AMERICAN P Engineering, Geology, Mineralogy, Metallurgy, Chemistry, etc.

VOLUME VI.-Number 4. New Series.

# NEW YORK, JULY 25, 1868.

WEIGHING SCALES.

The manufacture of scales, as an exclusive business, was nnknown until within, comparatively speaking, a few years. It was originated by the skill and ingenuity of some enterprising individuals who have unceasingly devoted their time and energies towards perfecting various descriptions of scales for nnmerous pnrposes. The principal manufacturers now own extensive workshops, and employ a large number of hauds;

their products are found in almost every store and warehouse. In the year 1858, Mr. ELNATHAN SAMPson invented a plan for an improved scale, for which he received letters patent from the United States the same year. He received other letters patent in the years 1859 and 1862. These patents were for valnable improvements. On the 31st December, 1866, the company assigned, conveyed, transferred, and delivered to Mr. A. C. HITCHCOCK all its right, title, and interest in Mr. Sampson's inventions, as well as in all the patents, and machinery used by the company at its works. The Sampson Scale Company was incorporated under the laws of the State of New York, with a capitalisnificient to purchase said patents, machinery and other property from Mr. Hitchcock, to carry on the manufacture of scales of all kinds. The annexed engravings respresent the arrangement of levers, connecting rods, and platform, as constructed by this company for hay, coal, and cattle scales. Fig. 1 is an exterior view of such scales. Fig. 2 is a diagram showing the combination for platform scales. Fig. 3 shows the foundation, standard, bed-plate, links, yoke, lever and adjustment used in the Sampson combination for weighing scales. It will be observed that the levers cannot spring, and that the main levers are vertical and very short ; their greatest length in the hay, coal and cattle scales is nine inches, instead of nine to fifteen feet, as used in others, where the springing of the levers is the cause of much inaccuracy. These scales have uo check-rods that would interfere with the free action of the platform; nor balls, which when frozen in-as frequently happens in winterinterfere with the free action of the platform, and are causes of inaccuracy. The largest scales indicate weights to the fraction of a pound, and the weighing beam marks the tons, hundreds, pounds and fractions of a pound, at one and the same time. The weighing beam may be immediately at the side of the platform, or removed in any direction to any distance from it, and the scales may be fitted to a larger or smaller space simply by lengthening or shortening the conuecting rods. The parts necessary for a six ton scale can be packed in a box one foot square, and five feet long, ready for shipment. The nicety and sensitiveuess of balance, facility in weighing and adjustment are obtained in these scales, by the use of pivot edges. and by means of a nut and screw attached to the levers, as seen in Fig. 3, and other excellent devices ; but the whole of the machinery is very simple, and may be seen by simply lifting a plank at each end of the platform. It consists only of the levers -- fonr in number-with their yokes and links, and the hori-

ounds, or more than 18,000,000,000 tons. The Golos asserts that the mineral wealth of Russia far exceeds that of England. and at the same rate of production would last for two centuries after the English mines were exhausted.

Experiments with Dynamite by its Inventor.

SAMPSON WEIGHING SCALES-Fig. 1. Fig. 2.

zontal iron rods which connect them with each other and cess in the hands of our miners and quarrymen. The follow-with the weighing hear One of these levers with the motor of the second descent in the hands of our miners and quarryment. The follow-in San Joaquin county. That paper says: The specimen be-in San Joaquin county. That paper says: The specimen bewith the weighing beam. One of these levers, with the greatest ing account of some recent interesting experiments by the inlength, as has been said, is only nine inches, is placed verti- ventor himself, Mr. Nobel, of Hamburg, which we copy from

aggregate quantity of which is estimated at 1,234,947,375,000 place. It was laid on the end of a plank, and the percussion cap, on the end of a fuse, was made to explode in contact with the loose powder. The plank itself was shattered with a very loud report. Its power as a blasting agent was tested on the solid whinstone rock. One bore hole was made in the face of the rock, fourteen feet deep, fifteen feet from the face at right angles, and fifteen feet from the surface of the ground. The diameter of the bore was one and a half inch at bottom This new blasting powedr is meeting with flattering suc- This was charged with six pounds weight of the dynamite,

St A Year in Advance

and filled about four feet of the hole. The outer portion of the bore hole was stemmed loosely with sand. About 4,000 cubic feet of rock were actually displaced, and perhaps twice as much loosened. Another blast was made at the bottom, on the face of the quarry wall, nine feet six inches deep, and about one inch and a half in diameter at the bottom, which was charged with six pounds of dynamite; and this in what the foreman of the quarry had selected as the strongest rock that the quarry could supply him. The rock iu this case was ruptured from the bottom to the very top, between forty and fifty feet in height. So tho roughly was it broken that the quarrymen had simply to use the crowbars to remove themasses of rock. The workmen all said that gaupowder could not have produced such an effect. The utility of the dynamite for distress signals at sea was tested twice; in the first case with seven ounces, and in' the second with about one pound into a cartridge; suspended from a cord stretched across the quarry. On both occasions the report was very loud, the second of the signals being heard reverberating into the town. The power of the dynamite was also tested upon masses of wrought iron successfully. A large mass of wrought iron was fixed vertically in the ground, the top of which was nine inches in diameter, and distinctly convex. About five pounds of dynamite were placed upon the top, and an explosion effected. The result was the production of a distinct concavity, and an increase in diameter of nearly three-quarters of an inch, and ruptured all over the surface. In order to show the applicability of the dynamite for charging shells to be used with destructive effect upon ireu-clads or casemated fortresses, a wooden cylinder with a three inch bore was charged with dynamite and laid upon the side horizontally. Upon the bottom end of the cylinder was tacked a disc of tin plate. Opposite the tin plate, and about eighteen inches from it, were placed two pieces of boiler, three-eighths of an inch thick-being a cutting from some plates supplied by the Parkhead forge for Government contract. The strength of it, per specification, was twenty-four tons per square inch. The result was that with abont eight ounces of dynamite, a piece of tin plate was projected through both pieces of boiler plate. Great satisfac tion was expressed at the result of the experiments, both by the many practical persons who were present on the ground as visitors, and by the proprietors of the quarry and their workmen.

California Kaolin.

Kaolin, according to the Stockton Independent, has been found fore us is a cube five by eight inches, weighing nearly three e instre, without fracture, and

form. As a consequence, these scales require only a very shalest at this time. The experiments took place in Messrs. low pit, as compared with that required by others, where it Faill's Ladywell quarry, and in the presence of a large numis necessary to stiffen the long levers with trusses, which, in ber of civil and mechanical engineers, contractors and quarryturn, make a deep excavation necessary for setting up the men. Mr. Nobel commenced by showing the dynamite itself scale. Their portability, adaptability and compactness render to be perfectly safe in use, by cutting a cartridge in two and them extremely convenient for miners, as all the parts of a moderate size platform scale can be packed in small compass other half was shown to contain explosive material by the orand carried on a mule's back. They are easily transported, dinary mode of firing it by percussion cap. Another experiset up and adjusted in any locality.

#### Coal in Russia

Russia. The mines of one district alone are, according to the St. Petersburg journal Golos, capable of supplying annually ground, but no explosion fellowed. There was another ex-400,000 tons for 150 to 200 years. Since 1864 there have been surveyed in the valley of the Donj forty-four, beds, the

cally, with its yokes and links, under each corner of the plat- the Glasgow Journal, will no doubt be read with great interburning one part, holding it in the hand all the time. The ment illustrating how safely it might be used, was by throwing from the most elevated part of the quarry, about fifty or sixty feet high, a box filled with the powder. The box broke, and the dynamite was scattered about, but no explosion followed Large and important discoveries of coal have been made in from the concussion. Another box, equally charged in the same way, was burned in a large open fire kindled on the ground, but no explosion followed. There was another ex-periment to illustrate the fact that the material might be ex-ploded without enclosing it in a cartridge case or any confined bed of iron ore, equal to Oswego and quite as extensive.

Fig. 3.

ing an almost insensible grit. It is pure kaolin, a silicate of alumina, and is found in many places in California, and beds of it occur in many places in San Joaquin county. The present specimen was taken from this county, but from what part onr informaut will not disclose, and is found as a solid body of unknown extent, in a considerable hill. It can be quarried from thence in a soft state in immence bodies, becomes hard on exposure, and probably might be reudered available for building purposes, if not found valuable for the purposes of manufacture. The famous polishing powder for jewelry, known as electro-silicon, introduced and sold by hnuareds of tons, is an impurer description of kaolin than this, and is found diffused through silicious rocks.

### New Copper Mines in Oregon.

It is said that the copper mines recently found in Clackamas

Made by J. RUNSELL & CU., Green River Works, Gre

# AMERICAN JOURNAL OF MINING.

# Practical Letters.

[WRITTEN FOR THE AMERICAN JOURNAL OF MINING.] ON THE VENTILATION OF COAL MINES. BY J. W. HARDEN, M. E.

"The opinions advanced by your contributor, Mr. HARDEN, as to the relative efficiency of the various means employed to assist ven-tilation in mines, are somewhat behind the present practice of min-ing engineers."

The foregoing is made the preface to letters by a contributer of yours, who deems it may not be uninteresting to some of your readers " to see a comparison made of the results obtained in actual practice, by the different ventilating agents," whereby they will be enabled to judge of the relative value, as a means of permanent ventilation, of the steam jet, the furnace, the fan, and the air pumps, and in corroboration of the view with which he sets ont, directs attention to " minuteness of description " on my part, of the steam jet, and silence on the air pump. It may not be "uninteresting," also, to some of your readers to see a review made of those comparisons.

The "examples" of furnace and steam jet ventilation al-Inded to, are reconnted, and the figures and formnlas given in published works, but they are not, as our friend tells his readers, "the most favorable examples on record." The experiments, of which the examples are the result, have been matters of history since 1852, and are of value under conditions to which they apply, yet without some practical knowledge whereby to estimate the value of experiments made and resnlts given, by men, who, however they may repudiate the fact, have made themselves partisans to oue side of a question, the effect to the reader is an imbibing of their prejudices, and if he is a teacher of others, is but an indifferent one to those who have not the means of better informing themselves, and it is manifest that your contributor has taken his cue from the tone of the author he reads, and it is not improbable that he has drawn his conclusions stronger than even he-his anthority-intended he should.

When I wrote the articles to which your contributor has referred, it was with an impression that the employment of otherwise unprofitable leisure in an endeavor to convey to managers of mines, information of a practical character, on a subject some of them had appeared to me insufficiently acquainted with, would not be misapplied. It was not for the educated engineer that 1 wrote, and your contributor could hardly have been unaware of that fact. To have talked of "nnits of measurement," and "co-efficients of friction," to many of the inside managers I had met with, would have been to them just so much Greek.

In ascribing to one pound of coal per minute, the power of eight and a half horses, by which to compare the work done in a colliery, your contributor is rather in advance of " the present practice of mining engineers." Would not the power of six horses to the lb., be in excess of the average? In England it would, and it is there he cites his cases from. We know there are "well constructed boilers" that do that, and we read of others doing more, but they will not be found in a colliery.

That "the amount of air put in motion is not of itself any criterion of the effectiveness of the machine " has been shown in my former letters, but the enormous quantities said to be "circulated through mines by natural ventilation alone" in the "examples" alluded to, will not be due to that cause In the instances adduced as demonstrating the comalone. perative utility of the furnace, an element has been turned to the "account" of natural ventilation which does not belong to it. At the Hetton colliery we are told that from 100,000 to 127,000 feet per minute is attributed to that cause, but which of the two amounts our friend associates with the instance given, he does not tell us. Let me, then, turn to the papers of the late MR. NICHOLAS WOOD and others, read before the "North of England Institute of Mining Engineers,' from whose "Transactions" your contributor's authority has met with considerable aid in the compilation of his book.

The experiments alluded to, were made by Mr. Wood at th Hetton, Tyne Main, and Killingworth collieries in 1852, and are given by that gentleman in substance, as follows :

" That part of Hetton colliery to which the experiments were confined, in one seam-the Hutton-covers an area of 2,000 acres, and consists of coal partially worked, and standing pillars, and goaf where the coal has been entirely worked away. It has a total length of roads, air conrses and working places, through which the air travels, of more than 97 miles to be accurate 97 miles and 320 yards. It has three shafts, two down casts of the depths of 900 feet and 1,080 feet, with areas of 98 feet and 58 feet respectively, and one npcast 900 feet deep, and 153.93 feet area, sny 154 feet. The ventilating power is obtained from three furnaces; one 9 feet wide, the other two, 8 feet each-all are 4 feet in length of bars, and from the fires under two boilers; but in the experiments on the furnaces we are about to describe, the boiler fires were extinguishished. The air ventilating the pit is divided into five main currents, and subdivided into thirty five splits-being subdivided nccording to the requirements of the division each current sapplies. 'The distance over which the air travelled in these divisions, varied from five to forty-three miles. The current of air passing through each, varied from 30,000 to 56,000 cubic feet. The air courses varied in area from 30 to 50 feet ; the

average area being 37.46 feet, and the highest velocity at be proportionately reduced by using these scales. The folwhich the air travelled through them was four feet per second ; the lowest 2.34-the mean being 3.11 feet per second.

The experiments on fnrnace ventilation were commenced at 8 P. M. of the 26th of November, and continued up to 8 P. M. of the 27th ; the attendance was constant ; observations were made and recorded hoarly. The mean temperature of the external atmosphere was 44 to 46° fahr. In the main retnrn at 100 feet from the furnaces, 68°; at 330 feet from the bottom in the npcast, 130°. The aggregate quantity of the air measured in the returns was 208,466 cubic feet ; 8,978 feet of which entered the upcast at 100 feet from the bottom. The consumption of coal was 27,160 lbs. in the twenty-four hours, equal to 18.86 lbs. per minute, and 11,066 cubic feet of air per minute for each lb. of coal consumed, with a resistance measured by the water guage of 1.20 inches.

In the foregoing particulars we have data whereby to estimate for ourselves the value of the work done by these three fnrnaces, and we will do so ; but first it will be necessary to make more intelligible what natural ventilation is in such a case, where it begins, and at what point it ceases to be such, and to what amount the total quantity is indebted to it, where the farnace or other artificial means are in operation. It will be necessary also to look at the motive power of the furnace again.

### TO BE CONTINUED.

# [WRITTEN FOR THE AMERICAN JOURNAL OF MINING ] LESSONS IN MECHANICAL DRAWING-No. VII.

# BY T. P. PEMBERTON.

# DRAWING TOOLS AND INSTRUMENTS.

The draftsman has always to fornish himself with a complete set of scales and rules, by which he can reduce the dinensions of work to scale drawings of a convenient size. With shipbuilders and some engineers it is quite a common practice to have a model room, and there, by means of chalk

> lines, long straightedges and wooden templates, to lay out much of the work full size. As this plan is inadmissible in some cases, and would be inconvenient in others. it is usual to make drawings one-half, one-fourth, one-sixth orone-eighth size, etc., of the work when completed by the workmen. We will suppose a marine engine or a locomotive engine has been completed in some engine shop by the machinists, and it is required that a correct copy of the same should be made on

paper, that will give all the dimensions so correctly as to enable the constructor to duplicate that particular engine in all its numerous details--how is such a copy made

The draftsman sketches off with pen or pencil the outlines of all the different parts, either in detail, or when together, in relative working order. For instance, different views and sections of the cylinder may be taken first, and then the piston, piston-rod, guides, and connecting-rod, and so on. The exact lengths and diameters are taken of each piece. To get these the two-feet rule and iron callipers are principally used. The former, which is familiarly known to all, gives the length, breadth or thickness of solids with plane snrfaces in feet and inches and fractions of an inch, and the latter, which are made of different sizes, give the exact diameters of shafts, cylinders, nuts, journals, and all parts that are circular and that have been turned in a lathe. For taking dimensions and diameters not over three or four inches, some very nent callipers have recently been invented. The above engraving represents them. They are spring callipers, with two small nuts pivoted on each leg. By turning the screw in the centre the points of the legs are rapidly opened or parted. The merits of these callipers are that they can be held in one hand and the screw easily turned with a very slight movement of the finger and thumb. From all the different descriptions of callipers we would recommend the student in drafting to select these, as being the most appropriate, handy and convenient when sketching. A pen or pencil sketch should be comprehensive, plainly figured, and neatly done. We shall give some illustrations of these sketches in the future lessons.

lowing are scales that are frequently used in drafting : d trittinite interest

One-fourth size. Then 3 inches equal 1 foot ; by this scale inch=1 inch; ; inch=; inch; 1-16 inch=; inch; 1.32 inch=1-8 inch, &c.

One-eighth size. Then 11 inches equal 1 foot ; by this scale } in.=1 inch; 1-16 in =1 inch; 1-32 in.=1 inch; 1-64 in =} inch. &c.

One-sixth size. Then 2 inches equal 1 foot ; by this scale 1 in.=6 inches; 1 in.=3 inches; 1 in.=11.2 inchs, &c.

One-twelfth size. Then 1 inch equals 1 foot; by this scale in.=9 inches; 1-2 in.=6 inches; 1 in.=3 inches, &c.

Similarly 3-4 in., 1-2 in., 1-4 in., 1-8 in. and 1-16 in., may equal 1 foot.

[TO BE CONTINUED.]

# Mining Summary.

GOLD AND SILVER.

[FROM OUR REGULAR CORRESPONDENT.] Southeastern Nevada.

GOLD MINES.

AUSTIN, June 27, 1868. So little has been heard of gold mines in Central and Eastern Nevada, that persons at a distance are not likely to believe that we have any auriferous quartz sufficiently rich to be mined at a profit. But in this they would be greatly mistaken. The lodes and placers of Tuscorora District. 150 miles north of Austin, bel-ter become under the neuros of Gener evolution in the terms. profit. But in this they would be greatly mistaken. The lodes and placers of Tuscorora District. 150 miles north of Austin, bei-ter known under the name of Goose creek, are likely to yield considenable gold. From \$5 to \$8 per day have been made re-cently by imperfect sluicing of the debris in some of the ravines. A test will soon be made of the gold quartz of the district. as a small prospecting mill is now on the way thither. At New Pass, 20 miles west of this eity, several very promising quartz veins are about to be vigorously opened. They are well defined, firmly cased lodes, carrying a fair and pretty uniformly diffused amount of the piecious metal through the gangue. On each wall there is a thick clay selvage, which, on being gouged ont, makes the breaking down of the quartz a speedy and cheap operation. A tunnel along the superior lode, 500 feet long, has been let by contuact at the low rate of \$2 50 per foot in coun, and an incline of 100 feet at \$3. Mr. J. S. Stanson, one of our pioneers, has raised a sufficient working capital in New York to bring the New Pass mines to profitable fruit, and is now prosecuting the devel-opment operation: with the energy the value of the property fully warrants. fully warrants.

opinent operation: what are chergy the value of the property fully warrants. THE MOREY DISTRICT mines, about 80 miles southeast of Austin, have been lying idle all winler, partly because a sale in the East was at one time ex-pected, but chiefly owing to the buraing of the Old Dominion mill at that creek putting it beyond the power of the owners to have their ore reduced. Work is about to be resumed, and as levels have been run for two hundred teet on one of the veins, a large amount of milling rock will be taken out. These are very promising ledges, being well defined and having good walts. The formation is porphyry, and it speaks well for the reliability of the mines that the permanent water level does not seem to be more than 80 feet from the surface. It is a fact worthy of note by those who are mining i.r silver, that a lode is not reliable in the yielding of ore till it has been opened some distance below the water level. In one or two of our districts a depth of 300 the ore might be at various points from the surface down, it was the ore might be at various points from the surface down, it was proved to be uureliable as to quantity. In the Morey mines the ore above water is very uniform in the quantity of metal it car-ries, and will no doubt continue so when a depth has been at-tained at which it has been protected by water from atmospheric disintegration and impoverishment. NORTHUMERLANN DISTRICT.

disintegration and impovertaiment. NORTHUMPERLANN INSTRICT. is being provided with a ten-stamp quartz mill in connection with the Northumberland lode. This claim has yielded some very good ore, and is likely to become a valuable property when properly opened. It is not capable at the present time of provery good ore, and is likely to become a valuable property when properly opened. It is not capable at the present time of pro-ducing ore enough to keep ten stamps at work, and it seems to me that it would be wise to extract as much milling rock as would keep the batteries stamping for at least six months—say 1,000 tons—before completing the mill. Inexperienced mine agents are very liable to be deceived as to the probable product of an undeveloped lode. It is so easy to talk about taking out eight or ten tons of ore per twenty-four hours that the actual labor involved in extracting so much is liable to be overlooked. Injury is necessarily done to the mining interests of the country if a mill is compelled to be idle for want of ore shortly atter it has been built. THE KEYSTONE MILL

### THE KEYSTONE MILL

THE KEYSTONE MILL is to be rebuilt in the old place. Some of the heavy shafts which were warped by the heat of the fire during the burning of the mill, are now being removed to the foundry here to be straight-ened. As a model of convenience and effective working, the Keystone has never been equaled by any other mill in this re-gion, and 1 trust it will be no less efficient when again ready for work. work.

50

The scales that are most useful to the draftsman are to be found on flat ivory, and triangular boxwood rules, such as the ordinary two feet rule and those made especially for drawing offices. The two illustrations represent the flat and triangular scale rules that are made from twelve to twenty-four inches in length, and contain scales from 1-16 inch to 3 inches.

The full size dimensions as taken, from the work litself can

is now about 200 feet deep, and it is expected that the Revenue lode will be struck within the next 50 feet. Several veins were cut in the shaft, but they did not carry sufficient mineral to justify the starting of prospect drifts. If rich ore is found in the Toi-yabe works, say at the depth of 300 or 400 feet, the mining inter-ests of Austin will be enhanced, inasmuch as it will thereby be shown that the belt of rich ore on which the Manhattan mines are located extends weatward on the base of Landre Hill further are located extends westward on the base of Lander Hill further than some persons seem to suppose. Probably the richest sur-face ore found in the Reese River district was taken ont of the Revenue and Tanston-ledges still west of the Toiyabe shaft. and there is no reason to suppose that the same quality of ore does not exist below.

#### MANHATTAN DISTRICT.

lying about 20 miles west of Belmoni, is likely to be the theatre of active mining operations at no distant date. A test-working of 2,500 pounds of ore from the Ophir claim, made recently in this city, gave a pulp assay of \$230 per ton. The district is abundantly supplied with nnt pine, suitable tor mining-timbers and firewood, and is very accessible, both from Smoky Valley, on the west, and Raiston Valley, on the east of the range.

### THE CORTEZ DISTRICT

is still yielding high-grade ores from several of its best-known lodes. About 74 tons from the Garrison mine, recently worked here, gave an assay of \$347 94, and another lot of 5 tons, \$430 40 per ton. A new discovery has been made within the last few 40 per

# AMERICAN JOURNAL OF MINING."

weeks on the base of the hill west of the Nevada Giant lode. and a considerable quantity of rich ore is being extracted.

weeks on the base of the first week of hor at hor are base of the first of hor at solution of the hor at the solution of the solution t

WHITE FINE district is creating great excitement here. Such quantities of high grade ore never were seen in the country before. The South Eberhardt mine has now about 60 tons of ore extracted, which will assay all of \$600 per ton. A plece of ore weighing 2 60-100 ounces, from the claim, was smelted by David Sand-horn, assayer in Austin, a day or two ago, and yielded 1 20-100 of silver, being at the rate of 46 per cent. Twenty pounds of ore from the Keystone claim parallel to the Eberhardt, gave a return in silver at the rate of \$8,000 per ton. There are now several hundred men in the district, and a large amount of ore will be extracted. A contract for the hauting of 300 to 400 tons of one to the Centenary company's mill, 30 miles distant, has been let at \$20 per ton. In a future letter I will inform you how the White Pine mines continue to open. E. J. DARE.

# MORE NEWS FROM PAHRANAGAT-A MORE HOPEFUL ACCOUNT OF

MORE NEWS FROM PAHRANAGAT—A MORE HOPEFUL ACCOUNT OF THINGS. A private letter addressed to a gentleman in this city interested in the mines of Pahranagat contains some items of mining news that may interest some of our readers who are similarly concern-ed. We make the following extracts: PAREMAGAT, Nevada, May 20, 1868. You will see by this letter that I am still in Pahranagat \* \* \* Mr. Sherwood arrived here recently to attend to the development of his mines, on account of a company which he formed in Chica-go while there. He has organized a good company, consisting of twenty members, upon a working capital of \$200,000. One of the company came with Mr. Sherwood, and, although with but one or two exceptions, they cannot find their ground (?) on the surface, yet, so well satisfied is he with the country, that he has accepted the ground and commenced operations. They started a tunnel, by contract, to tap the Webster 8, 9 and 10 west. At the point selected to start the tunnel it would tap the Webster about 300 feet deep, by running 300 feet of a tinnel. It was run forty-eight feet in limestone and struck a blind ledge, which they have just got through. The ledge is twenty-fonr feet wide, and is a big thing. They are so well pleased with the prospects that they have decided to leave this tunnel for the present and go lower down the mountain and start a new tunnel, running under the first. This second will be some two hundred feet deeper, and will tap the Webster at a depth of from five to six hundred feet deeper, they propose to let four hundred feet of this tunnel at \$20 per foot, and the contractor is to furnish everything except cars and tap the Webster at a depth of from five to six bundred feet deep. They propose to let four hundred feet of this tunnel at \$20 per foot, and the contractor is to furnish everything except cars and tracking. There is a good deal of excitement in Chicago about this place. Another company have come on to try smelling again. They have just completed a small lurnace at Logan Springs. They fired up yesterday and will draw the blast to-day; before I finish this letter I will let you know the result. They think they have found good fire sand-rock at the lower end of the valley. They claim to have the Swansea process, and if they can find the sand the sand if think they have found good fire sand-rock at the lower end of the valley. They claim to have the Swansea process, and if they can find the requisite material for building their furnaces they are sanguine of success. If this trial proves a success they will proceed to build several large furnaces at Logan; in that event business will be lively in the mountains this summer. The Hike company's ten stamp mill has been completed, and has made a run. It is one of the finest mills in the State, and they have made a very successful run of three weeks, when they were made a run. It is one of the finest mills in the State, and they have made a very successful run of three weeks, when they were obliged to suspend for a short time to make some ulterations in the roasters. The company have made one shipment of bullion to New York, of \$12,000, and the bullion is of a very superior quality. The Pahranagat company (one of Raymond's,) have commenced grading for their twenty stamp mill. Dalton's mill is progressing slowly. I am afraid he is too. Most of his men at the mine have quit on account of no pay. There is a splendid lot of mineral ready for the mill, and the mine hooks well. There is no reason why the company should not prosper, but people here are losing couldence in it. Mr. Raymond is here at pre-sent, and all the companies are going abead with good prospects. Other companies will commence operations during the summer. Oshir is expected here this month Quite a number of men left this piace in the spring for the Sweetwater country, but we have received no letters as yet. Oshir is expected nere this month. Sweetwater country, but we left this place in the spring for the Sweetwater country, but we have received no letters as yet. LOGAN SPRING, March 21st.—I came over this morning to see the smelter. Is is a success. You will hear from me again soon.

The mail is just closing.

