Miners' Journal.

POTTSVILLE, PA.

SATURDAY, AUGUST 15, 1857.

☞ The circulation of the MINERS' JOURNAL is equal to the aggregate circulation of any THREE other English papers published in the County—and as it circulates among the best portion of the population, an advertisement inserted in its columns is, of course, worth as much to the advertiser as if published in any three other papers. In our cities the rates of advertising are always graded in price according to the circulation of the paper.

OUR POLITICAL CREED.

Determined opposition to the extension of Slavery into the Territories of the United States—and opposition to the acquisition of any Territory, either by annexation, purchase or conquest, for the extension of the area of Slavery.

Opposition to any interference with the rights of Slaveholders in the States in which Slavery exists by the law within the limits of the Constitution.

The appropriation of the proceeds of the sales of the Public Lands for the purchase of the Slaves at a fixed valuation, according to age and sex, and the gradual abolition of Slavery in the United States, which is a foul blotch on our National escutcheon and contrary to the principles of the Declaration of Independence. This measure is the more important, because recent events have made it fully shown that no question of Governmental policy, in all its various departments, and even the question of Religion itself, cannot be discussed without its being forced into the arena, and the whole country distracted and convulsed, causing alienation and hostile positions in various sections. Good Government, a Union among the States, and Harmony among the whole people, demand that this great and growing evil should be removed by all lawful and just means, as speedily as possible.

The Improvement of our Rivers and Harbors, for the promotion of the Internal Commerce of the Country; Together with such aid as may be prudently extended by the General Government, to the construction of Railroads and Telegraph Lines to the Pacific Ocean, to facilitate quick communication throughout the country, which is the only means by which such an extended Territory can be bound together in one Union.

A Revenue System of duties levied on Foreign Merchandise, sufficient for the support of the General Government, and so arranged as to discriminate in favor of, and also to protect the Domestic Industry of this country.

While we accord to every man the right to worship his Creator according to the dictates of his own conscience—without fear or molestation, and will proscribe no man on account of his birthplace, who is a good citizen, and cordially supports our Institution—yet we are decidedly opposed to Roman Catholic, Jesuitical and all other Foreign influence, not in accordance with our Institutions and the best good of the masses—and lastly, *political* opposition to men who give or offer to give their votes, as a consideration for the influence their votes, as a means of political advancement of themselves and others.

The total prohibition of the Liquor traffic as a beverage, and the awarding of the same punishment to those who violate such a law as is awarded to other poisoners and murderers of the human race.

State Measures.

We will contend for a general Banking Law, based on good stocks, well guarded in its issues for the security of note-holders.

A law prohibiting the sale of notes, drafts or any paper that is the representative of money, for more than ... per cent. discount, under the penalty of being sent to the penitentiary, the same as any other person who robs the producer of his property.

The sale of every foot of the Public Works belonging to the State, as speedily as possible.

The above is an outline or main feature of the leading principles this paper will endeavor to advocate and establish in our Governmental policy.

See new advertisements. Want of space prevents us noticing each in detail.

"MONARQUE" is the name of the French horse that won the recent race in England for the Goodwood Cup.

KEEP COOL.—The Tamaqua *Gazette* and *Sentinel* are pouring red hot shot into each other.—Their ferocity really, considering this warm weather, is appalling!

NATIONAL SAFETY SAVING FUND.—This Saving Fund in Walnut street, south-west corner of Third, Philadelphia, now has more than one million and a half of dollars, invested in first class securities.

MAJ. JOHN LILLY, Esq., formerly assistant of Ellwood Morris, Esq., has been appointed Engineer and Superintendant of the Dauphin and Susquehanna Railroad, in place of R. W. Mason, Esq., who has resigned his situation.

A NEW CARRIER has been placed on one of the Borough routes of the *Miners' Journal*. He will serve the paper this morning. If any of our subscribers should fail to receive their copies, they will have the kindness to leave a notification of the fact at the publication office.

LORD PALMERSTON'S Government has announced in Parliament the suspension of the Chinese war. A blockade of Canton, without prejudice to European and American commerce, is to be substituted. There is to be also a guerrilla naval campaign against the pirate junks, in which the American fleet is to join.

UNIVERSITY SCHOOLS.—These schools are located at Lewisburg, Pa. Their winter sessions will commence on the 24th proximo. These schools educate and fit young persons of both sexes for their future spheres in life. The Academy fits young men for college, teaching or business. The general agent and treasurer is Rev. A. K. Bell.—See advertisement.

HURRAH FOR FREEDOM OF SPEECH IN VIRGINIA!—The Grand Jury of Prince William county, Virginia, have found a true bill against John Underwood, for maintaining, by speaking, that "an owner has no right of property in his slaves," etc., and he has been held to bail in the sum of five hundred dollars for his appearance at the November court. Which is preferable, residence in Russia or Virginia? The former is hardly more despotic than the latter.

