, S. L.	Maine.			5,340
Syndicate, G.	Cal.	5,400	22,870	71,987
Tintic M. and M. Co.	Utah.			66,472
*Tip Top, S.	Ariz.			255,029
*Tombstone	"		175,905	1,046,608
*Union Con., G. S.	Nev.			43,100
Vandewater	"			1,700
*Vizina	Ariz.			214,500
*Western	"			866,726
Total amount of shipments to date				$17,688,099

* Official. † Net. *C. Copper, estimated at 17c. G. Gold. S. Silver. L. Lead.*

purchased 140,000 ounces of silver bullion for the San Francisco and New Orleans mints.

Of the 2,300,000 silver dollars coined during the month of August, the Treasury was able to disburse only one fourth of the number. The Treasury now holds nearly 66,000,000 of these dollars. During the month the silver certificates outstanding were increased to the extent of $5,250,000. The total outstanding now is $46,000,000.

Coin Assets of the United States Treasury, Sept. 1.

Gold coin	$82,346,980
Gold bullion	87,148,541
Standard silver dollars	65,948,344
Fractional silver coin	27,042,806
Silver bullion	2,732,862
Gold certificates	3,800
Silver certificates	11,516,432
Nickel and minor coin	611,855

Bullion Receipts at New York.—The bullion received from the mines at the various offices in this city during the week ending September 8th, as compiled from various sources, amounted to $244,682.14, as against $330,223.73 reported for the previous week.

The Gold Flood.—LONDON, Sept. 6.—The *Times*, in its financial article this morning, says: It is quite certain that, thus far, the bullion drain to America is only from one third to one half of that of 1879 and 1880. At this rate, the total for the season would only be from £5,000,000 to £7,500,000; and £2,500,000 having already gone, only from £2,500,000 to £5,000,000 would remain to be sent. This would average about £160,000 to £320,000 weekly, which would not be very formidable, and could easily be met by a moderate advance in the rates for money here. Calculations for the future, however, should not be too confident. It must be remembered that the small drain now may have a great effect, owing to the diminished reserve in the Bank of England.

The *Tribune* of September 9th says regarding the above: Large imports of gold this week have already fully realized the expectations formed when the last weekly returns were received. With $1,600,000 received on Saturday, and $1,254,000 on Wednesday, besides smaller sums, the amount received at this port from August 1st to September 7th, inclusive, was $9,531,649, against $12,860,243 from August 1st to September 4th, 1880. It is difficult to understand, therefore, on what ground the London *Times* states that "the bullion drain to America is thus far only from one third to one half of that of 1879 or 1880." By the end of the week, the actual receipts at this port for six weeks will doubtless have been over $11,000,000, against $17,172,536 for the same weeks in 1880, and $19,188,942 in 1879.

The bullion in the Bank of England has decreased £327,000 during the past week. The weekly statement of the Bank of France shows a decrease of 7,250,000 francs gold, and an increase of 87,500 francs silver.

METALS.

NEW YORK, Friday Evening, Sept. 9.

The business of the week has been without specia feature. The demand in all departments continues good, and the inclination is generally to higher prices.

Copper.—This article is for the present in very good control, and the appearances indicate that it will continue so. The demand is so large as to absorb all the outside copper, which has not been in as great supply as it was supposed it would be, as soon as it comes, and to enable the Lake companies to sell all they desire at current prices. The latter having sold all they wished to sell at 17c., have put the price up to 17⅛c., and 17½c. is said to have been paid. The sales for the week are estimated to have amounted to between 500,000 and 1,000,000 pounds.

Our London advices include Aug. 26th, from which we take the following:

Aug. 22d. The sales, including the 20th, aggregate about 250 tons at £58⅝ net, and £58¾ usual allowances for g. o. bs. Favorite marks brought £59@£59¼ cash, and picked marks to arrive at Havre £61.

Aug. 23d. Sales about 250 tons, at £58⅝ net for g. o. bs., £59 cash named brands; g. o. bs. £59⅛ two months net, £59½ three months less customary brokerage, and best brand short arrival at £59⅝ net. Wallaroo is quoted at £66@£67; Burra, £65@£65½; English Tough Cake, $63@£64; and Select Ingot, £65@£66.