The mail is just closing. Readers of the JOURNAL OF MINING are well aware that we have been unceasing in our endeavors to hammer into the be heads of mine owners, the absolute necessity that completent superintend-ents be employed to develop and manage their property, if they were expleted to say that our labors in this direction are producing good results, and that to-day the morate of our mines of niting in this country. But much remains yet to be done in the field of reform, and it is with pleasure that we remained is stored at the old Gold flim initing a mile suppert, suppertent and it ever than it ever thas the ere thas be endore in the oddre the birth of mining in this country. But much remains yet to be done in following bearing upon this subject. We may here remark in a malagement is better than at terreful to a maining district that one mine in it be well managed and paying, though only in a small way, than that a bundred be in operation, contexed in an il-advised manner; for with the fourer, while with the latter all the subility of great success in the future, while with the latter all the subture of great success in the future, while with the latter all the subture of great success in the future, while with the latter all the subture of great success in the future, while with the latter all the subture of great success in the future, while with the latter all the subture of great success in the future, while with the latter all the success in the future, while with the latter all the with the latter all the success in the future, while with the latter all the success in the future, while with the latter all the success in the future, while with the latter all the success in the future, while with the latter all the success in the future, while with the latter all the success in the future, while with the latter all the success in the future, while with the latter all the success in the future, while of permanent prosperity are wanting, and can never be A district, no matter how rich its mines, is certain to elements of permanent prosperty are variable in the second of the second will men at the East who dabble in mines learn to employ super-intendents who are conversant with the business they wish and expect them to do? The real cause of the failure at Pahranagat has been the inexperience and incapacity of the managers sent there by Eastern companies owning mining property there. A man may be an excellent clerk, a jolly steamboat captain,

**AMERICAN JUURNAL UP MILING.** or a model railroad coudnetor—and withal a proper and gentle-manly person in all respects, as well as a capable business man in any department in which he may have served an apprentice-ship—and yet make sorry work at mining and milling. Men sent to this country from the East to take charge of mines re-crive the curses of their employers and of the community gen-erally for non-success, when, in fact, no blame should attach to them at all—those who sent them being aware at the time of en-gagement that the persons they were employing were totally ig-norant of any difference between a stone fence and a quartz ledge, and that they could see no difference why rich ore should yield more silver than a brickbat. By the time such superintend-ents have fooled away thousands in "educating" themselves in the mysteries of mines, mills and quartz, and really learn to do something near what they should, they are usually discharged with a volley of round curses and a blasted reputation, and their predecessors. Such operations have damaged our State and in-tured each individual member of the commowealth whose wel-tare is identified with the prosperity of the country, and we hope hereafter to see men appointed as mining agents and superintend-ents who possess a knowledge of mines and the art of mining, for no tyro, however apt, can successfully grapple with its intrica-cies. We hope our Pahranagat neighbors have at length been favored by an accession of men in their midst who will correct the errors of the past, who will restore the fair name of the sec-tion, that the mines of the district will be developed as they justly deserve, that their mills will be kept constantly at work, and that a steady flow of silver bullion will mingle thence with the commerce of the world. **Morey**.—We learn from the *Reporter* of July 4th that Hall, Emmeron & Co. have resumed work npon their mines, which are very promising. There is a probability that a sirteen stamp mill

the commerce of the world. **Morrey.**—We learn from the *Reporter* of July 4th that Hall, Emmerson & Co. have resumed work npon their mines, which are very promising. There is a probability that a sixteen stamp mill will be built at Morey this fall, and altogether the prospects of the district are exceedingly favorable. **Humboldt**.—A correspondent of the Idaho *Avalanche*, writ ing from Oreana, under date June 9, tells of the progress of the railroads in that direction as follows: The knowing ones are beginning to doubt the expressed purpose of the Virginia, Car-son and Truckee Railroad Co. to do more than complete the sar-vey of the route this year, and that work is quite nigh completion now. The Central Pacific are pushing works rapidly to the Hum-boldt. The culvert work is nearly all done to the Sink of Hum-boldt. The culvert work is nearly all done to the Sink of Hum-boldt. now. The Central Pacific are pushing works rapidly to the Hum-boldt. The culvert work is nearly all done to the Sink of Hum-holdt, and the grading is being vigorously advanced this way from the Big Bend of Truckee. Bets are made that the whistle of the locomotive will sound here in August, and I feel confident it will. The company intend to work day and night, and seven days in the week, just as soon as the summit connection is made —which will be in ten days.....The *Register* of Jnly 4 has a private letter from Battle Mountain, giving the cheering informa-tion that the mines there are improving as work progresses. The writer says: [The last ore we worked from the Little Giant ledge paid \$192 per ton. We have by this time at the mill about twenty-two tons that we expect will pay equally as well, if not \$50 per ton more. We are taking out ore steadily, but will not send any more so far to mill, as we expect Atchison to have his mill running within sixty days. He has made arrangements with McBeth and Fox for a divided portion of the Little Giant com-pany's ground. E. J. Elzy has made arrangements with Robert McBeth, John Melander, and James D. Minor, for three hundred feet on the south end of the Santa Clara company's claim on the Little Giant ledge, and will go to work inmediately. The Mox-itor and Troy companies are making preparations to commence work on the same ledge. Within thirty days there will be five companies at work on the Little Giant. It costs us \$40 per ton to have our ore hauled from here to the Golconda mill, and we do not like to throw that much away, even if our rock ls rich. \_The asome namer says of the Gelconda mill, and we

companies at work on the Little Giant. It costs us \$40 per ton to have our ore hauled from here to the Golconda mill, and we do not like to throw that much away, even if our rock is rich. ......The same paper says of the Golconda mine: This mine never looked so well as now, and the yield was never so great before for the quantity of ore worked. The vein is full five teet in width and all paying ore. The proceeds of the mine, or rather of the util, amount to from 250 to 300 pounds per week, of the value of trom \$10 to \$13 per pound. But not more than half of the amount of ore is worked during the week that might and ought to be, owing to several disadvantages which the company is now laboring under, but which will soon be removed, and then the bullion yield of this mine will not be surpassed by any mine in the county. A large amount of ore is now piled up at the mill, and the hauling has necessarily to be suspended temporarily for want of store room for the ore.....By the same paper we also learn that the Arizona mine is developing extensive deposits of ore every day. The new mill will be at work next week, when Kyle & Co., who got the contract to baul ore, will have to move lively in order to keep the two mills running.....Messrs. Godshalk and Shupe, from Bucks county, Pennsylvania, have discovered a very fine vein of quartz, ouly half a mile above town. This they have located, and have organized a company. **California.** 

### California.

Nevada County.—The Transcript says that the Grizzly mine is now being worked, and the ten-stamp mill will soon be ready to start up. The mine is owned by the Eagle company of Connec-ticut, and is inder charge of Mr. Clark. They were delayed in getting their machinery upon the ground in consequence of the backwarduess of the season, but everything is so arranged now that the winters will not interfere in the least with the work-ing of the mine. A new level has been opened one hundred and twenty-five feet deeper than heretofore reached, and below the surface water. The rock has greatly improved, and will, it is estimated, pay \$30 to the ton. As the ledge is very large and easily worked, this would be most excellent pay. Mr. Clark will start up the mill and text the value of the ore indly by working, and if it proves as good as the prospecting indicates, twenty more stamps will be added to the mill before the winter sets in. .....The Union Hill mine, ut Grass Valtey, recently took out a quantity of rock estimated at \$5,000, within a few hours, and soventeen loads from the Seven-Thirty ledge, as we are informed by the Grass Valley Union, were crushed at the old Gold Hill mill, and yielded \$2,700.....J. Jott, who owns a controlling Nevada County .- The Transcript says that the Grizzly mine

iters in that region fourishing as well as could be expected, con-sidering the disadvantages under which the district labors at this stage or the season. The snow is melting off very fast, but is still from three to ten feet deep. The only mine actively work-lug is the Mohawk & Montreal, which has been energetically op-erated all winter, developing a vast quantity of rich pay ore. The company have just got a new boiler from Sacramento for their mult and are adding five more stam.s. making ten in all. their mill, and are adding five more stamps, making ten in all, besides which two new pans of the largest size and most ap-proved pattern will be used. The mill will be in full operation proved pattern will be used. The mill will be in full operation by the middle of July, when rich returns may be expected, as the ore yielded under the stamps an average of over \$30 per ton last fall. Nothing was being done at the enterprise mine. **Alpine County.**—According to the Monitor *Miser*, the I X L mine is now turning out more ore than before. The large body, or

increase of size of vein, continues, and with an increase of force, matters about the mine begin to assume a lively appearance.... A large body of water has been struck in the Lateral tunnel of the M. C. M. company, and the quartz is looking better than ever before. As depth is gained, the character of the ore vein gradu-ally changes for the better. The *Chrowicte* says: As soon as the Big Tree road is open the machinery for a quartz mill to be erected on the Rosalinda claim. a few miles from this fown, lu the Mokelumne district, will be bronght over. Inyo County.—New discoveries of rich ledges are being made daily in the Cerro Gordo mines, and considerable action, is taking place in regard to the old discoveries in that district. II Dorado County.—A correspondent writes: "The min-ing prospects, wherever I have been, or have heard from, are flattering. I heard of a new quartz discovery near Sheep Ranch, which was spoken of very highly. The Whiskey Slide quartz mine is not worked at present, but I understand that the compa-ny intend to commence operations before long. I also nnder increase of size of vein, continues, and with an increase of force,

mme is not worked at present, but I understand that the compa-ny intend to commence operations before long. I also nnder stand that the miners on Nigger Gulch and vicinity, have been taking out a large amount of gold dust, and are still doing well. **Humboldt County.**—We understand that exceedingly rich diggings have lately been found on New river. In the progress of working some of the claims in that locality, a deposit of gravel has been struck which is said to be of extraordinary rich diggings have lately been found on New river. In the progress of working some of the claims in that locality, a deposit of gravel has been struck which is said to be of extraordinary rich

ness. **Klamath Cousty.**—The mining prospects of Klamath county are unasually promising for the present year. At Orleans Bar, a company is in process of organization for the purpose of bring-ing the waters of Camp creek on the Bar. The length of the canal and fume that will be required will be not far from eight miles, and all along the line of it is good paying ground. At Happy Camp, on the Upper Klamath, a large number of miners are at work, and the claims are all naving well-some length. rrappy camp, on the upper klamath, a large humber of miners are at work, and the claims are all paying well—some largely. A company of San Francisco capitalists have brought water to the Camp, opening a large district of placer diggings that have heretofore laid idle, and but for water were worthless. A good account is also given of the business and mining operations at Sawyer's Bar. The Black Bear quartz claim still continues to vield largely.

feld largely. Placer County.-We learn that the owners of the Minarica Placer County.-We learn that the owners of rock from

worked actively. These join each other on the same vein, and work was in progress to connect the two by a tunnel on the vein from the latter, by which a depth of over 600 feet in the Mendo-ceña could be reached. The work was so near completion that, if it had been continued uninterruptedly, the object has, doubless, been attained before this. The vein is large, very uni-form in character, the character of the ore deposit strikingly re-gular, and the ore itself of a high grade, though extremely re-fractory. Comment on the value of the mine is unnecessary; the regular shipments of bullion from La Paz to San Francisco are weighty proofs, and silver bricks incontestible facts. The com-pany seemed so well satisfied with the results from the Mendo-ceña mine that no work was in progress on the others, though worked actively. These join each other on the same vein, and pany seemed so well satisfied with the results from the activity ceña mine that no work was in progress on the others, though their value had already been demonstrated. The Mexican law, like the American, requires a certain amount of work to be done to the the atomic of a mine, and it seemed that no periodically, to retain possession of a mine, and it seemed that no

52

# AMERICAN JOUBNAL OF MINING.

more than this amount was done outside of the Mendozeña and pary would be sufficient to pay a company well under proper management. Adjoining the Mendoceña, on the same vein, and i beliere, in San Francisco. Bad management, whether on the part of Superinlendent or owners, this deponent sayeth not, has russed this mine so far to be a failure. There is no reason under the same throughout. There is no reason under should not be achieved here. The works are continuous, and, or beliere is a find the character of vein, ore deposit and ore below. Many other mines exist in the neighborhood, some of body. Many other mines exist in the neighborhood, some of which are, beyond a doubt, valuable, many worthless, but all, owing to some fault, either in San Francisco, aulong the trustees, in Lower California, in the superintendent – they are all waiting more will be. About San Antonio there are many more mines than people, the greater part of them like, at least, the native, but the first being of no account. Some may be worth working, but the first being of no account. Some may be worth working, but the first being of no account. Some may be worth working. **Lidaho.** 

### Idaho.

We have the Silver City Avalanche, of the 20th ult. It says We have the Silver City Avalanche, of the 20th ult. It says: Blake & Bro.'s bullion assays for May amount to \$229,558, of which \$158,519 is silver and the remainder gold. The entire amount of bullion assayed in camp for the two months ending May 31, is \$378,658 23, as shown on the books of Charles Hil-tou, Dep. U. S. Int. Rev. Assessor. Next month, the principal miles and mills will be in operation, and a year hence the bul-lion dollars per month.....The Woodstock company are now down forty feet in their north shaft, below the tunnel level. At that depth the quariz is about three feet in width and looks richer than ever. Seventy-tons of the ore are being hauled to the Up-per Sinker mill.....Steam holsting works have arrived for the Poorman and Golden Charlot mines. The Rising Star machinery has also arrived in Filat. A correspondent writes: "The mill per Sinker mill.....Steam holsting works have arrived to the Op-Poorman and Golden Charlot mines. The Rising Star machinery has also arrived in Flint. A correspondent writes : "The mill is expected to be in working order before snow begins to fly, and is expected to cost about two hundred thousand dollars. Belore the first "krick" is received the s company will have ex-pended for mill and mine between three and four hundred thou-sand dollars, but will have in exchange a mine superior to any now opened and worked on the Pacific coast..... The discovery of two more quartz ledges is reported; one of them three feet in width and the other four at the surface. These new strikes are down the gulch three or four hundred yards north of the Oro Fino ...., Jim Allison says that he has struck good gold dig-gings below Boonville, in the vicinity of Blue Gulch......A correspondent writes in a recent issue of the San Francisco Turmes an interesting account of the early history and present state of mining in Flint distitict. He also tenders some other in-formation which, we think, will remonerate the reader for the trouble of perusal. He says: (Owyhee connty is in the south-western county of Idaho Territory, adjoining Oregon on the west and Nevada on the south, and can be reached to better ad-vantage and greater co-mfort by taking the cars from Sacramento to Hunter's Station, and from this latter place by Hill Beachey's line of stages, and thence by daily stage, eight unles to Flint dis-trict; time from San Francisco forty-eight hours. The fare on this road is tolerable; some dust, and some tak of Indians, which causes some anxiety to nervous temperaments. The district is separate and distinct from the other mining districts, and has no connection whatever with either of them, beyond its geological formation, owing to the Owyhee mountain forming a barrier beconnection whatever with either of them, beyond its geological formation, owing to the Owyhee mountain forming a barrier be tween. It was first discovered by old Mr. Flint, a man of great connection whatever with there of them, beyond its geological formation, owing it of the Owle mountin forming a barrier be-tween. It was first discovered by old Mr. Flint, a man of great energy in gold prospecting, but entirely ignorant of the ores of silver. On Flint's advent in that section, many followed bin, similar in every respect to the adventurer. Ledges were taken up, some little work done, no gold found, and at last abandoned; nothing was left but the ledges and Flint's name. as a legacy to the disfrict and to adventures in the future. In the month of June, 1865, a Capt. Wilder, formerly of the Opbir mine, arrived in Ruby City. At first no one could imagine what took him there, but it was generally concerded 'he came to look at the mine,' as the others were in the habit of doing. Some two weeks after, Wilder was seen one moruing, sitting on some croppings— now the Rochester mine— with two men, examining some rock. What result was arrived at from those examinations was not then knowu, but a few days after, on going to the Recorder's office, fire separate ledges were found entered by bim and his coadju-tors. The news circulated rapidly, and in a short time every available man was off for Flint. The old locators of Flint's time laughed derisively at the new ones, while the latter were busy with picks, stakes, and tape-lines, scenting everything that looked like an outerop, and a great deal that never looked like one. The old locators declared the ledges had nothing in them but 'blue quartz,' while the knowing ours smit d at their assertions. The work required by law to give title to the claims way about all that was done at this period, until Fogus and others, four months after, commenced work on the 'Rising Star,' from which eleven tons of ore were extracted, and packed on mules over the moun-tains, to the mill at Silver City, where it was partially rossted, and worked, yielding, I think, about \$170 per ton ; people thea-began to think that if there was no gold, there might possibly be lengt of silv cess any fided the same. A small min-wet process—was effected, of some four or five stamps, and two furnaces for calcining and chlorodizing; ores were taken to mill stamped wet, then roasted and chlorodized, and desponding results obtained to the owners; ores that assayed \$190 and over \$200 to the ton, yielded \$50, \$79, and \$60. The minor should be and eavy high the own features \$73 and \$90. The miner stood by and saw his rich ore floating away in the water, from the batteries ; saw it waltzing about in the eddies of the creek, and the wealth that should have been in his pockets was actually macadamizing the bed of a trout stream his pockets was actually macadamizing the bed of a tront stream. The mill man found his occupation rapidly wantag, and came to the conclusion that it he ever expected to again receive \$50 per ton—miner furnishing salt in addition—it was necessary to do something. A pump was therefore constructed in order to con-vey the water from the battery back and be used over and over, instead of allowing it to pass down the creek, and general notice of the same given to the public. The Astor mine—adjoining the Rochester, and on the same ledge with the Rising Stremesent five core to be avaparimented on "the result was \$16" yield per ton This was good news for the miner, and the 'Eureka' of the mill man, and many who had become disheartened with former results man, and many who had become distance with former results again commenced operations. The owners of the Leviathan mine sent eight or ten tons; the Astor, another batch; the Virguia city, eight tons, and the Rising Star, some thirty or over; there was not a ton of this rock but would assay \$200 to the ton. The mill started under new anspices, and the miner, under brighter

formation which these veins traverse is granitic, bounded east-wardly by so-called igneous rocks. The ores carry with them, in nearly every instance, antimony, a feature not objectionable in the reduction, as it passes off at a lower temperature of heat than that required for chlorodizing. The veins are regular and well defined having a carthodic interview. nearly cyrry instance, antimony, a feature not objectionable in the reduction, as it passes off at a lower temperature of heat than that required for chlorodizing. The veins are regular and well defined, having a northerly direction, with an easterly dip or pitch and ranging in width from eighteen inches to twenty feet. The Rising Star, Owyhee and Idaho, Virgunia City, Rochester, Astor. Leviathan, and a few others, have the largest and most promising indications, or outcroppings, for large veins, in de-scending on them; while the others, hough not so conspictous-ly delineated, have in every instance produced the same grade of ore. The average ores, without selection, can safely be set down as yielding, with suitable machinery tor its reduction, at \$80; while of selected, they will go up in the hundreds. Fuel can be obtained at \$3 to \$9 per cord, an abundance of which exists in Sonth Mountain, across the valley. Lumber can also be had in immediate vicinity, at prices varying from \$50 to \$75 per M.; the season opens early and but little snow falls, while in the other districts operations are greatly retarded by severe winter weather. An abundance of fine grass is seen all over the hills and plains as early as March and April. Two small vitlages have arisen, under the imposing names of Oro and Owyhee, near and art have evidently formed a co-partnership for the benefit of the miner, and, from the inducements offered, with their gifter-ing facilities, by the junior of the firm, it is simply the fault of the miner, and is for the proper manipulation of the ores are erected—for all these ores must be treated by the dry process -and there are now some under way, this district will astonish men who are now wone under way, this district will astonish men who are now wone under way, this district will astonish men who are now wone under way. The mines to ascer-tain the definition ot the word 'hope.'" **Montana**.

#### Montana.

Montana. \$68,283 is gold bricks, worth nearly \$100,000 in currency, was returned by the three promuent assay offices at Hetena in one day recently. "In this connection," remarks the Helena *Fod*, 's we may mention that the \$26,400 smelled at the First National Bank Assay Office all came from Gold creek, the oldest mining camp in the Territory, half a dozen times deserted, as many times de-clared worked out, and now producing more of the precious metal than ever before. We might refer to similar instances in all portions of the Territory, where 'played out' mines are now yierding more gold than ever, and illing the pockets of those who have held fast to the county." From the same paper we take the following relative to wages in Montana:--We pre-ent below a comparative table showing the contrast between weekly wages paid in New York and Montana : New York. Montana.

preside star a contra deterca	and the second sec	
	New York.	Montana.
Bakers	\$12	36 a 52
Blacksmiths	24 a 27	40 a 50
Carpenters	21 a 244	45 a 60
Cabinet Makers,	21	
Engineers	18a 25	50 a 75
Masons	27 a 30	60 a 75
Tin Workers	15	
Printers	22 a 25	.45 a 100
Painters	24	. 38 a 75

In the above table all rates are stated in currency, in order to admit of comparison. It will be seen that wages in this Terri-tory are from two to four times what they are in the East, while admit of comparison. It will be seen that wages in this Terri-tory are from two to four times what they are in the East, while no proportionate difference exists in the price of the uscessaries of life, a state of affairs which redounds greatly to the henefit of the laboring man. We still give a further report of wages and salaries as follows: Clerks \$100 to \$250 per month in gold. Surface miners \$4 to \$5 per day in gold : miners (driffers.) \$7 to to \$12 per day in gold. Gunsmiths \$100 per month in gold ; bartenders \$50 to \$150 per month, in gold and board ; jewellers. \$8 to \$10 per day in gold ; brewers \$75 to \$100 per month in cur-rency and board ; quartz miners \$75 to \$100 per month in cur-rency and board ; quartz miners \$75 to \$100 per month in gold and board ; waiters \$50 to \$750 per month in gold and board ; board ; coaks \$100 to \$125 per month in gold and board ; waiters \$50 to \$150 per month in gold and board ; board ; coaks \$100 to \$150 per month in gold and board ; butchers \$100 to \$150 per month in gold and board ; butchers \$100 to \$150 per month in gold and board ; butchers \$100 to \$150 per month and board ; boare servants (Chinamen) \$40 to \$60 per month and board . The figures above given speak for themseives, and will compare fa-vorably with those of any country in the world. A person can board himself and live well upon one doltar a day in gold, or can patronize the table of a tirst class botel for twice that amount, and then have more money left to save than be would if following the same husiness in the States. It is very consistent to suppose that the price of a trictles which the laborer buys here are as much bigher than those in the States as is compensation of the work-wan, but even then the latter can make more than there. We may illustrale what we mean as follows: A person here earns. higher than those in the St-ites as is compensation of the work-nan, but even then the latter can make more than there. We may illustrate what we mean as follows: A person here earns, say \$100, while be would \$50 in the States. His living in the states costs him for instance, three fourths of his earnings, leav-ing him \$12 50 for savings. Here it costs twice as much, still three-fourths of his receipts, leaving him \$24 profit or twice the sum that he would have left him in the States. This rather the oretical view of the case  $\bullet$  is not, however, in many cases cor-portion of his receipts than in the States, and Moniana is, there-tore, even a better country for the laboring man than the above ligures would seem to show. A man cannot find a "job' the first liques would seem to show. A man cannot find a "job" the first day he arrives here, perhaps not the second, still, if he have euergy, he will not fail to at last receive a lucrative position, he will fave no cause to regret that he came to this land or gold. he will have no cause to regret that he came to this hand of gota. Men who come here must be prepared to do anything at first, and to even submit to severe hardship; they must leave kid gloves and pomades behind them, and not be saving of that sweat of the brow by which it is appointed that they shall earn their bread. In this manner some of our wealthest business men commenced

[JULY 25, 1868.

I pur 25, 1863. The ledge, which is about thirty feet wide and with a good dip, that a decorrect on November last. A new and very rich lead was struck at Georgetown some three weeks since by John Ma the degree to the dirt prospect twelve cents to the pan-the degree to the dirt prospect twelve cents to the pan-the degree to the dirt prospect twelve cents to the pan-the degree to the dirt prospect twelve cents to the pan-the degree to the dirt prospect twelve cents to the pan-the degree to the dirt prospect twelve cents to the pan-the degree to the dirt prospect twelve cents to the pan-the degree to the dirt prospect twelve cents to the pan-the degree to the dirt prospect twelve cents to the pan-the degree to the dirt prospect twelve cents to the pan-the degree to the dirt prospect twelve cents to the pan-the degree to the district, of which Mr. Saulsbury is superi-has so a tair road to success. The Green Campbell lode has so the a tair road to success. The Green Campbell lode has the actear crevice of the feet of pay quarts. Here the water has the actear crevice of the feet of pay quarts. Here the water has the actear crevice of the feet of pay quarts. Here the water has been since as not extravagant. The company now here the having shipped to Silver Sisr. He will be running beyers, so is having shipped to Silver Sisr. He will be running by October for Deer Lodge City, between it and Cable City. I says ; The dispects. Yo shincing had ye been done. Mr. Jack Mitchell having these new gigness be aw five pans of dirt washed yielded having these new dispect hole, 2x4 teel, \$15. While Mr. Kains-having diver bays in the best new in dignes to each order. **Eclorado**.

### Colorado.

Mining matters at Empire are improving. Many of the mines have not been worked during the winter months, but will now yield a good return. The Conqueror, owned by Mr. Disbro, is yielding some very rich surface quartz, which Andrew Munson is crush-ing in the Kutekerbocker mill. The surface durt from this lode paid well to shure, and the headings yielded from \$250 to \$300 in a stamp mill. Mr. Munson tas invented a new amalgamator, and has made a test run on tailings from the Conqueror ore as they came from the tables. It is a wooden cylinder covered with copper, which revolves in such a way as to loose all the amal-gau and receive a tresh coat of clean quicksilver at each revolu-tion. The amalgam is removed by a rubber scraper; an 1 the tailings are poured on the cylinder from above. It is only a small affair, intended to practically test the plan, and so far has worked well. From a five and a half inch section at the foot of the tables, the machine saved 17 grains of quicksilver, and 12 graius of gold Thomas Hodgkins and James White have made a new and valuable discovery, which is yielding plenty of ore. Andrew Minson is saving over \$100 per cord from in the Knick-erbocker mill. A good run was made on Silver Mountain fron recently; two and a half cords of ore yielded 33 ozs. of gold, which is the largest yiel ever obtained from this class of ore in Empire. It was mixed with surface quartz before crushing. Mr. Haskins is repairing the St. Clair mill, intending to put up six arastras, which will be supplied from the Silver Mountain. In the upper fown two arastras are running on Couqueror ore ... thus the surface the table of the Lineon ford Mining company, at Mill Mining matters at Empire are improving. Many of the mines have anishus, which will be supplied from the Silver Mountain. In the upper fown two arsstras are running on Couquee'or ore ... Mr. Brown, agent of the Lincoln Gold Mining company, at Mill City, is working on the Plymouth lode in Hiawatha gulch, and is taking out from a half to three quarters of a cord of ore per day, with two men. The ore pays. He has four arastras running, and will have four more running by the middle of next week. ..... Mr. Wells. from Spring gulch, Clear Creek county, says be is working on the Mount Vernon lode, and has sunk the shaft on the discovery claum to a denth of 25 feet. The pay ore is 22 he is working on the Mourt Vernon lode, and has sunk the shaft on the discovery claim to a depth of 25 feet. The pay ore is 22 inches wide, which assays \$220 gold and \$10 in silver per ton. He inlends having the ore run in an arsatra. The quartz shows gold, and is easily saved. Crops in Spring gulch look, prom-using.....Terry, Smith & Co. are running their new 20-stamp mill on custom ore. Ten stamps are this week being run on ore from the Bates, for Mr. Cowenhoven, and the remaining stamps on surface quantz from the Star lode, situated in Leaveuworth gulch. The last-uamed lode is a new discovery, and prospects very rich. .... The May lode, Mountain Honse district, is turn-ing ont large quantities of rich silver ore. The crevice is about eight feet wide, and the average of the ore is about \$100, though selected specimeus will assay as high as \$700. A shaft has been sunface. The ore will be treated at the California works ...... A gentleman from Idaho says that T. H. Lowe & Co. are working on lithnois Bar, and have a shaft down 18 feet, and expect to strike the bed-rock shortly. Also, that Dick Skinner & Co. are working on the same bar, just below Lowe & Co. have their water wheel and pump in position, and have now reached a depth of 10 toat. wheel and pump in position, and have now reached a depth of 10 feet. He represented Idaho, at this time, as being livelier than at any previous time since the palmy days of '62.

# Oregon.

**Oregon.** The Dalles *Mountaineer* learns from Mr. Edgar that the people of John Day Valley and Cauyon Ciry are prospering, and that the minas are turning out their average amount of gold dnst .... The Jacksonville Sentinet, upon a virit to the Occidental mill, found everybody busy. Col. Drew (it says) has been running night and day for thirteen days. The quartz being crushed now is trem Timber Gulch lead, and has the appearance of being very rich. The last run paid \$10 to the ton. The mill is in splendid running order. A vein of decomposed quartz running across Kanaka Flat has been struck. From present indications the lead will pay fully as well as the Timber Gulch lead. The vein of quartz is between three and four teet. At Sterling the claims are still panning out well. We bear of a number of claims pay-ing an ounce a day to the hand. We learn that new diggings have been struck between Rogue river and Galice creek, that prospect well.

### Arizona.

In this manner some or our weaturest business men commenced their Moutana lile, at our weaturest business men commenced their footsteps.....From the same paper we condense the fol-lowing items of mining news: The stampede to the new Crow Creek mines is increasing in magnitude. Some two bundred per-sons have left Radersburg for the new diggings within the past few days. Prospects of as high as one dollar and a half to the uan are reported.....The new ten stamp quark mill of the sons have left Radersburg for the new diggings within the past few days. Prospects of as high as one dollar and a half to the pan are reported......the new ten stamp quariz mill of the Cole Saunders Mining company arrived at Fort Bentou on the Ida Reese. This mill is to be placed upon the celebrated "Poor Man's Joy "lexd at Philipsburg, and large qnanities of ore are now being taken out in order that it may be in readiness tor the crushing as soon as the machinery is set up......The silver smelting furnace of Messrs. Cummings & Veale, located in the Mill Creek district, is now in active operation. This is the first attempt to extract silver from ore in Madison county. The result of this test will materially affect the mining interests of this sec-tion of the Rockyfmountions.....The Hershfield mill, which is being erected on the W. L. Thomas lode at Cable, is being pushed will shot a ton this rock but wont assay \$200 to the ton. The big received on the works to the ready it commence run-uelusions, anticipating the good time near at hand. Mark the result. The pump that couveyed the water back to the battery refused to do duty—in other words, 'broke down.' No sleps were taken to repair it, and all the ores were rushed through, pump or no pump. These facts are merely given to show the difficulties under which the miner has labored. The geological

The Prescott Miner, June 13, says: The Eureka ten stamp mill, Walker's district, has been rented by Henry W. Fleury, of this place, and men are now engaged in patting it in running order. Mr. Graves has charge of the mill, and be thinks he can treat successfully the sulphurets of the vicinity. The intentions for the present, at least, to work ore for the miners, but shound the experiment prove a success, Mr. Fleury will work rocks from some of his own ledges. It is the intention, we believe, to roast the sulpharcts in iron pipes. Work on the silver ledges in the new district east of the Hassayanna, between Wickenburg and Webeut Group is progressing, and the lodes are looking well. A uew district east of the Hassayampa, between Wickenburg and Walnut Grove, is progressing, and the lodes are looking w-il. A prospectug party, consisting of Messrs. French, England, Bridges and others, left Prescott one day last week for the Hucquihala mountains. They intend to be goue about three weeks. May they find it rich.

# Aliaska.

A despatch dated Victoria, June 7, says: The United States mau-ot-war Jamestown, which left Sitka ou the 30th May, arrived at Esquimanit yesterday. A party of miners starled for Takon, 150 miles north, to prospect for gold. The Indians report that rich diggings were found in that usighborhood.