THE PROPER COURSE.—The Secretary of the Navy, Governor Toucey, has formally determined that, hereafter, all Anthracite Coal shall be purchased by the duly appointed agent of the Government in Pennsylvania, and shipped from Philadelphia to our naval stations in the various parts of the world. Purchasing Coal in foreign ports for the supply of our ships of war, has been found a ruinously expensive business.

STATE CANALS.—The sale of the Main Line leaves, we believe, in the hands of the State, the following lines of Canal in operation:

	Miles.
Delaware Division,	60
Susquehanna Division,	41
North Branch Division & Extension,	165
West Branch Division,	76
Total,	342

COTTAGE FEMALE SEMINARY.—This Seminary under the charge of Rev. W. R. Work, is delightfully located at Pottstown. No educational institution in the State enjoys a more enviable reputation, nor can a gentleman more eminently fitted for the position he occupies, than Mr. Work, be found. Parents can confide their children to him with the assurance that at his hands they will receive solid instruction combined with tender parental care. For particulars in reference to terms, etc., we refer the reader to an advertisement of the Seminary in another column.

"STANDARD" is the title of a revival of the *Gazette*,—the defunct Democratic organ of the County—the first number of which appeared last Saturday. It is published by Mr. Acker, late of Norristown. It promises to advocate nothing but what is orthodox and endorsed by the portion of that party that favors proscription, both of whites and blacks—in short that hesitates not to advocate white as well as "nigger" driving. Mr. Acker says that he will conduct the *Standard* courteously, and avoid personalities. A good resolution, one that will we think, be respected by his cotemporaries. The *Standard's* predecessors have been short-lived. We really hope it will wave some what longer, with more profit to the publisher.

THE re-election of Comonfort as President of Mexico is a happy event for that country, and affords some guarantee of continued peace between Mexico and the United States. Mexico needs at this time a strong government based on the public will, which on the one hand will be able and willing to curb and crush the seditious tendencies of the priesthood, and on the other to suppress the insubordination of the populace and to regulate the ambition of local demagogues. Comonfort is the only man in the Republic who possesses the power to do this, because he is the only liberal conservative who has the confidence of the nation. The vigor displayed in the execution of the bandit Crabbe and his gang, will serve to protect Mexico for some time from the incursion on the side of California, where the authority of our own central government is weak in all cases affecting the rights of their countries.

To many of our subscribers in Boston, New York, Brooklyn and Philadelphia, we send bills this week. The amount to each is small, to us in the aggregate is important, inasmuch as it will permit us to meet liabilities pressing upon us. A prompt attention to them at this time, when pecuniary tightness is the order of the day in the Coal Region, will place us under considerable obligations to our friends at the points named.—We will shortly, forward more bills East, when we hope the recipients will give them their immediate attention. We trust our patrons in the cities named, will gratify us in this respect.

The bills are generally made up to the beginning of the year or the beginning of the volume. This will account for the odd cents in many bills, which can be sent in postage stamps. By making the accounts all commence at the beginning of the year and the volume, makes it more convenient for all parties.

VOTING IN SCHUYLKILL COUNTY.—During the last session of the Legislature the following supplement to the election law was passed. It will strike many of our readers as singular, that the counties of Schuylkill and Wayne should be singled out, and not the other counties of the State for this mode of voting. The object, as far as we can learn, was this:—In these two counties there are a great many Roman Catholic voters and office seekers, and the people, particularly the American Germans, have not shown much disposition to swallow their "bitter pills"—hence the attempt to compel them to vote the whole ticket for County officers, by having them all voted on a single slip.—But like all other attempts of the Bogus Democracy, to compel the people to swallow all their offscourings of creation who do the dirty business of the party—it will fail of its object. The law requires the ticket to be folded, and instead of printing the tickets as heretofore on newspaper, they will be printed on writing paper, and the names of candidates can easily be erased and other names written on the same ticket, and then folded up so securely that the tickets cannot be as easily detected as under the present system.—They will have to try some other method before they can prevail upon the honest non-office seeking portion of even the Democratic party to swallow every thing the wire-pullers of the party may present for their suffrages:

8. It shall be lawful for the qualified electors of Wayne and Schuylkill counties to vote at their general elections for governor, canal commissioner, surveyor-general, auditor-general, member or members of congress, senators and members of the general assembly, upon one slip or ticket, and all county officers, including the judges of the court of common pleas, also upon one separate slip or ticket: *Provided*, That the office for which every candidate is voted for shall be designated as required by the existing laws of this commonwealth: *And provided further*, That the state and county tickets shall each be so folded as to conceal the names of the persons voted for, and on the outside of the state ticket shall be written or printed the words, "state officers," and on the outside of the county ticket shall also be written or printed the words, "county officers."