Aug. 24th. Sales about 250 tons, at £59 cash for g. o. bs., £59⅛@59¾ forward delivery, according to prompt, and £60 for short arrival.

Aug. 25th. Chili charters were advised as 450 tons of bars and ingots for England, and 250 tons bars for France. The charters from June 1st to Aug. 31st are placed at 22,352 tons, against 28,456 tons, 34,866, and 32,154 tons during the same periods in 1880, 1879, and 1878 respectively, showing quite a falling off this year. The charters for the month of August have been 2200, 1700, 4100, and 5936 tons respectively during 1881, 1880, 1879, and 1878. The Valparaiso was equal to £59 Liverpool without commission.

The sales for the day amounted to about 350 tons, at £59 for g. o. bs.; favorite marks, £59¼ net; best brands, £60½ 14 days prompt; g. o. bs., forward delivery, £59¼@£59½ net, according to prompt.

Aug. 26th. A small business was done at £58¾, net money, short fixed prompts, and for favorite marks £59¼ cash, with customary allowances, has been paid.

Tin.—The sales have amounted to about 200 tons at 21@21¼c. on spot and to arrive. At the close, 21¼@21½c. is asked, and 21⅛c. is bid. L. & F. is quoted at 21½c. Straits in London is quoted at £91 15s. on spot, and £92 15s. to arrive. At Singapore, the quotation is $28⅞, with exchange at 3s. 9⅜d.

Aug. 22d. Market weaker. Sales 150 tons at 91@90⅝s. cash; 91¼@90½s. 14 days, and 92@91¼s. three months.

Aug. 23d. Market still weak. Sales about 150 tons at 90¼@90⅝s. cash, and 90⅝@90¼s. 14 days.

Aug. 24th. Market more active and stronger. Sales about 200 tons at 90⅝@90⅝s. cash, 90⅝@91s. one month.

Aug. 25th. Market weaker, under pressure to sell. Sales about 175 tons at 90½@90s. cash; 90¾@90¼s. 14 days, 91½@90⅜s. three months, and 89⅜s. all the year in seller's option on giving three days' notice.

Aug. 26th. Sales of about 150 tons, at 89⅞@90⅛s. sharp cash; 90⅛@90¼s. fourteen days; 90⅝@91¼s. three months; and 89¾@90s. all the year, seller's option.

Tin Plates.—About all that can be said relative to these is, that they are quiet. We quote per box as follows: Charcoal tins, Melyn grade, ⅛ cross, $6⅛@$6¼; Allaway grade, $5¾. Charcoal Roofing, Dean grade, $5.37½ for 14 × 20, and $11¼ for 20 × 28; Allaway grade, $5.20@$5¼ for 14 × 20, and $10¾ for 20 × 28. Coke Roofing, B. V. grade, $5 for 14 × 20, and $10½ for 20 × 28. Coke tins, B. V. grade, IC, $5.10@$5⅛, and ICW, $4.60.

Messrs. Robert Crooks & Co., of Liverpool, under date of August 25th, say of tin and terne plates: The market keeps firm, and while buyers do not show much anxiety or disposition to follow the advance, they very quickly pick up any lots offered at a slight reduction off quotations, as noted below. There has been a good deal doing in charcoal tin, and an advance paid in the cheaper steel plates of 3d. per box at the least. Ternes are just steady; while of coke tins there are few sellers under 10s.

Lead.—There has been a business of about 500 tons at 4.95@5c. The market is strong at the close at 5c., without any other special feature. Refined is held at 5¼c. For common, 5c. is bid for a lot in store here.

The San Francisco *Commercial Herald* of September 1st says: The ship David Crockett for New York carried 716,000 pounds pig-lead.

The shipments of lead over the St. Louis & San Francisco Railroad for the week ended August 31st were 290 tons.

Leadville shipped 18,193 tons base bullion during the first half of this year, and 15,172 tons during the first half of 1880.

Spelter and Zinc.—Spelter is quiet, but strong, at 5@5⅛c. The M. & H. Co. has advanced the price of sheet zinc, and at the close 7@7⅛c. was asked.