Following is a special despatch from a correspondent of the San Francisco Bulletin :

### VICTORIA, Jane 6, 1868.

Indians have brought a story that white men are collecting gold by handsful at Takon river. The news is generally credited and parties are starting for the diggings.

# AMERICAN JOURNAL OF MINING.

# Georgia.

**Georgia.** A letter from Indian Springs to the Macon Telegraph, says a valuable gold mine has recently been developed on the eastern borders of Monroe courty, some eight miles distant from the Springs. Two gentlemen of energy and means have taken it in hand, and have seen enough to justify them in making extensive preparations to work it. Some ol the ore taken out is said to yield from sixty to eighty dollars per ton, and the few hands now employed, with imperfect machinery, are clearing six dollars ner diem. per diem

# Maryland.

The Frederick City Union gives an account of the discovery in the Blue Ridge Mountains adjacent to that city, of a vein bearing gold quartz of considerable richness, by a party of prospectors. In the same locality indications of copper were seen, but no further researches were made.

### Australia.

A correspondent writes from Melbourne : Silver is becoming annually of greater and greater importance in Victoria. The yield steadily increases, and one district, the St. Arnaud district, yield steadily increases, and one district, the St. Armad district, seems likely to prove the Nevada of Australia. The veins ap-pear to show the same characteristics which the most celebrated lodes in Nevada have exhibited, in widening as the shaft is sink deeper. So far the yield has been about fifty to seventy shil-lings' worth of mixed metal (gold and silver) to the ton, at a cost of working something less than twenty shillings per ton.

# COPPER.

COPPERA Miching and the set of the portage benefits of the set of the set of the portage between the porta hopes are entertained that it will eventually prove as rich as the south. The whole force will be employed some time opening the mine thoroughly before stoping is again resumed.

### California.

Writing of the mines of San Diego county, a correspondent says : "There are a variety of mineral deposits in San Diego county, and several mines have been more or less developed. The best mine in the county is the Encinitos copper lode, about twenty-five miles west from here, and between tour and five from the coust, where, I understand, a safe landing may be had for sailing vessels during certain winds. Assays trom 13 to 19 per cent. of copper, with a little silver and gold, have been made. This mine is owned by a company who are at present sinking two shafts and running a level. The prospects are very flatter-ing, and it is confidently believed that rich pay ore will be found. The vein is eight feet wide, and has been traced a distance of two miles." miles."

# SLATE. Pennsylvania.

V. G. Bloede is credited with having written as follows of the slate quarries of Slatington. The intelligent reader must sepa-rate the wheat from the chaff: "The slate belt of proper Penn-sylvania begins some miles behind the village of Slatington, in Lehigh county, and seems to be confined to one direction. In a belt from one-half to three quarters of a mile in width, it passes along over the bed of the Lebigh river, where at low water the slate becomes plainly visible. Slatington is suitated, as it were slate becomes plainly visible. Slatington is situated, as it were, in the very centre of this belt, and is therefore the centre of all slate operations. It is stated—on what anthority we do not know—that slate found in the northern part of Alabama is mined on a continuation of this very belt. It is astonishing that capi-talists have not devoted more attention to these real gold mines —the slate quarries. There is, as yet, no competition in this line, nor will there be tor years, and the product of slate is as good as so much bullion. At present the demand is 75 per cent. great-er than the actual production, and is augmenting daily. The money made by some of the Slatington quarry owners is some-thing incredible, a tew examples of which, for illustration, will suffice : Mr. Henry Williams, owning a quarry just behind the village, during last summer netted over \$200 per day; Mr. David Willnams' quarry, situated a tew miles from the Lehigh Valley Railroad, has netted its owner from \$100 to \$150 per day, and he has repeatedly refused \$250,000 for the same, although compris-ing only eight acres. A few hundred feet from this is the fa-mous Keystone Quarry, which has also netted to its owners large soms of money. The Franklin Quarry, purchased a few years' since from the Lehigh State company tor \$89,000, could not now be bought for \$300,000. Just opposite Slatingon, on the other side of the Lehigh river, we have the Twin City Quarry, which is in profitable working. The amount of slate that can be pro-duced from one quarry varies according to the space they have to work in. Four hands are generally employed in finishing the slate becomes plainly visible. Slating in the very centre of this belt, and Slatington is situated, as it were

slate ; two men for mining and blasting out the blocks, and two men for splitting and dressing it into tablets. The wages of these hands are about \$10 per day, and they can finish from 8 to 10 squares per day. (A square is generally considered ten feet each way, thus making its contents 100 square feet.) At present the slate commands a price of from \$7 50 to \$8 per square, and deducting expenses of carting to depot, rubbish hands (who re-more the debris of the slate) and incidental expenses it still leaves an enormous profit. Even should the price of slate fail to four or five dollars per square, there would atill be a profit of 75 to 100 per cent. Thus from one quarry and four hands, the profit can be estimated to be at least \$22 per day net. The progress of the slate business has been something stupendous. The beantiful village of Slatington has been built up in five years, and the de-mand for bouses is conrmous. Over 100 houses are to be built the coming summer, and building lots, 50 by 150, bring, in a good location, from \$800 to \$1,200. The Pennsylvania slate is peculiarly valuable. It has a deep color, tongh texture, and con-tains no iron pyrites, and is consequently very durable. tains no iron pyrites, and is consequently very durable.

# OIL.

# Pennsylvania.

**Pennsylvania.** A quarterly statement of the petroleum business in the Titus-vitle Herald of the 16th inst. records the shipment of crude and refined oil from the oil region by all routes from April 8th to July 1st-as having reached a total of 981,029 barrets of forty-five gallons each. The total shipment by the railroads and transpor-tation lines northward, eastward and westward, as taken from their manifest books, was 580,364 barrels. Of this amount, 251,-358 barrels were shipped to New York, 316,652 barrels to Cleve-land, and the remainder to Boston, Philadelphia, Portland, Balti-more, Buffalo, Erie, and to other markets in Ohio, Pennaylvania and New York of minor importance. As compared with the shipment by railroads during the ninety-eight days, ending April 8th, the ab we total of shipment by railroads shows an increase of 32,838 barrets; the shipment to New York au increase of 28.-352, and that to Cleveland an increase of 50,416. The total pro-duction from January 1st to July 1st is shown to have been 1,689,565 barrels of torty-three gallons each, or an average of 9,282 barrels per day. **Australia.** 

### Australia.

Australia. A correspondent writes from Sydney. There are now two kerosene refining companies in Sydney, one of which has already begun its operations, while the works of the other are in course of rapid completion. No petroleum springs have, as yet, heen discovered in the Australias, but a bed of very fino shale was lately tound by an American gentleman, Mr. Mortimer, about 80 miles up the country, at a place catted Hartley, a second seam of a similar character being shortly after struck in the same neigh-borhood. These companies propose to distil keroscue from the shale, and hope to be able to do so at a cost which will enable them to export American kerosene from the Australian market. In this expectation they are probably somewhat too sampline. them to export American kerosene from the Australian market. In this expectation they are probably somewhat too sanguine, but it is quite possible, in view of the protection tendencies of the colonics, that if Australian oil can be produced at a price slight-ly in excess of imported kerosene, a tariff sufficient to give the advantage to the former will be adopted. It is worth noting that both these companies have been started and are largely con-trolled by Americans.

# MISCELLANEOUS.

# Maryland.

**Maryland.** EXTENSIVE WHITE LEAD WORKS.—By Invitation of Mr. T. J. McCoy, a number of gentlemen yesterday visited the works of the Maryland White Lead company of the eity of Baltimore, the first of the kind ever established in this eity, and the second in capacity in the United States. They are located on Fort avenue, immediately south of the point where the Locust Point branch of the Baltimore and Ohio railroad crosses the avenue. The company was organized only one year ago, and since that time the buildings have been erected, the machinery pnt up, and yes-terday those present saw the whole process of making white lead. The main building fronts the avenue 130 feet, and has a depth of 200 feet and is lour stories high. Immediately to the rear is a Irame building 173 feet long and 72 teet wide, with open track in the centre for the entire length. This building is divided into sixteen apartments, and is used exclusively for the corrosion of the lead. On the north side of the yard are capa-cious stables, with feed-honse and hay-loft, cooper-shop and acid-house. The works have capacity for manufacturing about twen-ty-five hundred tons of white lead per year, and the machinery has been brought to such perfection that only some twenty-five men are required to manage the entire establishment. The wa-chinery is propelled by a steam engine of one hundred horse-power, which has a fly-wheel sixteen feet in diameter. Immedi-ately in the rear of the engine-room is the boiler room, and admen are required to manage the entire establishment. The ma-chinery is propelled by a steam engine of one hundred horse-power, which has a fly-wheel sixteen feet in diameter. Iumedi-ately in the rear of the engine-room is the boiler room, and ad-joining that, the room in which the lead goes through the first process. Here the heavy pigs of lead are melled to a liquid state and the molten metal passes out through a spout on an end-less iron band, on which are forms which mould them into eiren-lar perforated pieces about one-quarter af an inch thick and four inches in diameter. As this band passes around, the pieces of lead, which are called buckles, are thrown off on the floor. The process of corrosion is the most tedious part of the work, re-quiring from ten to thirteen weeks to fit the metal for the pro-eessers which follow. For the corrosion earthen pots about 6 inches in diameter, and with points about 2 inches from the bottom on the inside, are used. About a half pint of acid is put in the bottom of the pot and the buckles of lead rest on the points, which prevent its contact with the acid. Each pot will hold from eighteen to twenty buckles. When filled these pots are placed in the apartments or the frame building, on a bed of tan. These pots are placed in layers from ten to filteen feet deep and covered with boards to prevent the tan from falling into the pots covered with boards to prevent the tan iron falling into the pots below. The tan creates a heat, which causes a more rapid evap-oration of the acid, and thus facilitates the process of corrosion. After the corrosion is completed, the lead is taken by a railway After the ecrossion is completed, the lead is taken by a railway to the upper story, to the crushing mill, and its removal from the pols is the last time it is handled until it is ready for mixing with oil and grinding, which is the last process. After the lead is exished it passes into a separator, which, if any blue lead re-mains, throws it out and earries the corroded lead to a mill, where it is reduced to a powder and passes through the next floor below, where it passes through another mill and meets the water. It is then ground in water and turns into large tapks on water. It is then ground in water and runs into large tanks on the lower floor, where it runs a considerable distance through troughs, which are supplied with breaks to catch any heavy par-ticles of metal which may have by accident or otherwise passed through the mills, and snally empties into a large roservoir. through the mills, and many empires into a large roservoir. From the large reservoir it is pumped to large tanks on the third and fourth floor, where it is left to precipitate. During all wash-ing processes the lead clusters mpon the surface of the water. After the lead has been precipitated in the large tanks the water is drawn off and the residuum is run libt four large drying pans on the second floor, on the south side of the building. Each of these pans will hold ten tons of lead. For the drying from forly-cipit to sitt house are required. On the same floor in an adeight to sixty houses are required. On the same floor, in an ad-joining room, are loar mixing machines, each having a diameter of about four teet, with a depth of basin of some fifteen inches. In the centre of the basin is a hollow shaft, against which the

arms of the mixer work, the basin being revolved. As soon mixed, the lead ports through large vertical cylinders to the mills below, each of which is double; and the lead is deposted in the kegs. The only handling of the lead from the time it is advent from the corroding pots is when it is removed from the drying pans. In all the various processes the machinery is heary, but works so well that one man can attend to four mills. The popper shop, too, is quite a curiosity. The entire work, except setting up and hooping the kegs, is done by machinery, which is propelled by a steam-engine of abont sixteen horse-power, sur-pited with steam from the main building. After the staves are taken into the shop there is a saw which cuts them off to the proper length. They are then passed to a machine which splits, next pass to a machine which cuts them in proper form and be wells them so that there can be no difficulty when they are set planed off and made perfectly smooth. There is also a ma-chine, for making the heads. The wood is first planed on both athe, where they are completed, ready for use and with great rapidity. The mannfacture of acid has not yet begun, as it can be purchased cheager than it can be make. West of the cooper shop a kiln will be erected for the making of red lead, which while be made of the refines material and out of the blue lead which may come out of the corroding point. The works have cost abont one hundred and filly thousand dollars,—*Baltimore* datester. Gazette.

# COAL.

# Pennsylvania. The Coal Miner's Strike.

THE SCHUYLKILL REGION.

The reports of the strike in the Schuylkill region were cxaggerated ridiculonely, as the following extract from the Miners' Journal will show.

THE STRIKE.—We have but little to add to the facts which e gave in our last in reference to the strike of the miners of this region, for eight hours as a day's work, and for an in-crease of wages. The turkout commenced a fortnight since at Ashland and in the Mahanoy Valley (not at Mount Carmel and Locust Gap.) and extended nntil on Tuesday last the colleries in the western end of the county were stopped. The strike is now general, and is likely to continue nntil an imof the men. For it is certain that only an advance of prices warrants a reduction in the hours of labor and an incre

warrants a reduction in the nours of labor and an increase of the wages of the miners. It is in connection with this subject, due to the miners and operators of this Region, to state that many of the dis patches which have been transmitted during the past fort-night to the papers of Philadelphia and New York have had no foundation in fact. The statements were, in the main, sim-in the day of the paper of Philadelphia and New York have had no foundation in fact. The statements were, in the main, simno foundation in fact. The statements were, in the main, sim-ply absurd and ridiculous. There was no rioting on the part of the strikers, (a number of men marched in a body to the different collieries, and compelled the men to cease work, which is the usnal mode of securing general strikes adopted in the coal regions. We have made inquiry, but cannot learn that there has been any destruction of property, and the miners are now peaceable and orderly,) and the operators had no hand in sending those dispatches for speculative purposes. The fact is that the wild and unfounded statements were sent broad-ceat be some verdant (as far as accumintance with this Region is that the wild and unfounded statements were sent broad-cast, by some verdant (as far as acquaintance with this Region is concerned,) attachees of the Philadelphia press who were here last week. They caught up all idle rumors which one can bear at almost any hour of the day, on the streets, and transmitted them as veritable facts, garnished by their reper-torial imagination. The statements were simply preposterous, and the coal operators had nothing whatever to do with their transmission, and were surprised when they saw them. It is to be hoped that the respectable journals who have charged the operators with sending these despatches, will refute the calumny, and at the same time do justice to the miners, who have no idea, as far as we are able to observe, of transgressing the law3. the laws.

### (From the Luzerne (Wilkesbarre) Unton, July 22.]

A body of miners, reported to number one hundred and fifty, are said to have come from the Hazelton region, reached the car shops of the Lehigh and Snsquehanna railroad, at Nanti-coke Junction, on Monday afternoon last, and forced the workthe barrene of the supervised and the second that they were at the Empire Works. There has been no violence shown, and probably will be none.

violence shown, and probably will be none. Since penning the above paragraph and immediately prior to putting the Union to press, a body of strikers, numbering 168, with stragglers which will swell the number to over 200, passed along the public square, preceeded by a drnm and a man bearing the Americrn flag. It is the same party, although increased in numbers, spoken of above. They are all from this region, with the exception of a delegation of about 30 from the Schuylkill region. They marched to the river, where they were harrangued by one of the leaders, and then took np their line of march for the Enterprise mines of J. H. Swoyer, Eaq., whence they were to proceed to Hillman's mines, and thence to Pitston. The Dickson Manufacturing Company's Works were threat-

The Dickson Manufacturing Company's Works were threat-

ed with a visit, but the men were satisfied there, and deter mined to continue work, and if interfered with to resist any aggressions by force, for which they were fully prepared. strikers did not visit the Company's works, however, which was doubtless their best policy, as any extreme action on their part would have led to a serious riot and bloodshed. The strikers so far have behaved in the most orderly manner, and no disturbance whatever has occurred from their action.

### THE LATEST NEWS BY TELEGRAPH.

SCRANTON, July 22 .- About two hundred strikers, armed with clubs, appeared on the streets of Wilkesbarre on Monday afternoon and Tuesday morning, They visited the mines and shops about Wilkesbarre, forcing the men in all but one in-stance to quit work. On Tuesday afternoon they marched to Pittston, stopping at the works on the way. To day they have been engaged in stopping the works about Pittston, and preventing trains from running on the Pennsylvania Coal Company's Railroad. It is reported that they killed one man at Pittston, and helped themselves to rations from stores. They are not, however, generally violating the peace or exciting much alarm. They have received some accessions, and are snpposed to be now five hundred strong. They are in

two bodies, one marching on Dumore, and one on this city. The columns are to form a junction here to morrow morning. It has been decided not to resist them here so long as they commit no outrages. The miners and workmea will generally turn out on the arrival of the strikers, and probably resume work again as soon as they are gone. The speaker of the strikers is an Irishman. He says their purpose is to secure

ten hours' pay for eight hours' work. SCRANTON Pa., July 23.-The story that the strikers had SCRANTON Pa., July 23.—The story that the strikers had killed a man at Pittston yesterday, is untrue. The party, last night abandoned their purpose of coming to Scranton, and returned toward Wilkesbarre by different routes, being in effect dispersed and the movement at an end. All the miners about Pittston returned to work this morning. Mining has not been interrupted here. A party of the strikers appeared at Kingston this morning and stopped the Morgan and East Boston miners. They left in the direction of Plymouth. It is understood that any further interference will be resisted at the various works of the Pennsylvania Coal Company. SCRANTON Pa., July 23.—Sheriff Van Heer has issued his proclamation warning the strikers to disperse and notifying them that in case of refusal he will call on the Governor for military aid.

military aid.

### MARKET REVIEW.

FRIGAT EVENING, July 24, 1868.

Ask

Gold and Silver Stocks,-Nevada Stocks are recovering from the de pressing influences that have weighed them down for the past month or su-and our quotations to-day exhibit this fact. We are glad to note this evidence of retarning confidence. Business at the board is somewhat more brisk, and is confined in a great measure to Colorado stocks, some of which are a shad

ower. Trices to-day are time	dannon .		
Bid.	Asked.	Bad.	Aske
lameda Silver	- 90	Kipp & Bueil Gold	-
American Flag	- 50	Keystone Silver 1	-
Atlantic and Pacific	- 80 ;	La Crosse Gold 35	:
Pates & Baxter Gold	- 75 (	Liberty Gold 2	-
Benton Gold 25	- 35	Liebig	-
Black flawk G 6 50		Manhattan Silver	140
Bohtail Gold 1 00	1 50	Midas Silver 40	-
Bullion Coprolidated 40		Montana Gold 41	
Barroughs G 8		New York 1 00	1
'ojumbian G. & S 4	- 10	New York & Eld'o	1
Combination Silver 9 00	15 00	Nye Gold 2	-
Consolidated Gregory, 4 25	4 40	Owy 'ee Mining	28
orvdon Gold 25	- 30	Con. Colorado 10	-
Edgehil' Mining	4 25	People's G. & S. of Cal - 5	-
Empire G	3 00	Quartz Hill 1 00	1
Gold Huil	1 00	Reynolds Gold	
Grass Valley 20	- 35	Rocky Mountain Gold 10	-
Gunnell Gold	1 20	Smith& Parmelee Gold 3 75	3
Gunneil Usiou	- 35	Senschderfer	10
B'n G & S. bs	- 90	Symouds Fork Gold	1
Harmon G. & S. bs	3 00	Texas Gold	-
Holman 4	- 10	Twin Riv Sil	30
flope Gold 10	- 20	Vanderbarg G	_
Conner Stocks -Davidson	is held	at advanced rates, otherwise	there
no change in our quotations in	om last v	verk :	
Caledonia C	5 00	Gardiner Hill	1
Canada	- 50	Hancock C.	5
Charter Oak	1 00	111iton	1
Conner Falls 22.00		Kaowiton	2
Davidson 45	- 70	Mianesota	4
Evergreen R	10 00	Mendota 1 75	3
Meanblin C 14 50		Ogima	6
Pranaliti Crossie 10	15	Rockland	4

Petreleum Stocks.—Sales of United States are now freely made at \$2, a without any exception prices are firmer, and in many instances an advance shown from last week.

	Did.	ALCE U.		TOTO?
ennehofi Run	85	90	N. Y. and Alleghany	
revoort	50	76	Pit Hole Creek	50
uchanan Farm	60	65	Rynd Farm	18
entraj	-45	70	Second National	
	1 10		Sherman & B	50
mpire & Pithole		10	Tarr Farm	30
lome	1 00		United Pet. Farms	6
anhattan		10	Unlou	6 00
ational	2 00	3 00	United States	2 00

Miscellaneous Stocks - Del. & Hudson Canal, 132 ; Mariposa M. pref. **Miscellaneous Stocks** — Del, & Hudsou Canal, 132; Mariposa M, pref. b tween call, 9; Western U. Tel.,  $35^{1}_{4}$ ; Pacifie Mail,  $99^{1}_{4}$ ; Mariposa M, pref. b  $29^{1}_{4}$ ; Adams' Express,  $52^{1}_{4}$ ; Wells, Fargo & Co.,  $25^{1}_{5}$ ; American Expres  $45^{1}_{4}$ ; U. S. Express, 46; Mer. U. Express,  $23^{2}_{4}$ ; N. Y. Ceatral,  $133^{1}_{4}$ ; Bos H, & E., 17; Mich. Cen., 118; M. S. & N. I. R., 2d call, 92; III. cent., 15 Cle. & Pitts.,  $85^{1}_{2}$ ; C. & N. W. R., 83; Ch. & N. W. Pref., 83; Cle. & Tol. call,  $102^{2}_{16}$ ; C. & R. I.,  $10^{7}_{4}$ ; Mil. & St. P., 75; Mil. & St. P. pref.,  $85^{1}_{4}$ ; C. & R. J.,  $10^{7}_{4}$ ; Mil. & St. P., 75; Mil. & St. P. pref.,  $35^{1}_{4}$ ; C. C., Cin. & Ind.,  $88^{1}_{4}$ ; N. J. Cen., 120; M. & P. D. C., 1 pf., 106; Chi. & Alt. pref., 130; O. & M.,  $80^{1}_{4}$ ; D. & S. C., 78; Tol., W. & Y pf., 73; Adams Ex.,  $53^{1}_{5}$ ; Amorican, 45; United States,  $45^{1}_{5}$ ; Wells, Far & Co.,  $25^{1}_{20}$ ; Merchants' Union,  $23^{1}_{4}$ (24): States,  $45^{1}_{5}$ ; Wells, Far 4 Co., 251/26; Merchants' Union, 23¼@24; National, 24¼@24¼; Wal Lead, 10@16; Tudor Lead, 2 40; Rutland Marble, 15½; Brnaswick C. L.,

Government Stocks .- Governmeats have been quiet, but strong, under firmer gold premium and a better market for Five-Twentles at Londo II.S. 5a 1881, composi-0mdon.

	U. S. 08, 1001, Coupon	10 /2 (0 110 /2
1	U. S. 5-20s, 1862, coupoa	114%@114%
1	U. S. 5-208, 1864, coupon	111%@111%
1	U. S. 5-208, 1865, coupon	112%@112%
1	U. S. 5-20s, 1867, coupoa1	09%@109%
1	U. S. 5-20s, July, 1868, coupon	09%@109%
1	U. S. 10-408, coupon	108%@108%
	I S 7.30s. July, large	10874@109

Foreign Exchange is quiet, bat rather firmer than yesterday, the low rate for prime 60 days' hankers sterling briag 110%; in some instances

more is obtained. We quote :	works, currency so us I rails, American is ou so ou	contracts have been made at a slight advance, but the general disposition is
London, (prime bankers')60 days' 110%	G - STEEL.	to wait until the market becomes more settled. The larger sizes of coal
London, (prime baakers') sight 110%	@ - English, cast (2d and 1st quality) per lh	have been very urgently sought after hy the furnace masters, thereby hop-
Londoa, prime commercial	G English Spring (2d and 1st quality)	ing to keep their furnaces in hlast nntil the strike is over. Lump and
Paris, (bankers') long	@5.12% English Blister (2d and 1st quality)	Steamboat, for the above reason, have in some instances been sold at an ad-
Paris, (bankers') short	English Machinery 13% 16	vance of \$1 25 per ton, and barges loaded with these sizes have been again
Aatwerp	25.15 English German (2d and 1st quality)	taken up the canal to supply this very urgent demand. The strikers have
Swiss	95.15 American Blister, "Black Diamond,"10 16	stopped the coal trains on all the lateral roads of the Philadelphia and Read-
Hamburg (hankers')	(@36 American, Cast, Tool " "	ing Railroad, as well as the planks of that road. There are also bands of
Amsterdam (bankers')41	4 (941 / American, Spring " " 11	strikers roaming about intimidating those who are desirous to work. The
t (DADKCTS')	(321/4 American, Machinery <sup>24</sup> <sup>44</sup> ································	atten arming themselves and seem determined to maint if she by the
Bremen (Dankers)	A (Goo American German " " "	after arming themserves, and seem determined to resist if attacked. It is
Derin (haukers)	PITTSBURGE, July 18, 1868.	transport the product of their labor to market
Gold is quoted nrm at 143% @143%.	FIG IRON AND BLOOMS.	transport the product of their labor to market,
Loans are made at 2%@4 per cent. for carrying.	The Commercial says : The market was firm notwithstandiag we are in the	[From our Special Correspondent ]
Moacy is in rather more demand, hut rates continue steady at 3@4	per cent. midst of the dull season, when many of our large works are uadergoing re-	THE SIMILE OF THE COAL MINERS-ITS PROGRESS.
on call loaus, with exceptions at 5 per cent. In the discount market	there is pairs necessary for the fall trade. The stock of certain descriptions of iron	WILKESBARRE, Pa., July 16, 1868.
a fair movement at 6@7 per ceat., chiefly the higher rate.	continues scarce, particularly bitumiaous coal smelled. This will, in a meas-	The strike among the men la this region has not attained the dimensions it
Conner has been steady but quiet. Sales 600,000 lbs. at 24 %c. for	Straits, mer account for our report hot presenting so hearing an appearance as on for-	is stated to have assumed in Schuylkill county. There they are out at the
24c, for Portage Lake, and 23%@23%c. for Baltimore. For Septe	nber de- iroas. The market coataias an ample supply.	Wilkesbarre Coal and Iron Company's mines, but not at Parrish & Thomas',
livery 24c, has been paid for Baltimore.	In charcoal irons suitable for steel purposes, transactions were light. Sev-	not at the Enterprise and Wyomiag Coal & Transportation Companies collier-
The English market declined to \$71 for Chilli nig	eral lots were under negotiations, but had not been coasummated sufficiently	ies. In Scranton the men are at work, though there is some talk of going oat.
The English matter decided to with onlos of 900 to 400 slabs	for reporting purposes.	Wages now are \$1 45 per day of ten hours for outside labor and some of that
Tin unchanged. Straits 25% (240.) with sales of 300 to 400 slabs.	We are reported the following sales :	strikers are out for eight hoars, while others want as increase of 15 cents per
27c.; English, 24c. without wholesale busidess.	BUTTININGTE COAL SWELTED POW LARE STPERIOR ORES.	day in addition to the reduction in time
Lead steady at 6 80 100(0.6% c. for ordinary foreign, with sales of 25	0 tons. S37 50_4 mos	The coneral feeling among the operators is is fores of a 11 moderation. If there
Speller-0's do so to of chestal, without whotesale mansactions.	100 tons ones gray forge	The general feeling among the operators is in favor of a "good strike ;" they
Receipts for the week ending July 21	A 615	would like to see all the men out for a moath or two throughout the eatire
Exports for the week	ANTHRACITE.	coal region. There can be no doubt such an event would at oace increase the
flo. from January 1 do. 26,26	3.381 10 tons mottled	price of coal to such an extent that the entire fall work would be brisk. At
Do. same time last year do. 16,48	0,906 10 toas No. 2 aathracite	the present prices of coal it is impossible to increase the rates of wages with-
The following is the quantity exported from other ports, Jan. 1 to	July 18: 25 00 cash	out making coal mining too avnascing a laware to be induted in he are but
1868. 18	57. 10 tons No. 3 gray norge 41 00 4 more 43	out making out mining we expeasive a taxary to be indulged in by any nut
From Bostongalls. 1.286,606 1,19	3,629 To tons no. I Tound y	the large transportation companies. It is pretty certain that there is no min-
Philadelphia	A (724 HANGING ROCK.	Ing company in the anthracite region which is now paying its way.
Buttinior	100 tons No. 1 hauging rock charcoal, foundry\$43 00-time.	The men are all " out" is the Hazietou and Lehigh regions. The only
101100000000000000000000000000000000000	25 tons No. 1 4 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	mises now working is the anthracite region are 1 believe those in the Wyom-
10131	2 316 40 tons No. 1 " " extra loundry	Incard Lackswans Valleys
Total exports from the UnitedStates 46.820.501 32.28	6.385 BLOOMS.	TENA.
Same time in 1866 29.15	9.711 20 tons No. 1 Juniata \$90 00-4 mos.	LEBOWDORD IN THE JOCENAL OF MINING WIll he found later news from the fur-
Same time in 1865, 6,83	0,045 / 30 tons extra Juniata, 108 00-4 mos.	hulent mining districts.] ED.
		•

THE IBON TRADE

NEW YORK, Friday evening, July 24, 1868.

There is an increased demand for American irons, and the strike among the Pennsylvania coal miners has stopped all sales hy the Lehigh furnaces. No. 1 lron is scarce and higher. No sales of any moment have occurred. We notice 600 tons 2 extras at p. t.

Scotch iron is scarce aad all the stock here is in yard ; it is firmly held but with little inquiry at present, Old rails continue scarce. We quote 200 tons D. H. at p. t.; 200 tons old T at \$49 : 50 tons T's and D. D. at \$48 50.