THE BRITISH COLONIAL EMPIRE.—*The Press* thus sums it up:—British India, of which Hindostan contains a population of 140,000,000 of human beings—90,000,000 of these being subjects of Great Britain, 40,000,000 the subject of allies, and 10,000,000 the subjects of independent States—this region, the seat of the present insurrection, extends from the 8th to the 34th degree of north latitude, and from the 66th to the 92d degree of east longitude—being from north to south in length 1,800 miles, and from east to west 1,500 miles. Next in importance to the East India possessions are those of West India,—comprising Jamaica, Trinidad, Granada, St. Vincent, Barbadoes, St. Lucia, Dominica, the islands of Antigua, Nevis, Monserat, St. Christopher, (or St. Kitt's) Tortola, Anguilla, the Bahamas, and the Bermudas. Then comes South America, with British Guiana, Central America, with Honduras, then the Falkland Islands. Next comes British North America—Lower Canada, Upper Canada, Nova Scotia, Cape Breton, the Sable Islands, New Brunswick, Prince Edward's island, New Foundland, the Labrador coast, and the Hudson Bay Company's territories. Turning to the east again we find the large island of Ceylon, the Prince of Wales island, Molucca, Singapore, Australasia, beginning with New South Wales, and including the vast island of New Holland, then Western Australia, South Australia and Van Dieman's Land. In Southern Africa, the Cape of Good Hope, Mauritius, in the Isle of France, St. Helena, Ascension, in Western Africa, Sierra Leone and Gambia; and we must not forget the Colony of New Zealand and the settlements of Hong Kong. Finally, there are British Colonies of Europe, Gibraltar, Gozza and the Ionian Isles, besides the Colony of Heligoland in the North Sea, Fernando Poe and Aden in the Red Sea, and the Island of Scotia.

CAPT. POPE'S ARTESIAN WELL EXPEDITION.—The San Antonio *Ledger* of the 25th ult., furnishes the following notice of this expedition:

Capt. Pope's entire party and materials arrived here on Tuesday last, and proceeded immediately to the head of the San Antonio river, where they encamped for a few days necessary to complete the most perfect organization that ever started for the Western plains. The interests involved in the object of this expedition are of immense importance.

The result of the captain's labors will show whether thousands of square miles of soil possessing all the element of productiveness and fertility save that of water, will be lost to the enterprise of our people through the want of one single element, and for the decision of this question no person could be selected by the Government so capable as the officer in command. Captain Pope's well merited fame is world-wide in connection with his surveys, explorations and wellboring experiments on the so called "deserts" of New Mexico—deserts which, we trust, will be so in future only in name.

The following are the names of the officers, assistants, and attaches of the expedition:—Dr. Kelsey, surgeon and physician; J. M. Reed, J. M. Young, —— Robertson, H. Seindell, —— Stuart, —— Supple, and A. Earl, civil engineers; T. H. O'Callaghan, assistant naturalist; J. M. Brown, superintendent of artesian works; J. and W. Skidmore, J. Lehmann, and P. Maguire, mechanics; —— Marks and —— Pickering, engineers.

These, as nearly as we can learn, together with wagon-masters, teamsters, cooks and laborers, compose the *corps operatice* of this great enterprise. His escort consists of twenty-five cavalry and seventy-five infantry, the latter under the command of Lieut. E. L. Harts, formerly of Pottsville. We understand the captain will first proceed to complete the unfinished wells on the naked plain and Mesilla Valley, thence to the Jornada del Muerte, thence to the great emigrant route from Leavenworth to Santa Fe, and thence to the California desert.

THE Democratic candidate for Governor of Missouri, is defeated by Rollins, American. The event is an era in the domestic history of the country. It is the precursor to the abolition of Slavery in Missouri, which will inaugurate a movement for the deportation of slaves towards the tropics which will not cease until their presence in our States ceases to be a cause of angry contention. Missouri is essentially a Democratic State, and nothing but the overshadowing interest of the Emancipation question could have made it otherwise. The defeat of the Democracy in Missouri will necessitate their utter discomfiture in Kansas, and destroy their plans for making that a slave State. For surely if they cannot hold their position on the base line of their operations, they must withdraw their advanced parties. Whatever atempts are made to disguise it, Emancipation was the only issue in the late Missouri election; and the conservators and champions of Slavery have been defeated. This is one of those revolutions which derive momentum from progress, and cannot go backward. It may reach its goal by slow or rapid advances, but the end is in view, and will not for a moment be lost sight of. The agitation of this great social and political problem in Missouri saves both Kansas and Oregon from the inroads of the propagandists.