Antimony.—There is a moderate business doing in this article. We quote, on spot, as follows: Cookson's 14½c., and Hallett's 13¾c.

Quicksilver.—The San Francisco *Commercial Herald* of September 1st says:

The present stock market is sluggish at 37¼@37⅜c. The exports for the week, by sea, were as follows:

	Flasks.	Value.
To Victoria, per Victoria, hence August 25th:		
Huntington, Hopkins & Co.	1	$24
To Sydney per Zealand, hence August 27th:		
Thomas Bell & Co.	200	6,000.
To Auckland per same:		
Hugh Craig	10	287
Williams, Dimond & Co.	25	750
To New York per David Crockett, August 30th:		
J. B. Randol	200	6,000
Totals	436	$13,061
Previously since January 1st, 1881	24,794	718,383
Totals	25,230	$731,444
Totals same period 1880	22,633	683,518
Increase in 1881	2,597	$47,926

Receipts since January 1st, 1881, 36,222 flasks.

Overland shipments from January 1st to August 1st, 1881, 6008 flasks.

IRON MARKET REVIEW.

NEW YORK, Friday Evening, Sept. 9.

The business in iron is going on in such a quiet, legitimate way, that but little material is supplied to write upon. The demand is remarkably good, order-books are crowded, and it does not seem possible that prices can remain as low as they are for any greater length of time. Advices from Great Britain indicate an improving condition there, which will be a great help to this market; for the greatest cause of steady prices of late has been the low prices of foreign iron, which would have come here in large quantities had our prices been advanced a little.

American Pig.—We only note sales of 1000 tons of Nos. 1 and 2 Foundry Thomas iron at $24@$22 respectively. We can say to our readers, however, that they are not likely to get any more at that price just now. The fact is, that the demand is so great that the best brands have become very scarce. We quote No. 1 Foundry at $24½@$25½; No. 2, $22½@$23; and Forge, $21.

Scotch Pig.—The sales for the week amount to from 1200 to 1500 tons on private terms. At last it is indicated that a turn has come in the Glasgow market, and those best informed are unwilling sellers at present prices. The market is advancing, while the production both of Scotch and Middlesbrough is to undergo a curtailment. Freights are still strong, and engagements have been made for all vessel room for several months ahead. It

is difficult to name prices, as several brands are practically held out of the market at the close. We quote Eglinton at $21½@$22; Gartsherrie, $23½. The arrivals are all absorbed as fast as they come. English iron is very quiet at $19. Bessemer is also very quiet at $24½@$25.

Messrs. John E. Swan & Brothers, of Glasgow, under date of August 24th, report 119 furnaces in blast, as against 32 at the same time last year. The quantity of iron in Connal & Co.'s stores was 577,232 tons, an increase of 1296 tons for the week. The shipments show a decrease since Christmas of 110,102 tons, as compared with the shipments to the same date in 1880. The imports of Middlesbrough pig-iron for the same period show an increase of 32,431 tons. The following were the quotations of the leading brands of No. 1 pig-iron: Gartsherrie, 54s.; Coltness, 55s. 6d.; Langloan, 50s.; Summerlee, 54s. 6d.; Carnbroe, 50s.; Glengarnock, 50s. 6d.; Eglinton, 46s. 9d. Middlesbrough pig-iron was quoted as follows, f. o. b.: No. 1 Foundry, 41s.; No. 2, 39s.; No. 3, 37s.; No. 4, 36s. 6d.; No. 4 Forge, 36s.