Scrap iron is quiet and firmly held, with bat small stock here. We quote 200 tons from yard at \$46; 50 tons old tyres at \$53; 75 tons old car wheels p. t

In sheet iron we note the sales of 1,200 packs ol Russia to arrive, on private terms. Light numbers are scarce, and command  $13_{12}(6)$  from store; havy do.  $17_{12}(c)$ , and medium nambers  $16_{21}(c)$ ; Belgian sheet  $14_{12}(c)$ , and American Russia 14@15c. cash.

Boston, July 15, 1868.

The market for pig iron is very firm, with a small stock and light receipts. Gartsherrie and other brands No. 1 have been selling at \$42@44, and Ameri-can at \$40@45 per ton. Bar iron is firm with steady but moderate sales. In Russis abeel iron nothing of any consequence has been dono. Prices range from 13@41e, per th. gold. Imports of pig iron irom Jaa. 1 to Jniy 18:

1867. 17,869 4,566 For Great Britain..... . 6,312 5,680 PmLADELFHA, July 22, 1868. Ia pig iron there is rather more doing ; sales of anthracite at \$37@38 i No. 1, and \$34@35 for No. 2. Manufactured iron is firmly held at inil prices. 38 fo

Lehigh Valley Iron Trade.

The following table shows the amount of Pig Iron transported over the Le high Valley Railroad for the week ending July 18, 1868, and for the season to that date.

a		July	1,1868.
e	From Carbon Ison Co	Tons.	Total.
	Lahigh Valley Iron Co	180	6 470
d.	Thomas Iron Co	145	15,810
15	Lehigh Crane Iron Co	130	14,505
20	Allentowa Iron Co	430	10,610
4	Robert Iron Co	80	5,420
4	Glendon Iron Co	280	11,657
00	Other shippers	300	11,001
75	Total	1.735	83,567
43		-,	
10	Lake Superior from Trade.		
3	Receipts of Ore and Pig Iron at Marquette, up to and in	cluding St	aturday,
00	July 11, 1868, by the Marquette & Ontonagon Railroad.		
-	IRON ORE.		
15	Previously For w	eek end'g	Total
10	reported. J	u y 4.	Iotal.
12	Lake Superior Irou Co 31,761	,924	35,685
85	Cleveland Iron Co	,001	14,828
00	Washington Iron Co	847	12,157
00	New England Iron Co	474	3,485
10	Edwards Mine 4,631	773	5.404
70	Pittsbarg & Lake A. Iron Co 8,999	,653	10,652
10	Ore to Local Furnaces	296	9,70%
15	Total trop One tops	014	06 240
~~	Total from Ore, tone	,012	00,040
00	PIG IKUN.		
00	Morgan Iron Co 3,664	161	3,825
00	Bengroft Iron Co. 1715		1 72-2
00	Collias Iros Co	408	1,778
00	Michigan Iron Co 2.480	62	2.542
00			
00	Total Pig Iron, tons 9,557	648	10,205
na	Total Ore and Pig Iron tons 05.083 1/	589	100 545
19	Total Ore and Fig Hon, construction of Short As the West	,002	100,040
d.	British Exports of fron and Steel to the Uni	ted State	38.
25	The following statement exhibits the quantities of the va	rious kind	sof Iron
00	fand Steel exported from Great Distant to the United Stat	es, during	the urst
19	The monens of the years root and root, in cons of 2,000 ins	1867.	1868.
19	Iron, Pig and Puddled	55,177	25,973
40	" Bar, Angle, Bolt and Red	21 644	15,716
15	" Railroad of all sorts	97,675	126,121
50	" Unone Sheets and Boller Plates	11 440	4 964
05	Wrought of ali sorts.	3,468	1.850
be.			
011,	Total	189,666	174,773
88.			
st.	Steel, unwrought	10,019	6,059
51 .	Market Prices.		
h.	New Yo	RE. July 2	4, 1868.
	Dury Bars, 1 to 1 %c, per lb, ; railroad, 60c, per 100 lbs	. : hoiler a	and plate.
[0].	11/c nor lb · sheet hand hoon and scroll 11/ to 11/c m	or the n	a \$9 n.r
lst	ton : polished sheet, 3c. per lb. Pavable iu gold.	er 10. , p.	51 00 per
W.	Am nig fy No 1 best \$39 00@42 00   Stirls of any net. d	here -	
rgo	" 2x, fdry, 35 00 38 00 Light ris for mine	s &c.,	
kill	" Grey Forge, 32 00 35 00 at works	80	00
10.	White and Mottled 31 00 Do. dolivered here		
r a	Pure white, for Cal. mar. 41 00 44 00 Bar, Eng. and Am.	, ri'd 81 0	0 87 50
4 66	Scotch Hg, No. 1. Dest Dd 41 00 44 00   Bar, Eng. & Am.,	PRICES	0 90 00
	Scrap Iron, ex. ship 46 00 Bar, Swedes, ord'y	sizes	- 150 00
0%	" fm yard 48 30   Sceoll	125 0	0 170 00
14	Old ralls 49 00 Ovals and half rou	ind120 (	0@150 00
2%	K.K. Iron, For., Im Stock Band.		
9%	P R Iros For to imp 50 00 i Rode 4/02.16 inc	h 100 0	160 00
9%	Amer. at wks.		0 185 00
10 %	currency 78 00 Nail Rod, per lb		9 10
D.	R.R. Iron, Am., deliv'd. 80 00 Sheet, Rus., Med.	Nos. 1	1814 1914
Vest	Solid Steel rls. For, gd 110 00 Sheet, s'gle, D. & T	. com	5 7
1.16	Sti rails of any pattern at Rails, Eng., gold,	toa 51 5	0 52 00
	works, currency 80 09   Ralls, American	19 (	0 80 00
-	STEEL.		

London, (prime bankers')60 days' 110%@ -	STEEL.	to wait until the market becomes more settled. The larger sizes o
London, (prime baakers') sight 110%@	English, cast (2d and 1st quality) per lb	have been very urgently sought after hy the furnace masters, thereby
Londoa, prime commercial @	English Spring (2d and 1st quality)	ing to keep their furnaces in hlast until the strike is over. Lum
Paris, (bankers') long	English Blister (2d and 1st quality)	Steamboat, for the above reason, have in some instances been sold at
Paris, (bankers') short	English Machinery 13% 16	vance of \$1 25 per ton, and barges loaded with these sizes have been
Aatwerp	English German (2d and 1st quality)	taken up the canal to supply this very urgent demand. The strikers
Swiss	American Blister, " Black Diamond,"10 16	stopped the coal trains on all the lateral roads of the Philadelphia and
Hamburg (hankers')	American, Cast, Tool " "	ing Railroad, as well as the planks of that road. There are also bas
Amsterdam (Dankers')	American, Spring " " 11 13	strikers roaming about intimidating those who are desirous to work.
t (Dankers')	American, Machinery " " 13	men at some of the conteries at the Shamokin district have gone to
Breinen (bankers).	American German " " 13	not probable however that the strikers will allow the Bailand
Berlin (nankers)	PITTSBURGE, July 18, 1868.	transport the product of their labor to market
Gold is quoted nrm at 143% @145%.	FIG IRON AND BLOOMS.	[From our Special Correspondent ]
Loans are made at 2%@4 per cent. for carrying.	The Commercial says : The market was firm notwithstandiag we are in the	THE "STRIKE" OF THE COAL MINERS_ITS PROGRESS
Money is in rather more demand, nut rates continue steady at 3614 per cent.	midst of the dull season, when many of our large works are uadergoing re-	Witgenappe Da July 10 1
on call loans, with exceptions at 5 per cent. In the discount market there is	pairs necessary for the fail trade. The stock of certain descriptions of from	The stelles among the man is this section has set attained it.
a fair movement at 6@7 per ceat., chiefly the higher rate.	continues scarce, particularly bitannaous coal shielder. This will, in a meas-	the strike among the men is this region has not attained the dimens
Copper has been steady but quiet. Sales 600,000 lbs. at 24 kc. for Stralts,	mer occasions. Of course our remarks apply to favorite brands of iaferior	is stated to have assumed in Schuylkill county. There they are out a
24c, for Portage Lake, and 23%@23%c. for Baltimore. For September de-	iroas. The market coataias an ample supply.	Wilkesbarre Coal and Iron Company's mines, but not at Parrish & The
livery 24c, has been paid for Baltimore.	In charcoal irons suitable for steel purposes, transactions were light. Sev-	not at the Enterprise and Wyoming Coal & Transportation Companies of
The English market declined to £71 for Chili pig.	eral lots were under negotiations, but had not been coasummated sumciently	ies. la Scranton the men are at work, though there is some talk of goin
Tin unchanged. Straits 23%@24c., with sales of 300 to 400 slabs. Banca.	Foundry irons were in fair demand without any change is prices.	Wages now are \$1 45 per day of teu hours for outside labor, and some
97c - English 24c without wholesale business.	We are reported the following sales :	strikers are out for eight hoars, while others want as increase of 15 cer
T and steady at 6 80.100/263/c. for ordinary foreign, with males of 250 tons	BITUMINOUS COAL SMELTED FROM LARE SUPERIOR ORES.	day in addition to the reduction in time.
Snaltar-63 @6 45-100 for Silesian, without wholesale taansactions.	98 tons gray forge\$37 50-4 mos.	The general feeling among the operators is is favor of a " good strike ;
Petroleum-Is quiet at 17c. for crude, and 34c. for refiaed, in bond.	100 tons opea gray forge 37 50-1 mos,	would like to see all the men out for a mosth or two throughout the
Receipts for the week ending July 21pkgs. 18,645	ANTHRACITE.	cont region There can be no doubt such an event would at case increas
Exports for the weekgalls. 1,419,626	10 tons mottled	coal region. There can be no doubt such an event would at once increa
100. from January 1 do. 26,268,381	10 toas No. 2 aathracite	price of coal to such an extent that the entire fall work would be brisk
10. Stude time ask year and from other ports in 16,480,300	F10 toas mottled	the present prices of coal it is impossible to increase the rates of wages
The following is the quartery expected from other parts, and it of the start is the start of the	60 tous No. 3 gray forge 35 00-cash.	out making coal mining too expeasive a luxury to be indulged in by an
From Boston	10 tons No. 1 foundry 41 00-4 mos.	the large transportation companies. It is pretty certain that there is p
Philadelphia 17.578.125 13.704.024	HANGING ROCK.	ing company is the asthracite region which is now maying its way
Baltimore 1,053 886 1,074,663	100 tons No. 1 hanging rock charcoal, foundry	The man are all ( and ) is the flashed and T. 11 .
Portland 214,508	25 tons No. 1 " 1 " 14	The men are an out is the mazieton and Lenigh regions. The
	40 tons No. 1 16 4 40 extra foundry 44 00-4 mos.	miaes now working is the anthracite region are, I believe, those is the l
Total 20,133,125 15,972,316	BLOOMS.	Ing and Lackawaana Valleys. P
Total extends in 1966	90 tone No 1 Innista \$00.00 1 mor	Elsewhere in the JOCENAL OF MINING will he found later news from t
Same time in 1865. 6 830 045	30 tons extra Juniata	hulent mining districts.) Ep.
CHILL CITES IN BAAAILAA	a a town Awriter Constitution in the second se	

LONDON, Jane 26, 1868.

London, June 26, 1868. In Staffordshire, as was anticipated, the ironmasters of the district, at their preliminary meeting held at Birmingham, confirmed the price list as agreed upon at the last quarterly meeting. Bars, therefore, remain at £7 per ton at the works, and other descriptions is proportion. There continues to exist a good demand, and the export trade is especially brisk. In Welsh, quotations are somewhat better supported, and it is believed that during the ensuing quarter there will be less underseling than usual. The clearances for the tor-city markets continue on a tolerably large scale, chiefly for the United Fatzes. There are some Russian contracts on the books, but not as yet for any very large quantities. Home engagements are being offered a little more freely, several of the rallway companies gradeally increasing their purchases. In Scotch pig iron a very good inquiry exists, and more sales are taking place. In Scotch pig iron a good business has been done during the week, and prices have continued to improve, the last price received from Glasgow being 55s, cash. cash

•		<b>N</b>	9			Do. ranway, wates, 10 0(015)	15	0
5	5	0				Do. Swd. in London., 9 17 6 10	2	6
8	15	0	7	0	0	To arrive 10 2 6		
7	7	6	8	10	0	Pig, No. 1, in Clyde, 2 13 3 2	16	6
7	5	0	9	10	0	Do. f.n.b, Tyne, Tees. 2 9 6		
8	2	6	9	15	0	Do. Nos 3, 4, f.o.b. do 2 6 6 2	7	0
9	0	0	11	0	0	Railway chairs 5 10 0 5	15	č
3	15	0	4	5	0	" spikes 11 00 0 12	0	ň
£.	0	0	5	0	0	Indian Charcoal Pigs		
5	10	0	5	15	0	in London, pr. tou. 7 00 7	10	1
6	10	0		••	••			
	557759315 6	5 15 5 15 7 5 8 2 9 0 3 15 1 0 5 10 6 10	5 5 0 5 15 0 7 7 6 7 5 0 8 2 6 9 0 0 3 15 0 1 0 0 5 10 0 6 10 0	$\begin{array}{c} 3 & 5 & 0 & 0 \\ 3 & 5 & 0 & 0 \\ 3 & 15 & 0 & 7 \\ 7 & 7 & 6 & 8 \\ 7 & 5 & 0 & 9 \\ 8 & 2 & 6 & 9 \\ 9 & 0 & 0 & 11 \\ 3 & 15 & 0 & 4 \\ 4 & 0 & 0 & 5 \\ 5 & 10 & 0 & 5 \\ 5 & 10 & 0 & 5 \\ 5 & 10 & 0 & 5 \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5         0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$

STEEL.

### THE COAL TRADE.

NEW YORK, Friday evening, July 24, 1868. The market is entirely hare of coal in consequence of the miners' strike, which still continues. Dealers complain that they have no coal for sale, and refuse to quote prices until the 1st of August or the termination of the strike. Under these elrcumstances we do not see fit to change our quotations, withstanding if coal was to be had at the calling 50 to 75 cents per ton advance

would be required. Freights, which are always dependent upon the amount of business doing, remain unchanged, except ior some of the Eastern ports where dealers are anxlous to get their coal on previous orders, and from fear of being left without

a supply, are paying an extra rate. The sixty-fourth Scrautou sale is advertised in our columns to-day to take place on Wednesday next the 29th inst.; 30,000 tons of the usual sizes will be disposed of. That an advance will be realized of 40 to 50 conts per ton, no one

donhts. The amount of coal exported from the port of New York for the week end.

The amount of coal experior around an experior and amount of coal experior and an experior an experior and an experior an expe The strike which has prevalled in the Lehlgh and Schuylkill region for the past month still continues, and it is difficult to determine at present writing when it will terminate.

The demand on the part of the men is eight hours' work and ten hours pay. They feel that the law is on their side, hut cannot be made to realize that the operator cannot afford to pay the same wages for 8 hours work as for 10 hours. When legislators ease to tamper with the laws of trade, and stop such ridiculous legislation, there will probably be less occasion to find fault with the men who think that " these wise Solons mean something for their good hy passing these eight hour laws," when its result is loss to the working man and a general disturbance of trade

It is generally surmised that the men in the Lackawanna region will not voluntarily join the strikers of the other regions, and as there is a deter-mination shown, on the part of the authorities, to protect the men against all coercive measures, it is expected that, so far as the Lackawanna region is concerned, there will be no general stoppage there; and failing there, the meu in the other regions will soon see the folly of further resistance, and resume work at an early date.

The stoppage thus far has kept back a large amount of tonnage, which cannot be recovered for the balance of the season, and if the strike termi-Callifor be recovered for the balance of the scanot, and is the sufficient ermi-nates soon, it would appear as if coal must command better prices for the scason. Tolls will certainly advance on or before the 1st of September and coastwise freights must also look np. Consumers would therefore cousult their interests by buying their supplies at current quotations.

### BOSTON, July 22, 1868.

Boston, July 22, 1868. There have been sales of 650 tons English Cannel, to arrive, at \$16 50 per ton, and, in small lots, as high as \$20 per ton. In Sydney sales at \$8 00a \$25] and Pictou, same per ton. Cumberiand has been selling at \$8, 00a \$25] and Pictou, same per ton. Cumberiand has been selling at \$8, 00a torgoes delivered at Baltimore sell at \$4 50, and at Georgetown \$4 25 per ton. Anthracite has been in very good demand, and an effort is making to brace up prices on account of the troubles at the mines. Cargo sales at \$6 00a6 50, and in retail lots at \$7 00a7 50 per ton. Pennsylvania and Westmoreland Gas is selling at \$7 20 per ton, delivered in Philadelphia. PullAULTRIA, July 22, 1868. Brices. A correspondent writes : The miners and shippers of coal show no disposition to sell, feeling perfectly safe in holding of, as they are conf-entificite have been made at a slight advance, but the general disposition is contracts have been made at a slight advance, but the general disposition is

tion la of coal p hop an ad an ad agair have Read nds of The work It is any to

54

398,316 05

outes of transportatio	exhibits in for the	the quant week end	ity of Coa ing July 1	1 passed ( 8, 1868 :	over the	following	Corresponding week last year 37,389 18
ourse a same	18	67.	18	68.	INC.	OR DEC.	Decrease,
	WFEK.	TOTAL.	WREE.	TOTAL -	WEEK.	YEAR.	
bil. & Reading R. R.	74 552	1,757,143	10,087	1,674,440	d 64,40	5 d 82,703	Prices of Coal by the Cargo.
chigh Valley R. R.	50,316	1 101,268	11,872	1,299.048	d 38,44	4 1 197,780	[CORRECTED WEEKLY ]
ehigh & Susq. Caual	37.390	398,316	7,330	386,686	1 30,00	50 d 11,630	At New York, July 25, 1868.
cranton North	9,513	220,648	14,464	269,156	1 4,98	51 1 48,508	Schuylkill R. A., choice \$5 50@\$   Schuylkill Chestnut
Penn'a Coal Co. Rail.	19,631	414.364	22.327	467.505	i 2.69	96 i 53.141	" Ordinary 5 25 Ledigh W.A Lump Of
enn'a Coal Canal	591	9,419	1,054	12,742	i 40	53 i 3,360	" Steamboat 5 00 Lenigh Broken
el. & Hudson Canal.	39,804	615,062	37,973	609,784	d 2,5	54 d 5,278	" Broken 5 00 " Surc
hamokin	1.807	209,170	574	201,004	d 1 23	12 1 13,609	" Egg 5 25 " Chestnr"
hort Mountain	2,751	87 200	1,304	53,079	d 1,44	7 i 15,829	" Stove 5 25   Shamokin
ykens Valley C. Co.	1,704	33,827	835	43.937	d 86	39 i 10,109	SPECIAL COALS,-DEALERS' QUOTATIONS.
funtingd'n & B'd Tt	4,655	128,773	5,155	130,180	d	1 1,407	Diam'd Vein R. A., Sch'kill 5 50 Old Co.'s W. A. Lehig
Wyoming Sonth.	18,263	101,658	8,199	102,536	d 10.00	641 878	Honey Brook " Lehigh, 5 50 Broad Mountain
Vyoming North			4,179	12,442			Harleigh " . 5 50   Buck Ridge W. A., Sh
ehigh & Susq. R.R.			4,880	206,384			Spring M'n " . 5 50 H. Heils, E. S'klin, L
Total	334.369	6 339 625	166 614	6 661 871			Ashburton (4 (4 5.50 I Wyoming
100003			334,639	6,339,225			Dealers in these Coals may be found in our advertising
000000			167 735	324 946			At Philadelphia, July 25, 1868.
ecrease	Schu	vlkill Co	al Trade	0.000			fehigh Lump and St'mh't. 5 00@   Henry Clay, Egg & S
BY RAILROAD A	NDCANA	L. FOR TI	IE WEEK	ENDING	JULY 2	4. 1868.	" Stove 550 Steamboat
DI RAILIGAD A.	the online		R	AILROAD	oom a	CANAL	" Chestaut
st. Clair				16	•		schuylkiii R. A 4 25 4 50 " Egg
Port Carbon				2,639			WAImp 2.05 Corbert Coal
Pottsviile			•••••	1,041			"Broken
Anhurn				169			" Egg and Stove 3 75 4 00 Franklin, (Lykens Vi
Port Ciinton				2,484			Schnyikill Chestput 2 75@ Broad Top
company's use				691			Hill & Harris, Egg & Stove 4 30
Total for Week				7.040			Scranton Coal at Elizabethport, July 23, 1
. Previonsly this ye	ear			1,674,410		454,594	(Corrected weekly by D. L. & W. R. K. Co.)
		•	-				Lump
Tetal		••••••		827 976		519 989	Grate
Same time tast yo				,001,210		012,000	Prices for Pittston Coal at Newburgh, July 24
Decrease				155,796			(Corrected weekly by Penna, Coal Co.)
Lehigh and St	usqueha	nna Rail	Iroad, W	eek end	ing Ju	ly 18.	Lump, per ten of 2240 lbs. \$4 20@ 1 Frg 44 **
				WEE	K.	TOTAL.	Steamer, " " 4 20 stove " "
WI	HERE FROM	M		Tons	Cart	Tong Cwt	Grato " " 4 30 Chestnut " "
				Tons.		Tours On the	Tos 320
WYO	MING REGI	ION.		1		-	To conta additional to New Fork.
A. Roberts & Co			•••••	. 5	99 03	3,242 06	Lackawanna at Kondout, July 25, 186
Newport Coal Co			********	1 :			Sleamer 4 35/0 Store
Warrior Run Mining	Co						Grate
Parrish & Thomas				. 2	41 08	6,469 05	65 cents additional to New York.
New Jersey Coal Co		• • • • • • • • • • •	•••••	. 4	55 12	266 19	Lehigh Coal at Elizabethnart, July 25, 11
Lances' Colliery		••••••			15 111	59 15	Lamp
Lehigh & Susquehanu	a					15 10	Steamboat and Broken 4 75 Stove
Germania Coal Co				. 3	51 06	10,569 09	ligg 4 75
Franklin	ent	•••••	*******	•		40 04	Wilkesbarre Coal at Hoboken, July 25, 1
Wilkesbarro Coal & It	on Co			6,0	50 18	118 824 09	(Corrected hy Wilkesbarre Coal & Iron Co.)
Union Coal Co						2,040 07	Lump
Mineral Spring	• • • • • • • • • •	• • • • • • • • • • •	•••••			0,029 00	Steamer 4 45 Stove
H. B. Huiman & Son.	•••••					228 14	Broken 4 49   Cnestnut
Wyoming						3,006 09	At Baltimore, July 25, 1568.
Henry						3,354 19	Wilkesbarre & Pittston W. From wharf or yard
J. H. Swoyer		•••••	•••••	••1 •		2,149 00	Lykens Valiev R. A. by Ret.il. del'd. per 2.2
Aibrighton Roberts	& Cn						car@ 5 55   George's C'k and Cu
Shawnee					616 02	7,360 11	Sunbury & Shamokin R. or 1and f. o. h. at Loc
Morris & Essex Mutn	al			•• •		78 19	W A. by car 5 00 5 50 1 for shipping
Delaware & Hudson Colliery	0	*******	• • • • • • • • • •		40 14	2.227 01	At Havre de Grace, Md.
Consumers Coal Co					96 00	1,610 09	Wilkesharre or Pittston, W. Sunhury or Shamo
Harvey & Brothers .						184 11	Trevorton R. A. on board 525 Lykens V'y, R. A. o
Other Shippers	• • • • • • • • • •		•••••	••	53 16	5,284 10	Havre de Grace is the terminus of Susanehanna and Tide
Total Wyoming	Region			9.	134 14	188,735 03	At Georgetown D C and Alexandria
UPPER	LEHIGH	REGION.					George's ('reak and Cumberland f o b
Upper Lehigh						60,773 11	Briege of Gas Coole
Total Linner Leb	uch					60 773 1	Prices of Gas Coals.
HAZ	LETON RE	GION.	*******			00,110 1.	July 25, 1868.
A Pardee & Co						31,512 0	Duty, \$1 25 Coarse, Slack,
Linderman & Skeer.	•••••	• • • • • • • • • • •			02 08	756 0	Gold. Gold.
W S Halsey & Co.				•••	80 00	1,701 0	Block House\$1 75 \$ 75   Westmoreland Co.
Harieigh Coal Co		*********			184 14	15 212 0	6 Lingan 1 75 75 Penn
C					99 14	23,408 1	7 Sydney
G. B. Markie & Co					159 06	14,805 1	Pictou 2 13% 1 18% Delivered in New
G. B. Markie & Co Ehervale Coal Co						1,001 1	Little Glace Bay 1 75 1 00
G. B. Markie & Co Ehervale Coal Co Stout Coal Co Buck Mountain Coal	Co				288 16:	8 851 0	0
G. B. Markie & Co Ehervale Coal Co Stout Coal Co Buck Mountain Coal Coxe Brothers & Co	Co				288 16	8,851 0 4,637 1	Prices of Foreign Coals.
G. B. Markie & Co Ehervale Coal Co Stout Coal Co Buck Mountain Coal Coxe Brothers & Co Ashburton Coal Co.	Co				288 16	8,851 0 4,637 1 64 0	B B B Duty \$1.25 per ton.
G. B. Markie & Co Ehervale Coal Co Stout Coal Co Buck Mountain Coal Coxe Brothers & Co Ashburton Coal Co Highland Coal Co	Co				262 11	8,851 0 4,637 1 64 0 8,627 1	<ul> <li>Prices of Poreign Coals.</li> <li>Duty \$1.25 per ton.</li> <li>Corrected weekly by PARMELEE BROS., 32 Pine Str.</li> </ul>
G. B. Markie & Co Ehervale Coal Co Stout Coal Co Buck Mountain Coal & Coal Book & Co Highland Coal Co Pardee Bro. & Co Jeddo Coal Co.	Co				288 16 262 11 249 10	8,851 0 4,637 1 64 0 8,627 1 4,904 0 4 738 0	Prices of Foreign Coals. Duty \$1.25 per ton. Ourrected weekly by PARMIZE HERS., 32 Pino Str Liverpool Gas Caking
G. B. Markie & Co Ehervale Coal Co Stout Coal Co Buck Mountain Coal éoxe Brothers & Co. Ashburton Coal Co Highland Coal Co Jeddo Coal Co Mount Hall.	Co				288 16 262 11 249 10	$\begin{array}{r} 8,851 & 0 \\ 4,637 & 1 \\ 64 & 0 \\ 8,627 & 1 \\ 4,904 & 0 \\ 4,738 & 0 \end{array}$	Prices of Foreign Coals.           6         Duty \$1.25 per ton.           9         Corrected weekly by PARMELER BROS., 32 Pine Str.           4         Liverpool Gas taking
G. B. Markie & Co Ehervale Coal Co Stout Coal Co Buck Mountain Coal Goxe Brothers & Co. Ashbarton Coal Co., Highland Coal Co., Jeddo Coal Co Jeddo Coal Co Mount Hall Other Shippers	Co				288 16 262 11 249 10	8,851 0 4,637 1 64 0 8,627 1 4,904 0 4,738 0 927 0	Prices of Foreign Coals.           Duty \$1.25 per ton.           Corrected weekly by Parkmerks Bross., 32 Pine Strict           Liverpool Gas taking

Total Hazieton..... FROM MAUCH CHUNK. FROM MAUCH UNORS. Summit Mines..... Room Rnn Mines....

•

t

y

JULY 25, 1868.]