SCHUYLKILL COUNTY.—One of the best papers in this State is the *Miners' Journal*, published in Pottsville, Schuylkill county. It appears to be also, one of the most prosperous outside of large cities. Looking over its list of cash receipts for subscription alone, for the week ending August 8th, we find the total to foot $266.—This, as an average for the year, would give $13,724 for subscriptions alone, while its advertising patronage is also very large. The Anthracite coal region must have a very large reading population. The *Berks and Schuylkill Journal* is also a paper of great circulation and prosperity, and there is no doubt that the "dumb Dutch" of Pennsylvania, as they are sneeringly called, read more than the chivalry "of the South."—*Pittsburg Daily Dispatch, Aug. 11.*

We are indebted to our spirited and intelligent cotemporary, for his kind opinion of our merits. In regard to the prosperity of the *Journal*, we can safely state that it never was in a more gratifying condition than at present. It has not been affected materially, by the present depression in business; in fact, "it holds its own." Our cotemporary somewhat over estimates our aggregate receipts for subscriptions. This is a season at which we are in the habit of sending out bills, and our weekly receipts if they foot up large now, are attributable to that fact. Unremitting labor and liberal expenditures are necessary to maintain the reputation of the *Journal*, and when we see them appreciated, as in this instance, we are rewarded.

OUR EUROPEAN CORRESPONDENT.—This week we had the pleasure of grasping the hand of William J. Palmer, Esq., our European Mining Correspondent, whose letters to the *Miners' Journal*, have attracted much attention; elicited general commendation, and have been widely copied by the press. It may surprise those who have perused those letters, to learn that he is a gentleman of but 21 years of age, and that the letters which appeared for a series of months in the *Journal* were commenced when he was in his 19th year. The vigor embraced in their composition, the clearness and conciseness of his statements, and the evidences of matured judgement, are wonderful, when we consider the youth of our correspondent. Mr. Palmer is on a tour of inspection—his first we believe—of the Anthracite Coal Regions of Pennsylvania. Nothing daunts him—difficulties he always overcomes. He pedestrianates to reach a point, where there is no conveyance, or when time would be consumed in waiting for one. Such a spirit must make its mark. We hope Mr. Palmer will jot down some of his observations while in this Region, for publication in the *Journal*. Our readers we know, would be as delighted to hear from him at home, as they were gratified with his letters from Europe.

EUROPEAN INTELLIGENCE.—The steamship *Canada* brings European news to the 1st inst. The most important points of the news are that the Goodwood cup had been run for, and Prior and Prioress, the American horses, had come in fifth and sixth; that the Atlantic telegraph cable had arrived at Cork, whence the vessels were to sail on the 1st and commence laying down the cable on the 3d or 4th; that, on experiments through the whole line, each signal was passed in one second; that the Palmerston ministry had been beaten in the Commons by a hostile vote of sixty on the Superannuation Bill, but would not resign; that the capture of Delhi, by the British, was believed in London, and had raised the price of Consols; that the safety of Europeans was so much threatened in Calcutta, that they had been organized and armed; that the whole native army in Bengal had ceased to exist as a British force; that the native conspiracy was spreading; that, as yet, Madras and Bombay were safe, and that Breadstuffs were dull.

SIEGE OF LAWRENCE RAISED.—*Gov. Walker goes with his Troops to Fort Riley.*—LAWRENCE, *Aug. 3d.*—Gov. Walker remained watching the people of Lawrence till on his sober mornings he became heartily ashamed of himself, and has been for several days casting about him for some means to get out of his miserable scrape. Four days ago a messenger was despatched by him to Fort Riley—for what purpose nobody knew, but last night a courier came from the Fort to Walker's camp with depatches, and this morning at 8 o'clock, Walker's famous camp near was broken, and he and all his troops started up the river, leaving the people of Lawrence to commit treason unpunished.

It was reported that the courier brought news that the commander of the Fort was afraid the Cheyenne Indians would attack him, and asked Walker for aid, but the messenger himself (I saw him this morning) did not think the Fort in any danger.

The whole thing is understood here as an invention to give Walker an opportunity to withdraw gracefully from Lawrence. Ashamed of his exploit, he is glad to retreat back into the interior of the territory, away from newspaper reporters, and out of sight and hearing of Lawrence.—*Cor. Cincinnati Gazette.*

☞ Bayard Taylor relates the following anecdote in his last letter: "Last summer, an American who was on a visit to St. Petersburg, happened to be walking in one of the narrow streets of that capital one muddy day, when he suddenly met the Grand Duke Constantine. The sidewalk was not wide enough for two persons to pass, and the street was deep in filth. Both stopped, and a moment's awkward pause ensued. Suddenly the American, taking a silver rouble from his pocket, shook it in his closed hands, and cried out: 'Crown or tail?' "Crown!" guessed the Grand Duke. "Your Highness has won," said the American, looking at the rouble and stepping into the mud. His cuteness in saving his dignity, while he acknowledged the Grand Duke's, brought him an invitation the next day to dine with the latter."

THE COAL TRADE.

Pottsville, August 15, 1857.