Messrs. J. Berger Spence & Co., of Liverpool, under date of August 27th, say: As was the case last week, business in the pig-iron trade has been slow and uninteresting and devoid of any features calling for special comment. Although Glasgow quotations were firm and promising on Monday last, they had no stability and soon gave way. This attracted buyers more freely, and a fairly good trade was done, but the continuance of the weakness destroyed confidence in a recovery. In the absence of any speculative support, values have continued to decline up to time of writing, when warrants stand at 46s. In the Middlesbrough District, there is practically no alteration. Buyers have been extremely reticent respecting the full measure of their requirements, thus rendering the market excessively dull. There can be no doubt a large number of orders are being purposely held off the market for the present, particularly by merchants, in hopes of terms more advantageous to themselves being obtained. This action can not be wondered at in the presence of the tremendous and increasing stocks, the sustained production and the decrease of exports from the port. Prices, however, are nominally unchanged and rule the same as last week, namely, 39s. 6d., 36s. 6d., and 35s. 6d., for Nos. 1, 2, and 3, respectively. Hematites have been in increased request, and in some cases makers have secured an advance. This is as yet by no means general, though the inquiries to bond give a healthier tone to the market. Lancashire iron is unchanged in its inactivity.

Rails.—A sale of 700 tons of foreign Bessemer rails is said to have exhausted the spot supply. Outside of this, we learn of no business. It is said that $58 is offered for large blocks of domestic steel rails for next year's delivery, and that in many cases $60 is asked. We quote for next year, $59@$60 at mills, and for foreign $61½@$63. The foreign market is very strong. Iron rails are very quiet, although the mills are well supplied with orders. Foreign here are quoted at $48@$49. Domestic at mills are quoted at $47½@$49.

Old Rails.—The sales of Ts. reported are 1000 tons here, at $27½, and 1600 tons in Philadelphia at same price. The sales of D. Hs. amount to 2000 tons at $30. We quote at $27½@$28 for Ts., and $30 for D. Hs.

Wrought Scrap.—A little business has been done at $27½ to arrive, but at the close $28 is asked, while from yard the price is $30.

The trade will learn with regret of the death of Mr. Seth Wilkes, of the firm of Messrs. James Williamson & Co., which occurred on the 3d inst. Mr. Wilkes was over sixty-nine years of age, and was for over twenty-five years a member of this firm, which is one the oldest in the of trade in this city.

We publish the following letters from our regular correspondents:

Baltimore. Sept. 3.

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

The iron market is without material change. Demand continues fair, and prices unchanged. We quote:

Balt. Char.	$36.00@$38.00	Anth. No. 3.	$21.00@$22.00
Va. "	36.00@ 38.00	Mot. and Wh.	19.00@ 21.00
Anth. No. 1.	25.00@ 26.00	Cl. C. B. Bl'om	65.00@ 70.00
" " 2.	23.00@ 24.00	Refined Bl'm.	55.00@ 60.00

Cincinnati. Sept. 7.

[Specially reported by JACOB TRABER & Co.]

A very good demand for all grades of pig-iron continues at full prices.

Louisville. Sept. 6.

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

The market is quite firm, and there is a considerable inquiry for mill irons. There have been no large sales since our last report. Prices remain unchanged, and 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

Milwaukee. Sept. 1.

[Specially reported by R. P. ELMORE & Co.]

The market is buoyant, and the supply equal to the demand, giving a steady market. The advance in foreign and eastern made irons has not given the advance on Lake Superior irons that manufacturers of this iron looked for.

CHARCOAL IRONS.

No. 1 Lake Superior per gross ton	$29.50@
" 2 " " " "	29.00@
" 3 " " " "	31.00@
" 4, 5, and 6 " " " "	32.00@
No. 1 Am. S., " " " (Foundry)	26.50@
" 2 " " " "	25.50@
" " Silvery, " "	23.00@
Sum. Imp. Scotch, " "	28.50@

F. o. b. cars here; four months.

Richmond. Sept. 5.

[Specially reported by ASA SNYDER.]

The pig-iron market for the current week has been fairly active and firm at the following prices:

Scotch Pig-Iron		$23.00@$25.00
Anthracite Pig-Iron	No. 1	23.00@ 25.00
" "	No. 2	21.50@ 23.50
" "	No. 3	20.50@ 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		34.00@ 36.00
Old Rails		27.00@ 29.00
Wrought Scrap No. 1		22 50@ 24.00
Cast Machinery Scrap		20.00@ 21.00
Richmond Refined Bar-Iron		@ .02
Horse-Shoes (Tredegar)		@ 4.00
Mule " "		@ 5.00

St. Louis. Sept. 3.