1	INC	. 01	B DEC.	Increase	11.630 0	18	
-	WEEL	K.	YEAR.			I	h
40	d 64.4	165	d 82,703	Prices of Coal by the Cargo.		E	ar
94	d 23,0	678	d 29,127	[CORRECTED WEEKLY ]		I	A
86	1 30,1	060	d 11,630	At New York, July 25, 1868		8	te
56 79	i 4,9 d 10,4	951 411	i 48,508 d114.204	Schuylkill R. A., choice\$5 50@\$   Schuylkill Chestnut 4		. 1	g
05	i 2,	696	i 53,141	W. A., Lump., 5 00 Ledigh W.A Lump on Co S	87 %	. 8	h
42 84	d 2,	103 554	1 3,360 d 5,278	" Steamboat 5 00 " Egg	87%		12.4
04	d 2,	241	d 7,667	" Egg	87 3		
79	d 1,4	417	i 15,829	" Stove 5 25 Shamokin	50	·   I	*
S7	d 's	369	i 10,109	Diam'd Vain P. A. Schlicht 6 50 LOId Co. to W. A. Tabirth 5	50		
11	d (	581	i 36,666	Locust Dale W. A., " . 5 50 Mt Pleasant 5	00		h
36	d. 10,0	064	1 878	Honey Brook " Lehigh. 5 50   Broad Mountain	50		
84				Sprug M'n " " . 5 50 H. Heils, E. S'klin, Lorb 5	50		
71		_		Sugar Creek " " . 5 50 New England Red Ash 5	25		
25				Dealers in these Coals may be found in our advertising columns		Ĝ	
46		_		At Philadelphia, July 25, 1868.	~	1	b
				"Broken and Egg. 5 00 Henry Clay, Egg & Stove .	@4 4	10	
G.	ULY	24,	1868.	" Stove 5 50 Steamboat 3	25 3 4	10	
D.			CANAL.	Schuylkiii R. A	60 4 (	00 7	i.
19				" Chestant 2 60 " Stove	00 4 1	15 8	3h
1				"Broken			
9				" Egg and Stove 3 75 4 00 Franklin, (Lykens Valley) 5	00	••	
1				Hill & Harris, Egg & Stove 4 30			
-				Scranton Coal at Elizabethport, July 25, 1868.		1.	-
0			454.594	(Corrected weekly by D. L. & W. R. R. Co.)		li	er
-				Lump	50	••	
0 6			512,989	Grate	25		
-				Prices for Pittston Coal at Newburgh, July 25, 1868			
0			10	(Corrected weekly by Penna. Coal Co.)			
EEF	. I	1	TOTAL.	Steamer. " " 4 20 Egg " " 4	30 ···	:: 11	Fr
		ma	- Cout	Grato " " 4 30 Chestnut " " 4	20		Fr
s.	Cwt.	10	ns. Cwt.	Pea " " 3 25		1	ſe
			9 946 08	Leckswappe at Bondent July 05 1868			
	3 03			Lamp	40@		Le
• •				Sleamer 4 35@ Stove 4	75		M
24	1 08		6,469 05	Grate 4 30@ Unestnut	20		F
44	4 04		8,595 10	Lehigh Coel at Fligsbeth part July 95 1868			
1	5 11		59 15	Lamp	1 25		
3	30 12		15 10	Steamboat and Broken 4 75 Stove	5 00		L
• •			25 04	Wilkeshawe Coal at Wabaken July 05 1989			M
: 01	50 18	1	18 824 09	(Corrected by Wilkesbarre Coal & Iron Co.)			R
		-	2,040 07	Lump	4 45@		
• •			6,029 06	Steamer	4 85		
			228 14	At Baltimana Talm 05 1828	1 20		
٠			3,006 09	Wilkesbarre & Pittston W.   From wharf or vard, 50c.			S
			2,749 06	A. by car\$5 25@5 50 tn 75c per ton additional			L
•				car	1 00/001	00	P
5	16 02		7,360 11	Sunbury & Shamokin R. or Iand f. o. h. at Locust P't			L
•	49 14		78 19 5,246 17	At Herre de Grece Md	@4	19	
4	61 00		2,227 01	Wilkesharre or Pittston,W. i Sunhurv or Shamokin, R.			Nu
	96 00		1,610 09	A., on board\$	@4	85	-
	53 16		5,284 10	Trevorton R. A., on board 5 25   Lykens V'y, R. A. on b'd.	@5	50	
9.1	34 14	-	188,735 03	At Georgetown D.C. and Alexandria Water C	anai.		
- 74		1	0 7-0	George's Creek and Cumberland f. o. b	@ 4	35	E
		-	00,113 11	Prices of Gas Coals.			0
			60,773 11	July 25, 1868.			200
			31,512 09	Duty \$1 25 Coarse, Slack Coarse	se. Sla	ck	000
	02 00		756 06	Gold. Gold.	Currency	7.	ł
	PO 08	1	1,701 09	Block House\$1 75 \$ 75   Westmoreland Co\$ Gowrie 1 75 75   Desnard Coal Co	5 50 \$8 8 25 9	00	1
1	184 14	1	15 212 06	Lingan 1 75 75 Penn	8 50 8	00	1
	159 06		14,805 12	2 Sydney	8 50 8	00	
		1	7,551 11	Little Glace Eay 1 75 1 00			
		1	4,637 1	Prices of Foreign Coals.			١.
	969 11		64 0	6 Duty \$1.25 per ton.			
	249 10		4,904 0	4 Liverpool Gas Caking	1. 8 00@19	9 00	1
			4,738 0	3 " " Cannei	6 00@18	8 00	
			927 0	2 Per ton 2240 lbs., Ex. ship. PRICES FROM YARD :			
1	337 1	-19	148 267 4	1 Liverpool House Orrel, scr'd \$186,20   Livp'l House Cau'l, scr'd. 2	2 00@-		
-		1	210,401 0	per ton 2000 lbs. delivered.			1
		•	704 1	o Coal Freights.			1
-		- -					1
1	337 1	9	704 1 148.267 0	(Corrected Weekly.)			
-		:	60,773 1	Rates of Freight from Newburgh			ł
9	104 1	1	188,735 (	On "Pittston" Coal, hy boats and Stamford.		1 25	
10	472 1	3	398,480 1	12 barges of the Pennsylvania Coal Com- Norwalk		1 25	1
10	,472 1	9	121,036	10 Troy and West Trov		1 25	
		2	*****	. Alhany and Greenbush 50 New London		1 40	1
		-1-	100 010	40 Norwich		1 90	1

Rates of	Transportatio	a to Tide	Water	r.	
	BY RAILRO	AD.]			
Tol	Port Richmond	-(Philadelphi	a.)		
Philadelphia and Reading The following are the of Brunswick and South of	R. R. from Schuy irawbacks ailowed Cape Henry, until	on all coal further notice	shipped I	Cast of Ne	w
	Draw	vback.	reight.	Nett	
Lamp	\$1	. 25	\$2 00	8	15
Steamboat		10	2 00	1.	50
Egg	4	65	2 00	1	35
Stove		50	2 00	14	50
Chestnut		75	2 00	1 :	iā.
From F	Port Carbon, 8 cel	nts per ton n	aore.		
	To Elizabeth	iport-			
L. V. Railroad from Mauch C. R. R., N. J., Easton to	b Chunk to Easton. o Elizabethport		• • • • • • • • • • •		59 96
Shipping Expenses at El	lizabethport			1	75 25
Total					00
	To Port Joh	nson.			
L. V. R R		• • • • • • • • • • • • • • • •			59
Shipping Expenses			• • • • • • • • • • • •		25
Total				2	06
	To Hobok	en.			
L. V. R.R					89
Morris & Essex R.R				1	12
Total		• • • • • • • • • • • • • • • •	• • • • • • • • • • •	2	25
20000	COT OLVA				00
	[BY CANA	L]			
	To Port Rich	mond.			
From Schnylkill Haven	to Port Richmone	4		<b>\$1</b>	00
Freights and tolls hy Ra	ritan Canal		••••••	1	90
Drawback			••••••	2	010
Total				2	0
From Manch Chunk to h	To New Y	ork.	Dir and	Dol &	
Raritan Canal				201. 0	90
Freights through				1	25 20
To	New York via	Morris Cana	ıl.	2	85
Lohigh Canal		••••••		\$	34
Towage			* * * * * * * * * *	******	10
Freight				1	55
Total			*******	2	39
Expenses from Ma	auch Chunk to J	ersey City I	or Re-M	lipment.	
Lehigh tolls (net)				\$	34
Freight		••••••••••••	••••••	1	34 50 30
matel.				-	
Total	· Provincial 1	Freights.	• • • • • • • • • • •	2	48
TO NEW YO	RK· I	TO	BOSTON		
Sydney	3 50 Sy	ydney		\$2	75
Lingan	L	Ingan		2	65
Port Calidonia	\$3 75 Pe	ort Calidonia.			00
Little Glace Bay	3 50 L	Ittle Glace Bay	7		75
	Foreign F	reights.			
New Castle and Ports of Liverpool	n Tyne	• • • • • • • • • • • • • • •	128. (	£13,@15 k 8d.@15s. t	on.
SAN	FRANCISCO S	FOCK MAR	KET.		
A Telegram from Sa	n Francisco, dated	July 22, to 1	Messrs. Lz	ES & WAL	ER.
Hankers. 33 Pine street	, this city, quotes a	stocks as follo	WS:	THA	
STUCKS.	Did per i't.	STOCKS.		nd ber	I't

1	Hankers. 33 Pine street	, this	CIL	y, qnore	s stocks as follows ;			
ł	STOCKS.	I	lid j	per f't.	STOCKS.		Bid :	per f't
I	Gould & Curry	-	@	-	Belcher		@	
1	Savage (per share)	1343	10	- 1	Uncle Sam		a	
1	Choliar Potosi	145	0	-	Caiilornia		a	
	Oph1r	20	0	-	Imperial (per share),	106	(0)	
	Hale & Norcross	62	@	-	Alpha	39	a	
	Crown Point	83	(a)	-	Kentuck (per share)		(m)	
	Yellow Jacket	,095	@		Cal. Steam Nav'n Co .		@	

### London Copper Trade Circular.

Messrs. Vivian, Younger & Bond, (Jujy 3) write : In Chilian produce, about 500 tons of bars have been done, at prices varying from £73 spot to £74 arri-yals, the market closing with bolders firm at the latter price. Of refined in-gots 50 tons (Lota) were done at £75, 108 A cargo of 420 tons of regulos was sold at 152, per nuit. The mail irrow Valparaiso brings news of charters for copper produce during the first half of the month of May, consisting of 500 tons of hars and ingots, and 590 tons of fine copper in ores and regulus, together with 1750 tons, which is just an average supply. Consumers show a somewhat greater inclination to buy, and several parcels of English copper have been irreated in fine foreign, Wallaron has made £30, 105, cash, and £31, one month. A considerable business has been transacted in Havre and Paris at advancing prices, up to 190 frs. per 100 kilos.

55

Room Rnn Mines		704 10	Coal F	reighta.	advancing prices, up to 190 frs. per 100 kild	8.
Total Manch Chunk		704 10		-		
" Hazleton Region	1.337 19	148.267 08	(Corrected	Weekly.)	San Francisco (	oal Trade.
" Upper Lehigh		60,773 11	Rates of Freight	from Newburgh	(From the Communical 2	Trunt I from a CO 1
" Wyoming	9.134 11	188,735 03	RIVER.	EASTERN.	[From the Commercial P	terata, June 20. j
Grand Total	10 472 13	398 480 12	barges of the Pennsylvania Coal Com-	Norwalk	motable at \$30 in casks. Anstralian and	short, and prices on the rise, now
Corresponding week last year	10,472 15	277,444 02	pany, per ton of 2,240 lbs.	Bridgeport 1 2	plenty, and prices only feebly supported.	The last sale of Wailsend reported
Increase		121.036 10	Troy and West Trov \$ 55	New Haven 1 2	was at \$11 75. Anthracite is in moderate	supply. The sales include the car-
Decrease	2		Albany and Greenbush	New London 1 44	goes of Australian per Tasso, Mary Mille	r and Dominga, and of which we
Forwarded South from Mauch Chunk by rail	4.594 04	170 646 04	Corsackie and Stavyesant 40	Mystic	quote "Bully" \$11 50.	high 16 00
Delivered on line L. & S. R.R. above Mauch Chunk.	286 12	35,738 03	Hudson & Catskili	Stonington 1 4	do, Wallsend 11 75 21 75 L	rerpool
Delivered at Coal Port for shipment by Canal	5,591 17	192,096 05	Sangerties and Barrytown 35	Sag Harbor 1 4	Beilingham Bay 11 00 Pit	tston, ton 15 00 16 00
Total	10 479 19	909 460 10	Rhinebeck and Rondout	BEISIOI 1 5	California 7 00 9 00 Sc	anton 15 09
Demont of Goal Anomenantal amonths Tablet	Walles D.d.	398,460 12	Fishkill Landing	Fall River	do huik 27 50 J Va	aconver Jaland 19 50
Report of Coal transported over the Lenigh	valley Pail	road, week	Cold Spring and West Point 30	Providence 1 6	Chili 11 50	and a subsequences and an an
last year -	compared wit	h same time	Peekskill 40	Dighton 16		
Week. Pr	eviously.	Total.	Haverstraw	Pawtncket	POSTON STOCK	MADEP
Where shipped from. Tons. Cwt. T	ons. Cwt.	Tons. Cwt.	Tarrytown and Piermont	New Bedford 1 9	BUSION SIUCK	MAGAEL.
Total Mahony	69,524 02	269,524 02	Youkers 55	Boston 2 1	(By Telegr	aph.)
Total U. Lehigh	03,820 04	31 458 15	The Coal must be discharged with all	East Cambridge 2 2		Bosron, July 24, 1868.
Total B. Meadow 2.067 00 2	36,058 06	238,125 06	the consignee who shall also nay what-	Newbaryport	Calumet 30 10	tincy
Total Wyoming 6,202 14 1	44,496 09	150,699 03	fage on the boat. Boatmen will tend	Portsmouth 2 1	Copper Falls 21% C	ry Improvement. 101/
Grand Total 11 871 16 1 9	87 175 10	1 200 017 15	guy while unloading.	Portland 2 0	Frackliu 141/2 Is	le Royal
Same time last year 50,315 08 1.0	50,952 05	1.101.267 13	Freights on Coal Sea-borne from	m Port Richmond, Philadelphia	Hecla 45 W	ater Power. 16%
Increase	36,223 14	197,780 02	July 15, 1868 From Philadelphia &	Reading Railroad Wharves, Phila., 1	Minnesota	ockland
Decrease			Boston 2 50 2 65	New York 1 2		
Forwarded east of M. Chunk.			Portiand 2 60 2 65	Fall River		
by rail 11,871 16 1,22	87,175 19	1.299,047 15	Salem	Cohassett and discharge 28	discovered at the Astronomical Observator	68, the 96th small planet was
Deliverd at M. Chunk and on			New Bedford 2 20	Danversport and dis 2 6	the director of the Paris Observatory, has	also the superintendence of the Ob
At Penn Haven for shipment	10,336 10	19,497 00	Gloucester	East Cambridge 2 6	servatory at Marseilles. On account of the	ie clear sky he has made the search
by canai	46.586 18	46,586 18	Pawtucket and towing 2 10	Roybury 2	for new planets, at Marseilles, a speciality	, and systematized it in such a way,
At Mauch Chunk for shipment			Portsmonth 2 85	Saugas 2 (	deed he considers his aids as merely so m	of astronomy can do the work ; in-
hy canal 488 00	30,095 19	30,583 19	Chelsea 2 60	Bristol	even the name of those who happen to see	the new planets. Such proceeding
Total by rail and canai 15.520 06 12	380 195 06	1.395 712 12	Charlestown	Newport	heing contrary to usage, Leverrier has h	een very severely blamed for the
Same time last year 53,970 03 1,	093,511 11	1,147.481 14	Bath	Georgetown	same. The critics would probably not be	quite so severe if Leverrier had not
Increase	286,683 15	248,233 18	Bangor 2 60	Richmond 1	7 Calculated and great planet Meptune prior	10 his discovery hy the human eye.
Decrease		•••••	Prom Flinshathner	t and Port Johnston	of India. Since it will be one of the grea	toth next will be total in parts
Week ending July 18 1868 compared with	high Canal,	t vear -	Albany 6 85/0	New London	_ to come, astronomers in all parts of Europ	the are getting ready for an expedition
WHERE FROM.	Week.	Total.	Boston	Newport 1 40 -	_ to India in order to observe the eclipse.	The duration will be 6 minutes and
No. 1 ch	Tons, Cwt.	Tons, Cwt.	Bridgeport 1 00	- New York 60 -	_ 16 seconds at Cambodge, in the Gull of Si	im; that is all the time the astrono-
Beaver Meadow worden	766 02	159,114 02	Fail River 1 45	- Norwalk 1 00 -	also go to India, particularly in order to o	beerve the spectrum of the various
Mahanoy Region		Hartiord 1 50	- Pawtncket and towing 1 60 -	phases which the sun will exhibit.	The speek day of the failed?	
Hazleton Region		116,176 12	Lynn	- Portland 1 90 -	- A speculator at the West, red	ently wrote to a friend : "Wh in
Upper Lehigh Region	62 16	7,635 00	Middietown 1 25	- Portsmouth 2 10 -	- I came to Chicago I had not a rag on my	back, and now 1 am covered with
wyoming Region	4,537 09	72,056 11	New Bedford 1 50	- Providence 1 10 -	The large alum works in the	province of Brandonhurg D-
Total	7,329 11	386,685 17	New Haven 1 00	_Augusts 2 25 -	- sia, have been purchased by two Yankee	s, engaged in business in Hamburg.

56



WESTERN & COMPANY, PROPRIETORS. ROSSITER W. RAYMOND, EDITOR.

OFFICE, 37 PARK ROW, NEW YORK.

By publishing contributions, the Journal or Mixing does not necessarily en-dorse the positions assumed by contributors.

# Published Every Saturday Morning.

TERMS.-SUBSCHIPTION, \$4 00 per annum. In advance; \$2 25 for six months Single copies Ten Cents. New York City subscribers are required to pay 50 cents a year extra for dolivory. Adventusion: Twenty-five cents per line of thirtone words for each insertion inside, and forty cents outside. Terms in-7a-iably each in advance. DeSignING. DeSignING. DeSignING. DeSignING. DeSignING. DeSignING. DeSignING.

WOOD ENGRAVING, and JOB PRINTING

Executed in ele gant style, on reasonable terms. MT. T. P. PEMBERTON is Editor of the Mechanical Department and Agent for the JOURNAL OF MINING.

LITHOGRAPHING

BY CORRELOW MINNED. BY Correspondents, exchanges and others addressing us should be extremely Sarfal to write "JOERSAL OF MUSING." instead of "MINING JOERSAL," and to give the number of our Box at the Post Office. which is 5069, to ensure safe ourriage. Communications intended for publication should be plainly written, and on one side of the paper only.

BRANCH OFFICE .- MESSRS. M. A. LATHROP have D heen appointed our sole agents in the New England States for the AMBRICAN JOURNAL OF MINING and our Spanish paper E. CORARD HERANO-AMBRICANO. Their address is 11 Court street, Boston, Mass., where all infor-mation respecting communications, subscriptions and advertisements for these papers will be gladly given to these who may wish to layor ns with their pa-tronage.

### NEW YORK, SATURDAY, JULY 25

# CONTENTS OF THIS NUMBER.

sta-Kaolin-New Copper Mines-Wrught Iron by the Bessemer Pro cess-Pre-empflon of Mining Glims - Extensive White Lead Works.etc Missing SUMMARY-GOD AND Slives : South Eastern Nevada-Lower Cali-lornia --Colorado --Idaho--Montana --Arizma-Alaska-Dregon - Geor-gia-Maryland-Anstralia. Corres : Michigan-California, Starz : Penn-sylvana. Ot. : Penns, Inos Takar. EDITORIALS-Zinc Manufacture in Mis souri-Rock Sait in France-Couper Matt for Swansea - Another Inter-Continental Teigeraph. EDITORIAL CORRESPONDENCE -- Las Mari EDITORAL CORRESPONDENCE — Les January poss. OBIGINAL PAPERS—The Paris and Freiberg Mining Schools, Pari I, by Beuj. Smith Lyman, Esq. PRACTICAL LETTRUN—On the Ventila-tion of Coal Mines, by J. W. Harden, M.E. — Lessons in Micebanical Draw-ing, by T. P. Penberton. LLURERATIONS—Sumpson's Weighing Scales. ITAINS, COAL PEDUS INON TRADE. COAL TRADE. PATENT ULAIMS. ALL SORTS. NEW PUBLICATIONS. OCIENTIFIC BREVITIES. ON DITS. Scales. CORRESPONDENCE - Hydranlic Lime-siono and Phosphate of Lime-Car-bonate of Baryta. MISCELLANY-Experiments with Dyn-amite by the Inventor-Coal in Rus-NOTICE TO CORRESPONDENTS. In consequence of a new regulation recently adopted by the

Postmaster of this city to facilitate the early delivery of mail matter, we have to request our correspondents, in addressing ns, to give the number of our post-office box, No. 5,969, in lieu of, or in connection with our business office address.

### ZINC MANUFACTURE IN MISSOURI

One by one the numerons sources of metalliferous wealth that lie within the grasp of our hands are opened up in accordance with rnles of economy and principles of science. It is not every one, we are thankful, who seeks to inangurate a new industrial enterprise, that goes as it were blindfold at the work, trusting more to the caprices of fortune than to good common sense. We are glad when an opportunity is given ns to speak in terms of commendation of any new undertaking. in the success of which, at the start, we have not only an evidence that its management has been in proper hands, but also an augury that it has before it a prosperous career. More especially is this the case when, as in the present instance, the inauguration of the new branch of mining and metallurgical industry marks an epoch in the history of a State. Missouri, with her mountains of iron ore, with her veins and placers of galena extending over some 6000 square miles of territory, with her 26,000 square miles of coal area, and croppings of rich copper ore that have been discovered in fifteen connties -with all these, she has even yet more. Her rich ores of zinc, carbonates and silicates, occupy no subordinate position in the long catalogue of her mineral treasures. The time, it seems, has at last arrived, when ingots of metallic zinc are able to bear substantial testimony to the opening up of a new industry-another evidence, here, of the varied and inexhanstible mineral resources of the State. The new works, we nnderstand, are located at Potosi, a short distance from the city of St. Louis. Their situation is one that gives them a ready market for their products, and will enable the managers to avoid all those heavy expenditures that fall npon those who are building up metallurgical industries in the States and Territories of the Rocky Monntain regions. The supply of zinc ores in Missouri are said to be immense. Now that capital has been successfully invested in them, we may hope for a development of the industry that will not only make itself felt through the whole country, but also give to the State eventually a prominent position as regards the zinc trade of the world. This wide and profitable field for mining enterprise has lain too long unoccupied. There are others yet unoccupied. Her copper veins are undeveloped. Her cobalt and nickel mines are unworked. There is hardly an end, it would appear, to the opportunities offered in that State, to him who seeks investment for his capital in the field of legitimate mining or metallurgical pursuits.

# AMERICAN JOURNAL OF MINING.

10.116.116.8

his neighbors were making in working the hot springs that were in great abundance in his vicinity, conceived the idea of boring for hot water npen a nook of land that he possessed. No hot water gushed from the bore-hole, but at the depth of about one hundred feet he struck upon a deposit of rock-salt. By the nse of two tubes of different diameters, the lesser within the greater, he affected a simple arrangement by means of which he penetrated through the salt bed. Water forced into the larger, was pumped out through the smaller pipe impregnated with salt. By means of this simple device of dissolving away the salt he went through, and found the layer to have a thickness of abont fifty feet. Beneath a thin deposit of clay was found another deposit of salt. Other borings in the neighborhood have established the fact that the aggregate thickness of the snccessive layers of salt amount to abont one hundred and thirty-one feet.

We understand that in France salt is protected by a high rate of dnty. The trade is, therefore, to a great extent a monopoly. A company has already been formed, and is abont to make a development of these deposits. Salt being an article of prime necessity and protected by a high rate of duty, this company will possess the double advantage of large special profits, and a certain, growing consumption. We learn that the company are to commence operations upon a capital stock in all of £120,000. This will most assuredly be a great thing for the west of France, and likewise for the commercial industry of the nation.

### COPPER MATT FOR SWANSEA.

Last week we alluded to Prof. HILL's success in the shipment of a quantity of copper matt from Colorado to Swansea. The success of that undertaking has, it seems, stimulated others to make the same effort to realize something from their mining investments. We learn that thirty tons of copper regulus has just passed through New York City on its way to Swansea. It came through from Cheyenne to New York by rail, and is now on its way to Swanses via Liverpool, having been shipped thence by the steamer Propontis. This regulus we understand passed through the hands of the agents of the Boston and Colorado Smelting Company. It would seem that it is about time for capital and metallnrgical skill combined, to begin to think serionsly abont making a proper effort to extract the valuable elements of this copper matt on the spot. If the Pacific railroad cheapens carriage so much that the regulus can be sent to Swansea for treatment, and in the end give a handsome return to its owners, it will have a like cheapening influence upon rates of labor and raw material in Colorado. It is time for some one to begin to act in this matter. The transportation of copper matt from Colorado to Swansea is a good thing for railway and steamship companies, but it is not going to last a great while. We are disposed to believe that a matt rich enough in gold, silver, and copper to pay the expense of shipment to Swansea for the separation of these metals, and a good profit into the bargain, is rich enough to pay quite as good a profit if treated on the spot. All that is wanted is a judicious expenditure of money and brain power.

## ANOTHER INTER-CONTINENTAL TELEGRAPH.

A tide of enterprise that knows no opposition, bears rapidly to the westward. The Pacific cannot set bounds to the spirit of healthful activity that characterizes the American people. Onr inter-occanic railway is not completed ere an enterprising spirit sees beyond the ten thousand miles of ocean that intervenes and projects an undertaking that is to bind together, by means of the telegraphic cable, the cordon of commercial cities that stand along the coast line of the " Celestial Empire." When that act is fulfilled, we are to look for the great, the final consummation. The cable is to become the means of nniting the Empire of the East to the Republic of the West. China and America are to stand face to face. The latter is to infnse into the former some of the living force, the freshness and vigor of her young life-blood. With an enlightened legislation on the part of the two governments, with steamship lines hnrrying on the trade and commerce of the two people, and finally with the mysterions bond of the electric correct assimulating the thoughts of the one to the other, we are most assuredly to look for a new era in the history of the commercial industry and civilization of the world. The East India Telegraph Company has inaugurated the last movement of the series that is to accomplish the great work. The company which is wholly American, is thoroughly organized and is prepared to do efficient work. The right to carry ont the project has already been conceded to the company by the proper authorities of the Chinese Government. We learn that a submerged cable is to connect ten of the principal seaports, commencing at Canton and ending at Shanghai, with an aggregate length of eight hundred and ninety-five miles. The prospects as regards the financial success of the undertaking, will be at once apparent, when we remark that the aggregate population of these ten cities amonnts to nearly six millions, representing a foreign trade alone of \$900,000,000. Every true American will rejoice at this undertaking, and bid it speed on to the day of its final accomplishment. An enterprise of this kind appeals to the honest pride of every'true citizen, and once under way, all will unite with us in the hope, that no embarrassments, no delays, will interfere in the rapid prosecution of the work.

[JULY 25, 1868.

### EDITORIAL CORRESPONDENCE NO. VIII. LAS MARIPOSAS.

JUNE 28, 1868. We have passed nearly a week on the famons Mariposa Grant, riding over it for a hundred miles in all directions, and studying as faithfully as time and strength would permit, its character, resources, value and history. It is indeed a noble estate, and no one who visits it can resist the conviction that its treasnrcs are by no means exhausted-nay, scarcely touched -and that its days of prosperity will return. It is easy to look back, and criticise with severity the mistakes of the past. The administration of Mr. OLMSTED, who took charge of the property in October or November, 1863, for the Mariposa Co., has been mnch blamed, and not without reason, but we are convinced that the New York management was quite as responsible as the conduct of the mines themselves for the disaster which overtook the enterprise. Mr. OLMSTED was avowedly without experience in mining; but he had the advice of ASHBURNER and BLAKE, two very capable engineers. Some works were undertaken-snch as the long tunnel at the Mariposa mine-which should have been let alone ; but, in the main, the underground operations were well planned. The manager seems also to have had the respect of the population and the miners. He found the mines in a very backward condition as to dead work; and a great deal had to be done at heavy cost to prepare for operations on the large scale proposed by the Company. But that is not uncommon in quartz mining. A year's hand-to-mouth administration will put any mine in California in the same position. The fundamental mistake was in the instructions given to Mr. O., to explore, open up and work as many veins as possible ; and, in fact, he did work on some twenty-five different lodes. The principal ontlays, however, were on the Pine-tree, Mt. Ophir, Green Gulch, Princeton and Mariposa mines, and the stamp-mills connected with them. The erection of the large Mariposa steam mill was perhaps premature. At all events, a mill half as large, running on selected ore, would be more profitable. The green Gnlch mine was totally abandoned, and the mill incorporated in the 59 stamp Mariposa Mill. It is not impossible that the Green Gnlch vein may be profitably worked again, as good mill-rock has been since obtained from a new shaft, entirely outside of former workings. But it is not our intention to describe the present condition of the estate. Our notes and opinions would fill a volume. We have only mentioned one or two facts as specimens of the management during the year 1864, showing, we think, not incapacity, nor unusnal error of jndgment, but resulting in ruin. simply because the plan of the Company's organization, and the scale of its projected operations were such as to invite every chance of ruin. In spite of the huge nominal capital, and the large amount of bonds, a little study will suffice to convince any one that the estate was virtually expected to pay its own way from the start. During the year 1864, the total receipts were \$544,886 73, of which \$183,152 47 were sent from New York to the mines. The total expenses were \$830,705 12, leaving liabilities on the 1st of January, 1865, amounting to \$185,-818 39-at the same time, the total assets were \$746,091 12 of which the mills and mines represented some \$450,000, and the personal property, stores and bills receivable comprised the remainder. The product of the mines for the last quarter of 1864 was over \$150,000 as shown by the bullion receipts of Wells, Fargo & Co., which we examined. It was at this crisis that the company suspended payments-just as their enterprise began to look reasonably successful, when their available assets were double their liabilities, and a very little skill and pluck would have carried them safely through. They became demoralized, put the property into the hands of a creditor, who proceeded to work it for his own benefit, and actually wasted in the operation of " paying the debts of the company" more than twice the amount of those debts. If the Mariposa company had gone ahead when it stopped, it might have paid its own debts. If it had sold all its personal property and half its mills at anction, it might have paid Mr. Dodge, and been better off to-day than it is, after just emerging breathless, and almost lifeless, from his clutch. Before the stupendous folly of the "compromise" of 1865, all previous mismanagement dwindles into insignificance. The demoralization to

# ROCK-SALT IN FRANCE.

How often it is in mining, as well as in daily life, when seeking for one thing, we find another. Not long since a poor Frenchman living in the town of Dax, seeing what profit

whose very clear and honest report reflected a certain despondency which became a panic in New York. Yet he was probably surprised himself, that the business should be stopped, just as it had begun to pay, or promise to pay. Certainly the miners were snrprised. They were willing to go on working and wait for their pay ;--it was not the men in the mines who clamored for the money. But the despair and timidity of New York was communicated to Bear Valley; and the principal and most pressing creditor of the company obtained charge of the property from which he has recently been removed by order of Court, for having abused the position, wasted the property of the company, and probably over-paid himself threefold. The Company, by its attorney, Mr. JACOB BRUMMAGIM, now has possession of the estate again.

which we have allnded was shared, we fear, by the manager,

Can the Mariposa property be worked with profit? We think decidedly, yes. Are the old mines exhausted ? Decidedly, no. During the ad interim administration of Mr. J. J. McEwen, as receiver, enough was done to show the truth of this opinion ; and, but for the nnfortunate carrying away of the dam at Benton Mills, last winter, no doubt would now be entertained on the subject. Is there any guaranty against

# AMERICAN JOURNAL OF MINING.

a repetition of the errors of the past? We think the same mistakes will not be made-and there are very few new ones left to make ! Above all, the error of attempting everything at once will be avoided. But are there any new elements of hope, on which we may base the expectation of better success, Yes; the Ryerson amalgamation, the Giant Powder, and Chinese labor. The pay-rolls of the Mariposa mine, under Mr DODGE's administration, show plenty of Asiatic names ; and this cheap labor must be made available whereon it is suita ble. We have alluded to this topic before ; and some day we shall discuss it more fully. Giant Powder and RyERSON'S Eureka Amalgamators, too, shall receive further attention here after. For the present, let it be sufficient for us to say, that we think we accumulated on the Mariposa Estate, abundant proof of the fact that the reopening of active operations by that company would be at the present moment an enterprise both feasible and promising. Indeed, we understand that some plan is proposed; but we are not acquainted with the particulars. R.