The quantity sent by Railroad this week is 43,273 17 tons—by Canal 41,144 10—for the week, 84,348 07 tons. Total by Railroad, 1,299,323 17, against 1,333,244 01 tons. Do. by Canal, 684,260 13, against 612,000 17 tons, to same period last year.

Contrary to the expectation of every Operator the trade has increased this week 893 tons over the former week. This was caused in a great measure by the abundance of vessels at Port Richmond during the week, which has materially increased the trade by Railroad. Yesterday there were upwards of fifty vessels and boats at Port Richmond. With a full demand for Coal we feel satisfied that the Colliery capacity of Schuylkill County is equal to 100,000 tons per week, but the labor capacity could not be pushed over 90,000 if the collieries were all in operation. Not half of the Collieries are worked up to their full capacity, and many, owing to the difficulties that exist and low prices of coal, are standing idle.

The trade sums up this week as follows, with the exception of the Pennsylvania Coal Company, from which we have had no return this week.—We give this Company the same as for the corresponding week last year:

	1856.	1857.	Loss.	Gain.
Schuylkill—R. R.,	51,728	43,204	8,524	
" Canal,	30,222	41,144		10,922
Lehigh—Canal,	28,466	35,192		6,726
" R. R.,	5,096	10,949		5,853
Del. & Hud. Canal,	17,194	18,774		1,580
Penna. Coal Co.,	26,515	about same.		
Scranton,	4,166	7,335		3,169
	163,387	156,598	8,524	28,150
		138,972		8,524
Increase in 1857:		19,626		19,626

The Schuylkill Canal gains 10,882 and the Rail Road loses 8,524 tons, compared with the corresponding week last year. The gain for the week is 19,626 tons, which makes the total gain so far this year from the above Regions, 94,567 tons.

It is reported that a breach has occurred in the Delaware Division of the Pennsylvania Canal, which will require a week or ten days to repair.—This will interrupt the trade of the Lehigh by Canal to some extent.

The Mine Hill and Schuylkill Haven Railroad Company, have declared a semi-annual dividend of six per cent. This Company, with its numerous arms extending in every direction, continues prosperous amid all the depressions of the trade.

BROAD STREET TRADE.—But little Coal goes into Broad street by Railroad compared with former years from Schuylkill County. The city is principally supplied by Canal, the difference in favor of the latter avenue being so great that it amounts to a profit. The Navigation Company gives facilities for the trade, and the R. R. Company seems determined to get rid of it as rapidly as possible. A dealer in Broad street sends us the following statement of actual expenses by both routes:

BY RAIL ROAD.

Freight and toll to Broad street, per ton,	$1 80
Hauling in Yard,	10
	5
Deduct gain in weight, 5 per cent. allowance	1 90
	$1 85

BY CANAL.

Toll, 65 cents—freight 90,	$1 55
Drawback,	10
	$1 45
Difference in hauling from Schuylkill East of Broad street,	5
Loss of weight by Canal, say,	10
	$1 60

After making full allowances it shows a difference of 25 cents in favor of the Canal, which is the profit generally obtained on a ton of Coal. In many cases when the Coal is delivered from the boat direct, the 5 per cent. allowed on toll by Canal covers the loss, and then the difference amounts to 30 @ 35 cents per ton to dealers.

Considerable quantities of Coal from the Lehigh Region is also going into Broad street, taking the place of Schuylkill Coal. We learn that it costs only four cents a ton more to deliver Coal from the Lehigh Region into Broad street, via the North Penn. and the Willow street Rail Roads, with all the unfavorable grades of these roads than it does from Schuylkill County over a road with a descending grade of only 95 miles long.

Many of our operators, who have no facilities for sending the Coal by Canal, could sell a considerable portion to Broad street dealers for retail, if the difference was not so great—but they are cut off in a great measure by the difference in expenses, and are forced to submit to the tender mercies of the dealers of Port Richmond, or curtail their business. We should suppose that it would be to the advantage of the Rail Road Company, to supply a portion at least of the retail trade of Philadelphia, from Broad street, particularly while they have hundreds of cars standing idle. A drawback of 20 cents a ton in favor of the Broad street dealers, would equalize the trade between the Schuylkill and Broad street, without interfering with the trade abroad. And now that the retail trade of Philadelphia is about commencing, we do hope the Managers of the Reading Rail Road will take this matter into consideration. It does seem to us that every experiment has been tried in Philadelphia to see how much the trade of Schuylkill county will bear without total destruction.

We are no advocate for the reduction of the rates of toll and transportation at this late period of the year, that would effect the trade abroad; but we do think that the Railroad Company ought to place those who are doing all their business by the Road, and from whom they are receiving all their revenue, on the same footing with others as regards the trade of Philadelphia. Common justice alone, could seem to demand such a policy. It is folly for the Rail Road Company to deny that such difference exists in this respect. The facts, figures, and the state of the trade by Canal and Rail Road, speak for themselves.