[Specially reported by HOFFER, PLUMB & Co.]

Under the stimulus of the good demand which has existed lately, makers' views have advanced somewhat. Prices now are:

HOT BLAST CHARCOAL.

Missouri	$27.00@$27.50
Southern	26.00@ 26.50
Ohio	28.00@ 30.00

COKE AND COAL.

Missouri	$26.00@$27.00
Southern	24.00@ 25.00
Ohio	25.00@ 26.50

MILL IRONS.

Cold short	$21.50@$22.00
Red short	24.00@ 25.00

CAR-WHEEL AND MALLEABLE IRONS.

Missouri	$28.00@$30.00
Southern	35.00@ 38.00
Ohio	32.00@ 42.00

San Francisco. Sept. 1.

The Oregon from Astoria brought 47 tons pig-iron. Of this sales from first hands are very light. Some 100 tons Eglinton, ex ship Khokand, sold at $24. In the absence of contracts, few of the foundries are running on full time. Very little foreign iron is imported. We quote pig-iron as follows:

	To arrive.	Spot lots.
Eglinton	$24.00	$24.00
Glengarnock	25.00	25.50
Clay Lane	25.00	28.00
American Soft	30.00	30.00
American Hard	25.00	27.00
Oregon	25.00	25.00
Shotts, No. 1	27.50	28.00
Clipper Gap	25.00	25.00

—*Commercial Herald.*

Philadelphia, Pa. Sept. 9.

The iron market has not materially changed. Pig-iron is somewhat scarce and prices are very firm at $25 for No. 1, $22.50 for No. 2, and $20@21 for Gray Forge. The period for large orders has passed, and consnmers who are not fully supplied are quietly buying in a small way of the supply of ordinary grades. Some difficulty is found occasionally to keep in mill brands. English is more active at $19.50 for No. 3, $19 for No. 4, $24@$25 for Bessemer; Scotch, $21 @$23. Muck bars are quite scarce, and demand is active; 2000 tons sold at $41, and several small lots brought $42. Charcoal blooms are not to be had. The works are refusing orders this week, and quotations are nominal. Bar is very firm, and much business offered within a few days has been declined. Stores command 2·7c., and mills, 2·5@2·6c.; but the old difficulty exists as to the placing of orders. Structural shapes are as follows: 2·7c. for angles; 3·3c. for beams; 3·4c. for channels; universal plates, 3½c. Heavy New York orders were declined. Place orders are in the same condition. There is an abundance of business, but deliveries can not be promised. The sheet mills are overcrowded, and numerous inquiries are around, but none were placed. The wrought pipe mills report a fair increase of business. An upward tendency exists for all kinds of finished and construction iron, because of the rush of orders and the far oversold condition of the mills. Over 100,000 tons steel rails were sold last week at $56, and 100,000 tons more for narrow-gauge roads will be placed in a short time. Two large steel rail orders went abroad this week for winter delivery at $61. Old rails are declining, and $27 is bid. Scrap is firm and very active, $30@$32 for choice, $21 for machinery.

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

LONDON, E. C., Aug. 25.

STEEL RAILS.—The position of the market is unchanged, prices remaining the same as last reported. There are a few American inquiries for early spring shipments to New York, etc., and our quotations have been £6 13s. @£6 15s. per ton, c. i. f., without leading to business. Meantime, £6 2s. 6d. per ton, f. o. b. Wales, has again been paid for October shipment.

IRON RAILS.—Nominally £5 7s. 6d. per ton, net cash; but buyers want an earlier delivery than can be given, so we can not report any transactions.

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

OLD RAILS.—Old D. Hs. are still in request for Philadelphia and Baltimore, but no business can be done in them for the reasons stated in our last issue. Meantime, O. Flanges are in better demand, showing buyers at 80s., c. i. f., sellers 82s. 6d., and even 85s. asked. The stocks from continental ports are greatly reduced by a sudden demand on French account.

HEAVY WROUGHT SCRAP-IRON.—Firm, and business done at 74s. per ton, c. i. f. to New York, weight and quality approved before shipment.

OLD RAILROAD LEAF SPRING STEEL.—£6 per ton, and very little offering.