### NEW PUBLICATIONS.

ABCADIAN GEOLOGY: THE GEOLOGICAL STRUCTURE, OBGANIC REMAINS, AND MINERAL BESOURCES OF NOVA SCOTIA, NEW BEUNSWICK AND PRINCE EDWARD ISLAND, BY JOHN WILLIAMS DAWSON, M. A., LL, D., F. R. S., F. G. S., (Second Edition, Revised and Enlarged, with a Geological Map and numerous Illustrations.) 8vo., 694 pp. Lon-don, 1868.

With the expansion of the second edition of this well-known work to more than double the size of the first, its scope has been enlarged in a still greater ratio, and its usefulness immeasurably enhanced. Though not designed on the plan of a government report, its method is detailed aud circumstantial enough to give it place among the descriptive volumes of the Canadian Provincial Along with the masterly presentation of questions of Geologists. general and theoretical geology, subjects of economic interest are discussed-always impartially, and as fully as circumstauce warrant. A lahor of love-of love for his native province, man-ifested in a life-long devotion to his favorite pursuit --- this work is remarkable uot only for the great extent of field-work which, in a private capacity, the author is seen to have accomplished, and for the thorough mauner in which he has snpplemented his own experience ; bnt also for the uniform spirit of fairness-not to say generosity-with which, throughout the hook, ohscrvatious recorded by others are distinguished. The chapters on the carboniferous deposits of Nova Scotia and New Brunswick, in connection with which Dr. Dawson's services to geology are everywhere appreciated, aro particularly noteworthy. While this portion of the book is loaded with facts and considerations relating to the physical and organic conditions of this period, the author never loses sight of whatever hears, iu a practical way, upou the coal resources of the two provinces. This excellent manual addresses itself to both classes of readers : the geologist and the economist. Besides a synoptical table of couteuts and a general index, there have been added an Index to Economic Geology, under which reference to the useful minerals are found; and an In dex of Subjects in General Geology illustrated and discussed in the vol-ume, together with a Classified List of Illustrations. To all students of Americau geology, and to all persons interested in the develop-ment of the mineral resources of Nova Scotia and New Bruuswick, the work will prove an invaluable hand-book.

# Correspondence.

[To insure insertion of Correspondence in our columns the full name and address of the writer must be given.]

### Hydraulic Limestone and Phosphate of Lime.

The following letter, which refers to the discovery of a deposit of phosphate of lime near Charleston, S. C., may re-mind our readers of an editorial in the JOURNAL OF MINING of May 30th, 1868. In that article we gave quite full details of the late discovery of a mineral phosphate bed in the above locality. The deposit referred to by our correspondent is un-questionably the one which furnished the facts for that editorial.

Geological Museum of the U. S. Genebal Land Office, Washington, D. C., July 17, 1868.

WASHINGTON, D. C., July 17, 1808. ) EDITOR AMERICAN JOURNAL OF MINING: This office is in receipt of specimens of hydraulic limestone from Shepardstown, Va., sixty miles from Washington City, and of phos-phate of lime, from Charleston, South Carolina. The chemical analysis of hydraulic limestoue gives the following

This metarial is found to be canable of furnishing a	7.01	-	100.00
Water and loss	••	•••	. 3.54
Carhouate of maguesia			. 3.60
Alumina, peroxide and protoxide of iron		• •	.14.20
Carbonate of lime			. 64.60
Silica		• •	.14.00
esur:			

hydraulic cemeut, the chemical composition of it agreeing closely with that of the best Roman cement-stone of Europe. The other specimeus of phosphate of lime have lately heen dis-covered near Charleston, S. C., forming a very rich fertilizer for agricultural purposes. Average specimen yields from 60 to 90 per cent. phosphate of lime. A. R. ROESSLER. Geologist.

[We received from Dr. Feuchtwanger, in company with the above lines, a specimen of witherite from Alston Moor, England, which he is constantly importing.]-ED.

# Original Papers.

PREPARED FOR THE AMERICAN JOURNAL OF MINING.] THE PARIS AND FREIBERG MINING SCHOOLS.

In Four Parts-Part I.

BY BENJAMIN SMITH LYMAN.

In view of the probable establishment before long of a National School of Mines in America it is worth while to look at similar schools in other countries. The following account of the Freiberg Mining School was published five years ago in a newspaper not specially devoted to mining interests, and has long been out of print. Few important changes there have taken place since then. The younger Weisbach has become Professor of Mineralogy in place of Breithaupt, and has from illness been compelled for some months past to interrupt his teaching. The number of Americans at the school has greatly increased, and was thirty-five a year ago, and is perhaps even greater now. The account of the Paris Mining School was written lately, hnt founded partly on observations made seven or eight years ago.

It would be well if former students of the Berlin and London Mining Schools, or of those at Clausthal, Liege, St. Etienne, Prizibram, Schemnitz, Leoben, and elsewhere, would likewise give the American public some account of these institutions.

# THE FREIBERG MINING SCHOOL.

The Royal Saxon Mining School or Academy (Bergakademie), now ninety seven years old, is situated at Freiberg twenty-five miles southwest of Dresden. It is surrounded for miles by mines, chiefly of lead and silver, that have been worked for six hundred years, and is within two or three miles of two large smelting works. Freiberg is a town of 17,000 inhabitants, and has recently been connected with Dresden by a railroad. The smelting works near Freiberg and some of the mines belong, as well as the school, to the Government, and the rest of the mines and furnaces through out Saxonyare thoroughly under Government control, so that not only are very good opportunities given the students of visiting the mines and furnaces and of working practically at them for their instruction, but the oversight of all these works, in the interest of their proprietors or of the Government, gives permanent employment of many grades and kinds to Saxon graduates of the school.

#### 1.-THE STUDENTS.

There are about one hundred and forty students at the academy ; less than all of them are native Saxons. State Students.—About five-sixths of the native students

receive aid from the Government; that is, they pay only \$37 (American money) yearly for tuition. In return they are required to pass examinations and are carefully watched over in their studies ; and they bind themselves not to settle outside of Saxony after graduation without paying np all that has been remitted to them by the Government on the score of instruction or otherwise

Admission to the School .- Free State students, as they may be called, must apply for admission to the school as early as the end of February; they must show by their birth certificate that they are between the ages of sixteen and twentythree ; they must bring a physician's testimonial of health, strength and soundness, and a certificate of vaccination ; they must bring written testimonials of their good character up to the date of their application ; if under age, they must bring a certificate from parents or guardian of approval of the application ; their previous education must fit them for the profitable pursuit of the studies they desire to pursue, and in the absence of satisfactory certificates to that effect from certain public institutions they must pass an examination. This examiration is about equivalent to that required for admission to Harvard College, and includes algebra and geometry, equations of the first and second degree, stereometry, plane trigonometry, and the use of logarithms. Some facility in drawing, and a good, neat, legible handwriting are also required; and some knowledge of French and English is considered an advantage. If the applicant comes from a school where Latin is not taught, the examination in this is omitted, but that in the mathematical and practical branches is made the more strict. Preparatory Mining Course.-After a satisfactory examination of this kind, the student has to spend four months in following a preparatory practical course at the mines. For the first four weeks he must spend at the mines four six hour shifts each week, and for the rest of the course five a week. The first eight weeks are spent on the mechanical preparation of the ores; the next six in practical work of different kinds your correspondent in Montgomery, Alabama, is in possession of the ores; the next six in practical work of different kinds of a large deposit of carbonate of baryta, pure, free from lime in the mine, such as drilling and hammering stone; one week

and strontia, it will prove of great value, not only in the making of blanc fire and pyrotechnical preparations, but also in the man-ufacture of glass. It renders the latter highly achromatic and, at the same time, gives it weight. It will find many appli-cations in the arts. Pure carbonate of baryts is composed of 774 per cent. of baryta, and 224 per cent. of carbonic acid. The witherite in the State of New York could be furnished to the market in very large quantities. I visited the locality about twenty years ago. It may perhaps answer the purpose of your correspondent at Fairhaven. L. FEUCHTWANGER. I We received from Dr. Fenchtwanger, in company with the an appointed academical instructor of the student's regularity, daily work, its object, and what he has been taught about it, as well as his own observations. At the same time he has to pursue at the school certain preparatory studies in mathematics and drawing. Neglect of the duties during this course, or a betrayal of physical unfitness for the fatigues of a miner's life may yet prevent the student from entering the school. But if the course is satisfactorily finished, he has to spend the remaining time until the beginning of the academical lectures in getting generally oriented in regard to the mines by visiting them under the special direction of the aforementioned instructor, and from time to time in his company. Those stndents who have already worked a year practically in mines are excused from the practical preparatory course, but not from at east two months of this general orientation.

> Preparatory Metallurgical Course .- There is also a preparatory metallurgical course that must be attended in the long vacation by those students who wish to hear the lectures on metallurgy of the following year. This preparatory metullurgical conrse begins about the first of August and lasts four weeks. The students meet every morning at six or seven o'clock, at one of the smelting works, and have to write down at the dictation of an instructor, a detailed description of the different metallurgical processes and operations. The rest of the morning is spent in visiting in company with the instructor the different parts of the works. Each student must hand in, weekly, to this instructor a journal, containing not only the dictations but original observations and explanatory drawings ; and this journal is handed in at the end of the course to the professor of metallurgy.

> Academical Instruction .- The students are encouraged to continue their visits to the mines and furnaces near Freiberg throughout the year, especially on Mondays, when there are for that very purpose as few academical exercises as possible ; and in the vacations they can make excursions to more distant works. The most deserving of the students receive State aid for the longer excursions, and so travel into distant countries in the long vacation. In the spring and summer the professors themselves occasionally conduct excursions of a half day or a whole one, or of two or three days to furnaces and mines. and to points of geological interest; and they sometimes make a long vacation journey with a few students.

The academical lectures are given in yearly courses that begin on 'the first Tuesday of October, and end with the last week of the following July; with vacations of about two weeks at Christmas, Easter, and Whitsuntide, and with pretty frequent single holidays. The number of years to be spent at the Academy by a student is not prescribed, but is commonly three or four. The student is also free to choose the courses of lectures that he will attend ; but he must make known in writing at the beginning of June his choice for the following year, and that choice must be in accordance with the final examination that he intends to pass, and with the progressive nature of the studies themselves.

The students are obliged to take notes of the lectures and their accompanying practical exercises, and to exhibit a jonrnal of the same from time to time to the several professors. During each course of lectures there is now and then a recitation in order that the professor may know the success of his essons and the diligence of his pupils. At the end of July a public yearly examination of the students all together is made; and at this their jonrnals, exercises, drawings and the like, are all exhibited as proof of their industry. This is, however, a parade or exhibition rather than an examination. If a student wishes to leave the Academy, he must announce his intention, and he may have a testimonial. At the end of the whole course of stndy the student who wishes to enter the service of the State, must pass the State examination, as it is called.

State Examination .-- The State Examination takes place in October ; but notice of intending to pass it must be given bee the end of June Not m examined at once, and the examination is open only to the students, and certain officials, and to the relatives of the candidates. The examination is of four kinds; for those who wish to become miners, surveyors, constructors, and metallurgists.

### Carbonate of Baryta.

NEW YORK, July 20, 1868.

EDITOR AMERICAN JOURNAL OF MINING :

Your remarks on witherite in your last issue induce me to send you these lines. As a supplement to your article it is hoped they will not be without interest. Witherite is mined extensive It is founderland, Northunberland, Lancasure, In the United Flintshire; also in Hungary and other places. In the United States it is found combined with lime. A deposit in Scho-States it is found combined with lime. A deposit in Schoharie, State of New York, contains about 75 per cent. of car-bonate of baryta, 15 per cent. of carbonate of lime, and 10 per cent. of carbonate of strontia. If required for paint it would no doubt be useful; it is, however, unfit, for pyrotechnical purposes, as baryta combined with nitric acid gives a fine green, but strontia, in the same combination, a crimson red color. If

The miners are examined in Mineralogy, Geology with Ore Deposits, Mining, Elementary Mechanics, Bookkeeping, Mining Law, General Surveying. Physics, Drawing. They must show too that they have diligently followed the courses on Practical Surveying, General Chemistry, Metallurgy, and Civil Architecture. In default of such showing they must be examined in these branches.

The snrveyors are examined in General and Special Surveying, Mineralogy, but only in the most important characters. Geology, Ore Deposits, Mining Law, Drawing, Physics. They must bring, too, good testimonials of their attendance on the courses on Mining.

The constructors are examined in Mining, Physics, Civil Architecture, Bookkeeping, General Surveying, Drawing

Higher Mathematics, Elementary Mechanics, Construction of a very early period iron workers. The name of chalybiate min-Machines. They must have heard also the courses on General eral waters also has the same derivation. Chemistry, Metallnrgy, Mineralogy, and Geology.

The Metallurgists are examined in Theoretical and Analytical Chemistry, Dry and Wet Assaying, and Blowpiping, Metallurgy, Physics, Mineralogy, Elementary Mechanics, Mechanical Preparation of Ores, Bookkeeping, Drawing. They must have heard the conrses on Geology, Civil Architecture, Mining ing a fine quality of iron and steel. Law, and Mining.

The candidates of all kinds must bring to the examination large drawings already made. One day is spent in making the oral examination in the different branches. On the second day is made an examination in drawing, principally in sketching after models or after oral descriptions ; also in writing short original papers on given subjects, to be finished in a short time, in connection with the performances in drawing. The third day is given to an examination of the Metallurgist in practical assaying. Moreover, the candidates of all kinds must have handed in before the end of September a paper on a subject that has been given them at the time of their annonncing their intention to stand the examination. The examination in each branch is declared "excellent," "good," or "satisfactory ;" and if "satisfactory " is not obtained in a single branch, the candidate cannot be admitted to the practical conrse, but may try the examination again the next year.

Practical Courses .- After the State examination, those who wish to practice their profession :n Saxony must spend a whole year in practical work at the mines, or, if they are metallurgists, at the Royal Smelting Works. During the year at the mines they must practice all the different kinds of work, from the lowest to the highest, including that of overseers, two, four, eight or twelve weeks at a time. They must go daily to the work, and remain at it during a full shift ; and are paid for their labor \$1 121 a week. They are required to hand in monthly a brief journal of their daily work. They must not turn their attention to other branches of study or work than that they have selected ; but they may be allowed, from time to time, to visit other mines when something special is to be learned of importance. Those who wish to enter the service of the Royal Smelting works must work there half a year at the practical metallurgical operations, and another half year at the work of the different officials of the establishment. They must remain daily at the furnaces from six in the morning until four ; they are paid at the rate of \$1 121 a week. If their work does not prove satisfactory, they are dropped from the employment of the Government, and sent away from the furnaces. Those metallurgists who do not wish to join the service of the Royal Smelting Works are not allowed to spend more than eight weeks in practical work at the furnaces, and receive no pay for their work.

Subsequent Employment .- Three of the best metallargists are selected at the end of the year's course, in case their servises are required, to assist the officials, and to continue at the furnaces as before. The others' may receive permanent employment elsewhere, and, while waiting, are paid \$1 121 a week ; or, if they must wait long, or are especially deserving, \$1 50 a week.

Those who wish to practice the profession of surveying must, after the State examination and the year's practical work in the mines, perform a given trial piece of surveying, lasting several months and testing thoroughly their professional capacity. The rest at the end of the year's practice are employed in various mining or geological matters, according to each one's special fitness, until some permanent position is found for them. Those who intend to study law at the University after their mining studies must announce this intention before entering the Mining Academy, and must pass, either before that, or after leaving the academy, the ordinary examination for admission to the University. They are not obliged to go through with the year's practical work after the State examination.

#### INDEPENDENT STUDENTS.

The students who receive no aid from the government have to pay from seven dollars and a half to twenty-two and a half for each course of lectures, besides an annual fee of eleven dollars to the academy ; so that an industrious student of this class has to pay commonly seventy-five or a hundred dollars a year for his instruction. In order to be admitted to the academy, these students must be more than sixtee

This ore is a carbonate, and contains abont 48 per cent. of iron. It is genererally white, sometimes yellow or brown, and is known under the name of steel ore. This ore is abundant in England, and is also found in quite extensive beds in Connecticut, Massa chusetts, and New York. It has long been famons for yield-

6th. Micaceons or specular iron. This is an anhydrons oxyde, and contains 50 per cent. of iron. It crystallizes in rhombohedrons. It is lamellar and micaceous, of dark steel, gray, or iron black color, and has a very fine lustre, with a specific gravity of 5.0 per cent. As already stated, it occurs in immense deposits on the Island of Elba, where it has been worked for 3,000 years.

To this class of iron ores used for furnace purposes, belong clay iron, lenticular argillaceous iron, iron glance and rhomboidal ore. The resources of this valuable ore are inexhaustble. The iron mountains and Pilot Knob of Missouri furnish examples of the abundance of these ores. visited these mountains in 1839, and thought them great curiosities. The masses of iron ore were distributed over these mountains in pieces from the size of a pigeon's egg to that of a bushel basket. One of the mountains is 700 feet in height I made a problematic calculation at the time to the effect that these mountains are capable of furnishing a million of tons of ore without feeling it. The coal regions of Pennsylvania and West Virginia afford, also, abundant supplies of clay iron ores

The above species of iron ores form the means of producing the varions kinds of iron in market, and are principally employed for this purpose. But there exist in nature many other varieties of iron ore, which are of great usefulness in the arts, or of much interest in a scientific point of view. I will briefly enumerate them. They are : Chromic iron-which is monometric, usually massive, has an iron black color, and a specific gravity of 4.5. It contains 60 per cent. of the green oxide of chromium, and 20 per cent. iron, aluminia and magnesia. I hardly need remark that this mineral is the only material producing the yellow pigment, chrome yellow, and chromic acid. It is abundant in the United States, particularly in Maryland, Pennsylvania, Vermont, and California. Wolfram is a compound of iron, tungstic acid and manganese, and occurs in rhombic and rectangular prisms. It is mostly massive, of dark grayish-black color, with a submetallic lustre, and a specific gravity of 7.9. It contains 75 per cent. of tungstic acid, 20 per cent. of oxide iron, and 5 per cent. of manganese. This mineral is found in Cornwall and in Bohemia, associated with tin ores. It is used in Austria for the manufacture of wolfram steel. I have also a very interesting new mineral from Nevada. It is a pure tungstate of manganese. The iron has been altogether replaced by manganese Tungstic acid, in combination with soda or ammonia, is used in photography, and for making textile fabrics fire-proof.

Iron pyrites, or bisulphide of iron, is a mineral of a yellow color and metallic lustre, with a specific gravity of 5.0. It is monometric, crystallizes in cubes or pentagonal dodecahedrons and octahedrons. The faces of the cnbe are often striated. It strikes fire with steel, and is composed of 53 per cent. iron and 47 per cent. sulphur. It often contains gold in minute quantities. Specimens from Colorado are said to contain from \$50 to \$100 in gold per ton of ore. Iron pyrites is one of the most common ores on the globe. It occurs in rocks of all ages, but does not afford a good material for iron on account of the difficulty of separating the sulphur entirely from it, but large quantities of the ore are now used in the manufacture of oil of vitriol, and for the production of copperas or sulphate of iron, and thousands of tons are annually consumed in dye establishments for producing black colors. Copperas or green vitriol, is likewise the vehicle for producing the finest jeweler's ronge. Iron pyrites is found abundantly in this country. On the North river, at St. Anthony's Nose, 20,000 tons have been dug out in the last few years. The mundic of the miners is the same as the iron pyrites, called also markesite. The spear pyrites. or coxcomb, is of the same character. It is less abundant than the common pyrites. Its crystals are right rhombic; it yields no sulphur in a closed tube like the common pyrites, and is soluble in muriatic acid with evolution of sulphuretted hydrogen. Pyrrhotine is another variety of iron pyrites, with a smaller specific gravity. another variety of iron pyrites, with a smaller specific gravity. It consists of 39 per cent. of sulphnr, and 61 per cent. of iron. It is distinguished from the common pyrites by its inferior hardness, shade of color, and in possessing magnetic properties. It is likewise used for the production of sulphur. sulphuric acid and copperas. Mispickel or arsenical iron pyrites. This is trimetric (the three axes of the crystals being unequal) and crystallizes in rhombic prisms, comes also massive, of silver white color, and shining lustre, with a specific gravity of 6.3. It consists of 34 per cent. iron, 46 per cent. arsenic and 20 per cent. sulphur. The Danaite of New Hampshire is of this composition. It is very abundant, and in Saxony and Cornwall largely used for the production of arsenic. Mispickel is the matrix in which gold is imbedded in Nova Scotia rock.

## Wrought Iron by the Beessmer Process

The following letter on "Bessemer steel making" from Dr. Adolph Schmidt, of the Bessemer Steel Works, Troy, New York, to the Editor of the London Engineering, will give our I offs, to the Ealtor of the London Engineering, will give our readers a good idea of what is going on in this country in the way of improvement in the manufacture of iron. It seems that at these works, the Bessemer process has turned ont a real wronght iron of the best quality. The following remarks may be interesting to some of your readers connected with the manufacture of Bessemer steel. A great difficulty has always existed to produce by the Bessemer process a very soft product, one which would at the same time offers the same facilities in working as wrongth iron and stand the same facilities in working as wronght iron, and stand the bighest heats. Ferro-manganese has been used for the pur-pose in England and in this country with some success. Ob-jections to its use were, however, made, and its success was not sufficiently general and decided to prevent the discontinnance of its manufacture.

Gnided by certain scientific principles, I lately tried to nse Glasgow ferro-manganese in small quantity and in solid pieces as a recarburiser, and had the satisfaction of obtaining excel-lent results. The operation has to be conducted in the fol-lowing manner—the only one to insure success: The charge is blown to almost complete decarburisation, as is the usual practice in all the English works. The vessel is then turned down, and ferro manganese, broken in small pieces and heated down, and ferro-manganese, broken in small pieces and heated to a red heat, in quantity of 14 per cent. of the pig iron used in the charge, is thrown in. A lively reaction takes place be-tween the full-blown metal and the ferro-manganese, which lasts one or two minutes. The vessel has to be kept in a hori-zontal position during this time. When the reaction has sub-sided, the metal is poured into the ladle as usual. No spie-geleisen is used. The metal pours lively when from a hot charge : but having, like wronght iron, a very high melting point, it chills more easily than other Resement steel and the

The product resulting from this mode of operating the Bes-semer process is a real wrought iron, a very high metricing the product resulting from this mode of operating the Bes-semer process is a real wrought iron of the best quality. It bends double and close home when cold, without the slightest crack, and stands hammering at the highest heats, like the best wrought iron made in charcoal fires. It welds well when made from a good pig iron, though not quite as easy as iron. It does not take any temper when heated to a white heat and cooled suddenly in water. It is then easily filed, and can be bent double without annealing. When worked down under the hammer into a thin plate it bends double unannealed without out cracking. It develops a fine fiber when when the a out cracking. It develops a fine fibre when rolled, or when worked ont in one direction under the hammer, preserving, however, a close and uniform structure, as may be seen when a bar is nicked and broken.

There can be no doubt that this iron will prove an excellent material for large forgings, boiler, plates, wire, and for many other purposes.

many other purposes. We have worked a considerable number of charges after this method with good and constant results. In whatever place or instance the results obtained by the use of ferro-manganese have not proved quite satisfactory, may have been caused in every single instance by one or several of the fol-lowing circumstances. lowing circumstances:

1. Too large a quantity of ferro-manganese has been used, if I am well informed, never below 4 per cent., which per cent-age is much too high. Ferro-manganese contains about 18 per cent. of metallic manganese. The manganese takes the oxygen out of tha molten Bessemer metal, and carries it into by gen out of the inforce the second in a considerably larger quantity than is necessary to combine with the oxygen present, a part of it remains in the metal, and as manganese is in itself part of it remains in the metal, and as manganese is hard and brittle it makes the metal also hard and brittle. Too large a quantity of ferro manganese put into the vessel in pieces makes the metal cold and skulling, and is also injurious in this respect.

2. The ferro-manganese has been melted in reverberatory furnaces, and run into the converter over open sponts. In this case, according to the better or worse construction and management of the furnace, and according to the higher or lower temperature of the molten ferro-manganese, more or less manganese is oxidised before coming into the vessel, and an exact control over the quantity that is really made effective is impossible. Thus it may happen that the metal retains oxygen, combined or dissolved, which escapes when the metal chills in the mould, makes it boil up and causes hollow or un-sound ingots, or remains in the metal in the shape of oxide of iron, and causes flaws in the worked metal.

In many instances the converter was turned up and the blast let on for a short time after the ferr-manganese had been put in. It is evident that by this operation the oxygen is at first removed from the metal, and a certain quantity of 18 at first removed from the metal, and a certain quantity of oixygen is blown into it directly atterwards, destroying more or less the favorable effect of the ferro-manganese.
4. If the metal, instead of being retained in the vessel for some time, is poured into the ladle, before the reaction of the

e has extended to the whole of the charge, ferro-mangan ferro-manganese has extended to the whole of the charge, and before the temperature of the whole of the metal is again very nearly equalized, that part of the metal, which has been cooled down considerably by the immediate contact with the

they must bring testimonials of good character up to the time of their coming there, as well as testimonials of fitness to pursue the intended academical studies ; and if they are Saxonz, they must bring their birth certificate. They are allowed to take part, if they choose, in the practical preparatory mining and metallurgical courses, and in the recitations and other exercises of the course, as well as in the yearly and State Examinations ; but those preparatory courses and the State Examination must be specially paid for. These students are also allowed-two at a time-to have a practical course of eight weeks at the smelting works. Before leaving tha academy, they must announce their intention to do so, and they may have a testimonial to take away with them.

> [WRITTEN FOR THE AMERICAN JOURNAL OF MINING ] MONOGRAPH ON IRON. No. II.

# BY DR. L. FEUCBTWANGER.

#### TO BE CONTINUED.

BY DE. L. PRECEIVENNEER. 5th. Spathic iron ore. This mineral receives its name from a tribe of men called Colybe on the Black Sea, who were at highly significant manner, shows the value of advertising.

nor recarbnrised, produces, when poured into the moulds, the eff cts described under paragraph 2. eff cts described under paragraph 2. All these mishaps will be avoided by strictly observing the

simple rules of management given above.

I do not intend to recommend the exclusive use of ferromanganese in the place of spiegeleisen as a general practice, but, I think, when used as above, it is a highly valuable material for making a very soft, tough, and easily workable Bes-semer iron. I hear that attempts are been made in this country to produce ferro-manganese or a similar compound, the manufacture of it having ceased in England.

### Process for Covering Iron and Steel with Copper without a Battery.

This process, due to Herr Graeger, is described in a recent number of Dr. Boettger's Polylechnisches Notizblatt. The objects are first well cleaned, and then painted over with a solution of protochloride of tin, and immediately afterwards with an emproprised achieve of a sub-table of with an ammoniacal solution of sulphate of copper. The layer of copper thus produced adheres so firmly to the iron or steel that the different objects can be rubbed and polished with fine chalk without injuring the deposit. The tin solution is

prepared with 1 part of crystallized chloride of tin, 2 parts of ater, and 2 parts of hydrochloric acid. The copper, with 1 water, and 2 parts of hydrochioric acid. The copper, with 1 part snlphate of copper, 16 parts of water, and ammonia suffi-cient to re-dissolve the precipitate formed when it is added. Zinc and galvanized iron can be treated, according to Boettger directly by the copper solution, without using the tin salt. The above process may be found useful by gilders, and for minime memory burgers. may be found useful by gilders, and for various ornamental purposes.