[FOR THE MINERS' JOURNAL.]

ON VENTILATION OF COAL MINES, AND UNDERGROUND WORKS.

No. 3.

[Concluded.]

The objects chiefly to be aimed at in the ventilation of the Lancashire collieries, is a slow or moderate current of air, and a reduction in the length of the air courses. These can only be effected by dividing the air into a certain number of parts to ventilate the mine by divisions. The Lancashire system of ventilation was, and is, practiced with sufficient success in the upper coal seams of that coal field, which generate less explosive gases than the deeper ones, as the Rushy Park, the Little Delph, and the Orrel coal seams, which are the deepest worked at present, and which yield the best quality of the Lancashire coal, and consequently, they prove the most profitable when economically worked. It is in these coal seams that colliery owners have been desirous of introducing an improved system of ventilation.

The shafts, in this coal field, are scattered about the mining properties in an irregular manner—not in single shafts at a distance of three or four hundred yards apart—but in clusters associated do near to each other that one single steam engine is often employed to wind coal out of three, four, and even five shafts at the same time. At one of the Lancashire collieries I found five coal shafts sunk within the distance of 150 yards, and three in the five were sunk above 600 feet from the surface. This is the effect of ill ventilation, for were the ventilation more perfect, a less number of shafts would be required, or an upcast or ascending air shaft, and a downcast, or descending air shaft, would be sufficient to ventilate any extent of mine.

It is more difficult to ventilate a mine with many shafts than it is with a few, or with an upcast and downcast that is on an ordinary extent of mine; because a number of shafts require more principal passages to be kept open and free for the currents of air to pass to or from each shaft which in a measure destroys order. Yet an extra shaft may be useful in some case, but it is quite an easy matter to divide a main current of air ascending by one shaft into a number of parts, which may be distributed throughout the various districts working in the mine; these parts, or divisions of air, are as easily collected into one body (after they have ventilated their respective districts), to ascend through one principal air-shaft. I have known cases where two, three and four shafts were intended as descending air shafts, but in reality the weather would produce such an effect, that the air would ascend through one or more of the shafts at various times and seasons, without it being of any use in ventilating the mine. This will often be the case when the descending shafts are together, of larger area than the passages leading to the workings of the mine. The number of descending air shafts will make no change in the effect, if the passages between the ascending and descending air shafts are not enlarged, so as almost to equal the combined area of the descending air shafts. I have seen experiments made on purpose to ascertain the quantity of air required what was designed for a descending air shaft, mightily puzzled to account for the circumstance, but it is easily exposed with but a slight scientific investigation. The principal cause of the difficulties in the air courses with in the insufficient air roads, where the air moves with a certain velocity, and only can take a certain amount of the air which is descending the descending air shaft, leaving the rest and surplus to escape from the mine as it best can, which it effects by way of some of the designed descending air shafts. We may come to the conclusion that after two shafts have been provided for ventilation, that the ventilation of a coal mine altogether depends upon the passages leading to and from the workings, the manner in which the air is distributed, and the power used to produce a current of air for an ordinary sized coal shaft is capable of supplying from one hundred, to one hundred and fifty thousand cubic feet of air per minute, and if the combined area of the passages, leading to the workings of a mine, are not equal to that of the downcast, or descending air shaft, it is useless to employ more than one downcast shaft; if more were used in this case it would do more harm than good, and it would cause in some degree, both friction and confusion.