OLD CAST-IRON RAILROAD CHAIRS.—Unchanged.

STEEL BLOOMS 7" × 7" AND UPWARD.—£5 10s.@£5 15s. per ton for November and December shipment; orders still unplaced for September and October shipments.

BESSEMER PIG-IRON, Nos. 1, 2, AND 3.—57s. 6d. per ton buyers; 60s. asked in many quarters, and the market well sustained.

SCOTCH PIG-IRON.—Connal's Warrants to-day 46s. 3d.@46s. 6d.

MIDDLESBROUGH PIG-IRON, No. 3.—36s. 9d.@37s.

COAL TRADE REVIEW.

NEW YORK, Friday Evening, Sept. 9.

Anthracite.

The situation in the anthracite coal trade is but little changed from what it has been for several weeks. There is still a very large business doing, and greater transportation facilities would increase this. Prices are, under the circumstances, well maintained, although undercutting is the rule. The Delaware & Hudson Canal Company has taken advantage of an old resort for emergencies, and is offering "off-colored" coal at a concession. This, of course, is very demoralizing, and an idea is prevalent that good and bad coal are moved on this basis. The result is, that there is a more general inclination to cut prices.

The scarcity of cars for the West forces more coal on this market, while a scarcity of vessels here prevents its rapid movement. The Western market is very comfortably supplied with coal at present, but there is still room for a large quantity of coal. The demand here, outside of orders already booked, is not large.

The scarcity of water at the mines is curtailing production to a considerable extent, while it is increasing the demand for coal with manufacturing concerns dependent on water-power.

Most of the companies complain of a scarcity of labor; and although there is no evidence of a movement to demand an advance of wages, the miners and laborers are exceedingly independent and in a position to be easily aroused.

There is nothing to indicate that there will be a curtailment of production before the position of the coal trade becomes quite serious, and from the outlook at present this may not occur until near December. There will be a very large amount of coal required during the rest of the year; but if prices continue to show weakness, there will be a movement to withhold orders as much as possible.

Bituminous.

There is no improvement in the demand for this coal or in prices. The Chesapeake & Ohio Canal is

now so low as to be of but little use to shippers. Cars are very scarce on the Pennsylvania Railroad, and not in full supply on the Baltimore & Ohio Railroad.

We publish the following letters from our regular correspondents:

Baltimore. Sept. 5.

[Specially reported.]

Lykens Valley was advanced fifteen cents per ton on September 1st. No change in prices of other coals.

Wholesale prices per 2240 lbs.

ANTHRACITE COAL.

Hard White Ash, Free Burning, and Shamokin.

	In cars at N. C. RR. depot.
Lump and Steamboat	$5.15
Broken	4.35
Egg	4.50
Stove	4.65
Chestnut	4.35
Lykens Valley Red Ash.	
Broken	$5.45
Egg	5.45
Stove	5.45
Chestnut	5.15

Afloat, per cargo, 15c. less than car rates; to trade in yard or wharf, 75c. additional.

Bituminous.

George's Creek, or Cumberland, f. o. b. Locust Point ..... $3.60@$3.75

Milwaukee. Sept. 1.

[Specially reported by R. P. ELMORE & Co.]

There is a firm market, with good sales, for this season of the year. Good supplies.

Below please find prices of coal for present delivery:

Blossburg	$5.00	Briar Hill	$7.00
Cumberland	5.50	Straitsville (Steam)	5.50
Lehigh lump	8.50	Illinois "	3 75
Prepared (all sizes)	7.50		

Per ton net. Terms cash.

New Orleans. Sept. 1.

[Specially reported by C. A. MILTENBERGER & Co.]

We can report a material advance in prices of Pittsburg coal since our last, superinduced by the active demand for the month of August and the short stock on hand, added to the uncertainty of receiving any fresh supplies from Pittsburg, owing to the unnavigable condition of the Ohio River. The stock is even less than at same time last year, when we had 120 boats and 2 barges coal on hand, and no supplies reached this port from the mines until December.

Coal on hand in this city September 1st: Pittsburg coal, 68 boats and 3 French Creeks. Consumption during August, Pittsburg coal, 38 boats and 4 barges. Arrivals during August, none.