# Pre-emption of Mining Claims.

We alluded a few weeks ago in a short editorial, to the fact that expectation in regard to the speedy beneficial results to be derived from the law of Congress regulating mining titles, had not been realized. Although the act was passed July 26, 1866. it was only until a few days ago that the first patent, one covering a quicksilver claim in California, was issued by the Commis sioner of the General Land Office. We hope a great deal of good may result from the law, but it certainly does not argue much in its favor that it has required two years to issue the first title under the provision of the act. Perhaps when the law, in its letter and spirit, shall have become better understood, not only by those desiring to take out patents. but also by those who transact the business on the part of the Government, there will be a tendency to expediate the work. The following letter under date of June 13, 1868, from Commissioner Wilson to the Register and Receiver of the United States Land Office at Denver, Colorado Territory, imparting information as regards the intent of the law, will be read with interest by those who have to do with in the settlement of mining claims: The Hon. G. M. Chilcott, from Colorado, has called the atten-tion of this office to contrastic exciting in sec. It is a settlement of the mini-

The Hon. G. M. Chilcott, from Colorado. has called the atten-tion of this office to controversies existing in some of the mining districts, arising, it is said, from differences of opinion in relation to the proper construction of the mining act of July 26, 1865; some persons contending, it appears, that since its passage, a company formed for merely mining purposes, and locating claims, can take 3,000 feet on the vein although such company or association may be composed of less than fourteen individuals. As the question may come before yon in your official capacity, or on application from persons desiring information, the con-struction placed upon the last proviso of the fourth section of the act, by the General Land Office, is now communicated for the benefit of all concerned. The manner of making locations and the number of teet that can be taken on the same vein or lode, by an individual, or an association, depends upon the rules and

the number of feet that can be taken on the same vem of folde, by an individual, or an association, depends upon the rules and customs of miners of the respective districts, the act of July 26, 1866, in no respect superseding or modifying those customs ex-cept where they authorize the location of more than 200 feet on the same lode by any one person, or more than 3,000 feet by any association of persons. In such cases the statute restricts and re-duces tocations made since July 26, 1866, to the above named ouratifier generative, as the maximum in each case, and this is

duces tocations made since July 26, 1866, to the above named quantities respectively, as the maximum in each case, and this is the only difference existing between the local mining regulations and the controlling act of Congress. An individual can, since the date of the act, locate more than 200 feet on the same lode, nor an association more thau 3,000 feet, no matter how many persons may be associated together, or what the local customs may prescribe. Whether a company or association can take as much as 3,000 feet, depends upon the mining regulations of the particular dis-trict, and the number of persons associated in such company. In-dividuals cannot by forming themselves into companies locate a greater number of feet to each person than can be done by each acting separately.

each acting separately. In districts where the mining regulations limit locations to less than 200 feet to each individual, or less than 3,000 to any asso-ciation of persons, claimants will be restricted accordingly, such regulations remaining in full force, being unaffected by the act of Congress.

These remarks apply wholly to original locations, made in pursuance to the rules and regulations of miners in the several mining districts. They have no application to claims in the hands of purchasers, and it is not to be understood, from what has been above stated, that a mining claim of 3,000 feet may not has been above stated, that a infining claim of 5,000 teet may not be owned and controlled by an association of less than fourteen persons, where possession is obtained by *bona fide* purchases for valuable consideration, or partly by purchase and partly by lo-cation, there being nothing in the act of July 26,1866, to prevent an association composed of any number of individuals, from holding such claim, and upon proper application and proof, ob-taining a patent therefor. When the mining act was first passed it was thought that among

when the mining act was first passed it was thought that among the great variety of local rules and customs, existing in a thou-sand remote mining districts, and known to us only as they come here in actual cases, there were probably some authorizing the location of large claims, amounting to 3,000 feet or more, by companies or associations, in consideration of the construction of improvements enhancing the value of large numbers of claims, as the building of a tunnel to drain the mines of a certain lode, or system of lodes, or the erection of any other improvements, securing a common object and promoting a common interest. As such companies would not have been formed for the pur-pose of locating claims, and the privilege of doing so, if con-terred upon them all, would have been in the nature of a reward for having promoted the general welfare of a certain district by

terred upon them all, would have been in the nature of a reward for having promoted the general welfare of a certain district by the expenditure of capitai and labor in the works of improve-ment beneficial to all, the right of making such location to the extent of 3,000 feet, in pursuance of such supposed mining reg-ulations, was believed to be independent of the questions of the size of the company, and that having rendered the service, it was entitled to make the location, whether it was composed of a treater of loss number of mathematics. greater or less number of members.

If the regulations of any district embraced provisions of this nature, conferring upon any company, large or small, for reasons such as have been suggested, the right of locating 3,000 feet on a lode, or on each one of a number of lodes, benefitted by such improvements, it is not perceived that there would be any incom-patibility between them and the act of July 26, 1866 : nor would the policy of the act in limiting locations appear to be more im-paired by such regulation than by the unlimited right of pur-chase generally recognized by these local customs. It may be that no such regulations exist, but as the customs of miners scattered through the numerous mining camps of the western States and Territories are not to be found in any compil-ation, many of them uever having been reduced to print, it is not surprising that misapprehension may have occurred in that re-spect.

# AMERICAN JOURNAL OF MINING.

# Personal.

M. ROMERO, the late Mexican Minister to the United States, left for home on the 16th inst, bearing with him a higher degree of esteem and regard on the part of our government and poople than any other representative of that Republic has been able to secure in many years. He is understood to be offered a high position in the Mexican Cabinet. Dr. P. H. OETTINGER, whose departure for Colorado was recently chronicled in the JOURNAL OF MINING, has, we are glad to learn, been employed to superintend the building of fernaces there. From his antecedents, we are assured that his efforts will be crowned with complete success.

From his antecedents, we are assured that his efforts will be crowned with complete success. Mr. Sattasurs, for some time superintendent of the Cleveland company of the Silver Star district, Montana, will return to Lake Superior soon. He had some seven years' experionce as superin-tendent of copper mining companies their previous to trying his fortune in the far western mines. TROF. DEWEX, late of Rochester University, and formerly Pro-fessor of Chemistry at Willams College, bequeathed to the latter fine extensive and very valuable collection of Carices, one of the finest in the United Slates ; also, his library on the subject of the Carices, including Dr. Boott's great work in four volumes. Mr. N. S. KETRI, returning to Celorado, mentions that at Frei-burg, where he expected to meet only strangers, he found fifty out of ninety students of the school of mines were Americans. Mr. JAMES WILSON has superseded Mr. Outram in the manage-ment of the Hiko mill, and the mining property of that company in Pahranagat district, Novada. MINING COMMINISTIONER R. W. RAYMOND may be addressed for the next two months at Austin, Nevada, in the care of J. H. Bostk, Esq.

Esc. Mr. C. B. DAHLGREN, of the Nevada silver mines, is about to en-gage in iron mining in one of the Middlo States. SIE R. MURCHNSON has expressed his opinion that the return of Dr. Livingstone may be looked for in Angust. JAY COOKE is making his way overland from Lake Superior to St.

Paul. HEBER KIMBALL left sixty-seven widows.

# Patent Claims.

### Interesting to Miners, Millmen, Metallurgists, Oil-Men and Others.

79.563, antedated Feb'v 8, 1868,-Hydrocarbon Burner,-Harrie

79.563, antedated Feb'y 8, 1868.—HYDROGARBON BUENER.—Harrie Evencit, N. Y. I claim, I. A liquid-fuel furnace, constructed substantially as described, and as and for the purposes specified. 2. The combastion chamber, B, in the form et an slongsted semicircle, con-structed of fire-proof material, and supplied with the rarefying-chamber, b. and the pipe or pipes, c, for admitting air or steam thereto, the whole forming the upper portion of a liquid-luci furnace, in combination with the corrngated and slotted berner-piket, A, forming the base thereof, the whole erranged substantially as and for the purposes specified. 3. The refractor, s. for dividing and distributing the jets of steam of enr-rents of air, arranged substantially as and for the purposes set fortb. 4, The mode, berein described, of admitting and empiyoing liquid-fuel, air and sleam through and apon the burner-plate, A, logether with superheated irr or steam admitted through the resrelying-chamber, b, for the purpose of facilitating the combustion of said fuel, the whole arranged substantially as

79,581.—QUARTZ MILL.—Alpheus Lewis, Virginia City, Montana. I claim the train of gear-wheels. E E E, in combination with the series of stamps, D D, whose stems, C C C, pass up through the eyes of the gear wheels, E, and derive a constant rotation therefrom, substantially as and for the purpose set forth.

the purposes set form. 79,681.—MANUFACTURE OF IRON FROM TITANIFEROUS IRON URE.— John Player, Now York, N. Y. I claim the smelling of titaniferous iron ores with biast furnace slag, or sco-ria, or basait rock, as a flux, or other equivalent, in the manner and substau-tially as herein described.

tany as nervin described. 79,701.—TREATING ORES, METALS AND MINERALS.—Chance A. Ste-vens, New York, N. Y. I claim the within-described process of treating auriferons and argenilferous and other ores, clays, eartbs, and metallic iron, by the application of the re-sidum obtained from eryolite, substantially in the manner and for the pur-pose set forth. pose set forth

pose set forth. 79,744.—APPARATUS FOR DISSOLVING QUARTZ AND FOR EXTRACTING METALS.—A. L. Fleury, New York, N. Y. 1 claim, 1. The above-described apparatus for dissolving quartz or silicates, consisting of the furtage, A, liquefer, K, electric apparatus, Z, tanks, i f, and absorber, V, arranged and operating as described. 2, The furnace, A, with its fireplace, B, furnace, P, and trap, D, when nsed for the purposes specified. 3, The liquefier, K, as above specified. 4, The combination of the electric machine, Z, and the liquefier, K, in the manner and for the purpose set fortb. 79, 759.—ANNEALNG-FOT AND SAUCER.—John Hubell, Nechells, Enc.

79,759, -ANNEALING-FOT AND SAUCEE. -John Hibell, Nechells, England.

land. I ciaim, 1. The improvements in annealing-pots for annealing iron and steel wire, sheet metal, and elber articles bereinheiere described, and illustrated in the accompanying drawing; that is to say, making the said annealing-pots of two concentric hollow cylin års, of different diameters, be space between the said hollow eyluders constituting an annular chamber, in which the arti-cles to be annealed aro placed, the said annular chamber, heng exposed to the fire and heat, both on its onter and inner sides, snbstantially as described and illustrated.

illustrated. 2. The improvement or improvements in the sancers used for supporting annealing-pots in the furnaces or muffles in which they are heated, hereinhe-fore described, and illustrated in the accompanying drawing; that is to say, making the said sancers with a double flange, by means of which the bottom of the annealing-pots is protected from the injurious action of the fire, sub-stantially as described and represented. 79,762.—QUARTZ-MULL.—William Wheeler Hubbell, Philadelphia, Donne.

Penn. 1 claim the opposite apertures, g g, and revolving arms, l', operating in the lower part of the pot, e, containing the nuts, e e', d d', and plates k j, in combination with the two sets of stones, a a, b b, and the opposite inclined conduits, p, blevators, s s, v, v, r, boppers, y, all constructed and ar-ranged one with the other, as and for the purpose set forth. 9, The combination of the grinding-plates, k j; with concave interiors and angular exteriors, ribbed or thickened backs, and the pot. e, when so se-cured together, by means of the saddles, l, and bolt, l', as to leave the angu-iar spaces, x, substantially as herein described. Penn.

197 spaces, A, substantially as berefit developed, and a state of the state of t

79,848, antedated July 3, 1868.-REFINING AND SMELTING ORES.-James P. McLean, New York, N.Y. and applied to smelting or refi

phide of carbon, a little chloroform may be used successfully. The odor, so disagreeable to many persons, will quickly disappear by warming the fabric before the fire, or hy the application of a moderately hot smoothing iron.

before the fire, or hy the application of a moderately hot smoothing iron. **AT** Engineering says:—So great has been the mecessity for an instrument to measure distances, task a great number of inventors have tried to produce means of obtaining the distance of troops, in order that the rifle may be sighted to the proper elevation. We have inspected a tele-scope, patented by Messrs. Elliott Brothers, of the Strand, that enables the distance of either infantry or cavity to be computed instantaneously. We hear that the telescope has been submitted to the Ordnance Select Com-mittee, and very meeh approved of by them. The means by which the dis-tance is obtained consist of two wires moved by a disc, on which are divis-ions showing the distance of the virops according to the sperture between the wires. The motion of the wires is produced by a double eccentric moving round the smaller time to the telescope. **AT** Water proof glue may be mado by bodingtone pound of

Mar Water proof glue may be made by boiling one pound of mmon glue in two quarts of skimmed milk. This makes an excellent glue rarticles which are exposed to the action of the weather.

A planet hitherto unknown has been discovered by Prof. Wilson, at Ann Arbor, Michigan, in the Constellation Capricornus. It shines like a star of the eleventh magnitude.
AT The Little Schnylkill Railroad has been purchased by the Philadelphic and Reading Excitements.

# Ondit about Minerals, &c.

M. Nabat has invented a mechanical raison for clipping ani-nals, which in principle. Is something like a laws never. A helts, with see blades tangent to a comb, is made to rotate by means of a fiexhibe chain worked by a lever. One un works the lever, while the "operator" passes in comb over the body of the animal, regulating the length of hair to be left by the inclusation of the comb. It is said that horses and beasts enjoy heing flipped by machinery. It, however, tensities to be seen whether inmanity will.

The vast coal mining operations in the "Black conntry" in England are beginning to produce effects long apprehenced by engineers. A sinking in of quite a serious nature bas taken place on the property of the Duke of Sutherland, at Cinder Hill, near Wolverhampten. Is continued for several, horrs, and resulted in a cavity about 54 yards in diameter the each direction, and 29 yards deep. Trees, bedges, over one hundred tons of manure, and a great quantity of brick clay, gradually disappeared. The sides of the opening are very precipitous.

Sar York y precipious.
Sar The following are the rates (in United States currency) paid for puddling in the various iron districts in Great Britain : North Statfordshire common iron, \$2 64, best, \$2 72; North of Enginad, gray, \$2 72, mixtures, \$2 28 to \$2 46; Scotland, \$2 55; Scotla Wales, \$1 54 to \$1 70; reduced price in South Statfordshire, \$2 55 per ton.

As It has been recently decided by the Treasury Department at Washington that all miners and producers of coal are liable to a tax on sales, viz: \$2 per \$1,000 on sales in excess of \$5,000, under the recent act of Cougress excempting certain manufactures from taxation.

# All Sorts.

And Public Provided in the intervention of the subscription of

The table talker in Once a Week has read a good American

secondary in the second second

30,000 TONS SCRANTON COAL.

other. The electricity was varied in introducty and Valparaiso changed and Valparaiso changed **35** The artesian well at St. Louis, which is being bored by the county, has reached a depth of 3,147 teet, and is the deepest in the work. There is no water yet. The work has been going on twenty-six months. **45** There are two ways of gotting rich, one by adding to our possessions, the other by diminishing our desires; the latter is much the county and readier.

64TH AUCTION SALE.

on Wednesday, July 29tb, 1868.

spect

As to associations or companies between that they are snopled locating claims, however, it is very evident that they are snopled to the limitations found in the provisos in the fourth section of the aet; and that the restriction of two hundred feet to each locator, cannot be evaded by forming an association. Very respectfully, your ob't serv't, Jos. Wilson, Commissioner.

As A solid block of granite, 100 feet long, 84 feet wide, and feet thick, was recently quarried from Hallowell (Me.) granite. It conta no less than 4,250 cubic feet, and 303½ tons,

s, substantially as above set forth, or otherwise prepared, to suit the exi

Series of the time and place. 2. I claim the rotort B, cleanser C, drier D, gas-chamber E, neck V, with pipes G G' G'', and cocks m, n, o, P, u, and X, prepared and arranged in the nannor and for the purpose set forth and shown in the drawings, or otherwise arranged, substantially as described.

9,866.—FURNACE FOR MELTING METALS.—William Shea and L. D. Harvey, Harvey, Mich. We claim the putting of pipes into cast-iron plates, substantially as and for be purposes above set fortb. 79,866.

uting of pipes into cast-iron plates, substantially as and for ve set fortb.

the purposes above set forth. 79,954. — ORE-CRUSHER, GRINDER, AND AMALGAMATOR. — John A. Col-

79. 954. — ORE-CRUSHER, GRINDER, AND AMALGAMATOR. — John A. Collins, Virginia City, Nevada. I elaim, I. The combination and arrangement of the cylinders C, crabing-wheels D, axle E, and central plate F, with arms projecting downward, and supporting said axle, substantially as described. 2. The combination and arrangement of the driving-plate G on the shaft H, the friction-rollers N on the acmus of the revolving plate L, and the stationary plate K, above it, substantially as described. 3. The combination and arrangement of larger rollers S with smaller, S', within the cylinders C, the former rolling noon the latter and upon the cylinder, as described.

# Special Scientific Brevities.

AFT To remove paint of white lead or zinc white which has be me dry and hard, and cannot be removed by benzine, ether, or the bisu

#### NEW YORE, July 21, 1868

The Delaware, Lackawanna and Western Railroad Company will sell, by Messrs. Jobn H. Draper & Co., Anctioneers, at the Company's Salesroem, 26 Exchange Place, corner of William street, New York, on WEDNESDAY, JULY 29th, at 12 o'clock, moon.

# 30,000 TONS

BO, OCO TIONS of Coal. from the Lackawana Regions, of the nsual sizes, deliverable at their Depot, Elizabeliport, N. J., during the month of Angust, 1868. The sale will be positive - each iot put up will be sold to the highest biddler ; No bids, in any form whatever, being made for account of, or on behalf of the company. The conditions will be furly made known at the time of sale. TERMS : Fitty conts per ton, payable in current funds, ou the day of sale, and the balance, within ten days thereafter, if required, at the effice of the Com-pany. SAMUEL SLOAN, President. jy25

# W. S. KEYES,

# Graduate of School of Mines, Frieberg.

Having had several years' practical experience in the mines and reduction works of Mexico, California and Montaua, offers to mining companies his ser-

### Superintendent, Agent or Consulting Engineer,

Will examine and report upon init's, lurbish working plans, or practically lirect smelting or amalgamation. Can furnish tob bighest references. Would not object to go to Mexico or South America. Address, by letter or telegraph, W. S. KEYES, M. E., Heinna, W. T. jy25:3m



60

WHITE, FOWLER & SNOW, Successors to JOHN WHITE & CO., Wilkesbarre and Lehigh Coal, FOR STEAM AND FAMILY USE. OFFICE, Room No. 75, 111 Broadway, (Trinity Building, BITS. LINDLAY H. FOWLER dec30 LOUIS T. SNOW JNO. WHITE.

ENGLISH COAL AND CANNEL. DESPARD COAL, from Baltimore, PROVINCIAL COAL, ANTHRAC, FE COAL, For Sale in Lots to snit.

AGENCY OF GEORGE WRIGHT & CO., LIVERPCOL, **AGENCY OF GEORGE WRIGHT & CO.**, LIVERPCOL, **OTES, PO. 32 PINE STREET. NEW YORK.** Yard. West 22d Street, near 10th Avenue. dec30:66:67

HONEY BROOK COAL COMPANY,

NEY BROOK Exclusive Miners and Shappors of the Celebrated HONEY BROOK LEHIGH COAL, NO. 111 BROADWAY, NEW YORK JAS. H. LYLES, Agen Hundelphia Office, 200 Walnut street. Wharves, Port Johnston, N. J. Philadolphia Offic

ar/20:1y J. B. McCREARY, President. HECKSCHER, BOWNS & CO.,

L NO. 111 BROADWAY, (IRINITY BUILDING), ROOM 79, NEW YORK CITY. Wholesale dealers in the best qualifies

ANTHRACITE AND BITUMINOUS COAL. Agents for the celebrated "HARTFORD ASSOCIATED COAL COMPANY'S" COAL. Wharves : Pier No. 4, Port Richmond, Philadelphia ; toot 20th street, East River

CALDWELL, GORDON & CO.,

WHOLESALS DEALERS D ANTHRACITE AND BITUMINOUS COAL, HENRY HEIL'S CELEBRATED EAST FRANKLIN COAL NO. 35 PINE STREET, NEW YORK. S. CALDWELL, JR. F. A. HALL, N. P. GORDON, S. B. YOUNG, BOSTON, Office 144 State St. FHILADELPHIA, 12 Weight St. jan6;4

DAY, HUDDELL & CO.,

MINERS AND SHIPPERS OF HARLEIGH LEHIGH COAL, And the Celebrated HICKORY, BROAD MOUNTAIN, EXCELSIOR, SHAMOKIN AND NEW ENG LAND RED ASH.

Room 51, TRINITY BUILDING, 111 Broadway. Philadelphia,

SAMUEL BONNELL, IJR., OFFERS FOR SALE HIS

SUGAR CREEK AND

109 WALNUT STREET.

HONEY BROOK LEHIGH COALS, OFFICE : 43 and 45 " TRINITY BUILDING," 111 BROADWAY, New York.

NEW BOSTON COAL MINING CONPANY, Office, No. 55 Broadway, New York. Miners and Shippers of Superior BUCK MOUNTAIN COAL, Deliverable at Elizabethport and the Harbour of New York. Supplied to Steamers, Dealers and Manniacturers at market rates.

dec28:67-68 G. WAYLAND, Sales Ageat F. H. DELANO, Treasurer. COXE BRO.'S & CO.

CROSS CREEK COLLIEY, MINERS AND SHIPRERS

of the Celebrated Cross Creek Free Burning Lehigh Red Ash Coal FROM THE BUCK MOUNTAIN VEIN-**OFFICES** :

Drilton, Jeddo P. O. Luzerno, Co., Pa. Philadelphia, No. 341 Walout Street. SAMUEL BONNFLL, Ja., Room 43, Trinity Bulding, 111 Broadway. Agent in New York reb. 1-1 yr

WILKESBARRE COAL, DELIVERED DIRECT FROM THE MINES OF The Wilkesbarre Coal and Iron Company, OR, FOR RESHIPMENT AT HOBOKEN AND JERSEY CITY.

OFFICE-No. 16 WALL STREET, NEW YORK mar14.1 v

CHAPMAN SLATE COMPANY OF PENNSYLVANIA, Who produce a Superior Black or Dark Blue Slate; also Sole Agent for York and the West lor the LEHIGH SLATE COMPANY OF PENNSYLVANIA. GENERAL DEPOT, Cor. Tenth Avenue and Twelfth Street, N. Y. City. Established in 1880 THE NOVELTY IRON WORKS.

PHILIP RAFFERTT.

Boilers, Circular Saw Mills, Mill Work, Cotton Gins,

mar16:1y

DEVEREUX, THOMPSON & CO. 82 Cedar Street, N Y., A. F. DEVEREUX & Co, Boston,

oct. 12. 67 1 T.

THE WATSON MANUFACTURING COMPANY

Water Wheels, Heavy Gearing, Shafting, Pullies, etc

Rolling Mills, Steam Engines, Hydraulic and other Presses,

And Tools in general. Iron and Brass Castings, of all sizes and descriptions Patterns made to order. Also, manufacturers of the Improved Turbine Water Wheel.

Foot East 12th, 13th and 1

G. B. LINDERMAN & CO., MINERS, SUGAR LOAF. LEHIGH COAL. OFFICE: 50 TRINITY BUILDING,	Buffalo: Jas. W. Chapman. Terrares Square.         Chicago: James Parker, corner Franklin and Washington Streets.         Chartestor. S. C.: C. J. Demorest, East Bay, near Wentworth Street.         New Orleans : J. J. Lee, 368 Magazine Street.         apr 1 am prepared to give parties the prices of Slate delivered thronghout the United States at the Raircoad Station.         Orders by mail will receive prompt attention.         jan1:1y         HUDSON RIVER SLATE COMPANY,         State Data L. DOW, NUMY, NODK	BRANCH OFFICE
møy23:1 111 RROADWAY, N, Y.	25 FARK ROW, NEW TORK, Supply from their Quarries	Gauge Cocks, &c Large stock of patterns of SPUR, BEVEL and MITRE WHEELS, PULLES
THE WESTMORELAND COAL COMP'Y	SUPERIOR BLUE SLATE,	and all sorts of MILL WORK leb1 1y
OFFER THEIR SUPERIOR QUALITY OF BITUMINOUS COAL To Gas Companies, Railroad Corporations, And Manufacturers of IRON AND STEEL. More than two nullhous of tons of their Oval have been distributed through the New England and Middle States, and its character is established In the market as having no superior in quality. PLACE or Supremer-Pier No. 3, Greenwich Wharves, Demole. OFFICE-No. 230 South Third street, Philadelphia. EDWARD C. BIDLE, Preadment. FRANCIS H. JACKSON, See'y and Treas'r. Apla:Smo.	ASHILER BUILDING FRONTS, HOUSE TILES, of all sizes, FLAGGING TILES, of all sizes, FLAIN FLAGGING of any three size, CURRING, plain and tancy, COUNTERS & COUNTER TOTS, OUTNERS & COUNTER TOTS, For MARBLEZING, of any size ordered, Any Articles Marbleized to Order in the Most Superior Style- Mark Barbleized to Order in the Most Superior Style- Mark Billy Son, Nov 23,qx.m 25 Park Fow, New York;	HEWES & PHILLIPS, IRON WORKS, Corner Orange and Ogden Streets, Newark, N. J. Maudacturers of the most improved HIGH AND LOW PRESSURE, STATUMARY, PORTABLE AND MARINE STEAM ENGINES AND BOILEES, MACHINESTS' TOOLS OF ALL PESCRIPTIONS, and ALL KINDS OF GENERAL MACHINESTS' TOOLS OF ALL PESCRIPTIONS, and ALL KINDS OF GENERAL MACHINERY. Large assortment of Steam Engines and Machinists' Tools constantly on jei3.6m

AMERICAN JOURNAL OF MINING. 61 JULY 25, 1868.] STEAM PUMPS. S TEAM PUMPS. MISCELLANEOUS. STEAM PUMPS IN EVERY POSSIBLE VARIETY STEPHEN J. GEOGHEGAN & CO. HYDRAULIC WORKS, MANUFACTORY, (Successors to Cameron & Geoghegan, BEROOKLYN, N. Y Benorek State and Duplex, Worthington's Patent, for all purposes, such as Water Works Engines, Condensing or Non-condensing ; Air and Carcutating Punps, for Marine Engines; Blowing Engines; Yuchum Punps Statemary and Yortable Steam Fire Engines Boiler Feed Pumps, Wrecking 199 & 201 Centre Street, N.Y., Adjoining Earle's Hotel. MANUFACTURERS AND DEALERS IN Wrought and Cast Iron Steam Pipes Valves, Cocks, Fittings, &c. Mining Pumps, Water Meters, Oil Meters; Water Pressure Engines; Stamp Mills for Gold Silver and Copper Ore; Eaton's Patent Amaigamators for Gold and Silver Steam and Case Pipe, Vaives, Fittlags, &c.; iron and Brass Oastings. See Send for Circular. H. R. WORTHINGTON, 61 Beekman street. New York. FOR STEAM, WATER, AND GAS. Also, High and Low Pressure Steam Heating Apparatus applied to FACTORIES, PUBLIC BUILDINGS, STORES AND DWELLINGS. AND DWELLINGS. Manufacturers and Sole Agents for STORER'S PATENT LUBRICATORS, for supplying lubricating matter m bulk to the cylinders of Marine and Sta-tionery Steam Engines, Steam Fungs, Healers, Steam Traps, Pipe Tougs, Pipes, Vices, Stocks and Dycs, & co., & co. We make Steam and Gas Fitter's tools a speciality. THE POSITIVE STEAM PUMP. WILLIAM HARSEN. PATENTEE AND MANUFACTURER, GREENPOINT, L. 1. ne-third less than any other First-Class Pump of the same Capacity, Coils for Breweries, Distilleries, Soap Factories, &c., &c STEAM PUMPS. MANUFACTURER'S AGENT, at CARR'S, 45 Courtland Street, Send for lliustrated Circular f:17-Jy nov2 1y q A. S. CAMERON & CO, 3 YORK STEAM PUMPS, POWER AND HAND PUMPS, WORKS FOOT EAST 23D STREET. Square, Especially adapted for Mining, and other purposes. A STEAM FIRE ENGINES, LATEST IMPROVED PATENTS R feb 22 6m MEW UBE NIAGARA STEAM PUMP WORKS AND EVERY DESCRIPTION OF HYDRAULIC AND PNEUMATIC MACHINERY, WATER WORKS& FILTERING APPARATUS AIDA AIR PUMPS Manufactured hy BRINTON & HENDERSON, Philadelphia Hydraulic Works, 247 South Third Street, Philadelphia, Pa. je27:4t American Institute GR Chat ALE. OR BEER ETO WINE ETO ROTARY PUMPS BREWERIES, SHIPS, ETO Premium LIA IVES' PATENT LAMPS, 158 Corner Mott Street, 1867. 2 and Give a better and cheaper light than GAS, can be lighted, filled, and trimmed without removing shade, globe or chimney, or unscrewing the buruer. We H make a specialty of furnishing 2 186 ALL KINDS OF SCALES First SAFE STATIONARY LIGHTS 184, H (in place of those that are movable and dangerous) ALL KINDS OF WEIGHTS. AND PURE, NON-EXPLOSIVE OIL, Received the First Premium for Filtering Apparatus, Water Works and Scales. may16:6m HARDICK BROTHERS, In place of Lad, unsafe Kerosene commonly used. WALTONS & LEONARD, SUCCESSORS TO Every barrel received from us, with our brand on the head, can be relied CAMPBELL & HARDICK, BROTHERS, MACHINISTS' AND RAILROAD SUPPLIES, on as METALS, TOOLS AND HARDWARE, No. 9 ADAMS STREET, BROOKLYN, N. Y. PERFECTLY SAFE. No. 58 John Street, New York. Send lor circular. J. CLAYTON'S AGENTS FOR THE SALE OF American Bolt Co.'s Bolt, Nut Washers, &c. Sturtevant's, Pressure Blowers, Tail's Smith's Shears, Packer's and Walworth's Eatchets, Harrington's Patent Tuyere, Patent Differential 'valleys, Green Works, Patent Wrenebes, Dudgeon's Pntent Hydraulic Jacks and Tube Expanders, Dixon's Cruchles, Wellington Mills Emery and Emery Cloth, Iron Pulley, Blocks, Twist Drills, Portable Forges, &c. AND & LABGE ASSORTWERT OF Present price (is harrels), 56 ceuts per gallon. Sbipped in "chermetically tight" barrels of 44 to 48 gallons, ONLY ou re-Patent Steam Pumps, HAND PUMP AND STEAM ENGINE COMBINED. eipt of CASH, WITH THE ORDER. JULIUS IVES & CO,, mar7:3m No. 49 Malden Lane, N. Y. GUNPOWDER SUPERSEDED. AND A LARGE ASSORTMENT OF Stub's Tools and Files and Supplies for Haliroads, Engi-neers, Manufacturers and Machinists. W. M. WALTON JO3. J. WALTON. O. W LEONARD Explosions and accidents from this time connted among the things that were guarrymen and miners, hunters and soldiers use only NEUMEYER'S PATENT SAFETY POWDER. IN EUHILE LEDY'S FAILENT ORFLORE FOUNDAMENT Now'in universal use for biasting and mining purposes in England, France and Germany. You can handle and ship this powder with no more danger than you handle oil, auplur, or charcoal. To explode it has to be confined and ig-oited by means of a fuse. One feature that specially recommends its use in mines and confined places is that very little smoke results from tits combus-tion, ard this smoke is very light, and not at all injurious to the langs. NEUMEYER & NIESE, ST. LOU'S, MC., the the beater and an annual continuers to the linited States \_\_\_\_\_\_ (ne general FRANK B. POLLEY & CO., ENGINEERS AND MACHINISTS, 277 & 279 First street, Brooklyn, New York. Manufacturer of HIGH AND LOW PRESSURE STEAM ENGINES, Are the Patentees and sole manufacturers for the United States One general agent wanted for each State. For further particulars address. NEUMEYER & NIESE, jul; 6° 67 No. 9 South Third street, St. Louis. PORTABLE AND HOISTING ENGINES, Also ROSS PATENT BURR STONE GRINDING MILL. RANK B. POLLEY. EDWD. W. CLARKSON FRANK B. POLLEY. Seud for Circular. These pumps contain every desirable quality in a steam pump, are made of the hest material, and in the best manuer, and are the cheapest first-class pumps in the market. For cut and description see JOURNAL OF MINING, NO. 18 Vol. 1. Pleaso send for circular All sizes of pumps made to order at the shortest notice. nov18-tt JAMES CLAYTON, 24 and 26 Water street, Brooklyn, N. Y. jan2:1y.q B. KREISCHER, CLINTON IRON FOUNDRY, NEW YORK FIRE BRICK 502 and 504 WATER, and 239 and 241 CHERRY STREETS, ANI LEADER PIPES, PUILEYS, HANGERS, GRATE BAR3, MACHINERY PATTERNS of all kinds, STATEN ISLAND THE WOODWARD CLAY RETORT WORKS. STEAM PUMP! MANUFACTURING COMPANY, ESTABLISHED 1845. MANUFACTURERS O LOAM AND DRY SAND CASTINGS OFFICE, 58 GOERCK STREET, CORNER DELANCEY ST., EAST RIVER, WOODWARD PATENT IMPROVED SAFETY of every description, for mining purposes, made to order at the shortest no tice and on reasonable terms. W. McKINLEY oct 26-1y R SMACK mar28:1y:q NEW YORK. oct 26-1y ATLANTIC IRON & WOOD WORKING **STEAM ENCINE WORKS,** IRON AND BRASS FOUNDERS. MANUFACTURER OF Steam Engines, Boilers, Sugar Mills, Tanks, Linsed and Cotton seed Oil Pressees, and Machinery used in the Arts and Manufactures. CORNER WATER AND ADAMS STREETS, BROOKLYN, N.Y. R.B. DUYCKINCK, Treas. jan13:19 WM. ARTHUR, Pres. MACHINERY TURBINE WATER-WHEELS. LUCIUS W. POND, No, 98 LIBERTY ST. N. Y., and Worcester, Mass. nov.2.1y q BULLARD & PARSONS, HARTFJRD, CONN., SCOVILL MANUFACTURING COMPANY. Manufacturers of Manufacturers of IMPROVED UPRIGHT DRILLS, with friction feed. This tool cau be used with equal facility for light drilling or heavy boring—is particularly adapted to rairoaa, iocomotive, steam engine, und generat machine shops. We also make first class Shafting, and Mill Work, from a great variety of new and improved patterns. We utraish with our shafting, patient sci foiling boxes and iffetion couplings. Special machinery to order. Send for trv and price list. MANUFACTURERS OF SHEET BRASS, GERMAN SILVER, PLATED METAL, BRASS BUTT HINGES, STEAM PUMP AND FIRE ENGINE. Gilt, Lasting, Brocade and Pancy Dress Buttons, Kero