When the ventilation of a mine is found to be insufficient, the power must be increased, or ventilation is often taxed as the cause by underground managers, than the passages, and underground air courses, and the friction and resistance which they incur. In difficulties of this nature, a variety of ventilating powers have been applied in the Lancashire Coal Field. Those which have been the most successful, are the furnace, the steam jet, and a powerful blower, which is used in Blackbrook Colliery is ventilated by a ventilating furnace, assisted by other furnaces, which are used to generate steam for the use of the steam engine which are employed in the mine, to raise coal on the incline of the vein, from the dip of the workings to the level of the shaft. The ventilating furnace is used at the Latham and Lightshaw Hall Collieries, and at Orrel and Oak Collieries which are all in an ordinary state of ventilation, with Blankbrooke ranking at their head. The Haydock Collieries situated in the adjoining parishes, are ventilated by a steam jet, but whether this is continued until the present time, I am unable to state. I sometimes think it must have been abandoned since the year 1852, on account of a severe explosion taking place, while the steam jet was in operation. The steam jet is not so steady a ventilating power as the furnace, without it is very closely attended and the steam kept at one uniform pressure. When the ventilating power is unsteady, or when the power is alternately increasing and decreasing, it is often attended with ill effects. If even there is a *sufficient* quantity of air kept in constant circulation. This is especially so in the Lancashire coal mines, where we have seen that the coal is worked out on the rise of the workings first, which forms an immense reservoir into which the gas finds its way, and where it remains like an enemy in ambush, ready to spread abroad death and destruction at the least touch of a flame of a candle; but more than this, it miles forth in parts, on all occasions when a reduction of pressure takes place in the atmosphere, or when the ventilating power has been slackened, and has again been put in full force; for when the ventilating power is for a time decreased, the exhausting power is evidently not so great throughout the mine, this is attended with the gas retreating a short distance into the goaves. If the ventilating power is not put in full force at one time, then the goaves become filled with gas to its edges, past which the current of ventilation is passing. When the ventilating power is again put in full operation, it exhausts the air in the mine and leaves behind the gas in the goaves from a certain amount of pressure. This causes a quantity to escape from the goaves, which is very apt at some time, to produce an explosion. For this reason alone, the ventilating power used in all cases should be as steady as possible, and they should be kept in full operation both by night and by day; for if the ventilating power is abandoned by night it is at times very easy liable to lodge itself into any reservoir, it would be very apt to lead to an explosion in the mornings when the miners were descending or entering to their work, or when they had commenced their daily labors, and after the ventilating power had been put in full force. I should think that by referring to the time when explosions occur, it will be found that a great many have taken place on mornings about the time of commencing work, and this in mines, or in parts of mines which were known to be free from an explosive mixture on the evening previous. Although there are many ways in which explosions may happen nine in ten cases of explosions which have happened within my knowledge, could have been avoided. Some would hesitate and ask, why are they not avoided, or why do not the workmen complain of their danger in such cases? We say in return, that a workman is confined to a particular part of the mine, and if even, he understands the exact nature of his danger, he seldom knows of his existence until the fatal moment arrives when he may be swept into eternity; his life being in such cases, trusted into the hands of no other than the manager, and if the manager understands the scientific as well as the practical part of his business, he will know where to expect danger, and how to meet it, and provide against it.

It has been a question of some moment among scientific men in England, as to the means of protecting miners from the dangers of explosions; but it is out of their power to prevent them altogether, yet *they* have undoubtedly done much good, and perhaps saved many lives from the fatal effects of explosions. Much more good would have been done, had *they* not confined *their* experience in the coal mines, to that obtained by an occasional visit to the mining districts. But we have much to be thankful for; and we are indirectly indebted to the scientific gentlemen, who invented for our special purpose, the *safety lamp*, the *ventilating furnace*, and who were the authors of several other invaluable improvements, in the working and ventilating of coal mines. If we picture a coal mine in old-en times when miners were in constant dread of explosions taking place, when the first mill was used instead of our beautiful and efficient safety lamp, when *coal carriers* were used instead of wagons running on a rail road, and when a coal mine was at all times in some locality, as ready to explode by the least touch of flame as a powder magazine would on the least application of a spark of fire, we can easily see the contrast between our mines at present, and those of the date when coal mining was in its infant state. We have by reflection that we have much to be thankful for, and also that it is our duty to forward all improvements which are likely to be beneficial in the saving of life and property. There is yet room enough for improvement. But the greatest life preserver in a fiery coal mine, is the *care* and *attention* of an efficient manager.

I conclude this by pointing that ventilating powers should be employed to exhaust the air from mines or from any part of a mine, when such is practicable, because when a condensing, or compressing force is used, it adds to friction. It would be preferable to use a waterfall as a compressing force, when such was convenient, to act alone or in combination with a furnace; yet this would not always be economical when the water was to be raised. Yours, &c., T. H. W.

Coal Burning Locomotives on the New Jersey Railroad.

The annexed extract from the report of the New Jersey Railroad, just published, gives the experience of that Road in burning Coal in their express engines:

COST OF FUEL PER MILE—COAL AND WOOD.—Among the various efforts to introduce economy in the operations of the Company, the subject of fuel has engaged considerable attention. One of the most approved Coal burning machines, of Boardman's patent boiler, built by Wm. Mason & Co., of Taunton, Mass., called "Phœnix, No. 24," was placed on our road last summer, and about the same time a first class and superior locomotive constructed for burning wood with economy, by Rodgers, Ketchum & Grosvenor, of Patterson, N. J., named "Gov. Pennington, No. 25," was also purchased, and the two engines have run the Philadelphia Express and Mail trains in fair competition, with a view to ascertain with exactness the relative cost per mile of Coal and wood as a fuel. The performances of each engine has proved quite satisfactory, and the result exhibits the comparative cost of Coal and wood (estimating the former at $6 per ton, and the latter at $6 per cord,) to be 10 6-100 cents per mile for Coal, and 15 14-100 cents per mile for wood, being an increased expense of 50 per cent. for wood over Coal. This is shown more in detail as follows:

Fuel—Coal.	Miles run by engine.	Lbs. of Coal used.	Pounds per mile run.	Cost in cents per mile.	Cost in cents per mile, including fuel for kindlings*
1st test,	3,668	123,445	33 65-100	9 01-100	10 01-100
2d test,	2,030	70,810	34 71-100	9 30-100	10 30-100
3d test,	5,698	193,952	34 04-100	9 11-100	10 11-100
4th test,	4,662	190,193	40 79-100	10 92-100	11 92-100
Total,	16,058	578,031	36	9,64-100	10 64-100
Fuel—Wood.	*Miles run.*	*Cords of Wood.*	*Miles run to one cord.*	*Cost per mile.*	
1st test,	2,025	50	40 50-100	14 81-100	
2d test,	2,848	73	39 01-100	15 14-100	
Total,	4,873	123	39 61-100	15 14-100	

From the foregoing experiments and a calculation made of the cost of fuel during the past year by all the trains, with the whole distance run, the conclusion attained is, that the average cost per mile run with wood is 18 2-10 cents, while if Coal had been used it would not have exceeded 12 cents. The proportion then, as the result of our experience will establish, one-third less cost for Coal than wood, with an equally satisfactory performance of the engines, when Coal burners shall have some present deficiencies removed.

The nature of the fuel consumed on our road, whether for passenger or freight transportation, (though usually less for the former,) from the mode of conducting our work, will not materially differ, and it is believed that at no distant day, by rigid economy, and the advancing improvements of Coal burning locomotives, the cost of Coal per mile run will not exceed ten cents, assuming the price per ton to be from $5 to $6. In the purchase and preparation of fuel, as, indeed, in all matters connected with the practical working of our railroad, it is more advantageous to the company, if faithfully done, to provide for itself, and to have the different departments for superintending labor and supplies under one administration, rather than divided with outside contractors.

*Kindlings actually cost 96-100 cts. per mile, say 1 ct.

NEW YORK COAL MARKETS, Aug. 13, 1857—A fair demand has prevailed for domestic the past week; but, with liberal arrivals, we have still to notice a downward tendency for most kinds of Anthracite; the receipts being in excess of the demand, the prospects are favorable for a large shipment at close of the season; we quote $3 65 @ $4 00 for most kinds by the cargo, and favorite mines, $4 65 @ $4 70, and from yard, $4 25 @ $5 25 ⅌ load, delivered. The supply of foreign is quite moderate, especially of Liverpool; these are nominal. Sidney is in fair supply and is dull; a sale of 100 tons Hamilton's was made at $9.

We cannot procure any satisfactory report of prices on board at Port Richmond. The prices vary from $3 65 to $4 10 for White and Red Ash Coal on board.

Boston Coal Market.

[*Corrected weekly from the Boston Courier.*]

There is very little doing in foreign coal. Late ports of Picton were contracted previous to arrival, both Picton and Sydney are held firm. English Cannel range from $11 50 @ $11 75, and some lots of free do have been sold at $8 ⅌ chaldron. In Anthracite, steady retail sales at $7 ⅌ ton.

WHOLESALE PRICES—PER TON OF 2000 POUNDS.		
Schuylkill, white ash,	$5 50 @	$5 75
do red ash,	5 75 —	—
do lump,	5 00 —	5 25
Lehigh, lump,	5 25 —	—
Lackawanna,	5 50 —	5 75
RETAIL PRICES—PER TON OF 2,000 POUNDS.		
Cannel,	$14 00 @	—
Newcastle, coarse,	10 00 —	—
do fine,	— —	—
Orrel,	— —	—
Scotch,	10 00 —	—
Welsh,	— —	—
Cumberland, run of pit,	7 50 —	—
do fine,	— —	—
do coarse lump,	— —	—
Sydney, coarse,	9 00 —	—
Pictou, coarse,	— —	—
do fine,	— —	—
Lackawanna, lump,	7 00 —	—
Lehigh and Schuylkill lump,	7 00 —	7 50
John's Lump, (Schuylkill)	7 50 —	—
Prepared white and red ash,	7 00 —	—

BY TELEGRAPH:

FRIDAY, 6 O'CLOCK, P. M.

Freights from Richmond to—				
Deer Island,	1 65	Quincy Point,		1 65
Hall River,	1 35	Charlestown,	1 65 to	1 75
Charleston, S. C.,	1 12	Old Point Comfort,		1 12
Brighton,	2 05	Lynn,		1 85
Portsmouth,	1 75 to 1 80	F. Chester,		1 25
Providence,	1 40	Neponsett,		1 70
Baker's Folly,	1 40	Sal sbury,		2 00
Alexandria,	1 00	Newburyport,		1 75
Scituate,	1 75	Marble Head,		1 75
Boston,	1 65	Salem,		1 75
Roxbury,	1 90	Norfolk, Va.,		1 10
Salem,	1 65 to 1 70	New York,		1 05
Newport,	1 35	Pourkeepsie,		1 20
Norwalk, Va.,	1 20	Hoboken,		30
Rye,	1