PITTSBURG COAL.

At wholesale	47½@50c. per bbl.
To steamboats	60c. "
" factories, etc	60c. "
" families	70c. "
In hogsheads	$7.00 per hhd.

ANTHRACITE COAL.

At wholesale	$7.00@$8.00 per ton.
" retail	9.50@10.00 "

ALABAMA COAL.

At retail	55@60c. per bbl.

San Francisco. Sept. 1.

COAL.—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		

There is evidently a weakening in the city retailers price, as there should be, Australian in 100 tons lot now selling at $6.37½, and Scotch and English in same proportion. Wellington alone retailing now at $11.50 delivered, while Seattle can be had at $2 less. Imports during the week include the following cargoes: Arcata, 500 tons Coos Bay; Lizzie Williams, 1343 tons Seattle; Harry Douglass, 1650 tons Cardiff; Hylton Castle, 1500 tons Wellington; Star of the Sea, 1920 tons Sydney; ship New York, 2700 tons Liverpool; Dilbhur, 300 tons London. Cargo prices remain about the same as last week. A small cargo of Australian (spot) sold at $6.37½. Offerings of cargoes of foreign coals are freely made at quoted prices. Buyers are somewhat shy, fearing a continuance of high outward grain freights, which always insures low-priced coals. Still prices are now marked so low that no mistakes can be made by present purchases. Lehigh coals still sustain their high figures. The Willamette brings 3000 tons Seattle, and the Empire, from Tacoma, 840 tons Carbon Hill. The ship Charger, from Liverpool, brings 1800 tons. We submit the following schedule of rates:

	Prices to arrive.	Spot rates.
Australian	$6.12½@$6.25	$6.25@$6.50
Liverpool Steam	5.75 @ 6.50	6.00@ ——
West Hartley	6.25 @ 6.50	6.50@ ——
Scotch Splint	6.25 @ 6.50	6.50@ ——
Lehigh Lump	12.50 @13.00	15.00@ ——
Cumberland bulk	10.00 @10.25	10.50@ ——
do. cask	12.00 @12.25	12.00@ ——
Egg Hard	11.25 @11.75	14.00@ ——
Welsh Hartley	5.75 @ 6.00	6 00@ ——
Cardiff	6.25 @ 6.50	6.50@ ——

—*Commercial Herald.*

STATISTICS OF COAL PRODUCTION.

The Production of Coke for the week ending Aug. 27th, and year from Jan. 1st:

Tons of 2000 lbs.	Week.	Year.
Penn. RR. (Alleghany Region)	1,486	64,729
West Penn RR.	1,798	76,854
Southwest Penn. RR.	24,258	927,954
Penn. & Westmoreland Region, Pa. RR.	3,916	125,674
Pittsburg, Penn. RR.	7,744	397,055
Snow Shoe (Clearfield Region)	329	6,503
Total	39,531	1,598,769

Comparative statement of the production of anthracite coal for the week ending Sept. 3d, and years from January 1st:

TONS OF 2240 LBS.	1881. Week.	1881. Year.	1880. Week.	1880. Year.
Wyoming Region.				
D. & H. Canal Co.	77,877	2,333,341	77,119	1,889,437
D. L. & W. RR. Co.	91,440	2,769,186	97,055	2,174,595
Penn. Coal Co.	33,330	879,857	32,584	670,358
L. V. RR. Co.	17,372	744,384	38,886	664,254
P. & N. Y. RR. Co.	2,723	62,354	1,474	23,224
C. RR. of N. J.	*13,558	1,526,331	44,090	966,874
Penna. Canal Co.	15,586	277,975	14,310	281,861
	251,886	8,593,428	305,518	6,670,603
Lehigh Region.				
L. V. RR. Co.	94,730	2,877,480	119,531	2,102,268
C. RR. of N. J.	*16,624	1,402,284	59,408	1,252,973
S. H. & W. B. RR.		7,876		6,831
	111,354	4,287,640	178,999	3,362,072
Schuylkill Region.				
P. & R. RR. Co	159,978	4,428,827	180,087	3,642,919
Shamokin & Lykens Val.	23,403	681,800		511,462
	183,381	5,110,627	180,087	4,154,381
Sullivan Region.				
St Linc&Sul.RR.Co.	1,432	42,226	1,115	29,398
Total	548,053	18,033,921	665,719	14,216,454
Increase		3,817,467		
Decrease	117,666			

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.....10,344,956 tons.
" " " " 1877.....12,831,629 "
" " " " 1878.....10,737,415 "
" " " " 1879.....16,972,754 "

* For the two days ending Sept. 2d.