STEAM, WATER, AND GAS FITTINGS OF ALL KINDS.

sene Oil Burners, and Lamp Trimmings, And importers and Dealers in every description of

A TTENTION, ENGINEERS, MINERS, QUARRY-WEN. LAMSON'S PATENT STONE CHANNELING MACHINE, for quar-rying Marthe, Slate, Grindstone, Sand other rocks: does the work of 75 to 100 men pir day; can be seen in the quarries at Rutland, Vt., or at the Company's works.

Do to the pick, and the second second

INCRUSTATION OF STEAM BOILERS PREVENTED by WINANS' BOILER POWDER, 11 Wall street, New York T. S. POST & Co., Beniam. Texas, say: "We were burning two cords of wood daily: jout in a dose of Winams' Powder, and found less thele pocessary each day, until at the end of the week we used less than one cord per day, and had beiter steam than formerly. This may seem incredible to those who have not used these Powders, but we are willing to make oath to the fact. We would not he without the service for the times its value." jne.21 tf.

MONAB & HARLIN. MANUFACTURERS OF BRASS COCKS. PLUMBERS' BRASS WORK, WROUGHT IRON PIPE, FITTINGS, &c.

No. 86 John street, New York. Ap18:6m

at the STRAM PUMP WORES, 26, 28 and 30 First street, William 3 jan1-6m burgh, N. Y.



62

# AMERICAN JOURNAL OF MINING.

EMERSON'S PATENT MOVABLE TEETH. These saws are meeting with AT unprecedented success, and their great superiorily over every ES other kind, both as to efficiency FACTORI and economy is now fully estab lished, UC 28 1866 ALSO, EMERSON'S PATENT PERFORATED Circular. and Long Saws (All Gumming avoided.) An Emerson's Patent Adjustable Swage, Spreading, Sharpening, and Shaping the teeth of all Splitting Saws. Price

MISCELLANEOUS.

CIRCULAR SAWS

\$5. Manulactured by the AMERICAN SAW COMPANY, Office No. 2 Jacob Street, n car Ferry Street, New York. Send for new Descriptive Pamphlet and Price 1.st. 1v4-1v4-ps

STAR BRICK MACHINE

The best, strongest and cheapest in

the United States. We warrapt it to

make more and hetter Bricks than any

other Machine now in use. It takes less

JAMES MARTIN.

power and help to run it.

Manufactured and sold by



or, J. H. Rennick, Room 28, No. 71 Broadway. aug3;1y No. 160 Washington str A RION PIANO-FORTE. - PATENTED.







Air Pumps, Blowing Engines, Hydranlic Pressure Pumps, New Locomo-ive Fumps, Fire Pumps, Boiler. Feed, Marine, Drainage, Sugar-Work, revery, Distillery, Oil and Wrecking Pumps. Improved Horizontal and Vertical

MINING PUMPS

(Working with Plunges, and especially arranged for pumping water contain-ing dirty or gritty matter.) Pumps for every possible duty, and all fully guaranteed. Also, Knowles' Patent Safety Boiler Feeder.

Send for an Illustrated Circular. ily10-1y

feb3;tl

DESIRABLE FIRST CLASS INVESTMENT. The New York Silver Mining Co. of Nevada, offer for sale at their office, No. 80 Broadway, Room 38, in the city of New York, at par, \$20,000 of their Mortgage Bonds, bearing interest at the rate of seven (7) per cent, per ao-num, payable in coin on the first days of May and November. The bonds are for the sum of \$500 each, dated May 1st, 1867, and payable May 1st, 1871, and are secured by mortgage on the Troy Mine, one of the Mines owned by the Compary. which maid Mortgage was recorded in the office of the District Recorder of the County of Lander and State of Nevada, on the 22d day of April, 1868.

The set of the control of Lander and State of Nevans, on the 22d cay of April, 1663. The Troy Mine has been opened to the depth of 322 feet, and has paid a pro-fit over and above working expenses during the past four months, and is now producing the richest ore of any mine on Lander Hill. It has been opened sufficient to prove that it is a permanent vein, and with further development, can be made one of the most successful mining enterprises in the State of Ne-vala. The Company transfer, with each Bond sold ten shares of its Capital Stock (the par value of which is \$100 per share) to the purchaser, without Charge, Iree from assessment of further tax. The money realized by the sale of these Bonds, with the amount the Company now have on hand, will give them ample means to fully develope the Troy Mine, and realize intrge profits at a very early day. For further information apply at the Office of the Company. THOM AS SPROULL, President.



BENJAMIN SMITH LYMAN, MINING ENGINEER. GEOLOGIST AND TOPOGRAPHER. No. 135 South Fifth Street, Philadelphia THE FUEL SAVING

FURNACE COMPANY,

No. 205 BROADWAY, NEW YORK.



### CALIFORNIA STAMP MILLS. WITH WOOD FRAM

Wheeler, Randall & Sperry's Iron Batteries, WHEELER & RANDALL'S PATENT EXCELSIOR GRINDER & AMALGAMATOR,

THE BEST IN USE. **HEPBURN & PETERSON'S** 

# PATENT PAN AND SEPARATOR. WHEELER & RANDALL'S

Patent Conoidal Separator, with Latest Improvements .

WHEELER & BANDALL'S PATENT CONCENTRATOR.

With Z Wheeler's Patent Self-iNicharging Quicksliver Apparatus. This machine is an entire success. Rock Breakers, Engines, Boliers, Shafting, &c., &c. Furnaces. Shoes and Des of the best White Iron. Rectorts for Gold and Sliver. Also Itarihis all kinds of mining supplies. Prot. Wurtz's Sodium Amalgam. Nitrate of Mercury (application patented by Henry Brevoort, Eac), &c. Will also farnish complete Plaus and Specifications for Milis, Machinery and Buildings, and give practical information to Mining, Milling, Amaigamating and Concentrating Gold and Sliver Ores.

Buildings, and give practical information in Mining, Mulling, Amaigamating and Concentrating Gold and Silver Ores. Agents for H. J. BOOTH & Co., Sau Francisco, also for Miners' Foundry, Sau Francisco. MOREY, SPERBY & CO.,

95 Liberty street, New York. J. A. SPERRY. P. M. RANDALL,

Of Wheeler & Randall, San Francisco. SMITH & SAYRE



BLOWER and CUPOLA and SMELTING FURNACE, Also, Mackenzie's Patent GAS EXHAUSTER and COMPENSATOR. Address SMITH & SAYRE MANUFACTURING COMPANY. 95 Liberty street, N. Y. Send for illustrated pamphlet. mar26

LAKE



ELFW

[JULY 25, 1868.



METALLURGY.

STEAM STAMP-MILL COMPANY, OF PHILADELPHIA. PA.,

WILSON'S PATENT

### PUBLICATIONS.

# THE PROTESTANT CHURCHMAN,

JULY 25, 1868.]

# A Religious Family Paper, THE LEADING EVANGELICAL ORGAN PROTESTANT EPISCOPAL CHURCH.

Devoted to the advocacy of Evaugelical Truth against Ritualism and Rational ism ; the defence of the "Liberty of Preaching," and the cultivation of fraternal relations with Evangelical churches.

Editors: Rev. Messrs. John Cotton Smith, D.D., Marshall B. Smith, and Stephen H. Tyng, Jr.

The Editors are assisted by a large corps of clerical and lay contributors in all parts of the United States, in England, and on the Continent.

Published every Thurs tay at No. 633 Broadway, New York.

TERMS: Four Dollars per annum; to clergymen, three dollars; to theological students and missionaries, two dollars. Club rates, filve copies to one ad-dress, filteren dollars; twenty copies, filty dollars. Spec.men copies lurnished. Address. THE PROTESTANT CHURCHMAN, Ap.18:6m Box 6,009 P, O., N. Y.

EVERY FARMER SHOULD HAVE THE WORK !

"STERILITY IS LAID."

PROF. VILLE'S NEW SYSTEM OF AGRICULTURE:

AN ADDRESS BEFORE THE BEDFORD, N. H , FARMERS' CLUB, FEB. 28,

1868, by JOHN A. RIDDLE, Esq.

Published by request of Club. Price 25 cents.

WESTERN & CO., For sale by 37 Park Row, New York. may23 tf

MISCELLANEOUS.

Olmsted's Improved Oiler.

ALWAYS RIGHT SIDE UP.

Warranted the most durable Oller made. The spring cannot be "set" by use or the Oller injured by failing.

Made of Tin, Brass and Copper, and sold by the Trade everywhere. Made by J. H. WHIFE, New-ark, N. J., manufacturer of SHEET and CAST METAL Small Wares,

NOTIONS,

Patented Articles, &c., &c. Dies and Tools made for all descriptions of Metal Work. Stamping and Cutting done to order. 157 Chestnut street, Newark, N. J. ju18:1y

NEW YORK BELTING AND PACKING COMPANY,

# MANUFACTURERS OF VULCANIZED RUBBER FABRICS,

ADAPTED TO MECHANICAL PURPOSES. **Patent Smooth Belting**, (Patented Nov. 22, 1859,) vulcanlized between layers of a patent metallic alloy, by which the stretch is ontirely taken out the surface made perfectly smooth, and the substance thoroughly and evenly vulcanized. This is the only process that will make reliable Robber Belting

Hose never needs oiling, and warranted to stand any required pre-Steam Packing in every variety, and warranted to stand 300° of heat. Solid Emery Vulcanite.—Wheels made of this are solid, and resemble stone or iron; will wear out hundreds of the ordinary wheels.

Directions, Prices, etc., can be obtained by mail or otherwise. 15-4 -qp JOHN H. CHEEVER, Treas

15-4 -qp Warehouse, 37 & 38 Park Row, N. Y.

SCHOOL OF MINING AND PRACTICAL GEOLOGY

# Harvard University.

Therventu Charter of Mining and Practical Geology Tof Harvard University, will be continued, on an enlarged scale, during the collegiate year 1863-0. The examinations for admission will be held on THURSDAY and FRIDAY, Sept. 17th and 18th. For further information and for circulars, apply to PROF. J. D. WHITNEY, Doan of the Faculty

Cambridge, Mass., July 3, 1868

# DAVID COGHLAN MINING ENGINEER, SCRANTON. PA.

SUBCANTUM, For Would undertake to inspect or manage Gold or Silver Mines. Has had a long experience in directing mining concerns and metallargic works, and has 14 on employed for the last year and n half as Mining and Civil Engineer under some of the principal companies of the Anthracito regions of Pennsylvania, to whom references can be given, as well as to parties of the bigbest respectability in Yew York City.







STEAM STAMPING MILL, STATIONARY AND PORTABLE ENGINES, Engine Lathes, Planers, Bolt Cutters, Upright Drills, and

Machinist's Tools of all Descriptions. OFFICE AND WAREROOMS, 128 & 128 CHAMBERS ST., N Y june13.3m

ABORATORY OF L

ANALYTICAL AND APPLIED CHEMISTRY

University of Michigan.

Instruction to each student, at his own tablo, lu system atic and thorough

QUALITATIVE ANALYSIS.

LIYATIVE ANALYSIS, QUANTITATIVE ANALYSIS, DETERMINATIVE MINEBALOGY, METALLUBGY, PRACTICAL PHARMACY, TOXICOLOGY and URINALYSIS,

Those qualified are aided in special work and in Original Investigations. THE SCHOOL OF MINES

THE SCHOOL OF MINES Gives Lectures, Recitations, and practical training in each of its branches, with particular attention to quantitative blow-pipe analysis, as well as to the assay by crucible and muffle. Thorough preparation made in the fundamental sciences, and the degree of Mining Engineer Conferred. The Laboratory Building, built and used solely for this purpose, and recently greatly enlarged, is heated by steam, ventifiated by steam-power, and fur-nished with the best obtainable scientific appliances, and with a good library. Term extends from first of October to the last Wednesday in June. Mem bership loo, paid but once, for all University privileges, twenty-five dollars for these nod residents of Michigan, and an annual fee of the dollars for every student. The only special charge for Practical Chemistry is the New York rotall price for apparatus and chemicals actually consumed. ANN ARNOS, Michigan, je27-jy29 Prof. of Chemistry, etc.

# METALLURGY.

# K USTEL'S NEW WORK .- A TREATISE ON THE CONCENTRATION OF ALL KINDS OF ORES.

INCLUDING THE

CHLORINATION PROCESS FOR GOLD-BEARING SULPHURETS, &c.,

# BY GUIDO KUSTEL,

(Mining Eugineer and Mctallurgist, author of "Novada and California Processes

of Silver and Gold Extraction.") This great work should be in the hands of every mining engineer in the country. B is the only manual in the language containing bugines in the country. B is the only manual in the language containing the latest improve-ments which Science has made in the important department of concentratien, and a full and detailed account of the celebrated and successful Plattnor chlorination process. Both parts of the book are illustrated with diagrams and plates, so that overy intelligent ongineer can erect apparatus or make working drawings for himself.

PRICE TEN DOLLARS.

#### FOR SALE BY

### WESTERN & COMPANY,

Sole Agents for the Atlantic States, at the office of the American Journal Mining. feb22 ( feb22 tf

PROFESSOR HENRY WURTZ,

Formerly Chemical Examiner in the U.S. Patent Office, may be employed professionally as a Scinvinc Expert. Geological Examinations and Reports, unives and Assays, etc., etc. Practical Advice and Investigations in the insucat. Arrs and Maxwacruss. Invention and Examination of new chemi-al methods and products. Address 36 Pine street, rooms 35 and 30. Atways in from 12 to 3. from 12 to 3.

Important to Gold and Silver Miners and Companies.

# PROFESSOR WURTZ,

Who is the investor and Patentee of the new and wonderful uses of SODIUM IN WORKING GOLD AND SILVER ORE AND JEWELERS' SWEEP. INGS.

ANUS, Will furnish at the above address information relating thereto together with experimential packages of

SODIUM AMALGAM. All proparations and instructions elsewhere obtained are spurious and un-eliable.

Working Experiments on Amalgamation of Ores, Etc.

Working Experiments on Annay A

# MANHATTAN

# METALLURGICAL AND CHEMICAL WORKS, 559 and 554 West Twenty-eighth Street, N. Y.

ASSAYS OF GOLD, SILVER, COPPER AND LEAD ORES.

Special attention given to the Analysis of Ores, Minerals, Clays, Waters, and General Commercial Products of all kinds. Tests of cold, silver, and Lead Ores, hy smelting, in quantities of One Hundred Poutdet D Fifty Tons. Gold and Silver Ores worked in Parcels of One Hundred Pounds to Fifty Tons, by Amaigamation Process. Gold Dust, Ears, Old Gold and Silver hought. Jewellers' sweeps worked and refined.

refined. Founders and Metal Workers furnished with Alloys of every description. Parties requiring pinns and specifications for the erection of Smeiting Works, car be supplied, and the actual process while working showa. Plans and specifications furnished for works, and processes for the manufac-ture of Sniphuric Acid, Soda Ash, and general Chem cal produce. Superlitendents : MK. CHARLES F. SECOR, form rly of Nevada and Call-fornia, and MR. WILLIAM WEST, formerly of Swames, Wales. For sale, 1 Hepburn & Peterson Pau, and 1 Bogardus Quartz Mill. Inquire at the Manhatan Metallurgical and Chemical Works, 562 and 564 West Twen-ty-Eighth street.

ty-Eighth street Parties shipping Ores to these works for treatment must prepay all freight

For engagements and torms, apply at the Works or to For engagements and torms, apply at the Works or to SECOR, SWAN & CO., P. O. Box 1412. m30:1y 66 Broadway, New York.

HUEPEDEN & WOLTERS,

### ANALYTICAL CHEMISTS and ASSAYERS, AND CONSULTING ENGINEERS, Central City, Colorado.

Examinations of, and Reports on Mineral Lands and Mines, turuished cu ap-plication. Analyses and Assays of Ores executed with accuracy. Plans and specifications furnished for eroction of Smellting Works, Desulphurizing Brunaces, &c., &c.

CHARLES SCHENCK, a resident of Pah-Ranagat Silver Mining District, and Couuty Surveyor of Lincoln county, Nevada, beg leave to inform the mining pupile that he is able and ready to give true and valuable information about mining property in this District. Address CHARLES SCHENCK, M. E., Miko, Pahranagat District, Nevada. References-Wm. A. Smith, Esq., 25 and 27 Nassau street. Prof. Harper, New York, etc.

DELBERG & RAYMOND,

MINING ENGINEERS AND METALLURGISTS, 90 BROADWAY, N. Y.

Mines, Mineral Lands, Machinery and Metailurgical or Chemical Works ex

63

nient for shipping, and presents great inducements for large returns or vestment. Ample references given. Apply to E. B., Hoffman House, samples can be seen.	where Side	aminea and reported upon. Advice given to minors, chemists and manufac- turers, Assays and analyses made. Competent Engineers iurnished to com- panies or individuals. 5:3:qp		
SOUTHARD, HOBSON & CO.'S STONE DRILLING MACHINE. Portable, Durable and Cheap. Can be driven by hand, steam, or power. 528 WATER ETREET, New York The only machine for hand power that is perfectly simple and po win never get out of order with common management. Will repay several times over in one season, saving at least three-fourths of cost ing.	Other ot	R. P. ROTHWELL, <b>MINING &amp; CIVIL ENGINEER AND METALLURGIST,</b> From the Imperial School of Mines, Paris, Member of the Geological Society of France, &c. OFFICE, WILKESBARRE, PA. Having had a large practical experience in Europe and this country is p to pared to exam: ine and report on all kinds of Mineral property, superintent Mines and Metallurgical Works, Assay Ore-, &c. 1872/90		
MAYS & BLISS' New Patent Screw and Lever Press CUTTING AND STAMPING DIES. July 4:6m Plymouth Street, Brooklyn, B	ABORATORY OF INDUSTRIAL CHEMISTRY. DROF, H. DUSSAUCE, Chemist.	SHEFFIELD SCIENTIFIC SCHOOL OF YALE COLLED A. NEW HAVEN, CONN. INSTITUTED IN 1846. Instruction given in Practical Chemistry. Metallurgy, Minerangy, two Dgy Mining, Mechanicat Ind Civil Engineering, etc. Circulars sont ou - ophic:thou to Prof. D. C. GILMAN, Secretary.		
T. P. PEMBERTON, MECHANICAL ENGINEER AND TEACHER MECHANICAL DRAWING Rooks No 15, 16, 17, at 37 PARK ROW, N. Y. City.	Advices and consultationson chemistry, applied to arts and manufactures agriculture, metallurgy, etc.; plans of factories, irwings of apparatus. Hi chemical products, petroleum soaps, candles, colors of lead and zinc, varnishes ceramic glass, wines, liquors, vinegurs, matches, inks, dyeing and calico print ing, perfumery, colors of coal tar, tanning, etc., etc. He will give all necessary information to exhibitors to the great Exhibition Address New Lebanon, Columbia Co., N. Y. 8.4.4p	GEO. W. MAYNARD, PROFESSOR OF MININ G and METALLURG) AT THE RENSELAER POLATECHNIC INSTITUTE, THOY, NEW YORK. Reports, Consultations, Assays. AF Especial attention given to here lurgical Operations. Ja 16.19		

AMERICAN JOURNAL OF MINING,

SUBSCRIBE FOR AND ADVERTISE IN THE

#### Aliaska Diet

64

If Aliaska urchins have no cherries to munch, they have a If Anaska urching have no cherries to mulch, they have a substitute in what may be called fish fruit, which they enjoy very much. This is what a correspondent, writing of an In-dian market at Sitka, says about it: "Yon may feel disposed to laugh about fish eggs, but there are plenty of them for sale. The Indians collect them by cutting branches from the pine trees and sinking them in the water where the fish come to denosit their snaw. After allowing them to remain there trees and sinking them in the water where the fish come to deposit their spawn. After allowing them to remain there for some time, they become covered with fish eggs. They are then taken out of the water, carried to their hnts, and made into a paste—' kaivish'—with other ingredients. Since the herring commenced running the Indians have been luxuriat-ing. It is an every day occurrence to see the delicate little squaws with a large twig covered with fish eggs hibbling them off with great gusto as they pass along the streets."

#### Preservation of Building Stone.

An Illinois architect has invented a process for preserving from decay and disfigurement the beautifully colored stone called "Athens marble," which is now used very extensively at the West for bnilding fronts. This stone is composed prin-cipally of carbonate of lime, carbonate of magnesia, and silica, but among the minor ingredients, protoxide of iron pervades the whole mass, giving the charateristic blue-greenish tint, the main cause of its beanty, but the cause also of its decay, as exposure to the atmosphere converts the protoxide into hydrat-ed sesquioxide of iron, or iron rust. To remedy this action the stone is coated with a soluble glass, made by melting a mixture of fiftsen parts of silica, ten of soda, and one of char-coal, until it forms a glass which is reduced to the liquid form coal, until it forms a glass which is reduced to the liquid form by boiling in water. This solution permanently fastens itself to the surface and protects the stone from the atmosphere, smoke and dust.

### ADVERTISEMENTS.



intentem

THE BEST AND LARGEST PAPER OF THE KIND IN THE UNITED STATES NOW IN ITS THIRD YEAR. Now in its Third TKAR. The American Journal or Mining interests of the country in a complete, sat-satctery, and trustworthy manner. It should therefore be in the hands of every one who desires to be informed upon, said hence able to profit by a knowledge of the subjects of which it treats, viz. : our vast mineral resources, and the best methods, direct and indirect, by means of which they may be-come an unlailing source of individual and national wealth. Published every Saturday in New York City. Only \$4 a year.

SPECIAL AGENTS AUTHORIZED TO RECEIVE SUBSCRIPTIONS AND ADVERTISEMENTS.

July 4:6m

BFBCIAL ÁGENTS AUTROBUERD TO BECEIVE SUBCERPTIONS AND ADVERTISEMENTS.
 MASSACHUSETTS. -- M. 'A. LATHEOF & BEO. 11 Court street, Boston.
 MONTANA.-- WILLAM Y. LOVELL, Virginia City.
 NEVADA.--J. D. EMERGEN, MONORO.
 MONTANA.-- WILLIAM Y. LOVELL, Virginia City.
 NEVADA.--J. D. EMERGEN, JAUSID.
 COLDRADO-GEO. THUTCH, DEVER UT.
 CALIFORNIA.--W. E. LOOMS, San Francisco.
 PENNSYLVANIA.--T. R. CALEXDREE, Cor. 37d and Wainnt streets, Philadelphia, W. H. DAVIS, EASION, Pa.
 ENGLAND.--FREDERIK ALGAN, 11 Clements Lane. Lombard street, London.
 MEXICO.-JAMES SULLVAN, City of MEXICO, JUAN CARREDANO, VETS CTUZ, JACINTO QUINE, ACADULO.
 SCUTH AMERICA.--COLVILE DAWSON & CO., 271 Calle de la Union, Lima, Peru.
 M. NAVARBO DE WILLAMA, RIO de Janeiro, Brazil, LUCIEN BLIO, BUENOS AYPES, Argentine Republic.
 CUER A.-TBOS. W. WILSON, HAVANA
 M. T. P. FEMBERTON is editor of the Mechanical Department and agent for the AMERICAN JOURNAL OF MINING.
 DEALERS AGENTS.
 THE MERICAN NEWS CON, 10 Sprüce street, N. Y.
 THE MERVY WORK NEWS CO. 10 Sprüce street, N. Y.

BACON'S IMPROVED TRUNK ENGINE.

For Stationary and Hoisting Purposes, Portable Hoisting Engines for Dock, teamship and Building usage. Stationary and Portable Engines for all pur-oses where stoam-power is needed. Hoisting Engines for Stores and Warehouses, with Platform and Safety Hoist-

ing Appearatus. This Engine is simpler and cheaper than anything in the market, and is powerful, compact and durable. Price and descriptive lists sent on applica-tion. Manufactured and for sale by REGOKS & BACON,

BROOKS & BACON, No. 450 West street, New York.

# TO CAPITALISTS.



urope as the BEST LUBRICATORS

Send for Circulars. ES ST. JOHN, Agent, Volcanic Oil and Coal Co., New New 7 Broadway, New York.

BLASTING BY ELECTRICITY.

Box 4781.

je6:1m

# BISHOP'S ELECTRIC FUSE,

WITH GUTTA PERCHA CAPS, ALSO

ELECTRIC MACHINES lor use with the above, lurnished to order, of any size

# BISHOP'S GUTTA PERCHA CAPS,

EPPLODING NITRO-GLYCERINE,

with Match Fuse, on hand and furnished to order, with promptness, and WARRANTED SURE FIRE.

THE BISHOP GUTTA PERCHA COMPANY, 113 LIBERTY STREET. SAM. C. BISHOP, General Agent.

Net , with a Mr. w TE -I CIPWA

[JULY 25, 1868.

# Sold wholesale and retail, by 5 COLLANORF & CO., Importers of China and Glass, 479 Broadway, (four doors below Broome Street,) New York City. DAVIS

Sum ething that will not Break a handle that will not crack ; is not offensive to the Male by J. RUSSELL & CO., Green River-Works, Greenfield, Mass. II, like rabber ; is beautiful in design and finish ; is the best possible article for Families, Hotels, H may9;30