The decrease in shipments of Cumberland Coal, over the Cumberland Branch and Cumberland & Pennsylvania railroads, amounts to 139,891 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 Sept. 3d, amounted to 5906 tons, making a total of 87,368 tons since the beginning of transportation.

The Production of Bituminous Coal for the week ending Aug. 27th was as follows:

Tons of 2000 lbs., unless otherwise designated.

	Week. Tons.	Year. Tons.
Cumberland Region, Md.		
*Tons of 2240 lbs	30,080	1,365,331
Barclay Region, Pa.		
*Barclay RR., tons of 2240 lbs	10,544	282,903
Broad Top Region, Pa.		
Huntingdon & Broad Top RR.	3,313	137,929
East Broad Top	1,945	51,050
Clearfield Region, Pa.		
Snow Shoe	2,121	67,755
Tyrone and Clearfield	44,815	1,554,962
Alleghany Region, Pa.		
Pennsylvania RR.	5,334	174,519
Pittsburg Region Pa.		
West Penn RR.	4,928	196,656
Southwest Penn. RR.	346	17,974
Penn & Westmoreland gas-coal, Pa. RR.	25,122	575,441
Pennsylvania RR.	18,082	408,791

* For the week ending Sept. 3d.

SPECIAL NOTICES.

DIVIDENDS.

INDIAN QUEEN MINING AND MILLING CO.—The Regular Monthly Dividend (No. 16) from the net earnings of the mine for August, of

TWO AND A HALF PER CENT

on the par value of the stock, will be paid September 19th, 1881, at the office of the Company, No. 7 Exchange Place, Boston. Transfer-books will close the 15th inst., and reopen on the 20th inst. C. C. LANE, Secretary.
MICAH DYER, Jr., Treasurer.

OFFICE OF THE GREEN MOUNTAIN GOLD MINING COMPANY, of Colorado, No. 18 Wall Street, New York, August 13th, 1881.

DIVIDEND NO. 26.

The Board of Trustees have this day declared a dividend of SEVEN AND A HALF CENTS per share for the month of July, on the capital stock of this company, payable on the 26th inst.

Transfer-books close on the 18th, and reopen on the 27th of August. J. JAY PARDEE, Secretary

OFFICE ST. JOSEPH LEAD COMPANY,
152 BROADWAY.
NEW YORK, Aug. 23, 1881.

A quarterly dividend of two (2) per cent on the capital stock of the St. Joseph Lead Company has been declared, payable on and after September 6th, 1881.

The transfer-books will be closed September 1st, and reopened September 6th, 1881.

HUGH N. CAMP, Treasurer.

OFFICE OF THE STARR-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 THE TOMBSTONE MILL AND MINING COMPANY,
432 WALNUT STREET, PHILADELPHIA, Aug. 31, 1881.
EIGHTEENTH DIVIDEND.

The Executive Committee of the Board of Directors of this Company have this day declared the regular Monthly Dividend of $50,000; being ten cents on each share of the capital stock of the Company; payable on and after September 10th, at this office. Transfer-books closed from 10th to 15th inclusive.

GEORGE BURNHAM, President.
W. J. CHEYNEY, Secretary.

DIVIDENDS.

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. 6.

NEW YORK, Sept. 1, 1881.

The Board of Directors have this day declared a monthly dividend of Fifty Thousand Dollars, payable on and after Sept. 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, Sept. 2, 1881.

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

SEVENTY-FIVE CENTS PER SHARE,

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

Transfer-books close Sept. 5th, and open on 13th inst.
M. R. COOK, Vice-President.